Revista Mexicana de Astronomía y Astrofísica, **41**, 155–368 (2005)

THE SECOND BYURAKAN SURVEY. GENERAL CATALOGUE

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Received 2003 March 18; accepted 2005 January 21

RESUMEN

Se presenta el Catálogo General de la Segunda Exploración de Byurakan (SBS). La SBS, que es la continuación de la exploración de Markarian, llega a magnitudes límite débiles y es la primera exploración que combina la búsqueda de galaxias y de QSOs. Se ha cubierto un área total de 991 grados cuadrados en el cielo del norte mediante tres prismas objetivos en combinación con filtros. La magnitud límite en las mejores placas alcanza $B \sim 19.5$. El Catálogo General consiste de 3563 objetos presentados en 2 partes: el catálogo de galaxias (1863 objetos) y el de objetos estelares (1700 objetos).

Observaciones obtenidas durante 26 años se encuentran disponibles para 3132 objetos. Se midieron los corrimientos al rojo de ~ 2100 objetos extragalácticos y ~ 2970 objetos se clasificaron espectralmente. La mayor parte de los datos se presenta por primera vez. El catálogo contiene muestras representativas grandes y nuevas de QSOs, NAG luminosos y galaxias UVX débiles. La muestra de SBS es completa en un 70% para galaxias y $\sim 85\%$ para NAG/QSOs con $B \leq 17.5$.

ABSTRACT

The Second Byurakan Survey (SBS) General Catalogue is presented. The SBS, a continuation of the Markarian survey reaching fainter limiting magnitudes, is the first survey which combines the search of galaxies and QSOs. A total area of 991 square degrees of the Northern sky was covered with the use of three objective prisms in combination with Schott filters. The limited magnitude on the best plates reached $B \sim 19.5$.

The General Catalogue consists of 3563 objects presented in two parts: a Catalogue of galaxies (1863 objects) and one of stellar objects (1700 objects). The Catalogue of SBS AGN consists of 761 objects (155 SyG, 596 QSOs, and 10 BLLac). Multi-wavelength data are presented for 1438 SBS objects identified with X-ray, IRAS and FIRST sources. Spectrophotometric observations obtained over 26 years are available for 3132 objects. Redshifts were measured for ~ 2100 extragalactic objects. Spectral classification is presented for ~ 2970 objects. The majority of the data is presented here for the first time. The Catalogue presents new large homogeneous deep representative complete samples of bright QSOs, AGNs, and faint UVX galaxies in the Northern sky. The SBS sample is found to be complete at 70% for galaxies and $\sim 85\%$ for AGN/QSOs with $B \leq 17.5$.

Key Words: **GALAXIES: ACTIVE — GALAXIES: FUNDAMENAL PARAMETERS — GALAXIES: MARKARIAN — GALAXIES: SEYFERT**

1. INTRODUCTION

In astronomical research surveys occupy a special place, because they produce the fundamental samples of astrophysical objects from which all other directions of investigation are derived.

Since the pioneering studies of Haro (1956) and Markarian (1967), many projects have been undertaken to discover large numbers of active and star-forming galaxies at optical wavelength. Much of what we know about Seyfert galaxies, starburst galaxies, and even QSOs has been learned by studying objects originally discovered in wide-field surveys. Until recently with the advent of large-scale digital sky surveys, almost all existing optical surveys for galaxies have been carried out using Schmidt telescopes and one of three detection methods. The method of selection based on the continuum radiation at UV wavelengths and/or enhanced blue color and the method based on the existence of emission lines. The other technique of object selection, based on their color, was first introduced by Haro (1956) and requires multiple exposures of the same field through two or three different filters. This method was also used in the KISO survey (Takase & Miyauchi-Isobe 1984) and the Montreal surveys (MBG and MCT, Coziol et al. 1993). The well known PG survey (Green 1976), the first systematic survey for UV-bright stars and QSOs, also employed this technique.

The technique of selecting objects according to their excess UV emission on low-dispersion objective-prism spectra was first introduced by Markarian (1967). The tremendous success of the Markarian survey (Markarian 1967) initiated a number of other extragalactic thin-prism surveys, and pointed out a new direction in extragalactic astronomy: a systematic search for peculiar objects using low-dispersion spectroscopy. Further on (10 years later) this method was intensively used around the world. The selection of galaxies according to the presence of emission lines in their low-dispersion, objective-prism spectra become popular in the middle of the 1970s: CTIO survey (Cerro-Tololo Interamerican Observatory, Smith 1975; Smith, Aguirre, & Zemelman 1976); UM survey (University of Michigan, MacAlpine, Smith, & Lewis 1977a,b; MacAlpine, Lewis, & Smith 1977c,); HQS survey (Vogel et al. 1993); ELG survey (Emission-line galaxies, Wasilewski 1983); UCM survey (Universidad Complutense de Madrid survey, Zamorano et al. 1994).

Finally, there are surveys that use a hybrid technique that combines the selection of galaxies based on both UV-excess and line emission in order to discover active and star forming galaxies. These include the SBS survey (Markarian & Stepanian 1983); CASE survey (Pesch & Sanduleak 1983, 1986; Sanduleak & Pesch 1984; 1987) and the Marseille Schmidt survey (Surace & Comte 1994).

The most extensive use of the UVX (UV excess) method came with the advent of large telescopes that use a grism and grens to search for quasars (Hoag & Schroeder 1970; Hoag 1976; Hoag & Smith 1977; Schmidt et al. 1986).

The observations of the First Byurakan Survey (FBS), also commonly known as the Markarian survey, were carried out with the famous Byurakan 40–52 inch (1.0–1.3 m) Schmidt telescope at the Byurakan Observatory with the use of a low-dispersion (1800 Å/mm at $H\gamma$) thin 1.5 degree objective prism. The primary selection criterion was the presence of UV excess in the continuum. The limiting magnitude on the best plates reached ~ 17.5 magnitude.

The prohibitive amount of telescope time required to obtain complete spectroscopic identifications of large numbers of UVX (UV excess) selected objects rendered the building of a Catalogue of Markarian galaxies a very time-consuming process. Nearly 20 years were needed to complete the Markarian survey using spectroscopic observations. The largest instruments in the world were used to investigate Markarian galaxies and complete the survey.

Emission-line galaxies of all degrees of activity discovered in FBS have become known collectively as Markarian galaxies. Markarian galaxies have played a central role in the task of distinguishing between the physically different types of phenomena that occur in AGNs. The Markarian survey resulted in a complete sample of AGNs down to a limiting magnitude of B = 15.2. In that survey over 200 Seyfert galaxies, 13 QSOs, 3 BLLac objects and hundreds of starburst, blue compact and H II galaxies were discovered. Markarian galaxies comprise 10% of all galaxies in the FBS sky area covered, and about 10% of Markarian galaxies turned out to be Seyfert galaxies, thereby about 1% of field galaxies were found to be Sy galaxies.

A compilation of published data—(the Catalogue of Markarian galaxies)—was presented by Mazzarella & Balzano (1986). The complete Catalogue of Markarian galaxies was published by Markarian et al. (1989).

In parallel with the Markarian survey a new deep survey was conducted in the mid 1970s with the same Byurakan Schmidt telescope. The investigation of faint objects, in particular QSOs, required the extension of the survey to fainter magnitudes. The new deeper survey was named the Second Byurakan survey. The objective prism observations with the 1 m Byurakan Schmidt telescope were started in 1974 and finished in 1986. In contrast with FBS and other UVX surveys, in the SBS survey we do not separate objects into extended and point-like and we now use four selection criteria. The limiting magnitude on the best plates reaches $B \sim 19.5$. The plate search and the selection of objects were completed in 1991. That is, 17 years (1974–1991) were needed to complete the original SBS survey. In total nearly one thousand square degrees of the Northern sky were covered and nearly 3600 objects were selected.

Spectroscopic observations of the selected objects started in 1977 and continued for more than 25 years. A series of instruments were used for spectroscopic and photometric observations. The bulk of the spectroscopic observations, 1605 objects, were obtained with the largest telescope in the world at that time, the 6 m of the Special Astrophysical observatory (SAO, Russia) with a series of spectrographs and detectors, starting with the image tube photographic detectors and ending with a modern CCD. Further on, the 4.5 m MMT (Multi-mirror telescope, USA), the 2.6-m of the Byurakan observatory (Armenia), the 2.1 m Cananea (México) and the 2.1 m SPM (San-Pedro Mártir, México) telescopes were used for spectroscopical observations. As a rule the spectral resolution was 5–6 or 10–11 Å over the spectral range of 3300–9000 Å. A few hundred objects were re-observed with better spectral resolution and better S/N over a wider spectral range, because previous observations did not always have the necessary quality, and not all the necessary spectral range was covered for the purpose of spectrophotometric measurements and reliable spectral classification. During the last years, spectroscopic observations were done with a medium resolution of 1.6 Å/pixel and high $S/N > 30$ ratio, in order to determine the precise spectral classes for the bright SBS AGNs.

The photometry was carried out with the 1.2 m of Whipple Observatory (USA), the 1 m and 0.6 m of SAO (Russia) and the 0.9 m Burrell-Schmidt (USA) telescopes. Altogether, more than 3000 spectroscopic observations were obtained for 2145 SBS objects, and ~ 500 photometric data measurements for ~ 250 SBS objects.

A detailed description of the SBS as well as some statistical results of the investigation concerning the Survey completeness, luminosity function, spatial distribution, search for different types of AGN, etc., have previously been reported by Stepanian (1994). The main parameters, the redshifts, luminosities, parameters related to emission lines, spectral classification, as well as other data for the SBS objects were published in a series of papers (Markarian & Stepanian 1983, 1984a,b; Markarian et al. 1984–1988; Stepanian et al. 1988–2003; Stepanian 1984–1994). The General Catalogue presented here summarizes these data, with a few hundreds of new redshifts and additional parameters. While compiling this catalogue, the author incorporated a few necessary corrections to in the data of the already published lists.

So far, the nature of 761 new AGNs; 596 QSOs, 155 Sy galaxies of which 38 are BLS1, 31 NLS1, 25 Sy1.5, 8 Sy1.8, 9 Sy1.9, 44 Sy2s, and 10 BLLac, as well as including 90 LINERs, 562 SBN+SB, 195 BCDG, and 150 H II galaxies and other emission line galaxies discovered within the main 991 square degrees area of the SBS survey are here established.

The General Catalogue is organized as follows: it consists of three major parts. The first part presents the review of the SBS survey and the basic data for all survey objects. The second part presents the multiwavelength Catalogue of SBS objects: soft X-ray, optical, IRAS and FIRST fluxes as well as the luminosities. The third part briefly summarizes the data presented in the Catalogues and presents some important results so far obtained.

In §2, we briefly review the First (FBS) and present the Second Byurakan Survey (SBS). The techniques and the method of observation, the survey area and its structure, the method and selection criteria and the objective-prism classification criteria are all presented in §2.2.1–2.2.3. The data from spectroscopic and photometric observations are given in §3. Spectral classification and type classification criteria are presented in §4.

The description of the SBS Catalogue, that is the Catalogue of SBS galaxies and the Catalogue of SBS stellar objects, is given in §5 and §6. The Catalogue of SBS galaxies is contained in Table 6. The description of the morphology of the objects based on direct images at the slit of the prime focus of the 6 m telescope is presented at the end of the Catalogue of SBS galaxies in §5.0.1. Binary systems, galaxy pairs, triple, and quadruple systems, and other morphological features of SBS galaxies based on DSS1 blue and red plates and BAO Schmidt plates are described there as well. When they exist, common names for SBS and Markarian and other galaxies (CASE, KUG, Zw, NGC, etc.,) are given in this same §5.0.1.

The SBS Seyfert galaxy sample is presented in §5.1. The Catalogue of SBS stellar point sources is contained in Table 9. The §6.1 presents the Catalogue of SBS QSOs and BLLac objects.

Relevant statistics concerning of the data presented in the SBS Catalogue are given in §7. The magnitude, redshift, luminosity, morphology, and spatial distributions of the SBS galaxies are all presented in §7.1. The redshift and magnitude distribution of SBS QSO, and the type distribution of stellar point source objects are given in §7.2. All the objects outside of the SBS main sky area are excluded from the statistical analysis.

Multiwavelength data of SBS objects identified with a source in the soft X-ray *ROSAT*, IRAS, and FIRST satellite data are presented in §8. IRAS fluxes at 12, 25, 60, and 100 μ, FIR colors, for 541 SBS galaxies and luminosities for 492 objects are presented in §8.1.1.

The FIRST fluxes, the peak and integral intensities at 1416 MHz for 532 objects, 398 SBS galaxies and 134 SBS stellar objects, 133 QSOs/BLL and one WD DA are presented in §8.2.1 and §8.2.2. Radio luminosities at 1416 MHz are given for 499 objects, 375 galaxies, 3 BLLac, and 121 QSOs.

Overall 350 objects (219 stellar objects and 131 galaxies) were identified with X-ray sources, of which 336 are extragalactic objects, 13 are galactic stars and one object is a planetary nebula. The identification of stellar objects us presented in the catalogue of stellar objects, while the identification of Sy galaxies is presented in §5.1. *ROSAT* fluxes, luminosities and other relevant data concerning the SBS NLS1 and NLQSO samples are given in Tables 31 and 32 (§9.2.1 and §9.2.3). For other SBS objects, they will be presented in a second paper about the SBS survey.

In §9 we present some previously obtained results that describe the general properties of SBS objects. A brief comparison with other surveys and a short discussion of the completeness of the SBS survey for different types of objects are given. We also discuss their luminosity function, and the FIR-radio correlations. Finally, we suggest a few directions of investigation which might be studied on the basis of the SBS Catalogues. Section 10 contains the summary.

The list of objects outside the main contiguous area of the SBS survey contains 392 objects; 180 objects selected in the Southern hemisphere SBS test area—108 galaxies and 72 stellar objects— and 159 objects in the strip centered on the declination of +47 degrees (one of the unfinished strips of the SBS survey) 137 stellar objects and 23 galaxies. We also present a separate list of 39 objects, red stars and carbon C2 stars, and a list of variable stars detected during the SBS survey (13 objects). In total the SBS survey contains data for 3955 objects.

All of these data as well as the list of 82 close-binaries systems in common envelope with the angular separation of components between of 2–8 arcsec, the list of 96 physical pairs of galaxies with angular separation between of 9–90 arcsec, the list of 10 triple systems and the 10 quadruple systems of galaxies where the system consists of physical pairs of galaxies, each component of which is a close-binary, are given in the Appendix.

The General Catalogue of SBS objects is the result of long-term work, in which a group of astronomers from the Byurakan Astrophysical observatory (L. Erastova, V. Chavushyan, S. Balayan, S. Hakopian, M. Gjulzadian, etc.,) and the Special Astrophysical observatory (V. Lipovetsky, V. Afanas'ev, A. Shapovalova) have actively participated.

2. BYURAKAN SURVEYS, FBS AND SBS

2.1. *The First Byurakan Survey (FBS)*

Studying the results of the surface photometry of galaxies carried out from 1958 to 1962 and comparing them with the spectra of the central parts of the corresponding galaxies, Markarian (1963) concluded that the colors of the central parts of a great number of galaxies do not correspond to their morphological types, i.e., the central parts were bluer than those of normal galaxies of the same Hubble type. A hypothesis was made (Markarian 1963) about the possible non-thermal character of the radiation from the nuclei of some of the studied galaxies. In order to confirm this hypothesis, Markarian began at the end of 1964 a search of galaxies showing an excess of UV radiation in their central parts.

All the observations were carried out with the 40″ Schmidt telescope of the Byurakan observatory. Markarian used a prism of low dispersion and obtained unwidened spectra in which the galactic nuclei were easily detectable against the background of the surrounding galaxy, especially when a UV-continuum excess was present. The limiting magnitude on the best plates reached ~ 17.5 mag. Objects brighter than 13 mag were omitted because of the problem of overexposure.

The purpose of the Markarian survey was to look for active galactic nuclei (AGN) by selecting galaxies having an UV-continuum, i.e., by a preliminary spectral classification for all of these. The observational program of the FBS was completed in 1978.

The study of the plates and the search and selection of objects continued up to 1980. More than 2500 photographic plates were obtained and about 40 million spectral images were visually examined. The FBS survey consists of 1133 fields each 4×4 degrees in size covering a sky area of 17,000 square degrees. FBS, the first survey carried out with the purpose of searching the active galaxies, was for a 10 year period (1965–1975) the only source of new Sy galaxies and other types of AGN.

The main results of the FBS survey are published in a series of 15 papers including 1500 objects (Markarian 1967–1969; Markarian & Lipovetsky 1971–1976; Markarian, Lipovetsky, & Stepanian 1977–1981). They provided the principal data base from which the major AGN types have been discovered, classified, and studied in great detail by numerous researchers.

2.2. *The Second Byurakan Survey (SBS)*

The Second Byurakan Survey is a continuation of the Markarian survey, which aimed to reach fainter limiting magnitudes. The investigation of fainter objects, in particular QSOs, required the extension of the survey to these fainter magnitudes. The SBS survey is in fact the first simultaneous and combined survey of galaxies and quasars. The SBS objective-prism observations started in 1974 and finished in 1986. Plate searching was completed in 1991. Between 1974 and 1986 a total area of 991 square degrees of the Northern sky was observed. This area is confined to the strip defined by $7^{\rm h}40^{\rm m} < \alpha < 17^{\rm h}15^{\rm m}$ in right ascension and $+49°00' < \delta < +61°00'$ in declination.

The Second Byurakan Survey was conducted with the same $40-52$ inch Schmidt telescope and included the use of various objective prisms in combination with more modern (in 1974) IIIaJ and IIIaF emulsions hypersensitized with heated nitrogen (Stepanian 1985), as well as IV-N sensitized using distilled water. The Byurakan 1 m Schmidt telescope is the fastest among all other large Schmidt telescopes. Its main parameters are:

—the aperture of the main mirror: 1320 mm;

—the focal length: 2123 mm;

—the aperture of the corrector: 1000 mm;

—the plate scale: $97''6$/mm;

—non-vignetted angular field: 4×4 (total field 4.2×4.2) degrees;

—the maximum linear size of the photographic plates: 160×160 mm;

—three objective prisms: 1.5 , 3 , 4, of 1000 mm aperture.

Due to a Piazzi-Smith lens, the field of the telescope is flat. The optics is made of uviol glass and the optical system is corrected in the $\lambda 4400$ Å blue spectral range. The objective prisms can rotate in position angle, allowing one to obtain spectra with any orientation on the sky.

Different modified emulsions (Kodak IIIaJ, Kodak IIIAJ, Kodak IIIaF, Kodak IIIAF, Kodak IV-N) had to be used since the Survey was continued for a rather long time. The use of IIIaJ, IIIaF, IV-N emulsions extended the sensitivity wavelength coverage as well as increased the uniformity of the discovery process, allowing the acquisition of AGN spectra down to about 19.5 mag. The selection of objects was done by visual inspection over the entire plates using a 7x lens. The selection criteria were the following: the presence of a strong UV continuum, the presence of emission lines and/or an observed peculiar energy distribution in the spectra.

The first list of SBS objects was originally published in 1983 (Markarian & Stepanian 1983). Altogether there are seven published lists (Markarian & Stepanian 1984; Markarian et al. 1985, 1986; Stepanian et al. 1988, 1990). The published lists of SBS objects contained the basic data for all types of objects, [UVX galaxies, ELG, QSOs, and BS (blue stars)], but each was selected from a single 4×4 degree field within the SBS survey; namely, the fields with centers at R.A.=$11^{\rm h}30^{\rm m}$, Dec.=$+59°00'$ (the first field); R.A.=$09^{\rm h}50^{\rm m}$, Dec.=$+55°00'$ (the second field); R.A.=$08^{\rm h}00^{\rm m}$, Dec.=$+59°00'$ (the third field); R.A.=$12^{\rm h}22^{\rm m}$, Dec.=$+55°00'$ (the fourth field); R.A.=$15^{\rm h}30^{\rm m}$, Dec.=$+59°00'$ (the fifth field); R.A.=$09^{\rm h}47^{\rm m}$, Dec.=$+51°00'$ (the sixth field); R.A.=$12^{\rm h}00^{\rm m}$, Dec.=$+59°00'$(the seventh field).

2.2.1. *The SBS Survey Area and its Structure*

At the beginning of the Survey, we planned to cover as much area of the sky as possible. Two sky areas were selected: (1) for the Southern hemisphere, a sky area between $03^{\rm h}00'$ and $05^{\rm h}00'$ in right ascension and $-03° - -05°$ and $+35°$ in declination, and (2) for the Northern hemisphere a sky area outlined by $+45°00'$ and $+61°00'$ in declination and $06^{\rm h}00'$ and $18^{\rm h}00'$ in right ascension. The first observations started with the Southern hemisphere area. The well known Markarian objects as well as other objects from the Southern hemisphere were used to test the observational method as well as the selection criteria. All the fields were first covered by a single set of objective-prism plates, that is the IIIaJ+1.5 degree prism. Subsequently the observations using other prisms with different filters were carried out.

TABLE 1

THE SBS SURVEY FIELDS. THE COORDINATES OF THE CENTER OF THE FIELDS ARE GIVEN. SKY COVERAGE IS 991 DEG^2 OR $\sim 1/40^{TH}$ OF THE WHOLE SKY[a]

R.A.	Declination=+59°00′					R.A.	Declination=+55°00′					R.A.	Declination=+55°00′				
08^h00^m	IIF	IIIaJ	IIIaF	3aJ	N	08^h00^m	IIF	IIIaJ	IIIaF			08^h00^m	IIF	IIIaJ	IIIaF		
08 30	IIF	IIIaJ	IIIaF			08 19	IIF	IIIaJ	IIIaF			08 35	IIF	IIIaJ	IIIaF		
09 00	IIF	IIIaJ	IIIaF	3aJ		08 46	IIF	IIIaJ	IIIaF			08 59	IIF	IIIaJ	IIIaF		
09 30	IIF	IIIaJ	IIIaF			09 13	IIF	IIIaJ	IIIaF	3aJ		09 23	IIF	IIIaJ	IIIaF	3aJ	
10 00	IIF	IIIaJ	IIIaF	3aJ		09 40	IIF	IIIaJ	IIIaF	3aJ	N	09 47	IIF	IIIaJ	IIIaF	3aJ	N
10 30	IIF	IIIaJ	IIIaF	3aJ		10 07	IIF	IIIaJ	IIIaF	3aJ	N	10 11	IIF	IIIaJ	IIIaF		
11 00	IIF	IIIaJ	IIIaF	3aJ	N	10 34	IIF	IIIaJ	IIIaF			10 35	IIF	IIIaJ	IIIaF		
11 30	IIF	IIIaJ	IIIaF	3aJ	N	11 01	IIF	IIIaJ	IIIaF			10 59	IIF	IIIaJ	IIIaF		
12 00	IIF	IIIaJ	IIIaF	3aJ	N	11 28	IIF	IIIaJ	IIIaF			11 23	IIF	IIIaJ	IIIaF		
12 30	IIF	IIIaJ	IIIaF			11 55	IIF	IIIaJ	IIIaF	3aJ		11 47	IIF	IIIaJ	IIIaF		
13 00	IIF	IIIaJ	IIIaF			12 22	IIF	IIIaJ	IIIaF	3aJ	N	12 11	IIF	IIIaJ	IIIaF		
13 30	IIF	IIIaJ	IIIaF			12 49	IIF	IIIaJ	IIIaF			12 35	IIF	IIIaJ	IIIaF		
14 00	IIF	IIIaJ	IIIaF			13 16	IIF	IIIaJ	IIIaF	3aJ		12 59	IIF	IIIaJ	IIIaF		
14 30	IIF	IIIaJ	IIIaF			13 43	IIF	IIIaJ	IIIaF			13 23	IIF	IIIaJ	IIIaF		
15 00	IIF	IIIaJ	IIIaF	3aJ		14 10	IIF	IIIaJ	IIIaF	3aJ		13 47	IIF	IIIaJ	IIIaF		
15 30	IIF	IIIaJ	IIIaF	3aJ	N	14 37	IIF	IIIaJ	IIIaF			14 11	IIF	IIIaJ	IIIaF	3aJ	
16 00	IIF	IIIaJ	IIIaF			15 04	IIF	IIIaJ	IIIaF			14 35	IIF	IIIaJ			
16 30	IIF	IIIaJ	IIIaF			15 31	IIF	IIIaJ	IIIaF			14 59	IIF	IIIaJ			
17 00	IIF	IIIaJ	IIIaF	3aJ	N	15 58	IIF	IIIaJ	IIIaF			15 23	IIF	IIIaJ			
						16 25	IIF	IIIaJ	IIIaF			15 47	IIF	IIIaJ			
						16 52	IIF	IIIaJ	IIIaF			16 11	IIF	IIIaJ			
						17 19	IIF	IIIaJ	IIIaF	3aJ		16 35	IIF	IIIaJ			
												16 59	IIF	IIIaJ		3aJ	

[a]IIF =Kodak IIF +1.5 degree prism, FBS survey plates; IIIaJ=Kodak IIIaJ+1.5 degree prism, SBS survey plates; IIIaF=Kodak IIIaF+RG610+ 4 degree prism, SBS survey; 3aJ=Kodak IIIaJ+GG495 + 3 degree prism, SBS survey; N=Kodak IV-N+RG690 + 4 degree prism, SBS survey. Ten fields; $08^h00^m, +59°00'$; $09^h40^m, +55°00'$; $09^h47^m, +51°00'$; $10^h07^m, +55°00'$; $11^h00^m, +59°00'$; $11^h30^m, +59°00'$; $12^h00^m, +59°00'$; $12^h22^m, +55°00'$; $15^h30^m, +59°00'$ and $17^h00^m, +59°00'$ were covered with direct B and V plates for photometric calibration.

TABLE 2

THE SBS SURVEY. OBJECTIVE PRISM OBSERVATIONS

Telescope	Field of view(deg.)	Emulsion, filters objective prism	Dispersion Å/mm	Waveband Å	Number of fields
40" Schmidt	$4.2x4.2$	IIIaJ +1°5 prism	1800 H_γ	3500–5400	64
		IIIaJ+GG495+3° prism	800 H_γ	4950–5400	22
		IIIaF+RG630+4° prism	1000 H_α	6300–6950	57
		IV-N +RG690+4° prism	1800 A_{band}	6900–8500	10

Later observations encountered a series of difficulties concerning the limited amount of available Kodak plates. Thanks to G. Kojoian, R. West, and D. Weedman, who provided us with the necessary Kodak plates, we were able to complete the sky area between +49°00′ and +61°00′ in declination, and 07^h43^m and 17^h15^m in right ascension. This region is the main contiguous area in the SBS survey.

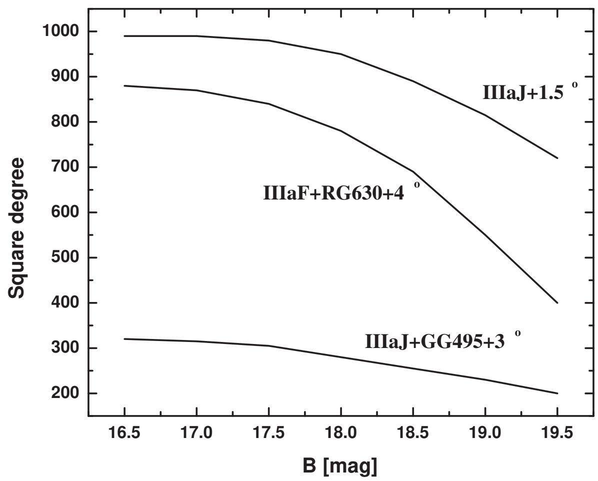

Fig. 1. The dependence of the SBS survey area on the limiting magnitude for different objective prism and filter combinations.

Three sky zones located in the strip by declination centered on +59°, +55°, and +51° respectively, 64 contiguous fields, of the SBS survey in the Northern hemisphere, were completely covered with all the needed sets of plates. Each zone consists of fields equal to the plate size of the Byurakan Schmidt telescope,that is 4 × 4 degree (the full plate size is 4°20′). The prism was oriented so that the spectra were aligned with the declination axis in order to minimize the influence of the telescope guiding on the spectral resolution. Each field was covered by a set of ∼ 10 plates with the use of three objective prisms in combination with different Schott filters. The mean obtained dispersion was ∼ 1000 Å in the waveband 3500–7000 Å. The limiting magnitude on the best plates reached $B \sim 19.5$. Limiting magnitudes vary from field to field, ranging from 18.5 to 19.5. The majority of the objective-prism plates are of very high quality.

There are 19 fields centered on declination +59°00′, 22 fields centered on declination +55°00′, and 23 fields centered on declination +51°00′. The overlap of the fields is as follows: in right ascension 15-30 minutes for the declinations of +51°00′ and +59°00′, respectively. Overlap in declination is 12 minutes.

The SBS survey main sky area in the Northern hemisphere, the number of fields in each zone and the distribution of the plates obtained using different prisms and filters are shown in Table 2. The exact borders of the SBS contiguous and homogenous sky area are the following: For the declination centered on +59°00′: (+56°54′ < Dec. < +61°06′), 07^h42^m < R.A. < 17^h16^m. For the declination centered on +55°00′: (+52°54′ < Dec. < +57°06′), 07^h42^m < R.A. < 17^h16^m. For the declination centered on +51°00′; (+48°94′ < Dec. < +53°06′), 07^h55^m < R.A. < 17^h13^m. The exact total area coverage of the SBS survey is 991 square degrees, or ∼ 1/40 of the whole sky.

As seen from Table 1, all 64 fields were covered by the following sets of plates: Kodak IIF+1.5° prism (FBS survey plates) and Kodak IIIaJ+1.5° prism. 57 fields were covered with Kodak IIIaJ+RG630+4° prism, 22 fields with Kodak IIIaJ+RG495+3° prism and 11 fields with Kodak IV-N+RG690+4° prism. One or more plates were obtained for each combination (prism plus filters), therefore each field was covered by sets consisting of ∼ 10 plates. For 10 of the fields, direct plates in the B and V wavebands were obtained for the photometric calibration. The exposure time for each Kodak IIIaJ+1.5° prism plate was 45–60 minutes, while for the Kodak IIIaJ+RG630+4° and Kodak IIIaJ+RG495+3° plasm plates it was 120–150 minutes. The exposure time for the Kodak IV-N+RG690+4° prism plates was 15–20 minutes.

The dependence of the survey area on the limiting magnitude for different objective prism and filter combinations is shown in Figure 1. General data about the SBS survey, instrument, detector, etc., are summarized in Tables 2 and 3.

2.2.2. *Observations, Selection of Objects and Objective-Prism Classification Criteria*

The plates were visually examined (full scanning) using a 7x lens. Nearly 25 millions of spectral images were visually inspected. Selected objects were marked by colored ink on the back sides of the plates; these spectra were then examined against the Palomar Observatory Sky Survey (POSS) charts to compare their spectral and direct images. The objects' angular sizes were determined from the blue POSS charts, using a 10x magnification lens. The general objects' descriptions were based on both the spectral and the direct images. By intercomparing a number of different images (a few spectral and two direct ones on the blue and red POSS), we succeeded in extracting the most compact, almost starlike galaxies, which would have been impossible to find using only direct images. The object description in such cases is given as follows: "the object does not differ from a star, but the spectral image is slightly inferior in intensity to that of a star" or equivalently "starlike galaxy". In such a way the features of many distant Sy galaxies, (z > 0.05) nearby QSOs and blue compact galaxies appear.

TABLE 3

THE SBS SURVEY. GENERAL CHARACTERISTICS

Continuation of survey	1974–1991
Region of the sky:	$07^h43^m < R.A. < 17^h16^m$ $+49°00' < Dec. < +61°00'$
Total area:	991 square degree ($\sim 1/40$ of whole sky)
Limiting magnitude m(pg):	$B \leq 19.5$;
Number of plates and fields:	635 plates; 64 fields;
Method of selection:	Visual, scanned by eye $\sim$ 25 million spectral images
Criteria of selection:	UV excess, color, emission lines, spectral energy distribution
Type of selected objects:	QSOs, UVX, ELG, Peculiar objects.
Total number of objects:	3563
Stellar objects:	1700
Galaxies:	1863; UVX galaxies 1075, ELG 788
Spectral observations:	1977 - 2003
Present status, slit spectra:	3132 objects (88%)
Stellar objects:	1428 objects (84%)
Galaxies	1704 objects (91%)
Photometry B, V:	$\sim$ 250 objects
Main goal:	-To expand the Markarian survey to a detection level as deep as possible, -To obtain large, well-defined samples of relatively faint AGN and QSOs that were selected in a reasonably uniform fashion, -To use SBS objects in future studies for establishing the characteristics and origin of the wide range of activity observed in AGN and QSOs.

The coordinates of all selected objects were measured by the use of DSS1 plates (Bicay et al. 2000). The accuracy of the measures is ~ 1 arcsec in both coordinates, declination and right ascension.

2.2.3. *Selection of Objects and Objective-Prism Classification Parameters*

The selection procedure, suggested by Markarian (1967), is outstanding due to its efficiency and simplicity. As a main search feature, Markarian suggested to use the UV emission intensity and the degree of light concentration, i.e., the object profile width. The two-dimensional classification for galaxies with UV continuum ensued. The classification parameters are as follows:

(i) The intensity of UV-emission in the region shorter than 4000 Å.

(ii) The degree of emission concentration toward the galaxy center.

(iii) Other auxiliary features.

The first classification parameter is the intensity of the UV-emission. According to their UV intensity objects are divided into classes: 1, 2, 3. On the Kodak "F" plates used in FBS, which cover the spectral range 3500–7000 Å, the spectra consist of two parts: the red, 5700–7000 Å and the blue 3500–5300 Å, with a green-yellow 5300–5700 Å drop in emulsion sensitivity. For A0–A2 stars with a Kodak IIAF emulsion, the blue and red parts have equal spatial length. Markarian used the following classification for classes 1–3: Class 1, the blue part of the spectrum is one and a half times longer than the red one, which means that the object is blue or very blue. Class 3, the length of the red and blue parts is equal. Class 2, intermediate cases. The second parameter is determined by the object profile widths on low-dispersion plates and is designated by one of the following characters: "s" (stellar), "d" (diffuse) and the intermediate cases "sd" or "ds". The objects with star-like nuclei or almost star-like are refereed to as "s" type.

Besides these two main classification parameters (the object profile width and the intensity of UV excess continuum), a number of auxiliary features are used as well: (i) The existence of line emission: "e"; "e:" meaning certain or suspected line emission. The following emission lines or line groups may be easily distinguished on objective prism plates: Hα+[N II]λ6548/84, Hβ+[O III]$\lambda\lambda$4959, 5007, Hγ, [O II]λ3727 for low redshifted objects and $L\alpha\lambda$1216+ionNV, C IVλ1549, C III]λ1909, and Mg IIλ2798 for high-redshifted objects. (ii) The difference in spectral energy distribution with respect to a thermal distribution. (iii) Additional features, which are usually present in the objects' description, for instance, morphological features, membership to multiple systems, interaction features, etc.

As was mentioned above, in the FBS survey only the UV excess galaxies were extracted. Additionally in FBS, quasar candidates among stellar objects and blue stars of high galactic latitudes were extracted by the authors of the survey. These objects later were further investigated by Abrahamian, Lipovetsky, & Stepanian (1990).

For the FBS survey, the UV excess galaxy objective-prism classification types were s1 (2 or 3), sd1 (2 or 3), ds1 (2 or 3), and d1 (2 or 3). In the SBS survey, a new type of emission line galaxies without UV-continuum was introduced; se, sde, dse, and de, which means stellar (s), diffuse (d) and intermediate "sd", "ds" type of galaxies with the presence of emission lines (e). All kinds of UVX objects, stellar or extended, among which we may expect QSO/AGN candidates, were isolated as well.

The classification scheme used in the search for peculiar objects in the SBS survey allows us to select a great number of various types of objects:

1. Galaxies with UV-continuum (UVX galaxies).
2. Emission line galaxies of all kinds devoid of a UVX excess (ELG).
3. QSO candidates (QSO).
4. Blue stars with $B-V>0$ and $U-B<-0.5$ (BS).
5. Some variable stars, especially of U Gem type (Var. stars).
6. Anomalous red stars (late M,R,S), carbon stars (Red stars).
7. Planetary nebulae (PN).

All the plates of the SBS survey were systematically examined by J. A. Stepanian then by L. K. Erastova and by V. H. Chavushyan. During the survey, S. Balayan actively participated in the observations and in the object selection.

3. SLIT SPECTROSCOPY AND PHOTOMETRY

As was mentioned above, starting from 1977 and simultaneously with the objective prism survey, spectroscopic observations of selected objects were undertaken in order to test their origin. These observations began with the investigation of the most outstanding objects discovered in the Southern test area of the SBS survey between 1977 and 1980. More than 50 objects were observed with the 6 m telescope (see Appendix). The initial observations of the selected objects, Sy galaxy candidates, QSOs, unusual objects like the most metal deficient object SBS 0335–052, etc., show the high detection efficiency of the SBS survey for UV excess and emission-line objects. This sequential procedure has helped us over time to improve our selection criteria.

During 1977–1984, the spectroscopic observations using the 6 m telescope of the Special Astrophysical Observatory (SAO, Russia) were initially carried out using photographic films on the UAGS spectrograph followed by the SP-124 spectrograph equipped with a 1024-channel image photon counting system (IPCS, scanner) (Drabek et al. 1985), installed at the Nasmyth I focus. Later, a long-slit spectrograph (LSS) equipped with a 530×580 pixel CCD (Afanasiev et al. 1995) was used at the prime focus. The adopted slit width was 2 arcsec with an effective instrumental spectral resolution of about 6 Å in the case of the IPCS, and about 11 Å in the case of the LSS and 5–6 Å in the case of the photographic film observations. The wavelength range covered was typically 3300–7500 Å. The data reduction procedures—cosmic ray removal, bias and flat field corrections, wavelength linearization and flux calibration— were carried out with the SAO standard data reduction techniques (Afanasiev et al. 1995).

Spectroscopic observations with the 4.5 m telescope at the MMT (Multi-Mirror Telescope, USA) telescope were carried out with the Blue Channel spectrograph (Schmidt, Weymann, & Foltz 1989). This instrument was equipped with a Loral 2048×1024 pixel CCD. A 2 arcsec slit was used, yielding an effective instrumental spectral resolution of about 6 Å in the wavelength range of 4000 Å to 7000 Å. The reduction package IRAF[1] were used for data reduction and analysis.

Spectroscopic observations with the 2.6 m telescope of Byurakan Observatory were initially performed with photographic films on the UAGS spectrograph, followed by the UAGS spectrograph equipped with a 580×530 pixel CCD (Afanasiev

[1] IRAF is the Image Reduction and Analysis Facility distributed by the National Optical Astronomy Observatories, which is operated by the Association of Universities for Research in Astronomy (AURA) under agreement with the National Science Foundation (NSF).

TABLE 4

SBS GALAXIES AND STELLAR OBJECTS OBSERVED SPECTROSCOPICALLY WITH DIFFERENT INSTRUMENTS DURING THE PERIOD OF 1978–2003[a]

Year	BTA(6-m)			MMT(4.5-m)		ZTA(2.6-m)	GHO(2.1-m)		Total
	Gal.	Stel.	Total	Gal.	Stel.	Stel.	Gal.	Stel.	
1978	14	20	34	⋯	⋯	⋯	⋯	⋯	34
1979	17	14	31	⋯	⋯	⋯	⋯	⋯	31
1980	69	25	94	⋯	⋯	⋯	⋯	⋯	94
1981	135	18	153	⋯	⋯	⋯	⋯	⋯	153
1982	73	17	90	⋯	⋯	⋯	⋯	⋯	90
1983	59	14	73	⋯	⋯	⋯	⋯	⋯	73
1984	58	19	77	⋯	⋯	⋯	⋯	⋯	77
1985	23	34	57	⋯	⋯	⋯	⋯	⋯	57
1986	22	54	76	⋯	⋯	⋯	⋯	⋯	76
1987	5	75	80	⋯	⋯	7	⋯	⋯	87
1988	26	40	66	⋯	⋯	18	⋯	⋯	84
1989	15	44	59	⋯	⋯	28	⋯	⋯	87
1990	44	28	72	⋯	⋯	⋯	⋯	⋯	72
1991	126	137	263	⋯	⋯	25	⋯	⋯	288
1992	17	109	126	⋯	⋯	⋯	⋯	⋯	126
1993	7	28	35	8	135	⋯	⋯	⋯	178
1994	9	29	38	⋯	⋯	⋯	⋯	⋯	38
1995	3	12	15	⋯	⋯	⋯	3	⋯	18
1996	26	20	46	⋯	⋯	⋯	56	13	115
1997	25	31	56	⋯	⋯	⋯	44	25	125
1998	34	1	35	⋯	⋯	⋯	29	⋯	64
1999	13	1	14	⋯	⋯	⋯	83	2	99
2000	14	1	15	⋯	⋯	⋯	13	51	94
Total	834	771	1605	8	135	78	228	91	2145

[a]Slit spectra of 10 objects were obtained at the San-Pedro Martir (SPM) 2.1 m telescope during the years 2002–2003. More than hundred bright SBS AGN were spectroscopically re-observed during the years 2002–2003 at SPM with a $S/N > 30$ and a spectral resolution 1.6 Å/pxl. The data for 519 SBS galaxies and 261 point sources are taken from the SDSS dr2 release (http://cas.sdss.org/dr2/, 398 objects, March 2004) and the SDSS dr3 release (http://cas.sdss.org/dr3/, 382 objects, September 2004), which included practically all of SBS objects observed in the 2001–2002 and most of the objects observed in 2000 period at GHO, but not yet published elsewhere. The spectroscopic observations of a few dozen of objects observed at GHO in 2000 and included in the catalogue will be soon published. The slit spectra of more than fifty objects obtained at the 6-m telescope during 1977–1980 for objects in the Southern test area and outside of the main SBS sky area are not included in Table 4 (see Appendix at the end).

et al. 1995), installed at the Cassegrain focus, resulting in an effective instrumental spectral resolution of ~ 6 Å in the wavelength interval 3500–7000 Å.

Spectroscopic observations with the 2.1 m telescope of the GH Observatory (Cananea, Sonora, México) were performed using the Boller & Chivens spectrograph equipped with a 580×580 pixel CCD, installed at the Cassegrain focus, resulting in a spectral resolution of ~ 6 Å in the wavelength interval 4000–7500 Å. We also used the LFOSC spectrophotometer installed in the Cassegrain focus (Zickcraf et al. 1997), equipped with a 578×385 pixel CCD, which gave us an effective instrumental spectral resolution of ~ 11 Å in the wavelength interval of 4000–9000 Å.

A few hundred SBS objects were re-observed on the MMT, BTA, and GHO, because their follow-up spectra showed only one emission line. We have confirmed the redshift of most of them by the detection of other emission lines. For most SBS

TABLE 5

THE RESULTS OF SPECTROSCOPIC OBSERVATIONS OF SBS OBJECTS

m_{pg}	SBS galaxies										SBS stellar objects			
	UV excess			ELG			UV excess+ELG				Stellar objects			
	Obs.	Not[a]	Total	Obs.	Not[a]	Total	Obs.	Not[a]	Total	%	Obs.	Not[a]	Total	%
< 13.5	11	···	11	···	···	···	11	···	11	100%	31	···	31	100%
< 14.0	22	···	22	3	···	3	25	···	25	100%	44	···	44	100%
< 14.5	36	···	36	15	···	15	51	···	51	100%	55	···	55	100%
< 15.0	66	···	66	43	···	43	109	···	109	100%	70	···	70	100%
< 15.5	130	···	130	146	···	146	276	···	276	100%	101	···	101	100%
< 16.0	253	···	253	233	12	245	486	12	498	98%	188	···	188	100%
< 16.5	468	11	479	328	29	357	796	40	836	95%	311	···	311	100%
< 17.0	679	42	721	468	62	530	1147	104	1251	92%	493	···	493	100%
< 17.5	837	53	890	552	76	628	1389	129	1518	92%	802	3	805	99%
< 18.0	943	66	1009	624	83	707	1567	149	1716	92%	1111	121	1232	90%
< 18.5	990	71	1061	674	88	762	1664	159	1823	92%	1293	205	1498	86%
< 19.0	1002	···	1073	693	···	781	1695	···	1854	92%	1385	257	1642	84%
< 19.5	1004	···	1075	700	···	788	1704	···	1863	91%	1428	272	1700[a]	84%

[a]Three objects have $B > 19.5$. "Not" means the number of objects for which the slit spectra were not yet obtained.

objects the redshift was determined with the use of two, three, or more, emission lines.

For nearly all bright SBS AGN, a new set of spectroscopic observations were undertaken in the last few years and carried out on the 2.1 m of the Guillermo Haro Observatory, on the 2.1 m of the Observatorio Astronomico National at San Pedro Mártir (México) with a high signal-to-noise ratio ($S/N \sim 30 - 50$) and a spectral resolution of 1.6 Å/pixel, respectively, in the waveband 3900–8200 Å. In Table 4 a log of the spectroscopic observations according to their date of observation is presented. The statistics of the SBS galaxies and of the stellar objects are given in Table 5 in order of increasing magnitude.

Photometric observations were performed with the 1.0 m and 0.6 m telescopes of the Special Observatory (Russia), the 0.6 m Burrell-Schmidt telescope and the 1.2 m of the Whipple Observatory (both USA). Photometric observations with the 60 cm Burrell-Schmidt telescope were carried out with a Tektronix 2048 × 2048 pixel CCD, which covered a field of view about two square degrees, whose central part only ∼ 1 square degree, was used during these observations. The photometric observations with the 1.2-m telescope of the Whipple Observatory were obtained with a Loral 2048 × 1024 pixel CCD. In both cases the broadband B and V filters in combination with the CCD array reproduced a photometric system close to the standard Johnson system. Flat field images were obtained by illuminating the detector with a uniform light source. Averaging a set of bright twilight sky images observed with each filter provided such flat field images.

The reduction of the photometric data was performed using the IRAF software. Photometric errors are typically 0.05 mag for objects brighter than $B < 17.5$. The photometric error for a single measurement is $\sim 0.03 - 0.04$ magnitude for objects brighter than $B < 17.5$ and $\sim 0.05 - 0.08$ magnitude for objects fainter than $B > 17.5$. The photometric B and V magnitudes were measured mainly for starlike AGN and QSOs already published by Chavushyan et al. (1995; 2000) and Stepanian et al. (2001).

Complete spectral information is available for 2910 SBS objects: 2169 come from our spectroscopic observations and 731 from the literature, mainly from SDSS dr2 and dr3 releases (http://cas.sdss.org/dr3, September 2004, 780 objects). The exposure times for individual objects during our spectroscopic observations vary from 10 minutes to 120 minutes, depending on the instrument used and the required signal-to-noise. For the objects observed with high spectral resolution and high S/N, at least two overlapping optical wavebands were observed, and in those cases each waveband was exposed twice.

Spectroscopic data are available for $\sim$ 100% of the stellar objects and 92% of galaxies brighter than $B \leq 17.5$. Photometric data are available for 85%, and 70% of Sy galaxies and QSOs brighter than $B \leq 17.0$ and $B \leq 17.5$, respectively.

4. SPECTROSCOPIC CLASSIFICATION CRITERIA AND CLASSIFICATION OF THE SBS OBJECTS

The following is a short description of the spectral classification criteria used for extragalactic and galactic SBS objects and based on the spectrophotometry with spectral resolution of 5–6 Å (in some cases $\sim$ 10 Å) in the optical (3500–9000 Å) region of the spectrum:

QSO – Quasi stellar object. Direct images of these objects do not differ from the stars on DSS1 or DSS2. Spectrum shows very broad 5000–30000 km s^{-1} emission lines.

BALQSO – Broad absorption-line QSO. Besides broad emission lines these objects show very broad 10,000–30,000 km s^{-1} blue shifted absorption lines with P Cyg-type line profiles.

DLAQSO – Damped Lya QSO. Show unresolved absorption lines even on spectra with very high resolution (< 1 Å), with typical widths of 10–12 Å, resulting in a column density greater than 10^{23}, indicating the presence of high density galactic size masses along the line of sight.

BLLac – BL Lacertae type variable object. No emission or absorption lines deeper than $\sim$ 2% are seen in any part of the optical spectrum, or only extremely weak absorption and/or emission lines are observed, as a rule at minimum of their very highly variable phase.

Continual – Continuous spectrum, no lines deeper than $\sim$ 2% are seen in our observed optical waveband of 3500–7500 Å. May consist of a mixture of BL Lac and DC stars.

BLS1 – Broad-line Seyfert 1. Classical definition is that BLS1 have broad permitted Balmer H I lines and narrow forbidden lines. The full-width at half maximum (FWHM) of the Balmer H I lines is usually in the range of 1000–6000 (10,000) km s^{-1}. Forbidden lines have FWHM in the range of 300–1000 km s^{-1} (Osterbrock & Koski 1976; Osterbrock 1977; Osterbrock 1984; Pogge & Osterbrock 1985; Osterbrock & Pogge 1987).

NLS1 – Narrow-line Seyfert 1. These objects became popular after the discovery among soft X-ray *ROSAT* sources of a relatively big group of objects described by Pogge & Osterbrock (1985) as NLS1s; these AGN have narrow permitted lines only slightly broader than the forbidden ones; the ratio [O III]λ5007/Hβ < 3, but exceptions are allowed if there are also strong [Fe VII] and [Fe X] emission lines present, unlike what is seen in Seyfert 2 galaxies (Osterbrock & Dahari 1983, Pogge & Osterbrock 1985). Maximum line - width criterion FWHM (Hβ) < 2000 km s^{-1} following Pogge & Osterbrock (1985).

Sy1.5 – AGN which share parameters that are intermediate between those of classical Sy1 and Sy2 galaxies and have an easily discernible narrow H I profile superposed on broad wings (Osterbrock & Koski 1976; Osterbrock 1977).

Sy1.8 – AGN with relatively weak broad Hα and Hβ components, superimposed on a strong narrow line component.

Sy1.9 – AGN with relatively weak broad Hα components, superimposed on a strong narrow line component. A broad component of Hβ is not seen.

Sy2 – The classical definition is that Sy2 are AGN showing broad emission in both the permitted Balmer and the forbidden lines, with approximately the same full-width at half maximum which must be $\geq$ 300 km s^{-1}, that is, in the range of 300–1000 km s^{-1} (Osterbrock & Koski 1976; Shuder & Osterbrock 1981; Osterbrock & Dahari 1983). For Sy2 a secondary classification criterion is used, namely Sy2 must also have [O III]λ5007/H$\beta \geq 3$.

LINER – Low Ionized Nuclear Emission-line Region. According to the definition of Heckman (1980), LINERs are low activity AGN, which have I([0 II]λ3727)/I([O III]λ5007)/$\geq$ 1, I([O I]λ6300)/I([O III]λ5007)$\geq$ 1/3. N[II]λ 6584/ Hα > 0.6 according to Kauffman et al. (2003). Recently Ho, Filippenko, & Sargent (1997a,b,c) divided LINERs into two new classes, LINERs of type I, objects which show broad Balmer emission, in analogy with Sy1s, and LINERs of type 2, without broad Hα, in analogy with Sy2s.

SBN and SB – The major observable feature that distinguishes starburst nuclei from Sy nuclei is their strong narrow emission lines FWHM$\leq$ 300 km s^{-1}. In many cases the definition of SBNs is not clearly spelled out. The observational description of typical SBN following Balzano (1983) is: a spiral galaxy with a bright, blue nucleus that emits a strong narrow emission line spectrum similar to low-ionization H II region spectra. Three main criteria were used by Balzano to separate starburst galactic nuclei (SBN) from other star-burst objects: (i) strong, narrow (FWHM$\leq$ 250 km s^{-1}), low-ionization ([O III]/Hβ < 3) emission lines; (ii) absolute luminosities $-17.5 > M > -22.5$; (iii) conspicuous stellar or semistellar nuclei. The Hα luminosities greater than 10^{40} erg/sec, which must be related to a nuclear emission line region less than a few hundred parsec in diameter, was used as additional parameter to isolate SBN from H II regions. In fact this definition is a spectro-morphological definition. We have used similar criteria for the SBS SBN classification. Note that for faint objects with diameters of less than 15$''$ on DSS plates, only the SBN definition was used.

A galaxy was classified as Star-Burst (SB) galaxy using the above mentioned spectroscopic criteria when we suspected that the emission might be not associated with the nuclear region.

H II – Extragalactic H II region; a spectrum similar to that of SB, that is a strong narrow (FWHM$\leq$ 300 km s^{-1}) emission line spectrum, but with a ratio [O III]/Hβ ≥ 3 and N[II]λ6584/Hα < 0.5, coupled with a blue continuum.

BCDG – Blue Compact Dwarf Galaxy (Kunth 1988); as a rule these objects are in fact objects of H II spectral types. We have used the BCDG definition to indicate that they are blue, compact dwarf galaxies. Most of them have a high rate of star formation. Like for SBN, the BCDG classification involves spectro-morphological parameters; they are objects with $M(B) > -17.5$ and linear sizes of less than $D \leq 3-4$ kpc.

The cut in luminosity at $M(B) > -17.5$ is artificial, what is seen is a continuation of similar spectro-morphological characteristics towards the high-luminosity region $M(B) < -17.5$. In the SBS Catalogue, one can find objects with spectral characteristics similar to BCDG but with luminosities greater than $M(B) < -17.5$. We classify them as H II galaxies. The latter may formally be called Blue Compact Galaxies (BCG).

ELG – Emission line galaxy. One or more emission lines are seen in the spectrum. If they exist, absorption lines are very weak.

E+A – Both absorption and emission lines are present in the spectrum. Emission lines as a rule are strong: H$\alpha\lambda$6563, N[II]λ6584/6548 and [O II]λ3727.

Abs or Abs: – Absorption line galaxy when in our observed waveband only the absorption lines are seen in the spectrum.

White dwarf spectral classification system:

In classifying the detected white dwarfs and subdwarfs we have adopted the classification scheme developed by Sion et al. (1983), Green, Schmidt, & Liebert (1986), and Berg et al. (1992). In order to achieve a uniform classification scheme for the objects reported here, we have obtained high quality slit spectra for a number of well known objects from the Catalogues of PG (Palomar-Green), LB (Luyten-Blue), PHL (Palomar-Haro-Luyten), GR (Greenstein), and also of some other bright objects with previously well determined spectral types. In addition, we used high-quality spectra of different types of objects kindly provided to us by R. Green. The spectral classification criteria used for the SBS object classification are described below:

DA – Only wide 50–100 Å hydrogen Balmer absorption lines of H I; no He I or metal lines are present.

DAn – The subtype numbers (n) denote the effective temperature adopted by Sion et al. (1983). They were derived from the Hβ equivalent widths.

DAF – Defined by the presence of Balmer absorption lines with Ca K absorption, often with evidence of weak *G* band.

DAO – Hydrogen Balmer absorption lines with presence of He II λ4686.

DAB – Hydrogen Balmer absorption lines with presence of He I.

DB – He I absorption lines; no H I or metal lines present.

DBA – Mix of He II, He I, and hydrogen Balmer absorption lines.

DO – Strong He II; He I, or H I present.

DC – Continuous spectrum, no lines deeper than 2% in any part of the spectrum.

DZ – Metal lines only; no H I, or He. Show metallic features, principally Ca II H, and K.

DQ – Carbon features, either atomic or molecular, in any part of the optical spectrum (5050 Å, 4765 Å, and 4371 Å).

Subdwarf spectral classification system:

sd – Two or three Balmer absorption lines of moderate gravity are visible.

sdB – Subdwarf B stars showing a higher gravity Balmer absorption series with the possible presence of He I, over a wide range of colors.

sdB-O – These stars are sdB stars with a hint of He Iλ4471 in absorption.

sdOA – These stars are not conventional sdO stars, but show a spectrum with dominant hydrogen Balmer absorption along with pronounced He Iλ4471 and often He Iλ4026.

sdOB – This classification denotes a spectrum dominated by He I and He II lines and generally showing hydrogen Balmer absorption. He II absorption features, including $\lambda4686$, are discernible, and are approximately equal in strength to the He I features present. Balmer absorption exhibits a wide range of strengths.

sdOC – These are the hottest sdO stars dominated by He II absorption. Only a trace of He I$\lambda4471$ may be present, and some hydrogen Balmer absorption may be blended with the He II Brackett lines.

sdOD – This class consists of cooler subdwarfs with "pure" He I absorption spectra, characterized by the weakness or absence of hydrogen Balmer lines and He II$\lambda4686$, while showing the singlet $\lambda4388$ equal in strength to the triplet $\lambda4471$.

sdO – Without a subclass, this designation stands for a spectrum in which He II$\lambda4686$ and often He I$\lambda4471$ were identified. Defined by the presence of He II$\lambda4686$ and/or Pickering series features, and usually showing high surface gravity Balmer absorption.

F – Subdwarf or dwarf F. Defined by the presence of narrow Balmer absorption lines with Ca K absorption, often with evidence of a weak *G* band and a weak Balmer discontinuity.

G – Subdwarf or dwarf G. Defined in our spectra by the presence of a strong broad CH band, usually with strong MgH features, and with weak or absent hydrogen lines.

HBB – Horizontal branch B stars, showing only unresolved Balmer lines in our spectra. These spectra show only narrow Balmer lines, with series members visible beyond H9, as a sharp, substantial Balmer Jump.

NHB – Normal or Horizontal Branch. Either a horizontal-branch star, an evolved B-type subdwarf, or conceivably a dwarf. Our spectra show relatively strong Balmer absorption with the possible presence of helium or metals, and a Balmer jump.

CV – Cataclysmic variable. These objects show strong emission lines in the Balmer series, and sometimes neutral or ionized helium.

Continual – Continuum only spectra, no lines deeper than $\sim 2\%$ are seen in any part of the optical spectrum. We suspect that this subsample is composed of a mixture of both BL Lac objects and DC stars.

Composite – Spectroscopic or spectrophotometric binaries without strong emission lines indicative of interaction, but with sufficient blending of the contributions of the two components in the blue-green region of the spectrum to signal the composite nature of the objects. They are designated by their components, for example DA+dMe, and are usually commented upon individually.

Unclassified - Inconclusive spectra.

Once spectroscopic observations and classification of more than 88% of all objects were completed, we decided to compile two catalogues: the catalogue of objects which were confirmed as galaxies (1863 objects, even if they show stellar images), and the catalogue of objects which turned out to be stars and QSOs (1700 objects, even if they show extended images); this in order to simplify future work that would be based on subsamples of objects. We hypothesize that the majority of the objects not yet observed spectroscopically but included in catalogue of galaxies are indeed galaxies, while the objects in the catalogue of stellar objects are mostly QSOs or stars. Of course it is not excluded that some of the objects not yet observed spectroscopically but included in catalogue of galaxies may turn out to the QSOs, or even stars, and vice versa, some objects in the catalogue of stellar objects may turn out to be galaxies.

5. THE CATALOGUE OF SBS GALAXIES

The Catalogue of SBS galaxies is presented in Table 6. The columns are as follows: Co1umn 1, SBS designation. Columns 2 to 5: The coordinates B1950 and J2000 with an accuracy of about ±1 arcsec (Bicay et al. 2000). The format of the coordinates is hours, minutes, and seconds for right ascension, and degrees, arcminutes, and arcseconds for declination. Column 6: Angular size in arcseconds measured on blue POSS prints. Column 7: The emission line redshift, derived as a mean value of redshifts from each strong emission line, corrected for solar motion (cz)corr = (cz) helio + 300 $\sin L^{II}$ $\cos b^{II}$ = 0.001 $\sin L^{II}$ $\cos b^{II}$. We keep the value corrected for solar motion, to be consistent with previously published data. The accuracy of the redshift determination is $\sim 30 - 60$ km s^{-1}, depending on the instrument and spectral resolution used. The redshifts taken from the literature mainly from the SDSS are listed with their original values. Column 8: Magnitudes; there are three types of magnitudes in the catalogue. (a) the photometric CCD *B* magnitudes measured mainly for starlike AGN objects (Chavushyan et al. 1995, 2000; Stepanian et al. 2001) with an accuracy of about 0.05 mag; the magnitudes for known objects like Markarian galaxies were taken from the literature (all of them listed with two digits after the decimal point). (b) The Zwicky et al. (1961–1968), Zwicky (1971) magnitudes for objects brighter that $m_{pg} \leq 15.7$ (one digit after the decimal point). (c) Original eye-estimated photographic magnitudes m_{pg} mainly for objects fainter than 15.5, with an accuracy of about ±0.5 mag. Column 9: The absolute magnitude M_{pg} or M_B (for objects with the magnitudes with two digits after the decimal point) when the redshift was available; this was calculated by the equation: $M_{pg} = m_{pg} - 5\log(z) - 43.01 - 0.24$ cosec b^{II} for $H_0 = 75$ km s^{-1} Mpc^{-1}. Column 10: Original objective prism survey type. Columns 11 and 12: Date of spectroscopic observations and spectral range. The date of the first spectroscopic observation is mentioned. Column 13: Instruments; BTA (Big Azimuthal Telescope, 6 m telescope of Special Astrophysical observatory, Russia), MMT (4.5 m Multi-Mirror telescope, USA), ZTA (2.6 m telescope of Byurakan observatory), GHO (2.1 m Guillermo Haro telescope of Cananea, México); SPM (2.1 m telescope of the Observatorio National at San Pedro Mártir, México). Column 14: Spectral (classification) type, the abbreviations used are: BLS1, Sy1.5, Sy1.8, Sy1.9, Sy2 —different types of Seyfert galaxies, NLS1 (narrow line Sy1 galaxy), LINER (Low Ionized Nuclear Emission-line Region), SBN (star-burst nuclei galaxy), SB (star-burst galaxy), H II (extragalactic H II region), BCDG (blue compact dwarf galaxy), abs, abs: (when only absorption lines are seen in the observed wave band), ELG (emission-line galaxy), E+A (both emission and absorption lines are seen in the spectrum. The three last notations have been used when there did not exist the necessary information about their spectra in order to classify them. Column 15: The names of the objects identified as IRAS bright or point sources (Saunders et al. 2000). Column 16: Morphology, if available. Morphological description, taken from the literature (Hubble or de Vaucouleurs classification is presented). Column 17: Contains the objects identified with first radio sources (Becker, White, & Helfand 1995); they are labeled 'R'. Column 18: Other names of objects; the abbreviations mean: CG, CSO (Case galaxy, Case stellar object). The CASE low-dispersion northern sky survey (Pesch & Sanduleak 1983, 1986; Sanduleak & Pesch, 1984, 1987); HS – Hamburg survey (Vogel et al. 1993); Haro – Haro blue galaxies (Haro 1956); Holm.– Holmberg galaxies (Holmberg 1937); KUG – Kiso Survey for UV-excess galaxies (Takase & Miyauchi-Isobe 1984, 1985a,b, 1986a,b, 1987a,b); LB – Luyten blue objects (Luyten 1955–1969); Mkn – Markarian galaxies (Markarian et al. 1981); NGC – New General Catalogue; PG – Palomar-Green UV-excess stellar objects (Green et al. 1986); Ton. – Tonantzintla blue stellar objects (Iriarte & Chavira 1957; Chavira 1958, 1959); UM – Curtis-Schmidt Michigan University Survey (MacAlpine et al. 1977a,b,c; MacAlpine & Lewis 1978; MacAlpine & Williams 1981); VV – Atlas of interacting galaxies (Vorontsov-Velyaminov 1959); Zw – Zwicky objects (Zwicky 1971), Zwicky compact objects from CGCG (Zwicky 1968–71). Column 19: References.

The comments at the end of the Catalogue of Galaxies contain the description of individual objects. The morphological description of close-binary systems in common shell or envelope with an angular separation between components of 2–8 arcsec ($2''$ is the limit of the resolution of the IIIaJ plates on the prime focus of Byurakan 1 m Schmidt telescope) and of pairs of galaxies is given and is based on the objective prism and direct plates obtained with BAO Schmidt camera and DSS1 plates. In many cases the description of the components of the SBS galaxies is given even if the second component is not an SBS galaxy. In some cases the morphology of the objects is described from their direct images on the slit on the prime focus of the 6 m telescope. For a number of cases there are sufficient data available on both components to merit individual entries in the catalogue. Western, eastern, northern and south components of pairs are labeled "W", "E", "N" and "S", respectively. The objects with the same IAU abbreviation are labeled "A" and "B", respectively. The label":" means uncertainty in the determination.

In all cases, when the references are not shown, but the redshifts and other data are given, they are taken from the NASA extragalactic database (ned-www.ipac.caltech.edu). The redshifts are given in the Galactocentric system. The redshifts for 240 SBS galaxies are taken from the SDSS ds2 release. They are not corrected for solar motion (original redshifts. We have revised and reduced the previously published data, redshifts, magnitudes, SBS names, spectral classification types, etc. Examples of corrected data are given below.

For some objects there are two published values for the redshift: SBS0751+583 z(NED) = 0.1303, z[23] = 0.0575; SBS1158+578, z(NED) = 0.08, z(AJ 133,527,1997) = 0.0184; SBS 1131+577, z(SBS) = 0.0527, z(NED) = 0.0150; SBS 1135+575, z(SBS) = 0.0684, z(NED) = 0.0025; SBS 1137+588, z(SBS) = 0.0078, z(NED) = 0.154; SBS 1515+588, z[23] = 0.1731, z(NED) = 0.0320; etc. In cases when the spectra of other authors were presented, which allowed us to check the published redshifts, we used the more reliable data. In the cases when the spectra were not presented, we prefer to include our value.

TABLE 6

THE CATALOGUE OF SBS GALAXIES. N=1863

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0742+599	07 42 17.47	+59 58 48.7	07 46 34.78	+59 51 27.7	12*8	.0328	17.0	−19.1	d2e	25.11.81	5400–7500	BTA	ELG		Irr:		KUG	[13]
0743+610	07 43 07.32	+61 03 24.4	07 47 29.06	+60 56 00.0	98*42	.0293	13.72	−22.1	s1e:	16.03.80	3500–7500	BTA	BLS1	07431+6103	SBbc		Mkn 10	[4,12,23]
0743+591A	07 43 07.35	+59 08 31.9	07 47 21.08	+59 01 07.7	40*14	.0325	15.4	−20.6	sde	09.03.81	5400–7500	BTA	E+A	07431+5908	Sb	R		[13]
0743+550	07 43 10.01	+55 04 18.6	07 47 09.32	+54 56 54.7	10*7	.0183	16.0	−18.9	d2e	28.11.81	5400–7500	BTA	ELG				Mkn1410	
0743+591B	07 43 32.44	+59 07 52.4	07 47 46.03	+59 00 26.6	5	.0213	18.5	−16.6	se	11.02.91	3500–5400	BTA	BCDG					[6]
0743+591C	07 43 45.28	+59 08 18.6	07 47 58.86	+59 00 52.0	20*14	.0218	14.7	−20.5	se:	08.04.81	5400–7500	BTA	E+A		SABb			[13]
0744+543	07 44 14.02	+54 20 09.2	07 48 10.84	+54 12 41.2	14	.0482	16.5	−20.5	s3e:	17.03.80	3500–7500	BTA	SBN	F07442+5420		R	Mkn 83	
0744+502	07 44 21.32	+50 14 14.0	07 48 06.66	+50 06 45.9	16*12	.	17.0		dse									
0745+590	07 45 03.90	+59 02 42.4	07 49 16.82	+58 55 10.7	18*9	.0274	17.0	−18.5	d2e	25.11.81	5400–7500	BTA	HII	F07450+5902			KUG	[13]
0745+571	07 45 04.33	+57 10 25.5	07 49 10.30	+57 02 53.9	18	.0439	15.6	−21.1	dse	07.02.83	5400–7500	BTA	ELG				VIIZw181	
0745+557	07 45 08.69	+55 43 48.5	07 49 09.75	+55 36 16.8	36*12	.0171	15.3	−19.4	s3e	10.04.96	4000–7000	GHO	SBN	F07452+5543	S:	R		[9]
0745+587	07 45 24.84	+58 47 06.6	07 49 36.68	+58 39 33.5	13*6	.0201	17.5	−17.5	sd3e	25.11.81	3500–7500	BTA	BCDG		Irr		KUG	[13]
0745+601A	07 45 44.02	+60 08 32.1	07 50 01.22	+60 00 57.6	10*7	.0327	18.0	−18.0	d2e	17.02.82	3600–7500	BTA	SBN					[13]
0745+598	07 45 58.24	+59 48 50.1	07 50 14.03	+59 41 14.7	4	.0700:	19.0	−18.7	dse	14.12.98	4000–7500	BTA	E+A					
0746+501	07 46 23.71	+50 10 19.0	07 50 08.62	+50 02 43.0	30*24	.0235	15.0	−20.1	dse	07.02.83	5400–7500	BTA		F07463+5010		R		
0746+611	07 46 41.94	+61 06 25.9	07 51 03.05	+60 58 47.5	12*10	.0395	17.5	−19.0	d3	07.02.83	5400–7500	BTA	E+A				KUG	[13]
0746+608	07 46 59.54	+60 48 22.5	07 51 19.27	+60 40 43.0	40*6	.0199	16.0	−19.0	de:	25.11.81	5400–7500	BTA	E+A					[13]
0747+593	07 47 37.46	+59 18 19.2	07 51 50.83	+59 10 37.5	7	.1001	18.0	−20.5	de	07.10.88	3690–5500	BTA	E+A					[19]
0748+608	07 48 04.14	+60 52 25.7	07 52 23.90	+60 44 42.0	39*24	.0193	15.2	−19.7	de	25.11.81	5400–7500	BTA	E+A		S		KUG	[13]
0748+499	07 48 07.83	+49 56 34.5	07 51 52.01	+49 48 51.1	25	.0246	15.82	−19.5	sd2e	27.12.97	4000–7400	BTA	Sy1.9	F07480+4956	SO	R		[26]
0748+588	07 48 32.03	+58 49 19.8	07 52 43.32	+58 41 34.6	9	.0306	17.5	−18.4	de	25.11.81	5400–7500	BTA	ELG				KUG	
0748+520	07 48 52.73	+52 09 17.9	07 52 42.42	+52 01 32.2	12	.	17.5		dse									
0748+555	07 48 53.02	+55 32 25.6	07 52 52.73	+55 24 39.4	8	.0270	17.5	−18.1	sd3e	10.02.97	3800–7200	BTA						
0749+602	07 49 03.36	+60 13 24.9	07 53 20.12	+60 05 37.5	6	.0922	18.0	−20.2	dse	03.01.84	3200–6700	BTA	E+A					[19]
0749+502	07 49 05.28	+50 15 58.6	07 52 49.93	+50 08 12.2	30*15	.	16.5		dse									
0749+553	07 49 20.78	+55 19 02.0	07 53 19.69	+55 11 14.1	8*6	.0248	17.0	−18.5	de	10.12.91	3500–5500	BTA	LINER:					[26]
0749+568A	07 49 23.35	+56 51 39.5	07 53 27.25	+56 43 39.3	12	.0498	17.0	−20.5	sde	04.11.89	3700–5600	BTA	ELG					
0749+568B	07 49 37.56	+56 49 40.3	07 53 41.39	+56 41 51.1	7	.0183	18.0	−16.8	sd1e	04.11.89	3700–5600	BTA	BCDG				HS	
0749+582	07 49 41.69	+58 17 00.5	07 53 50.69	+58 09 10.9	3	.0320	19.0	−16.9	se	12.02.91	3600–5630	BTA	BCDG					
0750+584	07 50 18.13	+58 24 06.6	07 54 27.43	+58 16 14.6	48*18	.0203	15.3	−19.8	sd2e	01.01.81	5400–7500	BTA	SBN	F07503+5824	S:	R	Mkn 1411	
0750+571	07 50 32.03	+57 07 35.6	07 54 36.69	+56 59 42.9	8	.0288	18.0	−17.8	dse	27.01.98	4000–7500	BTA	HII					
0750+559	07 50 42.38	+55 56 58.7	07 54 43.05	+55 49 05.5	13*8	.0256	17.0	−18.5	ds3e	07.04.91	3690–5700	BTA	LINER:	F07506+5557	S:	R		[23]
0750+603A	07 50 52.36	+60 18 54.1	07 55 09.06	+60 10 59.7	10*6	.0359	17.5	−18.8	ds2e	27.11.81	3300–7500	BTA	SBN				HS	[13]
0750+603B	07 50 54.98	+60 19 27.7	07 55 11.71	+60 11 33.1	10*6	.0358	17.5	−18.8	ds2e	27.11.81	3300–7500	BTA	SBN				HS	[13]
0750+542	07 50 58.23	+54 15 08.1	07 54 53.54	+54 07 14.0	30*18	.0253	15.1	−20.2	de	03.01.84	5400–7500	BTA			S:			
0751+539	07 51 00.05	+53 58 40.3	07 54 54.54	+53 50 46.1	28	.0348	14.5	−21.7	d3e	10.04.96	4000–7000	GHO	ELG	F07509+5358				[5]
0751+583	07 51 03.11	+58 21 54.6	07 55 12.11	+58 13 59.8	6	.1303	18.0	−21.0	sde:	27.01.98	4000–7500	BTA	E+A					[23]
0751+558	07 51 05.95	+55 50 08.8	07 55 06.17	+55 42 14.1	60*30	.0204	13.6	−21.5	s2	19.01.78	3500–7500	BTA	E+A	F07511+5550	Spec	R	Mkn 84	
0751+577	07 51 06.20	+57 42 03.0	07 55 12.76	+57 34 08.0	9*6	.0914	18.0	−20.3	de:	27.12.84	3500–5500	BTA	E+A					[19]
0751+574	07 51 09.50	+57 26 23.0	07 55 15.12	+57 18 27.9	12*8	.0428	17.0	−19.6	sde	27.12.97	4000–7400	BTA	SBN				KUG	[17,26]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0751+498	07 51 21.61	+49 49 18.3	07 55 04.79	+49 41 23.1	18*12	.0800	16.5	−21.5	ds3	15.03.00	3500–7000	BTA	ELG					
0751+534	07 51 26.68	+53 27 46.0	07 55 19.53	+53 19 49.8	54*42	.0244	14.4	−21.0	dse	18.03.82	3500–5400	BTA	HII	F07514+5327	SBb			
0751+569	07 51 40.30	+56 58 25.8	07 55 44.19	+56 50 28.7	7	.0269	18.0	−17.5	s3e	04.11.89	3700–5600	BTA	BCDG					
0751+604	07 51 57.25	+60 26 13.5	07 56 14.20	+60 18 14.9	66*54	.0050	14.5	−17.5	sd1e:	19.01.78	3500–7500	BTA	BCDG	F07519+6026	SBb		Mkn 13	
0752+608	07 52 01.50	+60 50 07.0	07 56 20.05	+60 42 08.1	12	.	17.0		sde					F07520+6050:				[23]
0752+587	07 52 06.38	+58 42 31.3	07 56 16.42	+58 34 32.4	18*12	.0413	17.0	−19.6	de	24.10.98	4000–7500	BTA	HII:		Irr:		KUG	
0752+560A	07 52 29.19	+56 02 58.5	07 56 29.81	+55 54 58.4	9*6	.	17.5		de									
0752+560B	07 52 45.14	+56 03 07.6	07 56 45.72	+55 55 06.5	12	.0282	17.0	−18.7	s2e	07.04.91	3690–5700	BTA	LINER:				HS	[23]
0752+599	07 52 49.59	+59 58 09.9	07 57 04.40	+59 50 08.1	8	.1571	18.0	−21.5	de	27.01.98	4000–7500	BTA						
0752+586	07 52 55.12	+58 40 41.5	07 57 04.67	+58 32 39.5	8	.1680	17.5	−22.0	sd1				BLS1					
0753+560	07 53 06.94	+56 03 37.8	07 57 07.41	+55 55 35.4	15	.0457	16.5	−20.1	s2e	20.03.99	4000–7100	GHO	Sy1.9:			R		[26]
0753+581	07 53 14.56	+58 10 18.5	07 57 22.35	+58 02 15.3	9	.0191	17.5	−17.4	sde	17.02.82	3600–7500	BTA	BCDG					[13]
0753+577	07 53 22.60	+57 45 34.0	07 57 28.81	+57 37 30.4	10*8	.	17.5		dse								KUG	
0753+599	07 53 37.65	+59 54 23.0	07 57 52.00	+59 46 18.1	6	.1378	18.5	−20.6	de	11.12.98	5300–7500	BTA	E+A					
0753+610B	07 53 50.84	+61 04 46.4	07 58 10.04	+60 56 40.5	22*15	.0219	15.5	−19.7	sde	09.03.81	5400–7500	BTA	ELG	F07538+6104		R		[13]
0754+570	07 54 22.45	+57 02 31.1	07 58 25.99	+56 54 23.7	8*6	.0116	18.0	−15.6	de	12.12.98	5300–7500	BTA	BCDG				KUG	
0754+574	07 54 25.98	+57 24 45.6	07 58 30.79	+57 16 37.9	6	.0772	18.5	−19.2	de	11.12.98	5300–7500	BTA	E+A					
0754+528	07 54 33.76	+52 54 13.8	07 58 24.43	+52 46 06.2	12	.	17.0		sd3									
0754+568	07 54 38.64	+56 50 12.5	07 58 41.42	+56 42 04.0	30	.0192	15.4	−19.5	dse					F07547+5650			NGC2472	
0754+565	07 54 43.10	+56 34 20.4	07 58 44.92	+56 26 11.8	10	.	17.5		sd3									
0754+592	07 54 52.55	+59 16 22.0	07 59 04.10	+59 08 12.4	60*36	.0197	15.4	−19.5	sde	09.03.81	5400–7500	BTA	E+A		SO			[13]
0755+524	07 55 04.22	+52 27 40.1	07 58 53.67	+52 19 30.9	8	.	17.0		sde									
0755+536	07 55 19.66	+53 41 36.7	07 59 12.48	+53 33 26.0	10	.0353	16.0	−20.2	se	07.04.91	3690–5500	BTA	E+A	F07553+5341		R		[23]
0755+554	07 55 27.57	+55 25 57.0	07 59 25.60	+55 17 45.6	30*14	.0214	14.9	−20.2	s3e:	28.11.81	5400–7500	BTA	Abs				Mkn1412	
0755+574A	07 55 30.72	+57 26 23.6	07 59 35.38	+57 18 11.8	20*9	.0269	16.0	−19.6	d3e	27.11.81	5400–7500	BTA	ELG					[13]
0755+574B	07 55 41.67	+57 28 45.5	07 59 46.43	+57 20 33.0	16*10	.0291	15.7	−20.1	d3e	27.11.81	5400–7500	BTA	ELG				KUG	[13]
0755+587	07 55 42.67	+58 45 10.6	07 59 52.04	+58 36 57.9	24*12	.0188	15.0	−19.8	sde	09.03.81	5400–7500	BTA	ELG	F07557+5845	Sb	R		[13]
0755+557	07 55 51.71	+55 42 21.9	07 59 50.52	+55 34 09.0	14	.0330	16.5	−19.6	sde	10.02.97	3800–7200	BTA	ELG	F07558+5542		R		
0755+509	07 55 55.61	+50 58 38.1	07 59 40.95	+50 50 25.3	12	.0546	16.75	−20.3	ds3e	05.11.89	3700–5500	BTA	Sy2	F07559+5058		R		[21]
0755+604	07 55 56.98	+60 25 31.9	08 00 12.88	+60 17 18.1	90*60	.0198	13.9	−21.0	sde	09.03.81	5400–7500	BTA	ELG	F07559+6025	Scd			[13]
0755+588	07 55 58.46	+58 50 54.8	08 00 08.12	+58 42 41.1	15	.0192	16.0	−18.9	sd1e	01.01.81	3600–7500	BTA	LINER:	F07559+5850			KUG	
0756+556	07 -56 07.87	+55 36 43.3	08 00 06.32	+55 28 29.4	6	.0302	18.0	−17.9	de	10.12.91	3700-5500	BTA						
0756+561	07 56 17.56	+56 07 41.2	08 00 17.63	+55 59 26.6	8*6	.	18.0		de					F07559+5607:				
0756+611	07 56 29.23	+61 07 25.1	08 00 47.94	+60 59 09.2	8	.0212	17.5	−17.5	sd2e	27.11.81	3700–7000	BTA	BCDG					[13]
0756+553	07 56 35.78	+55 21 14.3	08 00 33.33	+55 12 58.6	8	.0352	17.5	−18.7	sde	12.02.91	3600–5630	BTA	ELG	F07566+5521		R		[23,27]
0756+578	07 56 46.81	+57 52 05.1	08 00 52.69	+57 43 48.5	10*8	.0279	17.5	−18.2	sde	07.02.83	5400–7500	BTA		07566+5752				[13]
0757+555	07 57 00.35	+55 32 49.9	08 00 58.42	+55 24 32.6	14	.0315	17.0	−18.7	sd2e	10.02.97	3800–7200	BTA						
0757+568	07 57 10.46	+56 48 47.1	08 01 12.54	+56 40 29.1	14	.	17.0		ds2									
0757+565	07 57 11.91	+56 31 00.5	08 01 13.06	+56 22 42.4	18*12	.0270	17.0	−18.6	de	28.12.97	4000–7200	BTA	E+A					[26]
0757+580	07 57 23.29	+58 01 43.2	08 01 29.60	+57 53 24.2	12*10	.0250	17.0	−18.5	dse:	27.11.81	3600–7500	BTA	ELG					[13]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave- band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0757+573	07 57 39.89	+57 22 11.8	08 01 43.82	+57 13 51.9	24*18	.0194	17.0	−17.9	de	27.11.81	5400–7500	BTA	ELG				KUG	[13]
0759+607	07 59 25.85	+60 45 11.1	08 03 42.21	+60 36 44.1	20*18	.0306	16.0	−19.9	sde	09.03.81	5400–7500	BTA	ELG		S			[13]
0800+569	08 00 14.41	+56 56 30.5	08 04 16.30	+56 48 00.9	12	.	17.5		de									
0800+603	08 00 21.10	+60 19 55.1	08 04 35.48	+60 11 24.7	15*8	.0304	17.5	−18.3	dse:	27.11.81	5400–7500	BTA	ELG	F08003+6019		R		[13]
0800+542	08 00 37.29	+54 15 12.9	08 04 30.67	+54 06 42.1	10*8	.	17.5		de:									
0801+556	08 01 08.07	+55 41 56.4	08 05 05.72	+55 33 23.6	7	.	18.0		de:									
0801+571	08 01 27.40	+57 11 38.0	08 05 29.80	+57 03 03.8	18*12	.	17.0		de								KUG	
0802+533	08 02 21.06	+53 17 28.1	08 06 11.34	+53 08 50.9	18	.0643	15.5	−22.0	sde	25.03.98	4400–7100	BTA						
0802+602	08 02 35.12	+60 15 29.6	08 06 48.61	+60 06 50.8	12*6	.0515	17.5	−19.5	sd3e:	30.12.83	3500–5700	BTA	SBN					[18]
0802+557	08 02 41.77	+55 44 52.5	08 06 39.17	+55 36 13.9	12	.	17.0		ds3									
0802+511	08 02 42.83	+51 05 55.4	08 06 27.24	+50 57 17.0	54*24	.0227	15.5	−19.6	sde					F08026+5106	SAc			
0803+565	08 03 33.33	+56 34 15.6	08 07 33.23	+56 25 33.6	14*8	.0268	17.0	−18.6	ds3e	13.04.97	4000–7000	GHO	ELG	F08035+5634	S:			[6]
0803+591	08 03 51.59	+59 09 16.2	08 08 00.45	+59 00 32.9	7	.0884	18.0	−20.1	de	21.07.98	4000–7500	BTA						
0804+591	08 04 22.70	+59 08 04.8	08 08 31.36	+58 59 19.5	16*13	.0277	17.5	−18.1	dse	17.02.82	5400–7500	BTA						[13]
0805+583	08 05 15.80	+58 18 56.0	08 09 21.18	+58 10 07.5	42*18	.	17.0		dse								KUG	
0805+607	08 05 16.96	+60 45 36.0	08 09 31.77	+60 36 47.1	5	.0313	18.5	−17.4	s1	26.12.84	3500–7100	BTA	LINER	F08054+6045				[18]
0805+503	08 05 20.81	+50 19 31.3	08 09 02.82	+50 10 43.2	12*10	.0164	16.5	−18.0	ds3e	12.04.96	4000–7000	GHO	SBN:	F08052+5019				[5]
0805+577	08 05 25.63	+57 42 31.6	08 09 28.90	+57 33 42.5	7	.0271	18.0	−17.6	sde	27.11.81	3600–7500	BTA	LINER:	F08054+5742			HS	[13]
0805+603	08 05 58.93	+60 20 36.8	08 10 11.85	+60 11 45.4	16*10	.0199	16.5	−18.4	ds3e	28.11.81	5400–7500	BTA	LINER:	F08059+6020		R		[13]
0806+579A	08 06 02.92	+57 59 03.9	08 10 06.99	+57 50 12.5	20*14	.0262	15.1	−20.4	sde	09.04.81	5400–7500	BTA	ELG	F08060+5759	S:			[13]
0806+579B	08 06 11.39	+57 58 00.7	08 10 15.37	+57 49 08.8	12*7	.0258	17.5	−18.0	de	18.02.82	5400–7500	BTA	ELG		Sb			[13]
0806+589A	08 06 16.34	+58 57 59.7	08 10 23.89	+58 49 07.4	12	.0674	17.5	−20.1	dse	08.02.97	3800–7200	BTA	Abs					
0806+589B	08 06 36.09	+58 58 38.4	08 10 43.59	+58 49 44.9	12	.0675	17.5	−20.1	sde	27.01.98	4000–7000	BTA	Abs					
0806+573	08 06 40.60	+57 22 38.0	08 10 42.37	+57 13 44.4	36*12	.	17.0		de						S		KUG	
0807+568	08 06 57.30	+56 47 48.0	08 10 57.08	+56 38 53.4	30*15	.	16.5		d2					F08069+5647				
0807+571	08 07 02.14	+57 10 39.4	08 11 03.22	+57 01 44.4	24	.0286	15.2	−20.5	se:	01.01.81	5400–7500	BTA	ELG	F08070+5710	S			[13]
0807+539	08 07 29.09	+53 58 34.6	08 11 20.23	+53 49 38.3	9*7	.	18.0		de							R		
0807+593	08 07 30.27	+59 22 17.9	08 11 39.01	+59 13 21.0	10	.0250	18.0	−17.6	de	08.02.97	3800–7200	BTA	HII				KUG	[26]
0807+581	08 07 49.48	+58 06 03.9	08 11 53.52	+57 57 05.9	27*10	.0279	15.93	−19.7	sd2e	09.03.81	5700–7200	BTA	Sy2	F08077+5806		R		[8,9,13]
0807+588	08 07 50.78	+58 51 01.5	08 11 57.49	+58 42 03.4	30*18	.0283	15.7	−19.9	de:	28.11.81	5400-7500	BTA	ELG	F08078+5851				[13]
0807+580	08 07 52.07	+58 00 08.9	08 11 55.75	+57 51 10.8	5	.1585	18.5	−20.9	de	03.01.84	3500–5700	BTA	Abs:					
0808+569	08 08 01.03	+56 55 57.6	08 12 01.06	+56 46 59.1	18*9	.0291	17.0	−18.8	de:	14.04.97	4000–7000	GHO	E+A					[6]
0808+573	08 08 01.82	+57 52 54.7	08 12 04.95	+57 13 45.7	10	.	17.0		dse									
0808+580A	08 08 04.74	+58 03 26.8	08 12 08.56	+57 54 27.9	14*8	.0264	17.5	−18.1	d3e	18.02.82	3700–7500	BTA	ELG		Sc	R	KUG	
0808+587	08 08 10.92	+58 42 52.2	08 12 17.05	+58 33 52.9	15	.0272	15.81	−19.7	sd1e	01.01.81	5400–7500	BTA	Sy2	F08082+5842	E:	R	VIIZw217	[13]
0808+581A	08 08 12.53	+58 07 29.9	08 12 16.55	+57 58 30.5	6	.0262	18.5	−17.0	de:	03.01.84	3500–5700	BTA	E+A					
0808+581B	08 08 30.59	+58 06 38.4	08 12 34.49	+57 57 37.9	14	.0267	17.5	−18.1	de:	03.01.84	3500–5700	BTA	Abs					
0808+536	08 08 31.20	+53 37 48.4	08 12 21.09	+53 28 48.4	36*18	.0421	15.5	−21.1	de	07.02.83	5400–7500	BTA		F08085+5337		R		
0808+580B	08 08 46.89	+58 04 18.9	08 12 50.58	+57 55 17.4	54*14	.0273	15.63	−19.9	sd2e	07.02.83	3700–7500	BTA	Sy2	F08088+5804	SO:	R		
0808+558	08 08 58.00	+55 49 20.7	08 12 54.27	+55 40 18.8	84*72	.0115	13.8	−20.0	s3e:	23.03.80	3500–7500	BTA	SBN		Epec	R	Mkn 85	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0809+560	08 09 03.22	+56 01 41.0	08 13 00.11	+55 52 38.7	8*6	.	18.0		de							R		
0809+610	08 09 27.97	+61 04 10.5	08 13 42.88	+60 55 06.2	30*24	.0348	16.0	−20.2	ds3e	09.03.81	5400–7500	BTA	ELG	F08094+6104				[13]
0809+549	08 09 40.01	+54 58 44.9	08 13 33.57	+54 49 40.5	10	.0318	16.5	−18.4	sd3e	21.03.99	4000–7100	GHO	HII			R		[26]
0809+582	08 09 42.92	+58 13 53.8	08 13 46.93	+58 04 48.9	24*15	.0279	15.7	−20.0	sd2e	28.11.81	5400–7500	BTA	ELG	F08097+5814	Sbc			[13]
0809+577	08 09 46.72	+57 43 06.0	08 13 48.94	+57 34 00.9	16*15	.0254	17.0	−18.5	de:	28.11.81	5400–7500	BTA	ELG		Sbc			[13]
0810+583A	08 10 11.00	+58 21 05.5	08 14 15.32	+58 11 58.9	12	.0257	17.0	−18.5	s2e	27.11.81	5400–7500	BTA	SBN	F08101+5821		R		[13]
0810+585	08 10 13.16	+58 32 03.1	08 14 18.11	+58 22 56.3	14*10	.0243	17.0	−18.4	sde:	28.11.81	3500–7500	BTA						
0810+583B	08 10 29.32	+58 18 00.7	08 14 33.38	+58 08 53.0	5	.0282	18.5	−17.2	dse:	07.02.83	5400–7500	BTA	BCDG					[13]
0810+581	08 10 35.26	+58 10 31.4	08 14 38.85	+58 01 23.3	60*36	.0268	15.3	−20.3	sde:	09.04.81	5400–7500	BTA	ELG		SB			[13]
0811+585A	08 11 00.35	+58 30 35.0	08 15 05.01	+58 21 25.3	8	.0248	17.0	−18.4	sde:	18.02.82	5400–7500	BTA						
0811+582	08 11 10.23	+58 12 43.3	08 15 13.80	+58 03 33.2	7	.0888	18.0	−20.0	dse	13.12.98	4000–7000	BTA	Abs:					
0811+508	08 11 13.44	+50 48 57.0	08 14 55.52	+50 39 47.2	13	.0362	16.5	−19.7	sd3e	13.04.96	4000–7000	GHO	SBN	F08111+5048		R		[5]
0811+585B	08 11 18.59	+58 32 50.6	08 15 23.31	+58 23 39.8	8	.0262	17.5	−18.0	s3e:	27.11.81	5400–7500	BTA						
0811+607A	08 11 37.73	+60 46 57.5	08 15 50.84	+60 37 45.3	20*10	.0251	15.5	−19.9	d1e	09.04.81	5400–7500	BTA	ELG	F08116+6047		R	KUG	[13]
0811+583	08 11 38.49	+58 19 57.1	08 15 42.36	+58 10 45.1	6	.0284	17.5	−18.2	de	18.02.82	5400–7500	BTA	ELG					
0811+574	08 11 41.12	+57 29 54.1	08 15 42.12	+57 20 42.1	14*7	.0263	17.5	−18.0	de	18.02.82	5400–7500	BTA	ELG					
0811+607B	08 11 42.54	+60 47 55.3	08 15 55.70	+60 38 42.8	16*7	.0247	16.5	−18.9	d3e	28.11.81	5400–7500	BTA	ELG	F08116+6047				[13]
0811+584	08 11 56.93	+58 29 16.2	08 16 01.27	+58 20 03.1	30*10	.0245	16.75	−18.7	d3e	18.02.82	5400–7500	BTA	LINER:	F08119+5829	S	R		[10,26]
0812+576	08 12 13.82	+57 41 03.5	08 16 15.31	+57 31 49.5	15*12	.0260	16.0	−19.4	dse:	27.11.81	5400–7500	BTA	ELG					[13]
0812+582	08 12 00.86	+58 13 29.0	08 16 04.26	+58 04 15.7	9*6	.0245	18.0	−17.4	d2e	18.02.82	3700–7500	BTA	BCDG					[13]
0812+577	08 12 30.82	+57 42 41.1	08 16 32.33	+57 33 26.0	14*7	.0262	17.0	−18.5	de	27.11.81	5400–7500	BTA	ELG					[13]
0812+586	08 12 48.23	+58 39 37.4	08 16 52.95	+58 30 21.2	9*5	.0257	18.0	−17.5	de:	08.02.97	3800–7200	BTA	E+A					[26]
0813+512	08 13 35.91	+51 14 05.5	08 17 18.53	+51 04 47.2	15	.	17.0		sde							R		
0813+578	08 13 52.46	+57 53 55.7	08 17 54.25	+57 44 35.7	8	.0255	18.0	−17.5	dse	08.02.97	3800–7200	BTA	E+A					
0813+521	08 13 52.56	+52 11 55.7	08 17 37.55	+52 02 36.2	9	.0243	17.0	−18.4	ds2e	22.01.90	3500–5400	BTA	HII					
0814+579A	08 14 08.74	+57 54 52.4	08 18 10.51	+57 45 31.4	42*18	.0269	15.3	−20.4	ds2e	13.11.90	3640–5640	BTA	LINER:	F08141+5754	S			[23]
0814+579B	08 14 10.73	+57 58 12.9	08 18 12.68	+57 48 51.8	12*8	.0273	17.0	−18.5	dse	08.02.97	3800–7200	BTA	LINER:					[23]
0814+579C	08 14 11.10	+57 56 00.2	08 18 12.93	+57 46 39.1	10*7	.0270	18.0	−17.7	de	14.11.90	3640–5650	BTA	ELG		S:			
0814+562	08 14 29.13	+56 14 14.0	08 18 25.36	+56 04 51.9	36*21	.0263	16.0	−19.5	dse	03.12.95	3500–7000	BTA	E+A					[26]
0816+581	08 16 05.45	+58 11 29.8	08 20 07.66	+58 02 01.8	9	.0258	17.0	−18.5	s3e	12.04.96	4000–7000	GHO	LINER:			R		[5]
0816+610	08 16 55.33	+61 00 35.9	08 21 07.81	+60 51 04.6	15	.0289	17.0	−18.7	de	28.12.97	4000–7200	BTA	E+A					[26]
0818+544	08 18 46.83	+54 28 13.9	08 22 36.82	+54 18 36.6	10	.0860	17.54	−20.5	s2	04.04.03	3900–8100	SPM	Sy1.8:	F08187+5428		R	MS	
0819+575	08 19 24.21	+57 35 08.4	08 23 23.50	+57 25 28.6	9*6	.	18.0		de									
0819+573	08 19 36.17	+57 18 06.4	08 23 34.48	+57 08 25.9	8	.	18.5		de									
0822+497	08 22 09.58	+49 44 11.9	08 25 46.90	+49 34 23.0	42*24	.0239	15.7	−19.5	d3				E+A					
0822+492	08 22 14.31	+49 17 41.2	08 25 50.73	+49 07 52.5	18*15	.0528	17.0	−19.9	dse				E+A					
0823+550	08 23 34.54	+55 02 30.6	08 27 24.98	+54 52 36.2	14*7	.0306	16.5	−19.4	s3e	16.02.94	3600–6900	BTA						
0824+553	08 24 02.29	+55 19 27.0	08 27 53.42	+55 09 31.0	64*28	.0389	15.1	−21.2	dse	08.02.83	5400–7500	BTA	E+A		S			
0824+558	08 24 17.76	+55 52 42.4	08 28 10.45	+55 42 45.4	15	.0310	14.3	−21.6	d2e:	23.03.80	3500–7500	BTA	E+A	F08242+5552	S:	R	Mkn 88	
0824+583	08 24 52.16	+58 22 13.7	08 28 52.56	+58 12 14.5	18*15	.0182	16.0	−18.7	de	06.03.97	4000–7000	GHO	ELG	F08249+5822				[6]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0825+501	08 25 13.52	+50 06 35.3	08 28 51.15	+49 56 35.7	24*18	.0754	16.5	−20.9	de				Abs					
0825+522	08 25 56.25	+52 14 37.7	08 29 38.72	+52 04 35.3	12*8	.0058	15.1	−16.9	sd2e:	16.11.79	3500–7500	BTA	HII	F08259+5214	SO:		Mkn 89	
0826+558	08 26 01.50	+55 51 37.9	08 29 54.68	+55 41 35.0	36*18	.0383	15.3	−20.9	sde				E+A	F08260+5551				
0826+528	08 26 16.08	+52 51 52.2	08 30 00.03	+52 41 48.6	42*36	.0142	13.9	−20.3	s3	16.11.79	3500–7500	BTA	SBN	F08262+2551	Spec		Mkn 90	
0826+582A	08 26 42.44	+58 12 27.9	08 30 41.78	+58 02 22.3	6	.	18.5		de									
0826+582B	08 26 52.11	+58 17 31.2	08 30 51.68	+58 07 25.0	9*7	.	17.5		de									
0828+525	08 28 02.14	+52 31 25.7	08 31 44.82	+52 21 16.0	15*8	.0304	17.0	−18.8	dse	21.03.99	4000–7100	GHO	SBN	F08280+5231		R		[26]
0828+527	08 28 45.18	+52 46 34.5	08 32 28.33	+52 36 22.3	54	.0172	14.7	−19.9	sd2	16.03.80	3500–7500	BTA	SB	F08287+5246	S:	R	Mkn 91	
0829+525	08 29 00.19	+52 35 13.2	08 32 42.75	+52 25 00.2	16*12	.0433	16.5	−20.0	sd2				SBN					[30]
0829+493	08 29 10.39	+49 19 00.4	08 32 45.40	+49 08 47.1	54*24	.0239	16.5	−18.7	de				E+A					
0829+577	08 29 56.43	+57 42 38.6	08 33 53.23	+57 32 21.9	16*14	.0265	15.2	−20.3	de	17.12.88	3500–5400	BTA		F08299+5742	Sa			
0830+559	08 30 20.49	+55 59 19.8	08 34 11.92	+55 49 02.0	24*18	.	16.5		sde									
0830+521	08 30 22.72	+52 10 25.8	08 34 04.00	+52 00 08.0	36*18	.0097	15.4	−17.9	sde	01.01.84	5400–7500	BTA	E+A					
0830+590	08 30 22.75	+59 05 26.7	08 34 24.01	+58 55 08.3	6	.	18.5		dse									
0830+563	08 30 34.84	+56 19 15.8	08 34 27.18	+56 08 57.0	16*8	.0262	17.0	−18.5	sd3e	10.12.91	3700–5500	BTA						[26]
0831+529A	08 31 02.21	+52 53 16.9	08 34 45.10	+52 42 56.8	70*24	.0451	15.1	−21.6	dse				E+A	F08310+5253	Sb		NGC2600	
0831+530	08 31 21.20	+53 00 15.0	08 35 04.27	+52 49 53.9	18*12	.0447	15.4	−21.3	sde				Abs				NGC2602	
0831+608	08 31 43.55	+60 49 37.7	08 35 50.68	+60 39 14.6	10	.	17.0		d3e									
0831+529B	08 31 51.39	+52 57 43.9	08 35 34.27	+52 47 21.0	36*18	.0445	15.0	−21.7	dse				E+A	F08318+5258		R	NGC2606	
0832+497	08 32 01.06	+49 46 05.5	08 35 36.39	+49 35 42.3	24*18	.0424	16.5	−20.0	d3				E+A					
0832+516	08 32 51.88	+51 38 34.3	08 36 31.32	+51 28 08.2	24*18	.0497	17.0	−19.8	sde				Abs					
0833+603	08 33 06.38	+60 21 13.8	08 37 11.29	+60 10 46.0	6	.	18.0		sd2									
0834+518	08 34 03.80	+51 49 01.1	08 37 43.37	+51 38 30.8	9	.0025	16.5	−13.9	d1e	19.01.78	3500–7500	BTA	HII		SBd		Mkn 94	
0837+581	08 37 00.06	+58 08 03.0	08 40 56.15	+57 57 22.3	16*12	.0176	17.0	−17.6	ds3e	27.12.97	4000–7200	BTA	SBN	F08369+5808				[26]
0837+496	08 37 28.74	+49 36 12.6	08 41 02.59	+49 25 30.9	30*24	.0089	15.7	−17.5	de	13.03.97	4000–7000	GHO	SB					[6]
0837+578	08 37 58.05	+57 48 46.2	08 41 52.84	+57 38 02.3	8	.	18.0		de									
0840+554	08 40 15.52	+55 24 45.2	08 44 02.59	+55 13 53.9	36*24	.0441	16.5	−20.1	dse	19.03.99	4000–7100	GHO	E+A					[26]
0840+564	08 40 19.78	+56 26 15.4	08 44 09.70	+56 15 23.8	30*12	.0453	16.5	−20.2	de	22.03.99	4000–7100	GHO	E+A					[26]
0840+541	08 40 56.52	+54 07 57.6	08 44 40.07	+53 57 04.0	36*24	.0239	15.2	−20.0	dse				E+A	F08409+5407				
0841+533A	08 41 41.92	+53 19 55.5	08 45 23.22	+53 08 59.6	12	.	17.0		dse									
0843+514	08 43 39.25	+51 25 48.5	08 47 15.66	+51 14 46.2	15*12	.0284	16.0	−19.7	dse	16.04.96	4000–7000	GHO	SBN	F08437+5125		R		[5]
0843+582	08 43 57.82	+58 17 43.2	08 47 52.29	+58 06 39.4	8	.	18.0		d3					F08439+5817				
0844+549	08 44 22.51	+54 54 30.8	08 48 07.25	+54 43 25.9	30*24	.0420	16.5	−20.1	de				E+A	F08444+5453	S			[30]
0845+510A	08 45 41.80	+51 05 41.7	08 49 16.92	+50 54 32.8	30*12	.0282	17.0	−18.5	sde					F08456+5105				
0845+572	08 45 58.55	+57 16 40.0	08 49 49.25	+57 05 29.8	20*12	.0423	17.0	−19.5	dse				Abs					[30]
0846+538	08 46 33.78	+53 51 43.7	08 50 15.16	+53 40 31.7	14*12	.0369	16.0	−20.2	dse	16.04.96	4000–7000	GHO	SBN	F08465+5351		R		[5]
0846+557	08 46 48.80	+55 43 27.0	08 50 34.87	+55 32 14.3	36*24	.0447	16.5	−20.1	sd2	21.03.99	4000–7100	GHO	SB	F08468+5543	S			
0847+612	08 47 25.25	+61 12 29.6	08 51 28.47	+61 01 14.3	10*7	.0130	16.6	−17.4	d3e:	12.02.91	3600–5500	BTA	BCDG				Mkn 99	
0847+548	08 47 28.10	+54 51 12.8	08 51 11.74	+54 39 57.9	20*12	.0262	17.0	−18.4	de				HII					[30]
0847+572	08 47 48.84	+57 17 43.3	08 51 39.09	+57 06 27.1	12*10	.0255	17.0	−18.5	s2	19.01.78	3500–7500	BTA	SBN				Mkn 17	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0848+526	08 48 13 20	+52 39 40.5	08 51 51.40	+52 28 25.2	7	.0640	17.5	−19.9	s2	12.03.02	3900–8000	SPM	SBN			R		
0849+496	08 49 26.98	+49 38 58.8	08 52 58.22	+49 27 37.8	24	.0109	15.0	−18.5	d2e	12.03.95	3500–7000	BTA	LINER	F08494+4938		R		[26]
0851+579	08 51 00.31	+57 51 43.0	08 54 51.18	+57 40 16.6	39*18	.0137	15.7	−18.4	dse					F08510+5751		R		
0851+547	08 51 05.30	+54 46 01.0	08 54 47.65	+54 34 34.6	30*18	.0436	16.5	−20.1	dse	22.03.99	4000–7100	GHO	E+A	F08551+5445	S			[26]
0853+520	08 53 30.52	+52 00 25.0	08 57 05.75	+51 48 51.0	66*24	.0173	16.0	−18.6	dse	25.03.98	4400–7100	BTA	SB		Sd			
0855+520	08 55 02.16	+52 04 23.4	08 58 37.14	+51 52 44.6	30*15	.0121	15.3	−18.5	ds2e	13.04.96	4000-7000	GHO	LINER	F08550+5204		R		[5]
0855+575	08 55 45.08	+57 32 11.6	08 59 33.55	+57 20 30.4	15*10	.0393	16.5	−19.8	sd2	22.03.99	4000–7100	GHO	SBN	F08556+5732	S			[28]
0856+602	08 56 10.32	+60 16 41.2	09 00 07.14	+60 04 58.2	24*12	.0391	16.0	−20.2	dse					F08561+6016		R		
0856+499	08 56 21.73	+49 57 52.9	08 59 51.91	+49 46 10.2	36*18	.0506	16.5	−20.4	d3				E+A		S			[30]
0856+493	08 56 27.52	+49 23 17.5	08 59 56.54	+49 11 34.5	15	.0530	17.0	−20.0	ds3				E+A		S			[30]
0857+498	08 57 03.48	+49 48 48.7	09 00 33.24	+49 37 03.7	12*6	.0377	17.0	−19.2	sde				SBN					[30]
0858+603	08 58 02.30	+60 20 53.9	09 01 58.69	+60 09 05.2	50*25	.0111	13.1	−20.5	ds3	13.01.78	3500–7500	BTA	E+A	F08580+6020	S:	R	Mkn 18	
0858+495	08 58 06.38	+49 30 26.9	09 01 35.28	+49 18 38.7	12	.0281	16.5	−19.1	dse	06.03.97	4000–7000	GHO	SBN		S:			[6]
0859+521	08 59 54.14	+52 10 53.9	09 03 28.07	+51 59 00.0	18*12	.0287	15.3	−20.4	dse	06.03.97	4000–7000	GHO	SBN	F08598+5210				[6]
0901+557	09 00 55.21	+55 43 06.3	09 04 37.15	+55 31 09.1	16	.0471	15.6	−21.1	s3	13.01.78	3500–7500	BTA	Abs				IZw 17	
0901+521	09 00 57.06	+52 08 41.3	09 04 30.63	+51 56 44.2	18*12	.0619	15.5	−21.9	sd3	01.01.85	5400–7500	BTA	SBN	F09009+5208		R		
0901+518	09 01 00.96	+51 48 48.1	09 04 33.81	+51 36 50.9	30*26	.0158	13.6	−20.8	s1	19.01.78	3500–7500	BTA	E+A	F09010+5148	S	R	Mkn 101	
0903+558	09 03 15.33	+55 51 11.1	09 06 56.89	+55 39 06.8	20*10	.0376	16.0	−20.2	sde	09.03.97	4000–7000	GHO	HII	F09032+5551		R		
0903+499A	09 03 27.34	+49 58 27.3	09 06 55.84	+49 46 22.8	24*18	.0336	15.4	−20.6	dse	12.04.96	4000–7000	GHO	SBN	F09034+4958	S	R		
0903+562	09 03 35.31	+56 12 10.3	09 07 17.61	+56 00 05.1	18*12	.0452	17.0	−19.6	dse				SBN	F09034+5612		R		[30]
0903+499B	09 03 39.88	+49 58 56.0	09 07 08.34	+49 46 50.8	8	.0338	17.5	−18.5	de	12.04.96	4000–7000	GHO	SBN					
0904+498	09 04 25.85	+49 49 00.7	09 07 53.75	+49 36 53.3	10	.0357	17.0	−20.0	sd3e:				Abs					[30]
0904+592	09 04 33.99	+59 15 56.9	09 08 24.53	+59 03 48.6	14	.0460	16.5	−21.2	sde				SBN					[30]
0905+499A	09 05 16.54	+49 57 37.7	09 08 44.50	+49 45 27.8	36*10	.0357	16.5	−19.6	sd3e	22.03.99	4000–7100	GHO	E+A	F09053+4957		R		[26]
0905+499B	09 05 25.30	+49 57 12.7	09 08 53.21	+49 45 02.4	42*12	.0341	16.0	−19.9	d3				E+A					[30]
0905+499C	09 05 33.54	+49 57 49.3	09 09 01.44	+49 45 38.5	24*18	.0354	16.5	−19.7	d3				E+A		S			[30]
0906+502A	09 06 39.30	+50 15 45.2	09 10 07.54	+50 03 31.0	42*30	.0343	14.4	−21.6	se					F09067+5015	Sc			
0906+502B	09 06 41.80	+50 15 05.3	09 10 10.01	+50 02 51.0	12*10	.0337	16.0	−20.1	sde	13.07.97	4000–7000	GHO	SBN	F09067+5015	S	R		[6]
0906+493	09 06 49.00	+49 21 49.5	09 10 15.51	+49 09 35.2	24*12	.0362	17.0	−19.2	dse				E+A					[30]
0906+545	09 06 53.53	+54 35 55.8	09 10 30.92	+54 23 40.7	12	.0135	16.5	−17.5	sde	27.12.97	4000–7200	BTA	BCDG					[26]
0907+593	09 07 16.47	+59 18 09.3	09 11 06.21	+59 05 52.8	4	.0303	19.0	−16.8	se	20.03.91	3700–5400	BTA	BCDG					[23]
0907+543	09 07 31.84	+54 23 08.0	09 11 08.55	+54 10 51.0	6	.0271	17.5	−18.1	s1e	04.11.89	3700–7100	BTA	SBN					[21]
0909+570	09 09 47.62	+57 03 53.5	09 13 30.21	+56 51 29.7	14*10	.0413	16.5	−20.0	d2	27.12.97	4000–7200	BTA	Sy2					[26,30]
0909+501	09 09 57.09	+50 10 07.7	09 13 24.31	+49 57 43.9	8	.0359	18.0	−18.1	de				SBN					[30]
0910+503	09 10 23.32	+50 22 18.4	09 13 50.81	+50 09 53.3	14	.0342	16.0	−20.0	sde	03.12.94	4000–7100	BTA	SB	F09103+5022		R		[26]
0910+524	09 10 27.93	+52 26 24.8	09 13 59.52	+52 13 59.3	20	.0471	17.0	−19.7	d3	29.01.90	3600–7200	BTA	SBN				Mkn1415	
0911+552	09 11 48.44	+55 16 03.6	09 15 25.90	+55 03 34.1	14*12	.0486	16.5	−20.3	dse	27.12.97	4000–7400	BTA	E+A					[26]
0912+521	09 12 11.37	+52 06 10.3	09 15 41.78	+51 53 40.0	8	.0587	17.0	−20.2	sde					F09121+5206				
0912+599	09 12 52.73	+59 58 49.7	09 16 43.90	+59 46 28.7	48*12	.0141	15.6	−18.5	ds1e	14.11.90	3600–5600	BTA	HII	F09129+5958		R	Mkn 19	
0913+537	09 13 09.89	+53 43 31.8	09 16 43.40	+53 30 58.9	16*14	.0575	15.5	−21.7	dse				LINER	F09131+5343		R		[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0913+536	09 13 12.21	+53 39 04.7	09 16 45.58	+53 26 31.3	13*10	.0074	14.7	−17.9	s1e:	19.01.78	3500–7500	BTA	HII	F09132+5339			Mkn104	
0913+502	09 13 35.44	+50 15 18.0	09 17 01.87	+50 02 43.7	36*24	.0334	14.9	−21.0	dse	08.03.83	3500–5400	BTA	ELG	F09135+5015		R	VV360	
0915+515A	09 15 29.09	+51 34 50.9	09 18 57.54	+51 22 11.0	54*12	.0135	15.2	−18.8	se				SB	F09154+5135		R		
0915+515B	09 15 31.19	+51 32 06.0	09 18 59.54	+51 19 26.0	66*60	.0137	15.3	−18.8	dse				E+A		SBbc			
0915+556	09 15 35.83	+55 40 34.7	09 19 13.05	+55 27 54.3	8*6	.0493	17.08	−19.7	sd1e	24.01.90	3600–5500	BTA	HII			R	HS	[21]
0916+538	09 16 09.90	+53 52 39.0	09 19 42.82	+53 39 57.2	12	.0771	17.0	−20.8	ds3				SBN				KUG	[30]
0916+510	09 16 13.66	+51 04 02.1	09 19 40.86	+50 51 20.2	30*18	.0270	15.7	−19.5	de				SBN	F09162+5104	S			[30]
0916+555	09 16 18.46	+55 34 18.9	09 19 55.21	+55 21 36.5	12	.1235	16.11	−22.7	s2	14.11.79	3600–5200	BTA	BLS1				Mkn 106	[23]
0916+589	09 16 30.16	+58 54 00.2	09 20 15.38	+58 41 17.0	10*8	.0291	17.5	−18.2	de				SBN					[30]
0916+543	09 16 39.08	+54 19 10.5	09 20 12.87	+54 06 27.2	21*14	.0120	15.6	−18.2	d2e	15.11.90	3700–5400	BTA	HII					[26]
0916+534	09 16 54.50	+53 24 30.0	09 20 26.20	+53 11 46.1	12*6	.0907	17.5	−20.6	sd3				SBN				KUG	[30]
0917+534	09 17 21.70	+53 24 33.0	09 20 53.26	+53 11 47.8	12	.0371	17.0	−19.6	sd3				SB				KUG	[30]
0917+527	09 17 25.65	+52 46 51.7	09 20 55.94	+52 34 06.3	18*12	.0079	17.0	−15.9	d1e	23.01.90	3600–7100	BTA	BCDG		Irr		Mkn 1416	
0917+587	09 17 25.86	+58 43 20.2	09 21 10.25	+58 30 34.4	12*10	.0307	16.5	−19.3	d2e				E+A					[30]
0917+525	09 17 42.97	+52 31 55.6	09 21 12.67	+52 19 09.3	10	.0712	16.5	−21.1	se	18.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0918+537A	09 18 02.80	+53 47 08.0	09 21 34.95	+53 34 20.9	6	.	17.0		ds3								KUG	
0918+537B	09 18 15.10	+53 43 21.0	09 21 47.06	+53 30 33.3	18*12	.0282	17.0	−18.5	ds3				SBN				KUG	[30]
0918+564	09 18 55.42	+56 26 18.6	09 22 33.37	+56 13 28.8	12*8	.0470	17.0	−19.7	sd3e				SB				KUG	
0918+509	09 18 56.91	+50 59 19.8	09 22 23.27	+50 46 30.1	12*8	.0263	16.5	−18.9	sde	12.03.99	4000–7100	GHO	SBN				KUG	[13]
0919+519	09 19 11.93	+51 54 12.4	09 22 39.96	+51 41 22.0	12	.0669	16.0	−21.5	dse	18.03.99	4000–7100	GHO	SBN				KUG	[26]
0919+509	09 19 12.12	+50 58 47.3	09 22 38.61	+50 45 57.3	25x10	.0269	17.0	−18.6	sde				SBN	F09191+5058				[30]
0919+515	09 19 19.84	+51 33 29.3	09 22 47.17	+51 20 38.6	8	.1610	17.33	−22.1	s1	02.04.03	3900–8100	SPM	NLS1				MS RBS769	[25]
0919+567	09 19 24.02	+56 44 29.2	09 23 02.55	+56 31 38.0	12*9	.0242	16.5	−18.8	ds3e	20.03.99	4000–7100	GHO	HII				KUG	[26]
0919+554	09 19 35.08	+55 28 28.5	09 23 10.54	+55 15 36.9	14*12	.0740	16.0	−21.7	sd2e	20.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0919+545	09 19 43.16	+54 30 26.7	09 23 16.41	+54 17 34.7	12*8	.0115	16.5	−17.1	ds3e				BCDG				KUG	[30]
0919+527	09 19 55.37	+52 47 32.3	09 23 24.95	+52 34 39.9	8	.0247	17.5	−18.0	sd3	27.12.97	4000–7200	BTA	SB				KUG	[26]
0920+506	09 20 15.70	+50 37 26.0	09 23 40.97	+50 24 32.9	12	.0670	16.5	−21.5	s3				E+A				KUG	[30]
0921+519N	09 21 01.95	+51 55 59.8	09 24 29.52	+51 43 04.3	14*9	.0479	16.5	−20.3	sde	18.03.99	4000–7100	GHO	HII				KUG	[26]
0921+519S	09 21 01.25	+51 55 59.0	09 24 29.02	+51 43 03.3	12*9	.0484	16.5	−20.3	sde	18.03.99	4000–7100	GHO	HII				KUG	[26]
0921+539	09 21 24.50	+53 54 00.0	09 24 55.87	+53 41 03.5	18*12	.0579	16.5	−20.6	sd3				E+A		S:		KUG	[30]
0921+525	09 21 44.42	+52 30 08.3	09 25 12.89	+52 17 10.9	30*12	.0353	15.63	−20.5	ds1e:	19.01.78	3500–7500	BTA	Sy1.5			R	Mkn110	[19,30]
0922+553	09 22 10.90	+55 19 54.0	09 25 45.14	+55 06 55.3	12*6	.0653	17.0	−20.4	sd3e				SBN	F09223+5520	S	R	KUG	[30]
0922+526	09 22 16.80	+52 36 51.0	09 25 45.28	+52 23 52.2	30*10	.	17.0		de					F09222+5237		R		
0922+500	09 22 18.10	+50 05 41.0	09 25 41.86	+49 52 42.2	8	.0649	17.5	−19.9	sd3e				SBN				KUG	[31]
0922+498	09 22 33.32	+49 38 45.5	09 25 56.23	+49 25 46.1	24*10	.0275	16.4	−21.0	ds3e								KUG	
0922+505	09 22 55.59	+50 34 57.6	09 26 20.06	+50 21 57.2	14	.0595	16.5	−20.7	sd2e	21.03.99	4000–7100	GHO	SB				KUG	[26]
0923+581	09 23 00.17	+58 08 38.9	09 26 40.98	+57 55 37.7	12*8	.0502	17.5	−19.4	sd2e	09.11.79	5400–7500	BTA	SB					[21]
0923+500	09 23 19.00	+50 02 58.0	09 26 42.41	+49 49 56.5	8	.1420	17.0	−22.0	ds3				SBN				KUG	[31]
0923+588	09 23 32.93	+58 49 57.4	09 27 15.36	+58 36 54.7	14*10	.0300	16.5	−19.3	sd2e	09.11.79	5400–7500	BTA	SBN				Mkn1417	
0923+524	09 23 42.40	+52 25 15.0	09 27 10.08	+52 12 12.4	10	.0239	17.0	−18.2	ds3e				SB				KUG	[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0924+606A	09 24 06.43	+60 37 24.3	09 27 53.72	+60 24 20.0	14*7	.0042	17.0	−14.9	ds2e				BCDG					[30]
0924+516	09 24 13.70	+51 37 05.0	09 27 39.70	+51 24 00.9	12*6	.0669	17.0	−20.5	sd3				SBN				KUG	[30]
0924+507	09 24 22.60	+50 46 33.0	09 27 47.01	+50 33 28.6	8	.0809	17.5	−20.4	s3				SBN				KUG	[30]
0924+495	09 24 39.03	+49 31 22.1	09 28 01.22	+49 18 16.9	10	.1145	17.0	−21.5	s1	22.03.93	3500–7000	MMT	NLS1					
0924+554N	09 24 50.72	+55 24 06.8	09 28 24.29	+55 11 00.7	11*8	.0823	16.5	−21.4	sd3e	18.03.99	4000–7100	GHO	LINER	F09248+5524		R	KUG	[26]
0925+581	09 25 00.01	+58 06 40.8	09 28 40.00	+57 53 34.2	12*8	.0468	17.5	−19.3	d2e				SBN					[30]
0925+585	09 25 21.30	+58 34 08.0	09 29 02.64	+58 20 59.9	40*12	.0509	16.5	−20.4	ds3	19.03.99	4000–7100	GHO	LINER:	F09254+5833	S	R		[26]
0925+500	09 25 27.33	+50 02 07.8	09 28 50.19	+49 49 00.4	8*6	.0807	17.5	−21.3	de:				E+A					[31]
0925+545	09 25 33.30	+54 32 37.0	09 29 04.72	+54 19 29.2	12	.1271	17.5	−21.3	sde				E+A				KUG	[30]
0925+552	09 25 43.46	+55 16 28.3	09 29 16.46	+55 03 19.8	16*12	.0571	16.0	−21.1	dse	20.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0925+505	09 25 50.20	+50 30 42.0	09 29 13.80	+50 17 34.0	8	.	17.0		sde								KUG	
0925+542	09 25 51.34	+54 13 38.4	09 29 22.05	+54 00 29.6	12	.0413	16.5	−19.9	sde	21.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0926+606A	09 26 20.03	+60 40 02.5	09 30 06.55	+60 26 52.2	14*10	.0134	17.0	−17.0	ds1e	09.11.79	3600–7500	BTA	BCDG	F09263+6039	S:			[21]
0926+558S	09 26 22.25	+55 52 26.1	09 29 56.37	+55 39 15.9	16*10	.0240	17.0	−18.7	dse	21.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0926+558N	09 26 22.25	+55 52 27.1	09 29 56.37	+55 39 16.9	16*10	.0245	17.0	−18.8	dse	21.03.99	4000–7100	GHO	SBN		S		KUG	[26]
0926+606B	09 26 22.59	+60 41 14.9	09 30 09.15	+60 28 04.4	7	.0138	18.0	−16.1	d2e	09.11.79	3600–7500	BTA	BCDG					[21]
0926+560	09 26 37.26	+56 04 17.8	09 30 11.75	+55 51 07.0	90*78	.0254	14.5	−20.9	s3	16.03.80	3500–7500	BTA	SBN	F09266+5604	SBb	R	Mkn 114	
0926+522	09 26 42.80	+52 13 56.0	09 30 09.23	+52 00 45.2	10	.0599	17.5	−19.6	sd3				E+A				KUG	[30]
0927+604	09 27 23.92	+60 28 12.9	09 31 09.43	+60 14 59.7	16*10	.0259	17.0	−18.5	sde				SBN					[30]
0927+494	09 27 25.93	+49 28 45.8	09 30 47.30	+49 15 33.1	24*15	.0257	15.4	−20.0	s2	16.03.80	3500–7500	BTA	SBN	F09274+4928	Pec	R	Mkn 115	
0927+548	09 27 31.70	+54 50 23.0	09 31 03.12	+54 37 09.9	18*12	.0532	16.5	−20.4	dse				SBN		S		KUG	[30]
0927+558	09 27 44.36	+55 48 06.7	09 31 17.80	+55 34 53.0	40*20	.0241	16.5	−18.7	dse	01.01.85	5400–7500	BTA	E+A					
0927+493	09 27 45.82	+49 18 01.4	09 31 06.80	+49 04 47.8	30*24	.0336	15.3	−20.7	sd3e	14.04.96	4000–7000	GHO	LINER	F09277+4917		R		[11,31]
0927+553	09 27 54.60	+55 22 50.0	09 31 27.06	+55 09 35.9	10	.0794	17.5	−20.3	sde				SBN				KUG	[30]
0928+498	09 28 07.20	+49 50 07.0	09 31 28.94	+49 36 52.5	12*6	.0240	16.5	−18.7	ds3	01.03.00	3500–5500	BTA	SBN		S		KUG	
0928+503	09 28 45.86	+50 23 47.9	09 32 08.43	+50 10 31.6	8	.	17.0		sd3									
0928+577A	09 28 47.43	+57 42 15.0	09 32 25.01	+57 28 58.3	45*38	.0293	14.7	−20.9	sd2e	16.02.94	3400–6900	BTA	E+A	F09287+5742	S	R	NGC2895	[26]
0928+577B	09 28 50.69	+57 42 22.0	09 32 28.26	+57 29 05.1	7	.	17.5		sd1e									
0928+509	09 28 58.60	+50 56 47.0	09 32 22.08	+50 43 30.3	18*12	.0518	17.0	−19.9	sde				E+A		S		KUG	[31]
0929+496	09 29 05.77	+49 37 40.1	09 32 26.94	+49 24 22.9	8	.0240	17.5	−18.2	sde				SBN				HS	[31]
0929+586	09 29 08.87	+58 38 47.8	09 32 48.70	+58 25 30.1	8	.0476	18.0	−18.7	s1				HII					[30]
0929+537	09 29 18.40	+53 47 19.0	09 32 47.13	+53 34 01.3	18*12	.0581	16.5	−20.4	sde				SBN	F09292+5347			KUG	[30]
0929+540	09 29 39.78	+54 01 07.2	09 33 08.88	+53 47 48.7	12	.0573	17.0	−20.2	ds3				NLS1			R	KUG	[30]
0929+527	09 29 52.50	+52 45 52.0	09 33 18.99	+52 32 32.8	12	.0467	16.5	−20.2	sd2				SBN				KUG	[30]
0930+554	09 30 30.17	+55 27 48.2	09 34 01.99	+55 14 27.1	16	.0014	17.6	−11.5	sd1e	16.03.80	3500–7500	BTA	BCDG				Mkn 116	
0930+559	09 30 40.60	+55 55 02.0	09 34 13.30	+55 41 40.5	12*6	.0307	16.5	−19.3	ds3				SBN		S:		KUG	[30]
0930+502	09 30 40.85	+50 14 58.7	09 34 02.63	+50 01 37.3	18	.0378	15.5	−20.8	d3e:	17.03.80	3500–7500	BTA	Abs	F09306+5015		R	Mkn 117	
0931+512	09 31 11.15	+51 15 31.3	09 34 34.54	+51 02 08.5	10*6	.0627	17.0	−20.3	sde				SBN				KUG	[31]
0931+525	09 31 32.40	+52 35 15.0	09 34 58.05	+52 21 51.4	36*20	.0457	16.0	−20.6	de	27.04.00	4000–9000	GHO	SBN	F09314+5235		R		[26]
0932+558	09 32 18.00	+55 52 03.0	09 35 50.04	+55 38 37.3	18*12	.0341	16.5	−19.4	sde				SBN		S		KUG	[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0932+491	09 32 18.60	+49 06 54.0	09 35 38.01	+48 53 28.6	24*12	.0250	16.5	−18.9	d3				E+A		S		KUG	[31]
0932+596A	09 32 33.68	+59 36 41.4	09 36 14.66	+59 23 14.9	20*10	.0416	17.0	−19.4	dse				E+A					[30]
0932+516	09 32 39.83	+51 36 45.0	09 36 03.37	+51 23 18.5	18*12	.0667	16.5	−21.0	sd3				E+A				KUG	[30]
0932+506	09 32 41.66	+50 39 39.0	09 36 03.58	+50 26 12.4	13*7	.0637	17.5	−19.9	sd2e:	27.01.98	4000–7000	BTA						
0932+542	09 32 48.42	+54 15 48.1	09 36 17.11	+54 02 21.3	16*10	.0377	17.0	−19.2	se				SBN				KUG	[30]
0933+524	09 33 16.34	+52 27 42.0	09 36 41.28	+52 14 13.8	16*9	.0389	17.0	−20.5	ds3									
0933+511	09 33 20.63	+51 06 17.9	09 36 43.12	+50 52 49.6	24*12	.0553	16.5	−20.6	sd2e	02.02.86	3500–7200	BTA	NLS1		S		KUG	[21]
0933+508	09 33 49.08	+50 50 13.6	09 37 10.98	+50 36 44.1	10	.0246	17.5	−18.0	s1e	10.02.86	3600–5400	BTA	SBN					[21]
0933+578S	09 33 51.54	+57 49 18.9	09 37 27.54	+57 35 48.9	15*8	.0286	16.5	−19.1	sde	19.03.99	4000–7100	GHO	SBN				KUG	[26]
0933+578N	09 33 51.54	+57 49 19.9	09 37 27.54	+57 35 49.9	15*8	.0288	16.5	−19.1	sde	19.03.99	4000–7100	GHO	SBN				KUG	[26]
0934+549	09 34 07.20	+54 59 57.0	09 37 36.77	+54 46 26.7	12	.0740	16.0	−22.6	se				SBN		S		KUG	[30]
0934+546	09 34 44.63	+54 41 57.3	09 38 13.43	+54 28 25.3	6	.1001	18.0	−20.4	s1e	17.03.80	3500–5700	BTA	HII					
0935+536	09 35 00.31	+53 41 37.4	09 38 27.04	+53 28 04.7	7	.0655	18.0	−19.1	dse:				E+A					[30]
0935+495	09 35 04.63	+49 31 49.0	09 38 24.00	+49 18 16.3	6	.0315	18.5	−17.1	sd2e	27.01.98	4000–7000	BTA	BCDG					
0935+522	09 35 06.70	+52 12 52.0	09 38 30.58	+51 59 19.2	24*12	.0470	16.0	−20.7	ds3				SBN		S		KUG	[30]
0935+585	09 35 36.71	+58 33 14.1	09 39 13.83	+58 19 39.7	8	.0240	18.0	−17.3	s2e	28.01.85	3500–5500	BTA	BCDG					[21]
0935+537	09 35 47.84	+53 44 22.4	09 39 14.40	+53 30 47.7	9*7	.0482	17.5	−19.3	de:				Abs					[30]
0935+541	09 35 53.72	+54 07 22.3	09 39 20.94	+53 53 47.5	16	.0367	16.5	−19.7	d2e	22.03.99	4000–7100	GHO	SB				KUG	[26]
0935+523	09 35 57.87	+52 20 57.0	09 39 21.79	+52 07 21.9	9*7	.0493	17.5	−19.3	ds2e	13.02.86	3400–5300	BTA	SBN					[21]
0936+562	09 36 12.08	+56 16 06.1	09 39 43.68	+56 02 30.3	9	.1172	16.84	−21.9	s1e	09.11.79	3800–7100	BTA	BLS1					[14]
0936+600	09 36 23.96	+60 02 59.9	09 40 04.62	+59 49 23.4	5	.1400	18.0	−21.0	dse				Abs					[30]
0936+524	09 36 36.32	+52 27 45.2	09 40 00.21	+52 14 08.3	10*6	.0394	17.5	−18.7	sde				SBN				KUG	[30]
0936+531	09 36 51.26	+53 10 55.8	09 40 16.43	+52 57 18.5	9	.0254	18.0	−17.6	ds2e	11.02.91	3530–5540	BTA	SBN					[23]
0937+526	09 37 13.05	+52 37 15.9	09 40 37.07	+52 23 37.7	8	.0667	18.0	−19.5	sde				SB					[30]
0937+568	09 37 17.15	+56 53 20.3	09 40 49.73	+56 39 41.7	20	.0430	15.4	−21.1	de	30.12.83	3500–5700	BTA	SBN	F09372+5653	S		KUG	[18]
0937+514	09 37 36.20	+51 27 48.6	09 40 58.06	+51 14 09.4	12*8	.0474	17.0	−19.7	se:	14.04.96	4000–7000	GHO	Abs					
0937+523	09 37 50.41	+52 19 59.8	09 41 13.72	+52 06 20.0	7	.1503	18.5	−20.6	sde				SB					[30]
0937+545	09 37 56.90	+54 35 46.0	09 41 24.38	+54 22 06.0	12	.0635	16.5	−20.9	sde				E+A				KUG	[30]
0938+551	09 38 20.54	+55 11 36.6	09 41 49.13	+54 57 55.4	8	.0483	18.0	−18.8	sd2	18.02.82	5400–7500	BTA	SBN					[18]
0938+566	09 38 22.20	+56 39 20.0	09 41 53.82	+56 25 38.9	12	.0460	17.0	−19.7	ds3				SBN				KUG	[30]
0938+545	09 38 28.64	+54 30 46.3	09 41 55.83	+54 17 04.8	15*10	.0497	15.7	−21.1	sd2e	19.03.80	5400–7500	BTA	E+A	F09384+5430		R		[18]
0938+552	09 38 30.14	+55 12 30.1	09 41 58.71	+54 58 48.5	7	.0485	18.0	−18.8	sd1e	07.02.83	5400–7500	BTA	SBN					[18]
0938+497	09 38 45.23	+49 47 17.6	09 42 03.99	+49 33 35.6	10	.0504	17.5	−19.4	dse				Abs					[31]
0938+525	09 38 46.54	+52 31 08.9	09 42 09.89	+52 17 26.8	14*10	.0459	17.0	−19.7	sde	08.02.88	3300–6800	BTA	SBN		S		KUG	
0938+544	09 38 49.88	+54 27 53.5	09 42 16.85	+54 14 11.1	9*7	.0454	16.5	−20.1	ds1e	19.03.80	5400–7500	BTA	E+A					[18]
0938+611	09 38 54.11	+61 06 17.6	09 42 36.62	+60 52 34.7	10	.0259	17.0	−18.5	sd2e	02.11.80	3600–7500	BTA	SB	F09389+6106		R	Mkn1421	
0938+570	09 38 57.47	+57 01 03.8	09 42 29.73	+56 47 21.0	4	.1385	18.5	−22.0	de:				Abs					[30]
0939+527	09 39 00.54	+52 43 26.5	09 42 24.19	+52 29 43.8	9*7	.0566	17.5	−19.6	s2e	12.02.86	3500–5300	BTA	E+A		SO/a			
0939+567	09 39 21.72	+56 45 45.1	09 42 53.27	+56 32 01.3	8	.0435	17.5	−19.0	sd2e:	07.02.83	5400–7500	BTA	SB					[18]
0939+592	09 39 24.33	+59 12 08.7	09 43 01.58	+58 58 24.7	15*30	.0045	15.5	−16.1	sd2e	02.11.80	3500–7500	BTA	BCDG		S:		Mkn1423	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0940+569A	09 40 02.77	+56 54 03.5	09 43 34.37	+56 40 18.0	4	.1370	18.5	−20.6	de:	17.11.90	3630–5640	BTA	Abs					[23]
0940+569B	09 40 10.97	+56 55 13.3	09 43 42.56	+56 41 27.5	5	.1384	18.5	−20.7	de:				LINER		S			[30]
0940+505	09 40 17.40	+50 30 20.0	09 43 36.88	+50 16 34.3	24*16	.0230	16.0	−19.1	de	01.03.00	3500–7000	BTA	ELG	F09402+5030	S		KUG	
0940+508	09 40 17.97	+50 51 05.5	09 43 38.00	+50 37 19.6	8	.0653	18.0	−19.4	s1e	10.02.86	3600–5500	BTA	HII					[21]
0940+517	09 40 26.10	+51 44 43.0	09 43 47.60	+51 30 57.0	12*6	.0526	17.0	−19.4	sde				SBN				KUG	[30]
0940+495	09 40 27.38	+49 31 38.9	09 43 45.20	+49 17 52.8	24*18	.0251	16.5	−18.9	ds3				E+A				KUG	[31]
0940+536	09 40 27.71	+53 40 51.8	09 43 52.65	+53 27 05.4	10*7	.0450	17.5	−19.1	ds3	18.02.82	5400–7500	BTA	SBN					[18]
0940+563	09 40 37.50	+56 18 21.2	09 44 07.61	+56 04 34.5	30	.0438	16.0	−20.5	dse				E+A		S		KUG	[30]
0940+543	09 40 40.18	+54 23 52.5	09 44 06.41	+54 10 05.6	10*7	.0858	17.5	−20.5	d2e:	03.01.84	3500–5700	BTA	SBN				KUG	[18]
0940+511	09 40 41.29	+51 06 32.0	09 44 01.64	+50 52 45.2	14*8	.0381	17.0	−19.2	sd1e	08.02.88	3300–6800	BTA	HII			R		[21]
0940+544	09 40 50.99	+54 25 15.8	09 44 17.21	+54 11 28.4	6	.0059	19.5	−12.7	sde	05.11.89	3710–7100	BTA	BCDG		Irr			[21]
0940+522	09 40 53.26	+52 17 55.6	09 44 15.57	+52 04 08.2	16*9	.0472	17.0	−19.7	de:	16.12.88	3700–5400	BTA	E+A					[21]
0940+512B	09 40 54.63	+51 14 29.4	09 44 15.13	+51 00 42.0	12	.0477	17.0	−19.7	de:	16.12.88	3700–5400	BTA	SBN				KUG	[21]
0940+550	09 40 59.06	+55 04 51.6	09 44 26.52	+54 51 03.9	9*6	.0450	17.0	−19.6	sde:	03.01.84	3500–5700	BTA	Abs					
0941+521	09 41 05.10	+52 11 48.3	09 44 27.00	+51 58 00.3	10*6	.	17.5		dse								KUG	
0941+559	09 41 05.64	+55 59 34.1	09 44 34.92	+55 45 46.1	90*60	.0254	15.3	−20.1	sde	07.02.83	5400–7500	BTA	E+A		SABc			[18]
0941+524	09 41 09.70	+52 25 25.0	09 44 32.09	+52 11 37.1	12	.0509	16.5	−20.4	sd3				E+A				KUG	[30]
0941+545A	09 41 35.15	+54 32 01.6	09 45 01.34	+54 18 12.4	12*6	.0442	17.5	−21.1	de				Abs					[30]
0941+565	09 41 40.95	+56 33 56.4	09 45 11.23	+56 20 06.9	7	.1394	18.5	−20.9	s2	03.01.84	3500–7000	BTA	E+A					
0941+516	09 41 44.36	+51 36 38.7	09 45 05.23	+51 22 49.3	14*9	.0328	16.5	−19.4	se:	08.02.88	3400–6800	BTA	E+A					[21]
0942+544	09 42 05.34	+54 29 32.0	09 45 31.28	+54 15 41.6	9*6	.0609	18.0	−22.0	de:				LINER					[31]
0942+587A	09 42 19.70	+58 44 47.3	09 45 54.66	+58 30 56.1	18	.0308	16.5	−19.3	d2	28.01.85	3700–5700	BTA	SBN		S			[21]
0942+541	09 42 29.75	+54 07 04.9	09 45 54.84	+53 53 13.5	15*8	.0481	17.0	−19.8	dse:	03.01.84	3500–5700	BTA	Abs					
0942+561	09 42 32.85	+56 09 07.3	09 46 01.94	+55 55 15.7	6	.0610	18.0	−19.3	de:	08.03.83	3500–5400	BTA	E+A					
0942+587B	09 42 33.96	+58 45 43.5	09 46 08.87	+58 31 51.8	18*9	.0310	16.5	−19.3	ds2	28.01.85	3700–5700	BTA	SBN					[21]
0942+565	09 42 52.76	+56 33 14.7	09 46 22.58	+56 19 22.2	12	.0793	17.0	−20.8	de	01.01.85	5400–7500	BTA	SBN		S		KUG	[17]
0942+573	09 42 57.08	+57 20 49.8	09 46 28.58	+57 06 57.2	20*10	.0039	16.5	−15.6	sd1e	09.11.79	5400–7500	BTA	BCDG				Mkn1424	
0943+553	09 43 05.94	+55 20 13.9	09 46 33.18	+55 06 21.0	14*10	.0461	14.5	−22.2	sde	30.12.83	3900–6400	BTA	Abs		Sb			
0943+566	09 43 06.46	+56 40 53.5	09 46 36.46	+56 27 00.5	7	.0810	18.0	−19.9	ds2	03.01.84	3900–6400	BTA	E+A					[21]
0943+561	09 43 17.68	+56 10 58.0	09 46 46.57	+55 57 04.6	8*4	.0299	19.0	−16.7	de:	25.01.90	3700–5400	BTA	BCDG					[26]
0943+499	09 43 35.80	+49 55 16.9	09 46 53.39	+49 41 23.0	10	.0634	17.5	−19.8	de	03.01.84	5400–7500	BTA	E+A					
0943+495	09 43 39.22	+49 35 11.1	09 46 56.28	+49 21 17.1	9*6	.0874	18.0	−20.1	sd2	08.02.88	3700–5500	BTA	SBN					[21]
0943+543	09 43 40.60	+54 19 34.6	09 47 05.69	+54 05 40.4	10*7	.0057	17.5	−14.6	d3e	18.02.82	3700–7500	BTA	BCDG				KUG	[18]
0943+581	09 43 40.86	+58 11 23.3	09 47 13.99	+57 57 28.9	13	.0429	17.0	−19.5	d2e	01.01.85	4900–7300	BTA	SBN					[21]
0943+545	09 43 41.00	+54 32 38.0	09 47 06.45	+54 18 43.9	36*18	.0439	15.4	−21.2	dse	03.01.84	5400–7500	BTA	E+A	F09436+5433	S		KUG	
0943+506B	09 43 41.56	+50 41 31.7	09 47 00.34	+50 27 37.5	8	.0509	18.0	−18.9	sd3	08.02.88	3700–5600	BTA	SBN					
0943+563A	09 43 41.65	+56 20 21.1	09 47 10.72	+56 06 26.7	15*8	.0255	15.5	−19.9	ds3	17.03.80	3500–7500	BTA	SBN		SO		Mkn 123	
0943+563B	09 43 44.05	+56 20 00.6	09 47 13.09	+56 06 06.1	6	.0254	18.0	−17.4	sd1e	03.01.84	3500–5700	BTA	BCDG				KUG	[18]
0943+521A	09 43 44.91	+52 10 27.8	09 47 06.12	+51 56 33.5	12*9	.0670	16.5	−21.0	sd2	11.02.86	3500–6500	BTA	SBN	F09437+5210		R	KUG	[21]
0943+524	09 43 48.90	+52 28 58.0	09 47 10.60	+52 15 04.0	12*6	.0392	17.0	−19.2	dse				SB				KUG	[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0944+517	09 44 00.04	+51 43 18.2	09 47 20.41	+51 29 23.3	10*7	.1059	17.5	−21.3	de				Abs					[29]
0944+526	09 44 14.25	+52 37 46.8	09 47 36.09	+52 23 51.3	12	.0485	17.5	−19.3	sd1e	10.02.86	3500–5300	BTA	SBN					[21]
0944+503	09 44 15.60	+50 21 33.0	09 47 33.68	+50 07 37.5	10	.0386	17.5	−18.8	sd2	08.02.88	3700–5600	BTA	E+A					[21]
0944+542	09 44 33.77	+54 14 49.6	09 47 58.41	+54 00 53.2	54	.0247	15.4	−19.9	sd2	16.03.80	5400–7500	BTA	SBN	F09445+5414	S	R	Mkn1425	
0944+515	09 44 34.88	+51 31 28.3	09 47 54.74	+51 17 32.0	6	.1415	18.0	−21.0	de	17.11.90	3650–5640	BTA	Abs					[23]
0944+579	09 44 42.45	+57 58 41.5	09 48 14.69	+57 44 44.6	14*10	.0299	16.5	−19.2	sd2e	31.12.84	3650–7300	BTA	SBN	F09446+5758				[21]
0944+582	09 44 58.24	+58 12 12.3	09 48 30.89	+57 58 14.8	54*30	.0281	15.1	−20.5	sd3	16.03.80	3500–7500	BTA	E+A	F09449+5812	SBbc		Mkn 21	
0945+594	09 45 05.92	+59 29 37.2	09 48 41.58	+59 15 39.3	50*16	.0074	15.4	−17.3	sde	07.04.92	3650–5500	BTA	SBN	F09451+5929	S:	R		[7,8,26]
0945+507	09 45 24.34	+50 43 30.5	09 48 42.66	+50 29 32.2	12	.0563	15.94	−20.8	s1e:	17.03.80	3500–7500	BTA	NLS1	F09453+5043	SBb	R	Mkn 124	[7,8]
0945+502	09 45 45.85	+50 15 25.2	09 49 03.33	+50 01 26.1	6	.1468	19.0	−20.1	s2				HII					[30]
0945+499	09 45 53.05	+49 54 04.4	09 49 09.95	+49 40 05.0	8	.0639	17.5	−19.9	dse				Abs		S:			[31]
0946+558	09 46 03.16	+55 48 47.2	09 49 30.31	+55 34 47.2	13*7	.0052	15.7	−16.1	d1e	19.03.80	3500–7500	BTA	BCDG				Mkn 22	
0946+539	09 46 04.60	+53 55 04.0	09 49 28.13	+53 41 04.0	8	.0467	17.5	−19.2	ds3	18.02.82	5400–7500	BTA	SBN					[18]
0946+555	09 46 30.23	+55 31 06.7	09 49 56.63	+55 17 05.6	8	.0627	17.5	−19.8	s1	28.12.84	3500–5700	BTA	SBN					[18]
0946+495	09 46 30.59	+49 30 35.0	09 49 46.72	+49 16 34.1	8	.0467	18.0	−18.7	sde	17.11.90	3630–5640	BTA	SBN	F09465+4930		R		[23]
0946+547A	09 46 38.89	+54 43 06.8	09 50 03.70	+54 29 05.4	30*9	.0318	17.0	−18.8	sde:	12.03.97	4000–7000	GHO	E+A					
0946+547B	09 46 54.06	+54 42 10.0	09 50 18.76	+54 28 08.0	10	.0323	17.5	−18.4	s3	03.01.84	3500–5700	BTA	E+A		SO/a			
0947+539	09 47 52.60	+53 55 11.0	09 51 15.48	+53 41 06.9	18	.0379	16.5	−19.7	d3				SBN		S		KUG	[30]
0947+552	09 47 56.53	+55 12 08.9	09 51 21.81	+54 58 04.5	14*9	.0602	17.0	−20.2	d3e:	23.03.80	5400–7500	BTA	SBN		S		KUG	[18]
0948+532	09 48 10.16	+53 13 40.5	09 51 31.77	+52 59 35.6	6	.0463	18.0	−18.7	s2e	10.10.88	3700–7250	BTA	HII					[19]
0948+557	09 48 15.81	+55 45 34.9	09 51 42.06	+55 31 29.7	9*6	.0971	17.5	−20.8	sd3e	03.01.84	3500–5700	BTA	SBN				KUG	[18]
0948+546	09 48 33.27	+54 37 17.6	09 51 57.25	+54 23 11.7	8	.2195	17.5	−22.6	ds1e:	03.01.84	3500–6800	BTA	SBN			R		[18]
0948+515B	09 48 35.25	+51 33 27.1	09 51 53.94	+51 19 21.3	6	.0753	19.0	−18.4	se				HII					
0948+552	09 48 53.07	+55 12 09.9	09 52 18.02	+54 58 03.3	10	.0630	17.5	−19.8	d2e	18.02.82	5400–7500	BTA	SBN					[18]
0948+503	09 48 57.78	+50 23 05.8	09 52 14.52	+50 08 59.1	8	.0492	18.0	−18.8	ds2e				Abs					[30]
0949+507A	09 49 03.24	+50 47 33.3	09 52 20.58	+50 33 26.4	9*7	.0526:	17.5	−19.4	dse:	06.01.89	3600–6800	BTA	Abs					[21]
0949+506	09 49 11.80	+50 38 37.4	09 52 28.87	+50 24 30.2	9*6	.0552	18.5	−21.0	d2e:	27.01.98	4000–7000	BTA	SBN					
0949+502	09 49 12.08	+50 14 15.1	09 52 28.53	+50 00 07.9	9*6	.0446	18.0	−20.5	se	27.01.98	4000–7000	BTA	SBN			R		
0949+539	09 49 16.60	+53 55 49.0	09 52 39.03	+53 41 41.6	18*12	.0380	16.5	−20.0	ds3				SB				KUG	[30]
0949+524	09 49 16.82	+52 27 24.5	09 52 36.76	+52 13 17.0	24	.0391	15.5	−20.8	ds3e	19.03.80	3500–7500	BTA	E+A	F09492+5227	S	R	Mkn 126	
0950+541	09 50 05.94	+54 08 38.6	09 53 28.52	+53 54 29.2	14*10	.0458	16.5	−20.1	sd3e:	30.12.83	3500–5700	BTA	Sy2	F09500+5409				[31]
0950+560	09 50 18.11	+56 00 16.2	09 53 44.10	+55 46 06.2	4	.1099	19.0	−22.0	de:									
0950+527	09 50 21.12	+52 44 11.3	09 53 41.18	+52 30 01.3	12	.0345	17.5	−18.5	sd2	12.02.86	3500–5300	BTA	Abs					
0950+499	09 50 21.80	+49 55 48.0	09 53 37.40	+49 41 38.2	12*6	.0472	17.0	−19.7	sde				E+A				KUG	[31]
0950+503	09 50 34.54	+50 22 38.1	09 53 50.79	+50 08 27.7	6	.0537	18.5	−18.4	de				SBN					[31]
0950+498	09 50 43.00	+49 52 10.0	09 53 58.40	+49 37 59.4	12*6	.0542	17.0	−20.0	dse				SBN				KUG	[31]
0950+524	09 50 54.77	+52 24 24.4	09 54 14.11	+52 10 13.2	9*7	.0532	18.0	−21.5	ds1e	27.01.98	4000–7000	BTA	SBN				KUG	
0950+571	09 50 55.40	+57 07 19.1	09 54 23.41	+56 53 07.6	28	.0428	16.5	−20.2	sde:	27.12.97	4000–7400	BTA	E+A		S			
0950+538	09 50 59.68	+53 53 05.6	09 54 21.50	+53 40 54.1	9*6	.0796	18.0	−19.9	dse:									
0950+539	09 50 59.99	+53 55 18.3	09 54 21.86	+53 39 06.8	12	.0432	15.6	−20.9	sde:	30.12.83	3500–5700	BTA	HII	F09509+5353		R	KUG	[18]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0951+514	09 51 04.01	+51 28 48.6	09 54 21.81	+51 14 37.0	14	.0362	16.5	−19.7	s2e	10.02.86	3600–5300	BTA	SBN	F09510+5128		R	Mkn 127	
0951+534	09 51 09.62	+53 24 21.2	09 54 30.55	+53 10 09.3	18*12	.0255	16.0	−19.4	sd2	16.03.80	3500–7500	BTA	E+A					
0951+518	09 51 16.19	+51 49 20.4	09 54 34.47	+51 35 08.3	8	.1296	18.0	−20.9	s1	10.11.85	3320–6510	BTA	HII					[21]
0951+510	09 51 16.68	+51 03 44.8	09 54 33.76	+50 49 32.8	8	.0747	18.0	−19.7	sd1e	08.02.88	3700–7200	BTA	SBN					[21]
0951+504	09 51 18.63	+50 28 44.9	09 54 34.81	+50 14 32.8	12	.0529	17.5	−19.5	sd2e:	09.02.88	3700–6800	BTA	Sy2			R		[21,31]
0951+568	09 51 27.30	+56 50 40.0	09 54 54.50	+56 36 28.0	18*12	.0054	17.0	−14.9	de				BCDG				KUG	[31]
0951+543	09 51 33.80	+54 18 05.0	09 54 56.11	+54 03 52.3	18	.0627	16.5	−20.8	sde				SB				KUG	[30]
0952+548	09 52 15.97	+54 49 47.7	09 55 39.04	+54 35 33.3	14	.0255	17.0	−21.5	de				SBN		S		KUG	[30]
0952+542	09 52 16.98	+54 12 49.0	09 55 38.94	+53 58 34.6	9*6	.0762	19.0	−18.7	dse:	15.03.83	3300–5400	BTA	SB					[18]
0952+550	09 52 27.09	+55 00 54.3	09 55 50.43	+54 46 39.4	5	.0441	19.0	−17.6	dse	12.02.91	3500–5700	BTA	Abs					
0952+519	09 52 32.26	+51 59 06.4	09 55 50.40	+51 44 51.4	15*8	.0366	17.0	−19.5	d3				SBN				KUG	[30]
0952+495	09 52 33.39	+49 35 37.5	09 55 47.90	+49 21 22.6	9*7	.0519	18.0	−18.7	de				E+A					[31]
0952+584	09 52 38.42	+58 28 06.6	09 56 08.57	+58 13 51.3	18	.0298	16.5	−19.2	dse				SBN		S:		KUG	[30]
0952+523	09 52 48.70	+52 19 09.5	09 56 07.29	+52 04 53.9	8	.1156	18.0	−22.0	d2	27.01.98	4000–7000	BTA	SB					
0952+552	09 52 49.79	+55 13 21.2	09 56 13.38	+54 59 05.5	6	.3170	19.0	−21.7	s2	04.05.00	4000–9000	GHO	BLS1					[29,30]
0952+556	09 52 59.42	+55 41 48.6	09 56 23.84	+55 27 32.5	12	.0466	17.0	−19.7	ds3e:	27.12.97	4000–7400	BTA	E+A					[26]
0953+574	09 53 14.84	+57 27 41.4	09 56 42.66	+57 13 24.6	8	.	17.5		se								KUG	
0953+603	09 53 16.87	+60 19 28.4	09 56 51.11	+60 05 11.4	20*10	.0310	16.0	−19.8	d3	23.03.80	3500–7500	BTA	E+A		S:		Mkn 128	
0953+602	09 53 26.83	+60 12 24.9	09 57 00.71	+59 58 07.6	18	.0305	15.6	−20.3	s2	23.03.80	3500–7500	BTA	SBN	F09534+6012	SO:	R	Mkn 23	
0953+592	09 53 51.00	+59 13 46.0	09 57 22.41	+58 59 27.8	20*12	.0100	16.0	−17.4	sde				SBN		S:		NGC3043a	[31]
0954+533	09 54 28.23	+53 22 09.7	09 57 48.00	+53 07 50.3	9*6	.0791	18.0	−19.8	sd3e:	18.02.82	5700–7500	BTA	SBN					
0954+515	09 54 30.58	+51 33 57.6	09 57 47.44	+51 19 38.2	5	.0477	19.0	−17.7	se				SB					
0954+555	09 54 58.53	+55 33 31.5	09 58 21.97	+55 19 10.9	7	.1032	18.0	−20.5	de:				SB					[30]
0955+526	09 55 03.69	+52 41 11.2	09 58 22.14	+52 26 50.5	14*9	.0470	17.0	−19.7	d3				SBN					[31]
0955+568	09 55 24.50	+56 53 47.0	09 58 50.29	+56 39 25.5	12	.0264	16.5	−18.9	sde				SB				KUG	[30]
0955+500	09 55 24.82	+50 00 44.1	09 58 39.10	+49 46 22.7	10*7	.0716	18.0	−19.6	dse				SB					[31]
0955+540	09 55 48.59	+54 01 18.7	09 59 09.00	+53 46 56.3	12*9	.0396	16.5	−19.8	ds2	16.03.80	5400–7500	BTA	SBN					[18]
0955+512	09 55 53.08	+51 13 40.5	09 59 09.00	+50 59 18.0	60*30	.0255	15.2	−20.1	dse	03.01.84	5400–7500	BTA	E+A	F09558+5113	SBbc		UGC05356	
0955+538	09 55 53.31	+53 50 37.2	09 59 13.39	+53 36 14.7	12	.0390	17.0	−19.3	sd3	05.01.84	3700–5900	BTA	Abs					
0955+547	09 55 59.67	+54 45 10.5	09 59 21.29	+54 30 47.7	30*18	.0454	17.0	−19.6	ds2	16.03.80	3500-7500	BTA	SBN		S		Mkn 24	
0956+524A	09 56 01.18	+52 29 47.9	09 59 19.01	+52 15 25.1	18	.0408	14.9	−21.5	dse	01.02.89	3400–6800	BTA	E+A	F09560+5229	S:	R	IZw 23	[21]
0956+509	09 56 16.40	+50 59 13.7	09 59 31.84	+50 44 50.4	6	.1432	17.0	−21.9	s1	10.02.86	3500–7500	BTA	NLS1					[31]
0956+524B	09 56 32.78	+52 28 07.4	09 59 50.40	+52 13 43.4	6	.0395	18.5	−18.5	s2e				SB					[30]
0957+546	09 57 06.47	+54 41 33.0	10 00 27.59	+54 27 07.7	14*7	.0251	17.0	−18.3	de	05.01.84	3400–6800	BTA	SB		Irr:			[18]
0957+528	09 57 10.61	+52 50 15.2	10 00 28.61	+52 35 49.8	10*8	.0470	18.0	−18.7	de				SBN		S:			[30]
0957+558	09 57 29.22	+55 51 30.5	10 00 52.30	+55 37 04.4	78*72	.0041	13.8	−17.4	sd2	23.03.80	3500–7500	BTA	E+A		SABO		Mkn 131	
0957+540	09 57 29.50	+54 01 22.0	10 00 49.29	+53 46 56.1	30*18	.0791	16.5	−21.3	dse				LINER	F09574+5401		R		[31]
0957+517	09 57 34.57	+51 47 06.7	10 00 50.80	+51 32 40.5	8	.0967	18.0	−20.3	ds2e	25.02.88	3600–6800	BTA	Sy2:		S			
0957+600	09 57 35.70	+60 03 48.0	10 01 07.39	+59 49 21.6	40*18	.	16.0		de					F09575+6003				
0957+569	09 57 50.54	+56 54 13.7	10 01 15.46	+56 39 46.7	36*15	.0141	15.6	−18.5	de	30.12.83	3500–5700	BTA	SB		S:			[18]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
0958+548	09 58 15.83	+54 49 26.7	10 01 36.77	+54 34 58.9	7	.0564	18.0	−20.0	de				E+A		S:			[30]
0958+599	09 58 51.70	+59 59 05.0	10 02 22.65	+59 44 35.9	18*10	.	17.0		dse						S		KUG	
0959+549	09 59 07.58	+54 57 46.2	10 02 28.45	+54 43 16.5	7	.0478	18.0	−18.7	de:				E+A					[31]
0959+521	09 59 13.20	+52 08 46.0	10 02 29.40	+51 54 16.3	30*12	.0473	16.0	−20.7	de				E+A	F09592+5208	S			[30]
0959+579	09 59 35.10	+57 58 39.0	10 03 01.47	+57 44 08.4	18*15	.	16.5		dse					F09596+5758			KUG	
0959+544	09 59 46.09	+54 26 21.3	10 03 05.84	+54 11 50.2	14*6	.0470	18.5	−18.6	de				E+A					[31]
1000+596	10 00 22.06	+59 40 42.8	10 03 51.72	+59 26 10.3	30	.0087	14.2	−19.2	s2e:	17.03.80	3500–7500	BTA	HII	F10003+5940	E	R	Mkn 25	[8]
1000+535	10 00 45.21	+53 32 29.1	10 04 03.13	+53 17 56.0	14*8	.0452	17.5	−19.1	dse	05.01.84	3700–5900	BTA	Abs					
1000+561	10 00 53.62	+56 05 25.5	10 04 15.87	+55 50 51.9	18	.0250	15.7	−19.7	sde	30.12.83	3500–5700	BTA	ELG					[18]
1000+560	10 00 55.69	+56 06 04.3	10 04 17.91	+55 51 30.8	4	.	18.5		de:									
1000+536	10 00 57.48	+53 38 07.2	10 04 15.48	+53 23 33.6	20x14	.0337	15.7	−20.2	se:	30.12.83	3500–5700	BTA	LINER:		SBb			
1001+536	10 01 10.68	+53 40 43.9	10 04 28.68	+53 26 09.8	78*36	.0336	15.3	−20.7	se:	14.04.96	4000–7000	GHO		10011+5340	S	R		[18]
1001+555	10 01 20.74	+55 33 15.1	10 04 41.84	+55 18 40.6	12	.0037	17.0	−14.3	ds2e	18.02.82	3400–7500	BTA	BCDG		Sdm			[18]
1001+540	10 01 27.41	+54 02 10.2	10 04 45.89	+53 47 35.5	16*7	.0475	17.5	−19.5	de				SBN					[30]
1001+584	10 01 35.61	+58 24 24.4	10 05 02.04	+58 09 49.3	13	.	17.5		sde					F10016+5824				
1002+518	10 02 00.17	+51 50 22.5	10 05 15.06	+51 35 46.6	18	.0469	15.7	−21.0	dse	16.04.99	4200–9000	GHO	E+A		S			
1002+555	10 02 36.59	+55 30 19.0	10 05 57.14	+55 15 41.9	16*14	.0247	15.7	−19.7	dse	30.12.83	3500–6900	BTA	Abs					
1002+539	10 02 46.39	+53 57 30.9	10 06 04.29	+53 42 53.5	30*18	.0442	16.0	−20.5	s2e	06.04.92	3600–5500	BTA	SBN			R	Mkn 135	
1002+524	10 02 49.90	+52 25 05.0	10 06 05.33	+52 10 27.7	72*36	.0415	15.0	−21.4	dse	07.02.83	5400–7500	BTA		F10028+5224				
1003+583A	10 03 16.83	+58 20 22.9	10 06 42.43	+58 05 44.2	16*12	.0299	17.0	−18.7	d3	31.12.84	4900–7300	BTA	SBN					
1003+583B	10 03 19.04	+58 21 11.2	10 06 44.65	+58 06 32.5	9	.0818	17.66	−20.2	sd3	31.12.84	4900–7300	BTA	Sy2:			R		[22]
1003+573	10 03 52.92	+57 22 17.7	10 07 16.40	+57 07 37.0	12*8	.	17.0		de					F10038+5722	E	R		
1004+605	10 04 10.71	+60 33 37.5	10 07 40.57	+60 18 56.8	16*10	.0489	17.0	−19.8	de				SBN				KUG	[30]
1005+589A	10 05 14.32	+58 58 39.3	10 08 40.40	+58 43 56.6	22*15	.0307	16.5	−19.3	d2	07.03.97	4000–7000	GHO	HII	F10052+5858				[6]
1005+589B	10 05 43.25	+58 59 18.6	10 09 09.15	+58 44 34.9	20*15	.0308	16.5	−19.3	d3	01.01.85	5700–7500	BTA	SB					[21]
1006+578A	10 06 12.04	+57 48 46.0	10 09 35.41	+57 34 01.3	15*12	.0050	17.0	−15.0	d3	01.01.85	3600–7300	BTA	BCDG				KUG	[21]
1006+603	10 06 38.81	+60 22 50.0	10 10 07.26	+60 08 04.3	14*7	.0861	17.5	−20.5	sd2e	30.01.85	4900–7300	BTA	ELG	F10066+6022		R		[21]
1007+536	10 07 27.29	+53 40 01.4	10 10 43.10	+53 25 14.3	14*9	.0331	16.0	−19.9	de:	12.03.97	4000–7000	GHO	SBN					[6]
1007+500	10 07 37.48	+50 04 43.6	10 10 48.16	+49 49 56.2	8	.	17.5		de									
1008+591	10 08 26.34	+59 08 12.7	10 11 51.38	+58 53 23.4	18*13	.0304	15.7	−20.1	d2e:	16.03.80	3500–7500	BTA	SBN	F10084+5907	Sc		Mkn 26	
1008+589	10 08 31.87	+58 58 52.0	10 11 56.55	+58 44 02.5	10	.0073	17.0	−15.7	d1	16.03.80	3500–7500	BTA	BCDG:		Pec		Mkn 27	
1008+608	10 08 33.42	+60 52 11.3	10 12 02.17	+60 37 22.3	18*10	.0450	17.0	−19.6	dse				SBN		S		KUG	[30]
1009+586	10 09 00.40	+58 38 46.4	10 12 24.22	+58 23 56.0	8	.0304	17.0	−18.8	ds2	11.02.91	3500–5500	BTA	SBN				Mkn 28	
1009+601	10 09 23.70	+60 06 54.9	10 12 50.35	+59 52 03.7	14*9	.	18.5		d1e									
1010+593	10 10 05.89	+59 21 45.9	10 13 30.67	+59 06 53.3	15*10	.	17.0		d2									
1010+503	10 10 54.32	+50 22 27.8	10 14 04.37	+50 07 33.8	24*18	.0531	15.5	−21.4	sde	08.03.83	3500–5400	BTA	LINER	F10109+5022	S	R		[31]
1011+575	10 11 09.46	+57 32 44.1	10 14 30.32	+57 17 49.5	9*7	.0097	17.5	−15.8	de				BCDG				KUG	[30]
1011+601	10 11 31.42	+60 06 07.3	10 14 57.08	+59 51 11.9	8*6	.0072	17.5	−15.3	sd2e	30.01.85	3400–7300	BTA	BCDG					[21]
1011+566	10 11 32.23	+56 35 52.5	10 14 51.32	+56 20 57.4	20*11	.	17.0		de									
1011+600	10 11 33.55	+60 03 58.3	10 14 59.12	+59 49 02.8	8	.0073	17.5	−15.2	sd2e	30.01.85	3400–7300	BTA	BCDG					[21]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1011+589	10 11 51.40	+58 56 25.0	10 15 14.53	+58 41 29.1	8	.0229	17.5	−17.5	se				BCDG				KUG	[30]
1012+496	10 12 36.92	+49 41 39.7	10 15 45.59	+49 26 42.6	36*6	.0525	16.5	−20.4	dse				E+A		S			[31]
1012+492	10 12 47.91	+49 12 34.0	10 15 55.94	+48 57 36.6	54*20	.0503	15.4	−21.5	sd3e				Sy2		S			[31]
1013+605	10 13 23.66	+60 30 20.4	10 16 49.32	+60 15 21.3	9*7	.0312	18.0	−17.8	sd2e				Abs					[30]
1014+603	10 14 28.95	+60 18 34.1	10 17 53.70	+60 03 33.0	24*12	.0309	16.5	−19.4	d2	17.03.80	3500–7500	BTA	E+A		S:		Mkn 29	
1015+599	10 15 12.60	+59 55 12.0	10 18 36.41	+59 40 09.6	36*18	.0443	16.0	−20.6	sde				SBN	F10151+5955		R		[30]
1015+539	10 15 34.17	+53 57 32.0	10 18 47.78	+53 42 29.1	14	.0450	17.0	−19.6	de				SBN		S			[30]
1015+593	10 15 51.42	+59 22 55.3	10 19 13.71	+59 07 51.5	42*20	.0727	15.9	−21.7	sd3e				LINER:		Sb		HCG045A	[30]
1016+592	10 16 09.86	+59 12 22.3	10 19 31.68	+58 57 18.0	13*9	.0422	16.40	−19.8	sd1e	30.01.85	4000–7300	BTA	Sy2			R		[21]
1016+493	10 16 13.75	+49 22 05.0	10 19 20.87	+49 07 01.0	30*24	.0542	15.0	−22.0	sd3				LINER	F10162+4922	S:			[31]
1016+576A	10 16 19.37	+57 40 11.7	10 19 38.33	+57 25 07.2	15*10	.0265	17.0	−18.4	d3e:	17.03.80	3500–7500	BTA	SBN		S:		Mkn 30	
1016+576B	10 16 23.84	+57 40 29.2	10 19 42.78	+57 25 24.5	54	.0258	14.7	−20.7	s2	17.03.80	3500–7500	BTA	SBN	F10163+5740	SBab	R	Mkn 31	
1016+577	10 16 25.17	+57 42 18.5	10 19 44.16	+57 27 13.8	9*6	.	18.0		sd2e									
1016+563A	10 16 50.06	+56 21 19.2	10 20 06.62	+56 06 13.7	15*10	.0327	16.5	−19.4	sd2e	06.04.92	3600–5400	BTA	HII					[26]
1017+542	10 17 10.89	+54 15 50.3	10 20 24.12	+54 00 44.2	8*6	.0305	18.5	−17.2	s1e	05.11.89	3700–5500	BTA	BCDG					[21]
1018+594	10 18 18.90	+59 28 43.5	10 21 40.29	+59 13 35.2	12	.0730	17.5	−20.1	d2e				SB					[30]
1020+571	10 20 15.60	+57 11 11.0	10 23 32.08	+56 55 59.4	24*15	.	17.0		sde						S		KUG	
1020+526	10 20 22.94	+52 35 41.6	10 23 32.75	+52 20 29.6	60*16	.0321	15.0	−20.9	s3e				LINER	F10203+5235	Sdm:	R		
1020+610	10 20 23.15	+61 00 19.7	10 23 46.58	+60 45 07.5	24*16	.0219	15.0	−20.1	sd3e:	09.11.79	5700–7500	BTA	SBN	F10203+6100	S		Mkn1431	
1020+594	10 20 29.71	+59 25 38.9	10 23 50.03	+59 10 26.6	14*8	.0241	16.0	−19.2	de	13.03.97	4000-7000	GHO	E+A	F10204+5925				[6]
1020+582	10 20 47.29	+58 14 40.5	10 24 05.38	+57 59 27.7	25	.0140	15.5	−18.5	de	19.03.99	4000–7100	GHO	SBN					[26]
1021+561	10 21 20.17	+56 11 39.4	10 24 34.70	+55 56 25.7	8	.1970	18.02	−21.7	s2	22.03.93	3300–7000	MMT	NLS1					[23]
1021+580	10 21 20.70	+58 02 55.4	10 24 38.21	+57 47 41.6	7	.0073	18.5	−14.2	sd2e:				BCDG					[30]
1021+586A	10 21 22.38	+58 40 52.9	10 24 40.97	+58 25 39.1	10*6	.0770	17.0	−20.8	ds3e				Abs					[30]
1021+579	10 21 24.37	+57 59 29.3	10 24 41.76	+57 44 15.4	7	.0709	18.0	−19.6	sd1e:	09.11.79	5500–7700	BTA	SBN					[21]
1021+586B	10 21 31.31	+58 40 48.6	10 24 49.84	+58 25 34.5	12	.0448	17.0	−19.5	ds3e				E+A					[30]
1021+584	10 21 53.69	+58 24 46.3	10 25 11.59	+58 09 31.5	7	.	18.0		s1e									
1022+573	10 22 19.21	+57 23 23.8	10 25 35.23	+57 08 08.3	30*18	.0267	15.3	−20.2	de	15.04.96	4000–7000	GHO	LINER	F10223+5723	SBb	R		[5]
1022+519	10 22 22.93	+51 55 50.3	10 25 31.21	+51 40 34.8	18*12	.0450	15.81	−20.7	s1e:	23.03.80	3500–7500	BTA	NLS1		S:	R	Mkn 142	[11]
1023+554	10 23 40.25	+55 24 25.4	10 26 52.65	+55 09 08.0	8	.1190	17.5	−21.2	s2	15.03.00	3500–5400	BTA	BLS1				RBS 867	[31]
1023+565	10 23 47.98	+56 31 32.5	10 27 02.04	+56 16 14.4	18*12	.0029	16.0	−14.6	d3	16.03.80	3500-7500	BTA	HII		Pec.		Mkn 32	
1023+597	10 23 51.60	+59 47 28.7	10 27 11.07	+59 32 10.4	12	.0506	18.0	−18.8	sd2e				E+A					[30]
1024+522	10 24 00.11	+52 13 38.6	10 27 08.22	+51 58 20.5	24*18	.0459	15.4	−21.3	sde				E+A	F10239+5213				
1024+584	10 24 17.12	+58 29 01.0	10 27 34.11	+58 13 42.0	9	.0452	18.0	−18.6	s2				SBN					[31]
1025+493	10 25 37.75	+49 19 39.8	10 28 42.00	+49 04 19.0	36*24	.0430	15.3	−21.1	dse				Sy2	F10256+4919	S:	R		[30]
1025+576	10 25 59.96	+57 39 15.5	10 29 14.87	+57 23 53.6	18*12	.1900	17.75	−21.9	s2	09.04.91	3400–6900	BTA	BLS1				RBS 872	[2,25]
1026+510	10 26 39.65	+51 03 14.0	10 29 45.46	+50 47 51.1	18	.0255	16.5	−18.8	dse	07.03.97	4000–7000	GHO	SBN					[6]
1026+582	10 26 47.69	+58 16 24.5	10 30 03.25	+58 01 01.2	12	.0459	17.0	−19.7	s2e				SB					[30]
1026+511	10 26 55.49	+51 06 11.5	10 30 01.27	+50 50 48.2	36*24	.0442	15.5	−21.0	sde				SBN		S			[31]
1027+528	10 27 07.45	+52 49 24.8	10 30 15.20	+52 34 01.1	36*18	.0468	15.6	−21.1	dse	25.03.98	4400–7100	BTA		F10271+5249	S:	R		

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1028+585	10 28 33.28	+58 35 02.1	10 31 48.57	+58 19 36.2	10*8	.0910	16.5	−21.7	ds2				LINER	F10285+5834		R		
1028+566	10 28 55.26	+56 37 07.8	10 32 07.39	+56 21 41.0	18	.0242	16.5	−18.8	ds3e	20.03.91	3640–5640	BTA	HII					
1029+546	10 29 22.94	+54 39 30.2	10 32 32.19	+54 24 02.7	60*54	.0047	13.2	−18.5	sd1e	09.03.81	3500–7500	BTA	HII	F10293+5439	Im	R	Mkn 33	
1030+573	10 30 15.90	+57 18 40.0	10 33 28.45	+57 03 11.2	39*24	.0069	14.7	−17.8	dse	23.03.99	4000–7100	GHO	SBN	F10302+5718	S		KUG	[26]
1030+526	10 30 41.47	+52 37 45.9	10 33 47.73	+52 22 16.3	60*48	.0365	14.9	−21.0	sd3e:	09.03.81	3500–7500	BTA	SBN	F10306+5237	SBc	R	Mkn1433	
1030+602	10 30 51.63	+60 17 22.2	10 34 08.75	+60 01 52.1	25*18	.0505	15.36	−21.4	ds1e	07.01.81	3500–7500	BTA	Sy2	F10308+6017	S	R	Mkn 34	[7,9]
1030+583	10 30 56.34	+58 19 19.3	10 34 10.18	+58 03 49.2	12*8	.0077	16.5	−16.3	ds1e	09.11.79	3600–7500	BTA	BCDG				Mkn1434	
1032+496	10 32 06.31	+49 37 13.7	10 35 08.82	+49 21 41.8	9	.0291	17.0	−18.6	s2e	20.03.91	3640–5640	BTA	HII					[23]
1033+604	10 33 03.80	+60 25 54.0	10 36 20.08	+60 10 20.6	40*7	.	17.0		de					F10330+6025				
1033+574	10 33 22.61	+57 28 21.9	10 36 34.13	+57 12 47.8	10	.0470	17.0	−19.7	s3				SBN	F10333+5728		R		[30]
1033+531	10 33 30.63	+53 06 35.0	10 36 36.45	+52 51 00.8	16*14	.0037	16.0	−15.3	sd1e	30.01.90	3700–5500	BTA	BCDG					[21]
1033+550	10 33 35.92	+55 03 23.2	10 36 44.07	+54 47 48.9	15	.0114	15.5	−18.1	sd2	20.12.82	5400–7500	BTA	E+A			R	Mkn1435	
1033+541	10 33 51.67	+54 08 12.4	10 36 58.58	+53 52 37.7	12	.0468	16.5	−20.2	ds3	28.12.97	4000–7200	BTA	SBN			R		[26]
1034+550	10 34 06.26	+55 04 43.2	10 37 14.25	+54 49 08.1	6	.0773	18.0	−19.7	de:				Abs					[30]
1035+543	10 35 01.02	+54 23 32.9	10 38 07.81	+54 07 56.4	9	.1030	16.5	−21.9	sd3e	28.12.97	4000–7200	BTA	SBN			R		[26]
1035+519	10 35 26.40	+51 55 38.2	10 38 30.22	+51 40 01.0	9	.	17.0		s3e									
1035+542	10 35 45.65	+54 13 57.4	10 38 51.92	+53 58 18.9	30*15	.0706	16.5	−21.0	sd2e	23.03.99	4000–7100	GHO	Abs		S			
1035+610	10 35 48.55	+61 04 49.0	10 39 04.68	+60 49 11.1	12	.0313	17.0	−18.8	sd2	31.12.84	4900–7300	BTA	SB					[21]
1036+609	10 36 17.55	+60 54 44.0	10 39 33.15	+60 39 05.4	9	.	17.0		sd1e									
1036+610	10 36 18.19	+61 04 36.8	10 39 34.07	+60 48 58.2	6	.0239	17.5	−17.7	sd3				HII					[30]
1037+498	10 37 01.56	+49 48 43.6	10 40 02.64	+49 33 04.2	42*30	.0447	15.7	−20.7	ds3e	23.03.99	4000–7100	GHO	Sy2	F10369+4949	S:	R		[26]
1037+556	10 37 27.18	+55 39 30.6	10 40 34.58	+55 23 50.3	14	.0619	16.0	−21.3	de	04.05.98	4000–7100	GHO	SBN		S:			[26]
1037+494	10 37 41.90	+49 28 03.3	10 40 42.48	+49 12 22.7	18*10	.0050	17.0	−15.0	dse	23.01.90	3700–5500	BTA	BCDG					[21]
1037+495	10 37 56.12	+49 32 41.3	10 40 56.87	+49 17 00.7	8	.0435	17.5	−19.0	sde				SBN				HS	
1038+580	10 38 08.93	+58 00 41.6	10 41 19.18	+57 45 00.2	13*10	.0676	16.42	−20.9	s2e	09.11.79	5400–7500	BTA	Sy2	F10381+5800		R		
1038+566	10 38 09.19	+56 39 13.1	10 41 17.59	+56 23 31.7	15*8	.0607	16.5	−20.9	d3e:	04.05.98	4000–7100	GHO	SBN					[26]
1038+591	10 38 10.70	+59 09 12.7	10 41 22.60	+58 53 31.3	8	.0648	17.0	−20.4	sd1	31.12.84	4900–7300	BTA	SBN					[21,26]
1040+517	10 40 01.16	+51 44 49.8	10 43 03.18	+51 29 06.2	16*8	.0640	17.0	−20.4	de				E+A		S			[31]
1040+595	10 40 30.18	+59 32 38.5	10 43 41.59	+59 16 53.6	8	.0271	17.0	−18.4	ds2e	23.03.99	4000–7000	GHO	HII					[26]
1040+560	10 40 44.90	+56 01 26.1	10 43 51.44	+55 45 40.9	18*13	.0260	15.2	−20.2	sd2e	15.03.91	3660–5670	BTA	SBN	F10408+5601		R		[23]
1041+517	10 41 53.00	+51 45 17.0	10 44 54.41	+51 29 30.3	42*18	.0249	15.5	−19.7	de	15.04.96	4000–7000	GHO	E+A	F10418+5145	S			[5]
1042+562	10 42 16.08	+56 13 21.7	10 45 22.24	+55 57 34.3	78*60	.0032	13.25	−17.8	ds1e	07.01.81	3500–7500	BTA	HII	F10422+5613	Irr	R	Mkn 35	
1043+604	10 43 00.13	+60 24 41.1	10 46 11.67	+60 08 52.6	8	.0518	17.0	−19.9	sd1e	30.01.85	4900–7300	BTA	SBN					[21]
1043+522	10 43 03.32	+52 15 31.7	10 46 04.78	+51 59 44.2	24*14	.0445	17.0	−19.7	dse				SBN					[31]
1044+543	10 44 12.75	+54 20 25.4	10 47 15.98	+54 04 35.3	6	.1417	18.0	−21.0	de				E+A					[30]
1045+581	10 45 22.10	+58 09 47.8	10 48 29.38	+57 53 56.1	10	.0738	17.0	−20.7	d2e				SBN					[30]
1045+544	10 45 37.75	+54 28 53.7	10 48 40.65	+54 13 01.9	10	.1040	17.0	−21.5	ds3				NLS1					[30]
1045+503	10 45 53.79	+50 18 03.8	10 48 52.47	+50 02 11.5	48*18	.0230	14.9	−20.2	s2	09.04.81	3500–7500	BTA	LINER	F10458+5018	SBab	R	Mkn 152	[8,9]
1046+526	10 46 04.19	+52 35 58.5	10 49 04.95	+52 20 05.9	48*30	.0080	14.6	−18.2	d1e:	09.04.81	3500–7500	BTA	SBN	F10460+5235	Scp		Mkn 153	
1046+581	10 46 19.11	+58 10 14.1	10 49 25.92	+57 54 21.8	8	.0720	17.3	−20.3	s3e	07.02.83	3500–5700	BTA	BLS1				RBS 906	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1046+562	10 46 19.23	+56 12 01.9	10 49 23.70	+55 56 08.9	17*9	.0462	16.5	−20.1	ds3	04.05.98	4000–7100	GHO	HII					[26]
1047+516	10 47 03.70	+51 36 37.1	10 50 03.17	+51 20 43.2	14	.0251	17.0	−18.3	sde				SBN		S			[31]
1047+522	10 47 13.86	+52 12 35.7	10 50 13.83	+51 56 41.6	16*10	.0253	16.5	−18.8	de	04.05.98	4000–7100	GHO	SBN		S:			[26]
1047+593	10 47 29.29	+59 21 40.0	10 50 37.20	+59 05 45.4	16*14	.0324	17.0	−18.9	sd2e:	12.02.91	3500–7500	BTA	SBN	F10475+5921			Mkn1441	
1047+598	10 47 48.89	+59 48 10.1	10 50 57.25	+59 32 15.1	12	.0856	17.48	−20.3	d2e	29.04.89	3500–5500	BTA	Sy1.9			R		[21,31]
1047+504	10 47 49.19	+50 26 03.8	10 50 47.35	+50 10 08.9	30*24	.0430	15.5	−21.0	d3e:	09.04.81	3500–7500	BTA	SBN	F10478+5026		R	Mkn 154	
1048+511	10 48 24.54	+51 11 47.3	10 51 23.17	+50 55 51.6	16*8	.0246	16.5	−18.7	sde	04.05.98	4000–7100	GHO	E+A	F10483+5111				[26]
1048+512	10 48 28.34	+51 16 30.9	10 51 27.02	+51 00 35.1	9*6	.0262	17.5	−18.0	dse				E+A					[31]
1048+556	10 48 28.58	+55 39 23.9	10 51 31.57	+55 23 28.0	60*18	.0096	14.6	−18.6	de:					F10484+5539	SAb		NGC3398	
1048+599	10 48 32.91	+59 57 03.6	10 51 41.13	+59 41 07.6	8	.0722	17.0	−20.6	sd2e	28.10.79	5700–7500	BTA	SBN	F10485+5956			Mkn1442	
1048+605	10 48 41.66	+60 34 20.4	10 51 50.68	+60 18 24.2	9*6	.0445	17.5	−19.1	d2e				SBN					[30]
1050+505A	10 50 11.18	+50 33 01.2	10 53 08.66	+50 17 03.4	36*15	.0046	14.5	−17.3	d2e	09.03.81	3500–7500	BTA	BCDG	F10502+5032	Pec.		Mkn 156	
1050+505B	10 50 13.35	+50 32 52.5	10 53 10.80	+50 16 54.5	12	.0046	16.0	−15.5	d2e	09.03.81	3500–7500	BTA	BCDG					
1050+573	10 50 48.20	+57 23 28.4	10 53 52.16	+57 07 29.5	6	.0064	18.5	−13.8	dse				BCDG					[30]
1050+549	10 50 52.05	+54 55 26.9	10 53 53.31	+54 39 28.0	14	.0789	17.0	−20.6	de				E+A					[30]
1050+550	10 50 53.20	+55 06 09.1	10 53 54.78	+54 50 10.2	20*12	.	17.0		sd3									
1051+508	10 51 32.15	+50 50 38.6	10 54 29.41	+50 34 38.9	14*12	.0249	16.5	−18.8	dse	07.05.98	4000–7100	GHO	SBN	F10515+5050		R		[26]
1051+562	10 51 34.50	+56 14 00.0	10 54 36.80	+55 58 00.4	54*42	.0462	15.7	−20.9	sde	24.03.99	4000–7100	GHO	E+A	F10516+5613	S			[26]
1052+499	10 52 05.93	+49 59 34.4	10 55 02.30	+49 43 34.0	60*54	.0046	14.0	−17.5	d2e	09.03.81	3500–7500	BTA	Abs	F10521+4959	Pec.	R	Mkn 157	
1052+581	10 52 24.41	+58 10 23.1	10 55 28.58	+57 54 22.2	20*15	.0231	15.7	−19.4	d3				SBN	F10523+5810	S			[30]
1053+541	10 52 59.20	+54 06 21.0	10 55 58.79	+53 50 19.7	16*12	.0293	16.5	−19.2	sd3				E+A					[31]
1054+504	10 54 02.60	+50 24 28.2	10 56 58.65	+50 08 25.4	20*14	.0045	15.7	−16.1	ds2e	15.03.91	3660–5670	BTA	BCDG					[23]
1054+595	10 54 16.26	+59 35 37.2	10 57 21.29	+59 19 34.0	6	.0279	18.0	−17.7	d3e				SB					[30]
1054+596	10 54 26.25	+59 41 35.0	10 57 31.33	+59 25 31.6	8	.0337	18.5	−17.5	d2e	12.02.91	3600–5630	BTA	BCDG					[23]
1055+605	10 55 24.45	+60 32 05.0	10 58 30.13	+60 16 00.5	9	.1490	17.2	−21.9	s1	08.03.83	3500–5400	BTA	NLS1					[10]
1055+597	10 55 42.36	+59 45 17.4	10 58 46.91	+59 29 12.5	20*8	.0231	15.6	−19.6	d2e	29.04.89	3700–5500	BTA	SBN					[21]
1056+596	10 56 21.48	+59 40 16.5	10 59 25.62	+59 24 10.9	6	.0328	18.0	−17.9	ds1e				HII					[30]
1057+511A	10 57 02.56	+51 10 16.5	10 59 58.19	+50 54 10.1	35*21	.0096	14.5	−18.8	de	15.03.91	3660–5670	BTA	LINER	F10570+5110	S	R		[23,27]
1057+511B	10 57 10.48	+51 07 31.1	11 00 06.03	+50 51 24.6	7	.0094	17.5	−15.7	sd1e	15.03.91	3660–5670	BTA	BCDG					[23]
1059+503	10 59 29.66	+50 21 48.0	11 02 23.86	+50 05 39.1	30*12	.0242	15.5	−19.7	dse	08.03.83	3500–5400	BTA	E+A					
1059+510	10 59 58.17	+51 05 20.2	11 02 52.72	+50 49 10.5	20*8	.0205	16.5	−18.4	dse	19.03.99	4000–7100	GHO	SB					[26]
1100+532	11 00 04.94	+53 17 15.8	11 03 01.16	+53 01 06.0	18*8	.0205	16.5	−18.3	de	19.03.99	4000–7100	GHO	HII					[26]
1100+510	11 00 25.59	+51 01 30.3	11 03 19.94	+50 45 20.1	12*8	.0209	17.5	−17.6	sde				SB					[30]
1100+597	11 00 50.66	+59 42 22.8	11 03 52.69	+59 26 12.1	13*9	.0473	17.0	−19.7	sd2e				SBN					[30]
1101+577	11 01 27.23	+57 42 46.5	11 04 26.87	+57 26 35.2	9*7	.0424	18.0	−18.5	s3e				HII					[30]
1102+599A	11 02 00.13	+59 57 15.7	11 05 01.89	+59 41 03.7	30*20	.0340	15.2	−20.8	dse	14.04.96	4000–7000	GHO	LINER	F11020+5956	S	R		[5]
1102+599B	11 02 02.66	+59 56 08.3	11 05 04.37	+59 39 56.3	30*8	.0333	16.0	−19.9	de	14.04.96	4000–7000	GHO	SB			R		[5]
1102+599C	11 02 18.71	+59 55 57.1	11 05 20.29	+59 39 44.8	14*10	.0333	17.0	−18.9	d2e	14.04.96	4000–7000	GHO	SBN					[5]
1102+591	11 02 37.02	+59 07 33.0	11 05 37.60	+58 51 20.7	8	.1930	17.5	−22.2	s2				BLS1					[30]
1102+606	11 02 51.50	+60 38 41.3	11 05 53.62	+60 22 28.5	18*9	.0046	17.0	−14.5	d1e				BCDG					[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1103+506	11 03 28.25	+50 39 31.5	11 06 21.29	+50 23 18.1	13*10	.0398	16.5	−19.8	sd3e	13.03.97	4000–7000	GHO	Sy2	F11034+5039		R		[6,30]
1103+525	11 03 35.11	+52 35 00.9	11 06 29.48	+52 18 47.4	9*7	.0215	17.5	−17.5	ds2e	15.03.91	3660–5670	BTA	BCDG					[23]
1103+534	11 03 47.52	+53 29 36.7	11 06 42.50	+53 13 22.9	20*13	.0252	15.7	−19.6	de:	20.03.99	4000–7100	GHO	SB					[26]
1104+547	11 04 29.46	+54 47 40.5	11 07 25.20	+54 31 26.0	36*24	.0543	15.5	−21.5	sde				E+A		S			[31]
1105+559	11 05 23.07	+55 58 33.8	11 08 19.43	+55 42 18.4	7	.0480	18.5	−18.1	s1	17.02.94	3400–6900	BTA	ELG					[26]
1105+502	11 05 43.83	+50 12 27.3	11 08 35.80	+49 56 11.6	12	.0723	17.0	−20.7	d3e				SBN			R		[30]
1106+585	11 06 16.59	+58 34 29.6	11 09 14.90	+58 18 13.3	8*6	.0465	17.0	−19.7	s3				SBN	F11062+5834				[30]
1106+500B	11 06 26.16	+50 04 08.6	11 09 17.80	+49 47 52.2	8	.0482	17.0	−19.7	s1	22.01.90	3700–5400	BTA	HII			R		[21]
1106+496	11 06 54.80	+49 40 56.0	11 09 46.00	+49 24 39.3	42*18	.0329	16.5	−19.6	dse				E+A					[31]
1108+515	11 08 28.76	+51 32 26.2	11 11 20.64	+51 16 07.8	6	.	18.0		de						S			
1108+552	11 08 42.32	+55 15 38.1	11 11 36.73	+54 59 19.5	8	.0750	17.0	−20.7	ds2	01.03.00	3500–7000	BTA	SBN					
1108+569	11 08 56.57	+56 55 57.8	11 11 52.22	+56 39 39.0	10	.0473	17.0	−19.7	ds3				SBN		S:			[30]
1109+545	11 09 01.73	+54 32 22.1	11 11 55.47	+54 16 03.2	10*7	.0713	17.0	−20.6	sd3e				SBN					[31]
1109+571	11 09 07.59	+57 11 13.2	11 12 03.37	+56 54 54.2	7	.0474	17.0	−19.7	s3				SBN					[30]
1109+519	11 09 35.08	+51 54 32.3	11 12 26.80	+51 38 12.9	8*6	.0100	17.0	−16.3	d3e:	16.03.80	3500–7500	BTA	BCDG		S:		Mkn 164	
1109+569	11 09 51.87	+56 57 26.4	11 12 47.14	+56 41 06.7	12	.0478	17.0	−19.7	s2e	06.04.92	3600–5500	BTA	SBN		S			[26]
1109+595	11 09 54.75	+59 31 46.2	11 12 52.25	+59 15 26.4	7	.0290	18.0	−17.6	sd2				HII					[30]
1109+581	11 09 56.84	+58 06 33.8	11 12 53.04	+57 50 14.0	9*7	.0503	17.0	−19.9	ds2				SBN	F11099+5806		R		[30]
1110+567	11 10 24.82	+56 45 03.3	11 13 19.68	+56 28 43.1	28*9	.0343	15.3	−20.7	de	08.05.98	4000–7100	BTA	LINER:	F11104+5645		R		[26]
1110+556	11 10 44.78	+55 40 59.5	11 13 38.67	+55 24 39.0	14*10	.0369	16.5	−19.6	sd2e	20.03.99	4000–7100	GHO	LINER:	F11107+5541	S	R		[26]
1111+553	11 11 46.89	+55 22 30.5	11 14 40.13	+55 06 09.1	8*6	.0591	17.0	−20.1	sd3				SBN					[30]
1111+505	11 11 59.60	+50 35 39.0	11 14 49.70	+50 19 18.0	36*30	.0471	16.5	−20.2	ds3e				SB	F11120+5036		R		[30]
1112+547	11 12 19.30	+54 44 02.5	11 15 12.00	+54 27 40.7	15	.0666	17.0	−20.4	dse				SBN	F11122+5444	S	R		[31]
1112+588	11 12 19.60	+58 48 51.6	11 15 15.00	+58 32 25.0	30	.0501	15.5	−21.3	dse				E+A	F11123+5848	S			[30]
1112+548	11 12 43.31	+54 51 58.8	11 15 35.81	+54 35 36.6	13	.0719	16.5	−21.5	d3e	04.05.98	4000–7000	GHO	SBN					
1113+560	11 13 04.32	+56 04 30.8	11 15 57.53	+55 48 08.3	24*12	.0343	17.0	−19.0	sd1e	11.02.91	3530–5550	BTA	SBN			R		[23]
1113+557	11 13 15.55	+55 45 48.4	11 16 08.47	+55 29 26.0	12*6	.0550	17.0	−20.1	sde	08.02.83	3500–5700	BTA	E+A		S			
1113+593	11 13 29.45	+59 23 55.6	11 16 25.12	+59 07 32.7	12*8	.0362	16.5	−19.6	ds2e	09.04.81	3500–7300	BTA	SBN		S:			[12]
1113+571	11 13 55.83	+57 10 27.1	11 16 49.49	+56 54 03.8	10*7	.0350	17.0	−19.0	sd2	27.01.98	4000–7000	BTA	HII					
1113+598A	11 13 57.90	+59 48 09.0	11 16 53.71	+59 31 45.9	18*12	.0815	16.2	−21.7	ds2e	08.02.83	5400–7500	BTA	LINER	F11139+5948		R	VIIZw384	[12,31]
1113+598B	11 13 58.40	+59 48 14.0	11 16 54.20	+59 31 50.9	18*12	.0815	16.2	−21.7	ds2e	08.02.83	5400–7500	BTA	LINER	F11139+5948			VIIZw384	[12]
1114+587	11 14 10.61	+58 47 22.9	11 17 05.44	+58 30 59.4	12*10	.0053	17.0	−14.9	de	10.04.81	3500–7500	BTA	BCDG					[12]
1114+516	11 14 40.12	+51 40 39.5	11 17 29.87	+51 24 15.6	14	.0333	15.6	−20.3	d2e:	08.02.83	5400–7500	BTA	E+A				Mkn1444	
1114+517	11 14 42.72	+51 42 17.7	11 17 32.47	+51 25 53.8	12*7	.0096	16.5	−16.7	ds2e	11.02.91	3600–5500	BTA	BCDG				Mkn1445	
1114+510	11 14 44.21	+51 01 05.9	11 17 33.58	+50 44 42.2	30*18	.0472	16.5	−20.2	de				E+A	F11146+5101	S			[30]
1115+551	11 15 16.87	+55 06 51.6	11 18 08.50	+54 50 27.2	17*10	.0062	16.0	−16.3	sd2e	06.04.92	3600–5500	BTA	BCDG					[26]
1115+585	11 15 23.22	+58 34 47.5	11 18 17.31	+58 18 23.0	14*12	.0066	17.0	−15.3	de	09.04.81	5400–7500	BTA	BCDG					[12]
1115+540A	11 15 26.19	+54 01 23.8	11 18 17.05	+53 44 59.2	36*20	.0360	15.5	−20.6	sd3	17.03.80	3500–7500	BTA	E+A		SBb		Mkn 38	
1115+608	11 15 27.20	+60 48 03.6	11 18 23.14	+60 31 39.0	12*6	.0495	17.0	−19.9	sd3e	09.04.81	5400–7500	BTA	SBN	F11154+6048	S			
1115+540B	11 15 29.88	+54 01 34.6	11 18 20.72	+53 45 10.0	42*21	.0364	15.5	−20.6	ds1e:	17.03.80	3500–7500	BTA	SBN	F11154+5401	SBb		Mkn 39	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1115+604	11 15 47.69	+60 28 26.8	11 18 43.17	+60 12 02.0	4	.0478	18.5	−18.2	sde	27.11.81	5400–7500	BTA						
1115+554	11 15 49.80	+55 27 09.0	11 18 41.39	+55 10 44.4	24	.0321	16.5	−19.3	dse	27.04.00	4300–9000	GHO	E+A	F11158+5526				[26]
1115+552	11 15 51.13	+55 13 44.0	11 18 42.63	+54 57 19.2	20*8	.0565	17.0	−21.0	de				E+A					[31]
1115+597	11 15 52.65	+59 42 26.3	11 18 47.43	+59 26 01.4	12*6	.1142	17.0	−21.7	sde:	10.04.81	5400–7500	BTA	LINER:		SBb			[12,30]
1115+588	11 15 54.10	+58 52 59.4	11 18 48.19	+58 36 34.5	45*18	.0287	15.4	−20.2	dse	07.04.81	5400–7500	BTA	E+A	F11159+5853	S:			
1116+583A	11 16 03.99	+58 19 47.8	11 18 57.57	+58 03 22.8	12*9	.0268	15.7	−19.5	s1e	17.03.80	3500–7500	BTA	BLS1				RBS 963	[12,18]
1116+547A	11 16 11.87	+54 42 51.9	11 19 02.78	+54 26 27.0	18*16	.0707	17.0	−20.5	sde				Abs					[31]
1116+547B	11 16 12.44	+54 43 52.0	11 19 03.48	+54 27 27.1	16*14	.0719	17.0	−20.6	sde				E+A					[31]
1116+609	11 16 24.85	+60 55 15.7	11 19 20.41	+60 38 50.4	18*12	.0360	15.6	−20.5	dse	09.04.81	5400–7500	BTA	ELG	F11164+6055				[12]
1116+583B	11 16 31.29	+58 20 15.2	11 19 24.67	+58 03 49.8	4	.0350	19.5	−16.5	dse	25.01.90	3600–5400	BTA	BCDG					[21]
1116+517	11 16 45.26	+51 46 38.2	11 19 34.31	+51 30 12.6	13*10	.0021	17.0	−12.9	d2e	25.03.99	4000–7100	GHO	BCDG				Arp G	[26]
1116+538	11 16 47.95	+53 51 16.9	11 19 38.12	+53 34 51.1	30*8	.0345	17.0	−19.0	s3e				SBN	F11167+5351				[31]
1116+518	11 16 49.04	+51 49 41.9	11 19 38.10	+51 33 16.3	12*6	.1030	16.98	−21.5	s2	26.04.87	3600–7200	BTA	BLS1			R	RBS 967	[23,25]
1117+547	11 17 01.90	+54 44 11.8	11 19 52.58	+54 27 46.0	60	.0408	15.4	−20.9	dse				E+A		Scd			
1118+610	11 18 06.26	+61 02 38.5	11 21 01.06	+60 46 11.8	10	.0647	17.5	−19.9	sd3e	09.04.81	5400–7500	BTA	SBN		S:			[12]
1118+541	11 18 18.75	+54 07 47.5	11 21 08.55	+53 51 20.7	11	.1043	16.41	−22.0	s1	14.11.95	3500–7000	BTA	NLS1			R	RBS 971	[4,26]
1118+500	11 18 24.30	+50 05 28.0	11 21 11.86	+49 49 01.4	48*18	.0481	15.6	−21.1	sde	22.03.99	4000–7100	GHO	E+A	F11184+5005	S			[26]
1118+586	11 18 30.35	+58 37 31.1	11 21 23.03	+58 21 04.2	7*5	.0682	17.0	−20.5	ds3e:	09.04.81	5400–7500	BTA	E+A					[12]
1118+578A	11 18 39.04	+57 53 29.9	11 21 31.12	+57 37 02.8	7	.0418	17.5	−18.9	d3e	19.03.80	5400–7500	BTA	SBN					
1118+587	11 18 42.87	+58 45 55.5	11 21 35.55	+58 29 28.4	9*6	.0286	18.5	−17.1	de	18.02.82	3500–7500	BTA	BCDG					[12]
1118+578B	11 18 49.46	+57 51 57.4	11 21 41.44	+57 35 30.2	12*8	.0072	16.5	−15.7	s3	19.03.80	4000–7100	BTA	BCDG					[12]
1118+542	11 18 49.77	+54 16 35.3	11 21 39.45	+54 00 08.1	13*8	.0273	17.0	−18.5	d3				SBN					[31]
1119+549	11 19 10.96	+54 57 22.6	11 22 00.90	+54 40 55.2	8	.1053	18.0	−20.5	de:				SBN					[31]
1119+610A	11 19 12.51	+61 01 23.4	11 22 06.73	+60 44 55.9	12	.1111	17.5	−21.0	ds3e	05.01.84	3700–5900	BTA	Sy2					[18]
1119+601A	11 19 17.35	+60 08 42.2	11 22 10.81	+59 52 14.7	9*7	.0090	17.5	−15.6	d2e	18.02.82	3600–7500	BTA	BCDG					[12]
1119+514	11 19 21.58	+51 24 17.8	11 22 09.50	+51 07 50.2	12	.0208	17.5	−17.4	sd2	12.02.91	3600–5500	BTA	BCDG				Mkn 167	
1119+583	11 19 33.86	+58 18 15.5	11 22 25.81	+58 01 47.8	14*8	.0526	17.0	−19.4	dse:	09.04.81	5400–7500	BTA	E+A			R		[12]
1119+503	11 19 41.21	+50 23 45.7	11 22 28.52	+50 07 17.9	12*8	.1135	17.5	−21.2	d3e:				SBN					[30]
1119+610B	11 19 43.29	+61 03 48.7	11 22 37.28	+60 47 21.2	10	.1428	18.0	−20.9	de:	12.01.99	4000–7000	BTA	E+A					
1119+586	11 19 45.59	+58 36 09.7	11 22 37.67	+58 19 41.8	8*4	.0065	19.5	−12.9	de:	11.02.91	3520–5560	BTA	BCDG					[23]
1120+605	11 20 05.22	+60 34 58.8	11 22 58.63	+60 18 30.7	9*6	.0920	18.0	−19.9	dse				E+A		S			[30]
1120+597	11 20 07.19	+59 47 17.2	11 22 59.97	+59 30 49.0	12	.0510	17.5	−19.8	de	15.01.99	4000–7000	BTA	SBN					
1120+526	11 20 16.60	+52 41 18.0	11 23 04.80	+52 24 49.9	36*20	.0397	16.5	−19.8	de				E+A					[30]
1120+540	11 20 27.21	+54 03 42.7	11 23 16.13	+53 47 14.3	18*12	.0093	16.5	−16.6	sd2e	06.04.92	3600–5500	BTA	BCDG					[26]
1120+591	11 20 33.87	+59 11 08.7	11 23 25.99	+58 54 40.2	9	.1730	18.0	−21.5	de:	12.01.99	4000–7000	BTA	E+A					
1120+586A	11 20 48.93	+58 39 10.0	11 23 40.55	+58 22 41.4	5	.0377	18.5	−17.7	s1	25.11.81	3400–5100	BTA	SBN					
1120+509	11 20 51.13	+50 56 15.2	11 23 38.29	+50 39 46.6	15*10	.0255	16.5	−18.8	d3e	20.03.99	4000–7100	GHO	SBN					[26]
1120+586B	11 20 56.72	+58 38 34.0	11 23 48.27	+58 22 05.3	5*3	.0371	18.5	−19.0	de:				SBN					[30]
1121+564	11 21 07.69	+56 26 59.6	11 23 57.72	+56 10 30.7	12	.0529	16.5	−20.4	ds2	04.05.98	4000–7100	GHO	SBN					[26]
1121+562	11 21 07.97	+56 16 29.8	11 23 57.90	+56 00 00.9	10	.	17.5		sd2									

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1121+586	11 21 09.04	+58 38 29.7	11 24 00.49	+58 22 00.8	10*7	.0533	17.0	−19.9	sd3e	09.04.81	5400–7500	BTA	SBN		S:			
1121+562A	11 21 11.45	+56 14 14.8	11 24 01.33	+55 57 45.8	16*14	.0529	15.4	−21.5	sd3e				Abs					
1121+562B	11 21 17.09	+56 16 15.5	11 24 06.95	+55 59 46.4	15*10	.0531	15.8	−21.1	sd3e				E+A					
1121+606	11 21 24.98	+60 36 55.5	11 24 17.75	+60 20 26.4	7	.2061	17.73	−22.1	s1	08.02.83	3400–5260	BTA	NLS1					[30]
1121+491A	11 21 39.60	+49 09 20.2	11 24 25.69	+48 52 51.2	12*6	.1031	17.0	−21.5	sde				Abs					[31]
1121+491B	11 21 41.16	+49 09 15.2	11 24 27.25	+48 52 46.2	12*6	.1073	17.0	−21.5	sde				Abs			R		[30]
1121+590	11 21 57.96	+59 04 10.0	11 24 49.32	+58 47 40.5	4	.0820	18.5	−20.5	de	12.01.99	4000–7000	BTA	E+A					
1122+575	11 22 12.58	+57 32 37.6	11 25 02.82	+57 16 08.0	8	.0062	17.5	−15.0	ds2e	09.04.81	3400–7500	BTA	BCDG					[12]
1122+590	11 22 18.27	+59 03 30.6	11 25 09.47	+58 47 00.9	9*6	.0604	18.5	−18.7	dse	10.04.81	3600–7500	BTA	HII					[12]
1122+610	11 22 22.51	+61 03 28.8	11 25 15.13	+60 46 59.1	5	.0335	18.5	−17.5	se	10.04.81	3400–7500	BTA	BCDG					[12]
1122+528	11 22 47.30	+52 49 17.0	11 25 34.61	+52 32 47.2	42*30	.0260	16.0	−19.4	sd3e				SBN	F11228+5249		R		[30]
1122+546B	11 22 47.83	+54 39 27.0	11 25 36.14	+54 22 57.0	78*12	.0208	15.97	−19.0	sd2	17.03.80	3500–7500	BTA	BLS1			R	Mkn40	
1123+598	11 23 03.66	+59 49 49.1	11 25 55.03	+59 33 18.9	6	.1133	18.0	−20.6	s1	14.03.83	3400–5100	BTA	HII					[12]
1123+576	11 23 23.03	+57 37 43.8	11 26 12.80	+57 21 13.4	12	.0048	16.5	−15.2	sd1e	19.01.78	3500–7000	BTA	BCDG					[12]
1123+570	11 23 24.37	+57 04 41.2	11 26 13.79	+56 48 10.8	15*7	.0532	17.0	−19.9	d3	25.03.99	4000–7100	GHO	HII					[26]
1123+550	11 23 40.23	+55 03 43.7	11 26 28.40	+54 47 13.1	20*14	.0472	16.5	−20.2	s3e	03.05.98	4000–7100	GHO	SBN	F11236+5503	S	R		[26]
1123+594B	11 23 53.96	+59 25 49.4	11 26 44.64	+59 09 18.6	36*24	.0040	14.2	−17.2	sd2e:	09.03.81	3500–7500	BTA	BCDG	F11239+5925		R	Mkn 169	[27]
1124+552	11 24 00.39	+55 13 05.9	11 26 48.51	+54 56 35.1	12*8	.0493	17.0	−19.7	sd1				SBN					[31]
1124+599	11 24 28.61	+59 54 07.2	11 27 19.33	+59 37 36.1	60*30	.0173	14.2	−20.7	sde:	09.04.81	5400–7500	BTA	E+A	F11244+5954	S:			[12]
1124+610	11 24 30.51	+61 01 25.0	11 27 22.00	+60 44 53.8	8	.0345	17.0	−19.0	ds1e	09.04.81	3500–7500	BTA	HII					[12]
1124+580	11 24 35.62	+58 00 42.3	11 27 25.07	+57 44 11.1	9*6	.0234	17.5	−17.7	sd3e	18.02.82	3400–7500	BTA	SBN					[12]
1124+541	11 24 45.35	+54 11 26.2	11 27 32.64	+53 54 54.9	24*16	.0100	16.5	−16.9	sd2e	19.01.78	3500–7500	BTA	BCDG				Mkn1446	
1124+575	11 24 50.75	+57 31 05.7	11 27 39.79	+57 14 34.3	15*8	.0113	17.0	−16.6	de	09.04.81	5400–7500	BTA	ELG					[12]
1124+561	11 24 54.11	+56 11 47.5	11 27 42.38	+55 55 16.1	20*14	.0182	16.5	−18.1	de	13.04.97	4000–7000	GHO	SBN					[6]
1125+562	11 25 16.72	+56 13 02.6	11 28 04.84	+55 56 31.0	10*7	.0190	16.5	−18.2	sd2e	03.03.87	3500–5500	BTA	SBN	F11252+5613				[21]
1125+588	11 25 43.70	+58 50 29.9	11 28 33.13	+58 33 58.0	136	.0104	11.8	−17.5	sd1e	09.03.81	3500–7500	BTA	HII	F11257+5850		R	Mkn 171	[28]
1125+524	11 25 50.63	+52 27 21.0	11 28 36.68	+52 10 49.0	18*9	.0100	16.0	−17.6	sd2e	15.03.91	3660–5670	BTA	SBN					[23]
1125+581	11 25 51.95	+58 06 39.3	11 28 40.88	+57 50 07.3	25*11	.0510	14.80	−21.9	s2e	19.03.80	3500–7500	BTA	BLS1	F11258+5806	SBc	R		[12]
1125+544	11 25 54.80	+54 26 48.0	11 28 41.71	+54 10 16.2	18*12	.0704	17.0	−20.4	sd3	02.01.85	5400–7500	BTA	Abs					
1126+514	11 26 01.81	+51 27 13.8	11 28 47.36	+51 10 41.7	12*8	.0356	17.0	−19.0	sd2e:				SBN					[30]
1126+586	11 26 21.33	+58 39 17.7	11 29 10.35	+58 22 45.4	9*6	.0433	17.5	−19.0	ds3e	19.03.80	5400–7500	BTA	SBN					[12]
1126+540	11 26 25.94	+54 00 33.0	11 29 12.48	+53 44 00.6	20*14	.0273	15.5	−20.0	de	08.05.98	4000–7100	GHO	SBN	F11264+5400		R		[26]
1127+536	11 27 01.51	+53 41 27.6	11 29 47.67	+53 24 54.9	14*9	.0574	16.5	−20.7	d3				SBN					[31]
1127+575	11 27 15.35	+57 35 03.2	11 30 03.35	+57 18 30.3	12	.0370	16.27	−19.9	s2e	16.11.79	5400–7500	BTA	LINER			R		[12,31]
1127+572	11 27 26.93	+57 12 18.5	11 30 14.63	+56 55 45.5	21*7	.0248	16.5	−18.7	de	20.03.99	4000–7100	GHO	SB					[26]
1127+581	11 27 27.92	+58 10 46.8	11 30 16.15	+57 54 13.8	14	.0416	16.5	−19.9	sd2e	19.03.80	5400–7500	BTA	SBN					[12]
1127+527	11 27 43.52	+52 44 45.4	11 30 28.99	+52 28 12.3	9	.0273	17.5	−18.0	sd1e	15.03.91	3660–5670	BTA	SBN					[23]
1127+498	11 27 44.75	+49 51 31.2	11 30 29.07	+49 34 58.1	14*10	.0959	16.43	−21.6	s2e	08.02.83	5400–7500	BTA	Sy1.5	F11277+4951	S	R	Mkn1447	[31]
1128+546	11 28 04.38	+54 40 15.2	11 30 50.57	+54 23 41.9	35*8	.0190	16.0	−18.7	de	09.03.97	4000–7000	GHO	SBN	F11280+5440	S:	R		[6]
1128+507	11 28 08.65	+50 46 55.2	11 30 53.18	+50 30 21.8	14*12	.0257	16.0	−19.3	sde	13.03.97	4000–7000	GHO	SBN					[6]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1128+577	11 28 19.35	+57 44 53.6	11 31 06.95	+57 28 20.1	12*8	.0491	17.0	−19.8	de	18.02.82	5400–7500	BTA						
1128+573	11 28 29.20	+57 20 34.0	11 31 16.51	+57 04 00.4	5	.0054	18.5	−13.5	sde	11.04.81	3500–7500	BTA	BCDG					[12]
1128+564A	11 28 31.17	+56 24 46.3	11 31 18.00	+56 08 12.7	10*8	.0510	16.5	−20.3	s3e:	09.04.81	3500–7500	BTA	LINER:			R	Mkn 174	
1128+610	11 28 39.64	+61 03 13.6	11 31 29.01	+60 46 39.9	6	.1115	18.5	−20.1	de	12.01.99	4000–7000	BTA	E+A					
1128+563	11 28 45.69	+56 20 36.1	11 31 32.38	+56 04 02.4	14	.0664	16.0	−21.4	se	19.03.99	4000–7100	GHO	LINER:				KUG	[26]
1128+516	11 28 47.01	+51 41 12.2	11 31 31.68	+51 24 38.2	16*12	.0263	16.5	−18.9	dse				E+A					[30]
1129+540	11 29 08.96	+54 01 32.3	11 31 54.43	+53 44 58.3	24*20	.0465	15.7	−20.9	sd3	18.02.82	5400–7500	BTA	E+A		S:			
1129+576	11 29 15.41	+57 39 19.7	11 32 02.54	+57 22 45.7	20*8	.0055	17.0	−15.0	de	18.02.82	3500–5500	BTA	BCDG					[18]
1129+577	11 29 16.87	+57 42 54.7	11 32 04.02	+57 26 20.7	90*60	.0058	15.3	−17.1	de	18.02.82	5400–7500	BTA	BCDG		SBd			[12]
1129+563	11 29 17.36	+56 21 04.3	11 32 03.77	+56 04 30.9	9	.0557	17.0	−20.1	sde									
1129+542	11 29 18.60	+54 12 08.0	11 32 04.10	+53 55 34.0	18*12	.	16.5		dse						S		KUG	
1129+541	11 29 34.90	+54 10 48.0	11 32 20.40	+53 54 17.0	66*36	.0095	14.6	−18.6	dse	09.03.83	3500–5400	BTA	SBN	F11295+5410	S:	R	KUG	
1129+575	11 29 35.61	+57 31 52.5	11 32 22.52	+57 15 18.3	16*14	.0303	16.0	−19.7	sde	07.04.81	5400–7500	BTA	ELG					[12]
1129+532	11 29 51.86	+53 13 26.3	11 32 36.72	+52 56 52.0	60*8	.0274	15.84	−19.8	sd2e	09.03.81	3500–7500	BTA	Sy2	F11299+5313	SA	R	Mkn 176	[8,9]
1130+557	11 30 26.80	+55 42 51.0	11 33 12.49	+55 26 16.6	16	.0652	17.0	−20.5	sd2	02.01.84	5400–7500	BTA	Abs					
1130+553	11 30 37.97	+55 20 55.7	11 33 23.41	+55 04 20.9	18*12	.0066	16.0	−16.2	ds2	11.02.91	3500–5400	BTA	BCDG		Pec.		Mkn 177	
1130+495	11 30 45.67	+49 30 47.1	11 33 28.85	+49 14 12.3	90*40	.0009	13.9	−14.4	sd2e	09.03.81	3500–7500	BTA	BCDG				Mkn 178	
1130+551	11 30 52.59	+55 11 05.3	11 33 37.86	+54 54 30.4	14*7	.0271	17.5	−18.1	de:				SBN					[31]
1131+577	11 31 00.98	+57 46 49.2	11 33 47.37	+57 30 14.2	12	.0527	17.0	−19.9	d3e:	18.02.82	5400–7500	BTA	ELG					[12]
1131+573	11 31 49.22	+57 21 17.1	11 34 35.05	+57 04 41.7	14*8	.0501	17.0	−19.8	ds3e:	10.04.81	5400–7500	BTA	E+A					[12]
1132+503	11 32 02.64	+50 22 38.5	11 34 45.66	+50 06 03.0	12*10	.0262	17.0	−18.4	ds1e	08.02.83	3700–7500	BTA	HII				Mkn1448	
1132+578	11 32 24.41	+57 51 20.1	11 35 10.21	+57 34 44.4	8	.0316	17.5	−18.3	sd2e	18.02.82	3600–7500	BTA	HII					[12]
1132+554A	11 32 26.70	+55 28 22.0	11 35 11.40	+55 11 46.5	12	.0581	17.5	−19.4	sd3	02.01.84	5400–7500	BTA						
1132+579	11 32 39.21	+57 55 35.2	11 35 24.93	+57 38 59.4	28*18	.0299	14.8	−20.9	se	19.03.80	5400–7500	BTA	SBN	F11326+5755	S:	R		[12]
1132+558	11 32 53.64	+55 48 33.6	11 35 38.33	+55 31 57.7	28*14	.0205	15.3	−19.6	de	16.02.94	3400–6900	BTA	SBN	F11329+5548		R	KUG	[26]
1133+572	11 33 03.97	+57 13 45.6	11 35 49.19	+56 57 09.6	36*15	.0510	15.79	−21.0	s1e	19.03.80	5400–7500	BTA	Sy2	F11330+5713	S	R		[9,16]
1133+605	11 33 13.08	+60 31 51.0	11 35 59.81	+60 15 14.9	20*10	.0161	16.5	−17.8	de:	18.02.82	5400–7500	BTA	SBN		S			[12]
1133+602	11 33 25.78	+60 15 11.1	11 36 12.26	+59 58 34.9	60*24	.0108	14.9	−18.7	sde	10.04.81	5400–7500	BTA	E+A		S		NGC3740	[12]
1133+584	11 33 41.01	+58 28 05.0	11 36 26.50	+58 11 28.7	90*24	.0041	14.3	−17.7	dse	07.04.81	3500–6700	BTA	ELG	F11337+5827	Scd:			[12]
1133+597	11 33 48.29	+59 42 13.7	11 36 34.30	+59 25 37.4	13*8	.0094	17.0	−16.2	sd2e	10.04.81	3500–7500	BTA	BCDG			R		[12]
1133+612	11 33 52.20	+61 14 30.9	11 36 38.97	+60 57 54.5	14*7	.0436	17.5	−19.0	sd2e	18.02.82	5400–7500	BTA	HII					[12]
1133+512	11 33 54.52	+51 16 44.7	11 36 37.07	+51 00 08.2	15	.0497	17.0	−19.8	de				Abs			R		[30]
1133+551	11 33 58.42	+55 07 21.8	11 36 42.39	+54 50 45.4	20	.0196	15.3	−19.5	sd2e:	16.03.80	3500–7500	BTA	SBN	F11339+5507	Sa:	R	Mkn 41	
1134+550	11 34 08.60	+55 05 48.0	11 36 52.45	+54 49 11.7	18	.0563	16.1	−20.9	ds2				E+A			R		[31]
1134+577	11 34 22.75	+57 42 34.6	11 37 07.58	+57 25 58.0	12*10	.1240	17.5	−22.3	dse	12.01.99	4000–7000	BTA	Abs					
1134+575	11 34 42.80	+57 33 54.6	11 37 27.42	+57 17 17.8	10	.0350	17.0	−19.0	sde:	10.04.81	5400–7500	BTA	SBN					[12]
1134+551	11 34 50.60	+55 07 48.4	11 37 34.17	+54 51 11.9	48*36	.0576	16.0	−21.1	d3				Abs					[31]
1134+598	11 34 58.21	+59 52 11.0	11 37 43.73	+59 35 34.1	4	.0323	19.0	−16.9	de	12.02.91	3600–5600	BTA	BCDG:					[23]
1135+575	11 35 08.22	+57 34 39.7	11 37 52.65	+57 18 02.7	10	.0684:	17.0	−20.5	sde:	10.04.81	5400–7500	BTA	SBN		S:			[12]
1135+601	11 35 18.57	+60 10 52.8	11 38 04.07	+59 54 15.8	8	.1080	18.5	−20.1	sde	12.01.99	4000–7000	BTA	E+A					

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1135+557	11 35 28.10	+55 44 26.0	11 38 11.63	+55 27 49.1	15*12	.0591	17.0	−20.1	sd2				E+A			R		
1135+581	11 35 51.36	+58 09 04.5	11 38 35.70	+57 52 27.2	13	.0032	15.5	−15.5	sd1e	19.03.80	3700–7500	BTA	BCDG	F11358+5809			Mkn1450	
1136+579	11 36 05.44	+57 59 21.2	11 38 49.61	+57 42 43.8	9*6	.1158	16.5	−22.1	s1e	16.11.79	5400–7500	BTA	BLS1		S		RBS1009	[12]
1136+499	11 36 13.05	+49 56 14.7	11 38 54.46	+49 39 37.5	30	.0229	15.7	−19.4	sde	20.03.99	4000–7100	GHO	E+A					[26]
1136+595	11 36 15.76	+59 30 24.1	11 39 00.48	+59 13 46.7	8	.1138	17.0	−21.7	s1e	13.01.78	3500–5500	BTA	NLS1					[12]
1136+594	11 36 24.27	+59 28 32.0	11 39 08.91	+59 11 54.5	11	.0601	16.26	−20.9	s1e	13.01.78	3500–5500	BTA	Sy1.5				RBS 1011	[12]
1136+559A	11 36 25.30	+55 56 29.2	11 39 08.50	+55 39 51.9	24	.0614	15.8	−21.4	sd3							R		
1136+607	11 36 26.31	+60 47 22.5	11 39 11.52	+60 30 45.0	8	.0117	18.0	−15.7	se	11.04.81	3600–7500	BTA	BCDG					[12]
1136+559B	11 36 29.10	+55 56 34.2	11 39 12.28	+55 39 56.9	18	.0626	16.3	−21.0	sd3						S	R		
1136+559C	11 36 31.00	+55 57 00.0	11 39 14.17	+55 40 22.7	14	.0608	17.0	−20.2	sd3							R		
1136+580	11 36 31.61	+58 02 57.6	11 39 15.60	+57 46 20.0	16*14	.0686	16.0	−21.6	dse:	11.04.81	3600–7500	BTA	Abs					[12,31]
1137+591	11 37 02.90	+59 08 27.7	11 39 47.08	+58 51 49.9	8*4	.1070	18.5	−21.2	de									
1137+552A	11 37 06.83	+55 16 45.1	11 39 49.57	+55 00 07.6	36*20	.0765	15.96	−21.2	sde				LINER			R		[31]
1137+552B	11 37 11.69	+55 14 23.2	11 39 54.37	+54 57 45.4	12	.0463	16.0	−20.6	d3	01.01.81	3500–7500	BTA	E+A			R	Mkn 184	
1137+588	11 37 32.80	+58 52 57.8	11 40 16.64	+58 36 19.8	6	.1540	18.5	−20.8	dse						S			
1137+589	11 37 48.33	+58 55 09.8	11 40 32.06	+58 38 31.7	8*6	.0064	18.0	−14.3	se	11.02.91	3530–5560	BTA	BCDG					[23]
1138+550	11 38 09.50	+55 04 49.0	11 40 51.69	+54 48 11.0	42*24	.0582	16.0	−21.0	ds2				LINER:					[31]
1139+572	11 39 13.48	+57 17 52.4	11 41 55.97	+57 01 13.8	12	.0706	17.5	−20.0	ds2e	11.04.81	5400–7500	BTA	E+A	F11392+5718:		R		[12]
1139+517	11 39 17.38	+51 45 54.0	11 41 58.23	+51 29 15.4	10	.0465	15.5	−21.3	s2	24.03.99	4000–7100	GHO	SBN			R		[26]
1139+570	11 39 34.79	+56 59 33.1	11 42 16.98	+56 42 54.7	30*15	.	16.5		de									
1139+550	11 39 45.53	+55 05 47.2	11 42 27.10	+54 49 08.4	28*14	.0103	16.0	−17.3	sde	07.03.97	4000–7000	GHO	Abs					
1139+601	11 39 58.78	+60 06 55.6	11 42 41.91	+59 50 16.7	9*6	.0419	18.0	−18.4	se	10.04.81	3500–7500	BTA	SBN:					[12]
1140+600A	11 40 07.22	+60 04 45.0	11 42 50.27	+59 48 06.1	10	.0440	17.0	−19.5	ds2e	19.03.80	5400–7500	BTA	SBN					[12]
1140+605	11 40 12.81	+60 32 15.7	11 42 56.00	+60 15 37.0	14*12	.0637	16.5	−20.9	sde				Abs					[30]
1140+600B	11 40 37.26	+60 01 38.8	11 43 20.04	+59 44 59.7	9*6	.0620	18.0	−21.5	sde:				E+A					[30]
1140+574	11 40 40.06	+57 25 01.4	11 43 21.94	+57 08 22.3	12*9	.0324	17.0	−18.9	sd2e	11.04.81	5400–7500	BTA	E+A					[12]
1140+529	11 40 46.73	+52 59 19.0	11 43 27.33	+52 42 39.8	66*42	.0188	15.0	−19.7	sde	09.03.97	4000–7000	GHO	SBN	F11407+5259	SBb		NGC3829	[6]
1140+537	11 40 52.31	+53 46 39.5	11 43 33.07	+53 30 00.3	12*8	.0280	16.5	−19.1	sd1e	19.01.78	3500–7500	BTA	HII			R	Mkn1451	[31]
1141+553	11 41 05.36	+55 19 27.8	11 43 46.44	+55 02 48.5	23*15	.0222	15.3	−19.8	sd3e:	20.02.82	5400–7500	BTA	E+A	F11411+5519	Sbc		Mkn1452	[31]
1141+576	11 41 35.11	+57 41 11.0	11 44 16.65	+57 24 31.6	4	.0310	19.0	−17.7	sde	15.01.99	4000–7000	BTA	HII					
1141+588	11 41 41.00	+58 48 55.0	11 44 22.85	+58 32 15.5	8*6	.0799	18.0	−20.0	de:	11.04.81	5400–7500	BTA	E+A					[12]
1142+587	11 42 08.78	+58 44 56.3	11 44 50.39	+58 28 16.7	8	.1547	18.0	−21.2	sde:	27.11.98	4000–7000	BTA	Abs					
1142+507	11 42 10.55	+50 42 50.4	11 44 50.12	+50 26 10.8	7	.2510	18.06	−22.3	s2	22.03.93	3300–7000	MMT	Sy1.5			R		[2,3]
1142+592A	11 42 37.27	+59 12 02.5	11 45 18.79	+58 55 22.7	7	.1540	18.0	−21.3	ds2e	15.01.99	4000–7000	BTA	Sy1.5:					[30]
1142+558	11 42 45.08	+55 48 16.4	11 45 25.59	+55 31 36.6	14*11	.0527	16.0	−20.9	sd3	21.02.82	3700–7500	BTA	LINER:	F11427+5548		R	Mkn 1455	
1142+592B	11 42 56.92	+59 15 16.4	11 45 38.30	+58 58 36.5	5	.1140	18.5	−20.2	dse	15.01.99	4000–7000	BTA	Abs					
1143+588	11 43 17.61	+58 48 45.8	11 45 58.69	+58 32 05.8	18*14	.0027	15.5	−15.0	de:	11.04.81	5400–7500	BTA	E+A					[12]
1143+504	11 43 17.79	+50 28 45.6	11 45 56.92	+50 12 05.6	60*54	.0025	13.2	−16.5	ds1e	01.01.81	3500–7500	BTA	HII	F11433+5028	SO:		Mkn 186	
1144+590	11 44 22.56	+59 01 11.6	11 47 03.18	+58 44 31.3	14*8	.0116	16.0	−17.6	de	05.01.84	3700–5900	BTA	SBN					[18]
1144+591	11 44 38.22	+59 09 49.0	11 47 18.75	+58 53 08.7	12*10	.0091	16.5	−16.6	d2e	19.03.80	3700–7500	BTA	BCDG					[12]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1144+527A	11 44 41.08	+52 45 58.8	11 47 20.14	+52 29 18.5	12*8	.0472	16.0	−20.7	d3e:	21.02.82	5400–7500	BTA	SBN				Mkn1456	
1144+605	11 44 42.01	+60 34 42.4	11 47 22.91	+60 18 02.0	60	.0119	13.9	−20.1	se:	11.04.81	5400–7500	BTA	ELG	F11446+6034	S:		NGC3835A	[12]
1144+608	11 44 42.01	+60 52 03.2	11 47 22.99	+60 35 22.8	10	.1340	18.0	−21.5	de	25.04.99	4000–7000	BTA	Abs					
1144+527B	11 44 42.54	+52 43 38.6	11 47 21.59	+52 26 58.2	30*18	.0489	15.7	−21.1	s2e:	21.02.82	3500–7500	BTA	Sy2	F11447+5243		R	Mkn1457	[8]
1144+562	11 44 54.60	+56 14 38.2	11 47 34.29	+55 57 57.7	98*78	.0080	12.6	−20.2	sd3	09.03.81	3500–7500	BTA	E+A	F11449+5614	SABc	R	Mkn 188	
1144+579	11 44 59.50	+57 55 22.9	11 47 39.55	+57 38 42.5	30*25	.0308	13.9	−21.8	de					F11449+5755	Sb	R		
1145+547	11 45 02.35	+54 46 35.1	11 47 41.67	+54 29 54.6	18*12	.0324	15.6	−20.2	ds3e				E+A	F11450+5447:	S			[31]
1145+527	11 45 02.76	+52 43 35.7	11 47 41.68	+52 26 55.3	24*18	.0488	15.6	−21.1	s3e:	03.01.84	3500–5400	BTA	LINER				Mkn1458	[30]
1145+601	11 45 04.52	+60 09 52.3	11 47 45.11	+59 53 11.8	18	.0041	15.3	−16.7	dse	19.03.80	5400–7500	BTA	BCDG	F11450+6009				
1145+549	11 45 26.66	+54 55 26.7	11 48 05.81	+54 38 46.4	20	.0599	16.5	−20.6	dse				Abs					[31]
1145+577	11 45 32.61	+57 45 41.8	11 48 12.37	+57 29 01.2	13	.0570	17.5	−19.6	dse				E+A		S			[31]
1145+558	11 45 36.20	+55 53 45.0	11 48 15.48	+55 37 04.6	30*24	.0510	16.0	−20.8	sde	27.04.00	4000–9000	GHO	E+A	F11456+5553	S			[26]
1146+593A	11 46 01.38	+59 19 55.0	11 48 41.28	+59 03 14.3	24*14	.0436	15.5	−21.1	se	15.04.96	4000–7000	GHO	ELG	F11459+5920	S			[5]
1146+604	11 46 09.91	+60 28 24.7	11 48 50.03	+60 11 44.0	45*24	.0117	15.0	−18.6	de	27.11.81	5400–7500	BTA	E+A	F11461+6028		R		[12]
1147+564	11 47 13.20	+56 25 38.0	11 49 51.89	+56 08 56.2	25*15	.0501	17.5	−19.3	dse				SBN	F11471+5625	E			[31]
1147+520	11 47 16.30	+52 00 51.6	11 49 54.26	+51 44 10.6	10*8	.0039	17.0	−14.2	ds2e	30.01.90	3700–5400	BTA	BCDG					[21]
1147+540A	11 47 25.07	+54 01 37.6	11 50 03.30	+53 44 56.6	8	.0521	17.5	−19.3	d3				SBN					[31]
1147+540B	11 47 41.30	+54 04 05.0	11 50 19.42	+53 47 23.9	12	.0610	17.0	−20.3	sd2				BLS1		S			[31]
1147+599	11 47 48.24	+59 57 20.3	11 50 27.41	+59 40 39.2	6	.1078	18.5	−20.1	de				SBN					[30]
1148+553	11 48 28.62	+55 21 22.9	11 51 06.63	+55 04 41.7	120*78	.0195	13.4	−21.4	sd2e	09.03.81	3500–7500	BTA	LINER	F11484+5521	SAOp	R	Mkn 430	
1148+566	11 48 47.99	+56 41 08.4	11 51 26.08	+56 24 27.1	35*9	.0183	15.5	−19.1	de	15.03.00	3500–7000	BTA	SBN					
1148+601	11 48 58.39	+60 06 54.4	11 51 37.01	+59 50 13.1	7	.0650	18.0	−19.4	d3				HII					
1149+601	11 49 04.65	+60 06 50.8	11 51 43.22	+59 50 09.5	8	.0117	17.5	−16.2	ds2e				Abs					[30]
1149+596A	11 49 17.40	+59 38 48.4	11 51 55.77	+59 22 07.0	12	.0650	17.0	−20.4	ds2e:				E+A					[30]
1149+579	11 49 23.46	+57 58 16.8	11 52 01.49	+57 41 35.4	11	.0323	17.5	−18.3	ds1e	25.01.90	3700–5400	BTA	HII					[21]
1149+505	11 49 25.60	+50 33 23.8	11 52 02.59	+50 16 42.4	21*14	.0230	15.5	−19.6	de:	15.04.96	4000–7000	GHO	E+A	F11494+5033				[5]
1149+536	11 49 32.12	+53 35 41.1	11 52 09.41	+53 18 59.9	12	.0571	17.0	−20.1	sde	27.04.00	4000–9000	GHO	LINER:					[26,30]
1149+522	11 49 34.40	+52 16 05.0	11 52 11.50	+51 59 23.8	30*15	.0230	16.0	−19.1	d3				SBN	F11495+5216			KUG	[30]
1149+596B	11 49 55.98	+59 39 37.2	11 52 34.04	+59 22 55.7	9*6	.0116	18.0	−15.6	sd2e	23.01.90	3700–5500	BTA	BCDG					
1149+593	11 49 57.58	+59 21 40.8	11 52 35.57	+59 04 59.3	7	.0108	18.0	−15.5	dse				BCDG					[30]
1150+545	11 50 05.80	+54 29 52.2	11 52 42.98	+54 13 10.9	16*10	.	16.5		de					F11500+5429		R		
1150+583	11 50 48.97	+58 23 25.7	11 53 26.40	+58 06 44.1	8	.0655	17.5	−19.6	sd2e	09.03.87	3700–7300	BTA	Sy2			R		[21,31]
1150+599B	11 50 51.21	+59 58 38.1	11 53 28.86	+59 41 56.5	36*30	.0371	15.5	−20.5	de	15.04.96	4000–7000	GHO	E+A					[5]
1150+579	11 50 59.28	+57 55 30.7	11 53 36.57	+57 38 49.0	5	.0340	19.0	−17.0	s1				BCDG:					
1151+579	11 51 06.22	+57 56 32.8	11 53 43.46	+57 39 51.1	12	.0350	17.5	−18.5	de:				LINER		S			[31]
1151+611	11 51 11.36	+61 08 51.5	11 53 49.03	+60 52 09.8	9*7	.0040	18.0	−13.4	dse				BCDG					[30]
1152+575	11 52 15.98	+57 34 50.2	11 54 52.64	+57 18 08.4	14*9	.0190	17.0	−17.7	de				E+A					[31]
1152+525	11 52 38.68	+52 35 34.6	11 55 14.66	+52 18 52.9	24	.0351	17.0	−18.0	dse				SBN		S:			[30]
1152+514	11 52 44.35	+51 24 17.0	11 55 20.24	+51 07 35.1	18*12	.0120	17.0	−16.7	s3e:	07.01.81	3500–7500	BTA	BCDG				Mkn 192	
1152+579	11 52 51.89	+57 56 34.0	11 55 28.32	+57 39 52.1	9*7	.0172	16.5	−18.0	d1e	11.02.91	3600–5500	BTA	HII		SB		Mkn 193	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1153+565	11 53 00.95	+56 31 54.1	11 55 37.17	+56 15 12.2	16*10	.0034	15.6	−15.4	ds2e:	08.05.98	4000–7100	GHO	BCDG					[26]
1153+598	11 53 22.55	+59 48 11.8	11 55 58.93	+59 31 29.9	8	.2400	18.0	−22.2	s2				BLS1					[30]
1153+575	11 53 41.82	+57 34 39.6	11 56 17.83	+57 17 57.6	20*8	.0220	16.5	−18.5	de				SBN	F11537+5734	S:			
1154+534	11 54 14.49	+53 26 16.0	11 56 49.96	+53 09 34.0	70*35	.0040	14.1	−17.2	de	12.02.91	3600–5600	BTA	HII	F11541+5326	S		KUG	[23]
1154+578	11 54 34.17	+57 49 57.5	11 57 09.80	+57 33 15.4	7	.0650	18.0	−19.4	s3e:				Abs					[31]
1154+583B	11 54 48.30	+58 22 17.5	11 57 23.86	+58 05 35.4	6	.1540	18.5	−20.8	de				LINER					[31]
1155+588	11 55 11.70	+58 51 44.6	11 57 47.11	+58 35 02.5	8	.0650	17.5	−19.9	ds2e	11.02.91	3520–5500	BTA	HII					[23]
1155+530	11 55 20.00	+53 00 53.0	11 57 54.99	+52 44 11.1	16*12	.	17.0		dse					F11553+5300				
1155+576	11 55 20.54	+57 36 05.4	11 57 55.80	+57 19 23.3	16*10	.0800	17.0	−21.0	ds2e:				E+A		S			[31]
1155+578	11 55 55.58	+57 52 05.3	11 58 30.59	+57 35 23.2	6	.0800	18.5	−19.5	sde:				Abs					[31]
1156+581	11 56 22.15	+58 07 49.5	11 58 56.97	+57 51 07.3	11	.1060	18.0	−20.8	se									
1156+545	11 56 24.59	+54 31 03.5	11 58 59.25	+54 14 21.3	36	.0119	14.7	−19.0	sd3e:	09.04.81	3500–7500	BTA	Abs		S:		Mkn 433	
1156+510	11 56 25.63	+51 05 17.0	11 59 01.21	+50 48 34.1	20*12	.	17.0		dse					F11564+5105		R		
1157+581	11 57 28.34	+58 06 26.8	12 00 02.64	+57 49 44.6	10*6	.0660	18.0	−19.4	de:				SBN					[31]
1157+565A	11 57 39.64	+56 31 44.0	12 00 13.79	+56 15 02.0	14	.0642	16.5	−21.3	sd3							R	VIIZw432	
1157+565B	11 57 41.70	+56 32 30.0	12 00 15.84	+56 15 48.0	10	.0642	16.5	−21.3	sd3								VIIZw432	
1158+590	11 58 14.75	+59 04 21.9	12 00 48.70	+58 47 39.7	14	.0543	16.5	−20.5	sd2e	09.03.97	4000–7000	GHO	SBN					[6]
1158+548	11 58 16.30	+54 52 14.0	12 00 50.17	+54 35 31.9	12*9	.0824	17.0	−20.9	dse				E+A	F11582+5452	S	R		[31]
1158+595	11 58 36.58	+59 33 19.1	12 01 10.36	+59 16 36.9	7	.1120	18.0	−20.7	ds2				Sy1.5:					[30]
1158+550	11 58 55.05	+55 03 53.2	12 01 28.69	+54 47 11.0	8*4	.0641	17.5	−20.3	d3				SBN					[31]
1159+544	11 59 24.30	+54 27 53.5	12 01 57.75	+54 11 11.3	12	.0554	16.5	−20.5	sd2	06.03.97	4000–7000	GHO	HII					[6]
1159+545	11 59 28.99	+54 32 33.0	12 02 02.41	+54 15 50.8	5	.0120	18.0	−15.8	sde	27.01.90	3640–5500	BTA	BCDG					[21]
1159+516A	11 59 31.48	+51 40 22.4	12 02 04.91	+51 23 40.2	8	.0289	18.0	−17.7	se				SBN:					[30]
1159+540	11 59 31.96	+53 59 29.6	12 02 05.32	+53 42 47.6	12	.0639	17.0	−20.3	sd3e				Abs				KUG	[31]
1159+516B	11 59 38.35	+51 41 04.1	12 02 05.74	+51 23 21.9	6	.0144	17.5	−16.6	de	11.02.91	3520–5560	BTA	BCDG					[23]
1200+566	12 00 08.97	+56 39 21.6	12 02 42.07	+56 22 39.4	35*14	.0183	15.5	−19.1	sde	21.03.99	4000–7100	GHO	SBN			R		[26]
1200+590	12 00 12.17	+59 05 36.7	12 02 45.18	+58 48 54.5	9	.0320	17.5	−18.4	sde				E+A					[30]
1200+571	12 00 30.58	+57 11 43.2	12 03 03.50	+56 55 01.0	8	.0190	17.0	−17.7	de				HII					
1200+608	12 00 30.60	+60 48 01.1	12 03 03.40	+60 31 18.9	13	.0655	16.5	−20.9	s1e:	09.03.83	3500–5400	BTA	LINER			R		[14]
1200+516	12 00 44.72	+51 40 46.1	12 03 17.70	+51 24 03.9	8	.0278	17.0	−18.5	d1e	21.02.82	5400–7500	BTA	HII				Mkn1465	
1200+589B	12 00 49.92	+58 58 17.9	12 03 22.63	+58 41 35.7	7	.0326	18.5	−17.4	sde	11.02.91	3520–5500	BTA	BCDG					[23]
1200+589C	12 00 53.12	+58 58 23.3	12 03 25.81	+58 41 41.1	5	.0325	18.5	−17.4	de	11.02.91	3520–5500	BTA	BCDG					[23]
1201+513A	12 00 59.51	+51 21 29.0	12 03 32.38	+51 04 47.0	30*10	.0270	16.5	−19.1	dse				SB	F12009+5121				
1201+608	12 01 02.26	+60 48 35.5	12 03 34.79	+60 31 53.3	30*16	.0140	15.6	−18.5	ds3	23.03.80	3500–7500	BTA	SBN		SO:		Mkn 45	
1201+520	12 01 06.00	+52 01 00.0	12 03 38.81	+51 44 18.0	16	.0631	16.5	−20.8	sd2	02.01.84	5400–7500	BTA						
1201+551	12 01 09.46	+55 06 12.3	12 03 42.17	+54 49 30.1	14*7	.0518	17.5	−19.2	sde:				SBN					[31]
1201+578A	12 01 16.48	+57 49 18.4	12 03 49.03	+57 32 36.2	10*7	.0660	18.0	−19.4	de				E+A					[31]
1201+578B	12 01 22.94	+57 49 34.2	12 03 55.44	+57 32 52.1	7	.0650	17.5	−19.9	sde						S:			
1201+584	12 01 36.39	+58 24 56.5	12 04 08.76	+58 08 14.4	6	.1230	18.0	−20.6	sd2e:				SBN			R		
1202+583	12 02 26.96	+58 23 08.0	12 04 58.94	+58 06 25.9	66*42	.0087	15.4	−17.5	de	08.02.83	5400–7500	BTA	BCDG		SBm			[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1202+606	12 02 45.23	+60 37 02.0	12 05 16.89	+60 20 19.9	6	.0208	18.5	−16.4	de				BCDG					[30]
1203+598	12 03 08.47	+59 49 14.8	12 05 40.00	+59 32 32.8	12*6	.0410	17.0	−19.4	ds3e:				E+A		S:			[30]
1203+592	12 03 43.12	+59 14 58.3	12 06 14.42	+58 58 16.3	20*10	.0109	16.5	−17.2	d2e	11.02.91	3520–5500	BTA	BCDG					[23]
1203+582	12 03 51.62	+58 16 17.6	12 06 22.94	+57 59 35.6	10*8	.0460	17.5	−19.2	sd2e:									
1204+582	12 04 05.62	+58 17 42.4	12 06 36.83	+58 01 00.5	8	.0450	17.5	−19.1	sd3									
1204+568	12 04 12.21	+56 49 17.9	12 06 43.51	+56 32 36.0	21*10	.0308	15.6	−20.1	d3e	07.03.97	4000–7000	GHO	ELG	F12042+5649	S	R		[6]
1204+505B	12 04 23.86	+50 34 18.5	12 06 55.55	+50 17 36.8	10*8	.0620	17.0	−20.3	sd3				Sy1.8		S			[30]
1204+586	12 04 29.00	+58 36 18.6	12 07 00.00	+58 19 36.7	12*8	.0630	17.0	−20.3	de:									
1204+591A	12 04 31.26	+59 06 40.8	12 07 02.18	+58 49 58.9	14*7	.0316	16.5	−19.3	se:				LINER:	F12045+5906:				
1204+591B	12 04 31.98	+59 06 25.4	12 07 02.90	+58 49 43.5	12*7	.0313	17.0	−18.8	se:				LINER:			R		
1204+603	12 04 44.18	+60 21 02.3	12 07 14.85	+60 04 20.4	10*8	.0630	17.5	−19.8	sd2e				LINER		S	R		
1204+579	12 04 49.77	+57 54 48.6	12 07 20.68	+57 38 06.7	15*9	.0310	16.5	−19.3	s3e	03.05.98	4000–7100	GHO	LINER:	F12048+5754	S	R		[26]
1204+554	12 04 55.87	+55 28 06.3	12 07 26.99	+55 11 24.4	10	.1050	17.5	−21.0	s2				Abs					[31]
1205+556	12 05 33.81	+55 41 09.1	12 08 04.64	+55 24 27.3	8	.0517	17.08	−19.9	ds3e:	08.03.97	4000–7000	GHO	Sy2					[6,31]
1205+557	12 05 57.52	+55 42 07.7	12 08 28.18	+55 25 26.0	10*8	.0060	17.0	−15.4	sd2e	20.01.90	3700–7200	BTA	BCDG					[21]
1206+599	12 06 03.48	+59 59 08.2	12 08 33.54	+59 42 26.5	7	.0570	18.0	−19.1	de				E+A			R		[30]
1206+609	12 06 05.04	+60 57 06.2	12 08 34.94	+60 40 24.5	6*4	.1130	18.5	−20.2	ds3e:				SB					[30]
1207+575	12 07 05.52	+57 34 21.0	12 09 35.44	+57 17 39.4	7	.0540	18.0	−19.0	s3e:				E+A					
1207+531	12 07 43.75	+53 07 36.9	12 10 14.00	+52 50 55.5	13	.0352	16.5	−19.5	sd2e	16.02.94	3400–6900	BTA	HII					[26]
1208+531	12 08 30.72	+53 06 38.6	12 11 00.67	+52 49 57.3	10	.0025	16.5	−13.7	sd2e:	17.02.94	3400–6900	BTA	BCDG					[26]
1208+550	12 08 33.80	+55 03 41.1	12 11 03.45	+54 46 59.8	9*6	.1180	18.0	−19.7	sde				NLS1:					[31]
1208+587	12 08 37.55	+58 47 54.4	12 11 06.55	+58 31 13.1	14*8	.0330	17.0	−19.1	de:				HII					
1208+566	12 08 47.42	+56 38 39.8	12 11 16.73	+56 21 58.5	8*6	.	17.5		sd3									
1208+590	12 08 56.17	+59 02 13.4	12 11 24.98	+58 45 32.2	25*13	.0107	15.4	−18.1	de:	16.04.96	4000–7000	GHO	HII					[5]
1209+605A	12 09 12.59	+60 34 18.8	12 11 40.95	+60 17 37.6	6	.0430	18.5	−18.0	ds3				SBN					
1209+605B	12 09 17.20	+60 34 40.7	12 11 45.52	+60 17 59.5	7	.0430	18.0	−18.5	sd2				SBN					
1209+604	12 09 41.60	+60 24 38.9	12 12 09.75	+60 07 57.8	12*9	.0570	17.5	−19.6	sd3e:				SBN					[30]
1210+593	12 10 10.88	+59 19 07.0	12 12 39.03	+59 02 26.0	10*7	.0990	18.0	−20.3	sde				SBN		S:	R		[30]
1210+537A	12 10 26.76	+53 44 19.1	12 12 55.87	+53 27 38.2	12*9	.0050	16.5	−15.3	sd2e	16.03.80	3500–5500	BTA	BCDG					[19]
1210+578	12 10 33.94	+57 48 59.4	12 13 02.23	+57 32 18.5	12*6	.0190	17.0	−17.7	de:				SB		S:			[31]
1210+602	12 10 36.40	+60 16 33.6	12 13 04.12	+59 59 52.7	9*6	.0600	18.5	−18.6	sd3e:				SBN		S:			[30]
1210+583	12 10 41.98	+58 22 23.2	12 13 10.09	+58 05 42.3	9*7	.0520	18.0	−18.0	sd2e:				SB					
1211+564	12 11 07.48	+56 25 14.8	12 13 35.81	+56 08 34.0	6	.0108	18.5	−15.0	sd1e:	27.12.84	3500–5700	BTA	BCDG:					
1211+501	12 11 07.67	+50 07 23.3	12 13 37.10	+49 50 42.5	8*6	.0206	18.5	−16.3	se	09.03.83	3500–5400	BTA	BCDG				HS	
1211+542A	12 11 08.59	+54 17 38.2	12 13 37.35	+54 00 57.7	15*10	.0470	17.0	−20.2	sde	09.03.83	3500–5400	BTA	LINER		Sab			
1211+542	12 11 13.40	+54 17 44.7	12 13 42.10	+54 01 04.0	14*7	.0480	17.5	−19.1	sde:				SBN					[31]
1211+596	12 11 32.89	+59 41 00.1	12 14 00.25	+59 24 19.8	16*12	.0596	17.0	−20.2	sd3e				E+A					[30]
1211+540	12 11 33.84	+54 01 58.6	12 14 02.45	+53 45 17.9	8	.0035	18.0	−13.0	d2e	26.01.90	3650–5440	BTA	BCDG					[21]
1211+548	12 11 41.74	+54 48 15.5	12 14 10.15	+54 31 34.9	30*20	.0084	13.0	−19.8	ds2e	23.03.80	3500–7500	BTA	HII	F12116+5448	IBm	R	Mkn 201	[8]
1211+559	12 11 42.42	+55 57 43.5	12 14 10.59	+55 41 02.9	12*6	.1607	19.0	−20.6	de				E+A		S			[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1211+532B	12 11 49.62	+53 13 08.7	12 14 18.24	+52 56 28.3	16*10	.	16.5		sde					F12118+5313		R		
1211+598	12 11 50.82	+59 53 35.9	12 14 18.01	+59 36 55.3	54*48	.0138	14.9	−19.1	se	16.04.96	4000–7000	GHO	E+A		SBcd		NGC 4195	[5]
1212+493	12 12 05.99	+49 23 27.9	12 14 35.20	+49 06 47.4	9*7	.0120	18.0	−15.8	sd2e:	15.03.91	3700–5500	BTA	BCDG					
1212+536	12 12 09.38	+53 37 42.0	12 14 37.83	+53 21 01.5	10*6	.0260	18.0	−17.4	de:				BCDG					[30]
1212+558	12 12 13.02	+55 53 14.4	12 14 40.99	+55 36 33.9	7	.1380	17.0	−21.8	s1e	16.03.80	3600–5400	BTA	BLS1					[19]
1212+505	12 12 19.55	+50 32 55.9	12 14 48.50	+50 16 15.4	7	.0134	18.5	−15.4	de				BCDG					[30]
1212+563	12 12 20.71	+56 21 59.3	12 14 48.52	+56 05 18.8	4	.0477	19.5	−17.2	de	27.12.84	3500–5500	BTA	BCDG					[19]
1212+601A	12 12 21.76	+60 11 03.1	12 14 48.62	+59 54 22.6	42*30	.0604	16.5	−20.7	sd3				Abs				NGC4199A	[30]
1212+601B	12 12 24.85	+60 11 14.1	12 14 51.68	+59 54 33.6	8	.0612	17.0	−20.7	sd3								NGC4199B	
1212+581	12 12 45.92	+58 08 37.4	12 15 13.12	+57 51 57.1	14*7	.0510	17.0	−19.3	de				SBN	F12127+5808	S:	R		
1213+516	12 13 13.71	+51 40 10.5	12 15 42.13	+51 23 30.3	7	.0903	18.0	−20.0	de				SBN					[30]
1213+549A	12 13 21.70	+54 59 04.3	12 15 49.39	+54 42 24.1	8	.1503	16.91	−22.3	s1	16.03.80	3600–5300	BTA	NLS1			R		[8,9]
1213+547	12 13 24.66	+54 42 33.5	12 15 52.39	+54 25 53.3	14*7	.0536	17.5	−19.4	sd2	31.12.84	3500–5500	BTA	SBN					[19]
1213+597	12 13 34.82	+59 47 10.0	12 16 01.18	+59 30 29.9	27*13	.0147	15.6	−18.6	ds2e:	21.02.82	3600–7500	BTA	SBN	F12135+5947			Mkn1468	
1213+549B	12 13 35.37	+54 59 32.7	12 16 02.96	+54 42 52.6	15*9	.0181	17.22	−17.4	de	31.12.84	3500–5500	BTA	BCDG					[19]
1213+511	12 13 38.62	+51 06 11.2	12 16 07.00	+50 49 31.1	48*18	.0311	15.41	−20.4	sd2e	21.02.82	3600–7500	BTA	Sy1.5		SBb:	R	Mkn1469	[25]
1213+581	12 13 41.36	+58 07 55.0	12 16 08.13	+57 51 14.9	11	.0510	18.0	−17.3	de									
1213+554	12 13 56.02	+55 26 32.7	12 16 23.37	+55 09 52.7	6	.1768	18.5	−21.1	s1	27.12.84	3500–5400	BTA	SBN					
1214+581	12 14 00.73	+58 09 17.9	12 16 27.35	+57 52 37.9	42*30	.0156	15.7	−18.6	s3	17.03.80	3500–7500	BTA	Abs		SO		Mkn 48	
1214+603A	12 14 34.11	+60 19 10.6	12 16 59.81	+60 02 30.8	5	.0990	18.0	−20.3	ds3				SBN					[26]
1214+564	12 14 35.92	+56 25 07.5	12 17 02.74	+56 08 27.7	12*9	.0521	15.4	−21.3	d3e:	12.02.91	3600–5500	BTA	SBN	F12146+5625		R		[26]
1214+590	12 14 37.24	+59 02 42.4	12 17 03.32	+58 46 02.6	5	.0651	19.0	−18.4	d2				Abs					[31]
1214+603B	12 14 46.09	+60 22 53.5	12 17 11.67	+60 06 13.7	20	.0455	16.5	−21.6	ds3e	27.04.00	4000–9000	GHO	E+A					[26]
1215+565	12 15 22.99	+56 31 22.5	12 17 49.44	+56 14 42.9	5	.0168	18.0	−16.4	ds3	27.12.84	3500–5700	BTA	E+A					
1215+519	12 15 28.17	+51 58 57.5	12 17 55.67	+51 42 17.8	20*9	.0304	17.0	−18.8	sde				SBN					[30]
1215+589	12 15 29.25	+58 56 15.1	12 17 54.94	+58 39 35.5	20*15	.0210	15.5	−19.4	d2e:	23.03.80	3500–7500	BTA	NLS1				Mkn 202	[31]
1215+599	12 15 34.06	+59 56 01.6	12 17 59.39	+59 39 22.1	6	.0510	18.5	−16.8	sd2				SB					[30]
1215+558	12 15 45.92	+55 53 01.1	12 18 12.38	+55 36 21.6	14*9	.0314	17.0	−18.8	ds2e	01.01.85	3550–5500	BTA	SBN					[23]
1216+590	12 16 01.92	+59 02 12.5	12 18 27.32	+58 45 33.1	7	.0140	17.5	−16.5	s2e:				BCDG					[30]
1216+516	12 16 09.13	+51 41 31.8	12 18 36.44	+51 24 52.6	36*30	.0489	16.5	−20.2	ds2e	27.04.00	4300–9000	GHO	Sy2	F12161+5141	S			[26]
1216+550A	12 16 23.13	+55 01 37.0	12 18 49.56	+54 44 57.7	9	.0527	18.0	−18.9	sd3	31.12.84	3700–5700	BTA	SB					[19]
1216+550B	12 16 35.74	+55 05 33.6	12 19 02.07	+54 48 54.4	10*6	.0530	18.5	−18.5	de:				SBN					
1216+551	12 16 55.19	+55 08 15.8	12 19 21.37	+54 51 36.7	8	.0179	18.0	−16.6	sd1e	18.02.82	3700–5500	BTA	BCDG					[19]
1217+528	12 17 13.69	+52 49 58.8	12 19 40.36	+52 33 19.8	9*7	.0591	17.5	−19.6	s1	22.03.93	3500–7000	MMT	SB					
1217+560	12 17 27.38	+56 01 45.5	12 19 53.05	+55 45 06.1	11*8	.1076	18.5	−20.0	s1	19.02.82	3500–5400	BTA	Sy1.5			R		[19,31]
1217+553	12 17 27.97	+55 23 18.0	12 19 53.85	+55 06 39.1	6	.0375	18.0	−18.2	s2e	27.12.84	3500–5500	BTA	SBN					[19]
1217+559A	12 17 51.24	+55 59 42.8	12 20 16.78	+55 43 04.1	14*9	.0305	16.5	−19.2	ds3e:	01.01.81	5400–7500	BTA	SBN			R		[19]
1218+551A	12 18 06.78	+55 10 38.0	12 20 32.46	+54 53 59.3	10*6	.0310	18.5	−17.5	de				BCDG					[31]
1218+525	12 18 09.50	+52 32 09.0	12 20 35.86	+52 15 30.6	60*18	.0290	15.6	−20.0	de				E+A	F12181+5232				[30]
1218+521	12 18 41.40	+52 10 27.0	12 21 07.66	+51 53 48.8	36*24	.0490	16.5	−20.3	sde				SBN	F12186+5210	S	R		[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1218+551B	12 18 54.14	+55 06 01.7	12 21 19.51	+54 49 23.3	18*12	.0364	16.5	−19.6	d3e	13.04.96	4000–7000	GHO	Sy2		S	R		[31]
1218+505	12 18 57.43	+50 30 52.2	12 21 24.06	+50 14 13.9	30*15	.0286	15.5	−20.1	de	08.03.97	4000–7000	GHO	E+A					[6]
1219+534A	12 19 02.04	+53 27 25.9	12 21 27.85	+53 10 47.6	10	.0356	17.5	−18.5	dse	19.03.80	5400–7500	BTA	SB					
1219+559	12 19 03.84	+55 55 00.8	12 21 28.89	+55 38 22.5	10*7	.0310	18.5	−17.5	se:				SBN					[31]
1219+534B	12 19 05.36	+53 27 57.7	12 21 31.15	+53 11 19.4	16*10	.0357	16.0	−20.0	sd2e	19.03.80	5400–7500	BTA	HII	F12191+5327			Mkn1472	
1219+560	12 19 14.77	+56 04 50.7	12 21 39.69	+55 48 12.5	4	.0440	19.0	−17.5	de:				SB					
1219+571	12 19 16.79	+57 06 24.4	12 21 41.34	+56 49 46.2	7	.0160	17.0	−17.6	de				SB					[31]
1219+499	12 19 27.62	+49 58 50.1	12 21 54.17	+49 42 12.1	24	.0618	16.5	−20.9	de				E+A					[31]
1219+551B	12 19 30.85	+55 06 51.8	12 21 55.97	+54 50 13.7	12*10	.0330	17.0	−19.1	de:				E+A					[31]
1219+558	12 19 41.07	+55 52 09.0	12 22 05.87	+55 35 30.9	10*7	.0310	18.0	−18.0	se:				SB					[31]
1219+539	12 19 53.55	+53 57 33.9	12 22 18.87	+53 40 55.9	6	.1217	18.0	−20.7	s1	18.02.82	3900–7500	BTA	SBN					[19]
1220+553	12 20 14.69	+55 21 36.3	12 22 39.42	+55 04 58.5	21*14	.0371	16.5	−19.6	sd3e	06.01.84	3500–5700	BTA	SBN		S			
1220+558	12 20 19.06	+55 52 20.8	12 22 43.59	+55 35 43.0	6	.1510	18.0	−21.1	dse				E+A					[31]
1220+515	12 20 33.35	+51 29 19.5	12 22 59.18	+51 12 42.2	20*10	.0305	17.0	−18.7	de				E+A					[31]
1220+544	12 20 48.36	+54 25 44.2	12 23 13.17	+54 09 06.6	10	.1564	17.46	−21.8	s1e:	05.01.84	3900–6200	BTA	Sy1.5			R	4C54.27	[19]
1220+552	12 20 50.01	+55 14 41.5	12 23 14.54	+54 58 03.9	20*6	.0330	17.0	−19.1	de				SBN					[31]
1221+602	12 21 00.37	+60 13 06.5	12 23 22.87	+59 56 29.0	13*7	.0236	17.5	−17.7	d1e	12.02.91	3600–5500	BTA	BCDG					[23]
1221+585	12 21 19.72	+58 31 23.4	12 23 42.80	+58 14 46.0	12*6	.0148	17.5	−16.6	ds3e	12.02.91	3600–5530	BTA	NLS1:					[23]
1221+545B	12 21 58.64	+54 31 24.6	12 24 22.95	+54 14 47.5	6	.0189	18.0	−16.7	sd1e	22.02.82	3400–6900	BTA	BCDG					[19]
1221+603	12 21 59.45	+60 23 18.7	12 24 21.37	+60 06 41.6	13	.0435	15.7	−20.8	sd1e	20.02.82	5400–7500	BTA	Abs			R	Mkn1473	
1222+603	12 22 23.17	+60 19 52.6	12 24 44.92	+60 03 15.7	14*6	.0422	17.5	−19.0	d2e	14.04.91	3690–5500	BTA	SBN		S:			[23]
1222+567	12 22 27.64	+56 44 39.5	12 24 50.92	+56 28 02.6	7	.0660	18.0	−19.4	ds2				SB					[31]
1222+588	12 22 29.03	+58 49 17.7	12 24 51.43	+58 32 40.8	7*5	.0161	17.5	−16.8	d1e	23.01.90	3600–5400	BTA	BCDG					[21]
1222+527	12 22 42.15	+52 43 08.3	12 25 06.30	+52 26 31.4	24*12	.0433	16.5	−20.0	dse				E+A	F12226+5243		R		[30]
1222+614	12 22 44.53	+61 25 46.5	12 25 05.55	+61 09 09.7	14	.0029	17.0	−13.6	dse	15.03.91	3670–5500	BTA	BCDG	F12227+6126		R		[23]
1222+547	12 22 48.20	+54 46 59.2	12 25 12.08	+54 30 22.5	78*60	.0084	13.5	−19.3	ds2e:	23.03.80	3500–7500	BTA	SBN	F12227+5446	Sa		Mkn 207	
1223+503A	12 23 06.90	+50 18 43.3	12 25 32.14	+50 02 06.7	28*10	.0245	16.0	−19.2	de	08.05.98	4000–7100	GHO	HII:	F12231+5018		R		[26]
1223+503B	12 23 24.10	+50 22 21.1	12 25 49.22	+50 05 44.6	48	.0237	14.9	−20.3	de				E+A	F12233+5022	S			[31]
1223+533B	12 23 30.16	+53 20 07.8	12 25 54.28	+53 03 31.4	18*4	.0350	17.5	−18.5	s3e:				SBN					[31]
1223+557	12 23 40.03	+55 47 21.1	12 26 03.17	+55 30 44.8	15	.0310	17.0	−19.0	de				SBN		SBb			[31]
1223+536	12 23 42.07	+53 39 15.7	12 26 06.00	+53 22 39.4	6	.0354	18.5	−17.5	s3	28.12.84	3500–5500	BTA	BCDG					[19]
1223+537A	12 23 43.29	+53 42 43.7	12 26 07.19	+53 26 07.4	7	.0519	18.5	−18.4	s3	11.02.91	3520–5500	BTA	SB					[23]
1223+537B	12 23 47.30	+53 42 39.0	12 26 11.17	+53 26 02.7	12*7	.0526	17.5	−19.4	ds1e	11.02.91	3520–5500	BTA	HII					[23]
1224+561A	12 24 02.15	+56 06 16.8	12 26 25.01	+55 49 40.6	14*7	.0517	17.5	−19.4	ds3e	30.01.85	3500–5500	BTA	Sy2	F12240+5606	S	R		[31]
1224+563	12 24 22.00	+56 20 53.0	12 26 44.70	+56 04 17.0	36*12	.0154	16.5	−17.6	sde				SBN	F12243+5620		R		[31]
1224+533	12 24 28.91	+53 22 55.2	12 26 52.63	+53 06 19.3	24*12	.0013	16.5	−12.6	d2e	11.02.91	3500–5500	BTA	BCDG					[26]
1224+536	12 24 47.44	+53 40 47.6	12 27 10.93	+53 24 11.8	12	.0460	17.5	−19.2	de				E+A					[31]
1224+519	12 24 55.94	+51 55 59.7	12 27 20.01	+51 39 24.0	6	.0444	18.0	−20.7	sd2e				HII					[30]
1225+568	12 25 07.40	+56 50 22.0	12 27 29.50	+56 33 47.0	20*8	.	16.5		dse					F12251+5650				
1225+537	12 25 17.07	+53 46 08.4	12 27 40.34	+53 29 32.9	20*14	.0310	15.7	−20.0	dse:	02.05.87	3700–5700	BTA	SBN	F12252+5346		R		[19]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1225+540	12 25 27.80	+54 00 05.0	12 27 50.87	+53 43 29.9	30*24	.0367	16.5	−19.1	dse	27.04.00	4000–9000	GHO	LINER:	F12254+5400	S	R		[26]
1225+571	12 25 38.64	+57 10 32.2	12 28 00.33	+56 53 56.8	9*6	.0277	17.5	−18.0	d3e	12.02.91	3600–5600	BTA	SBN					[23]
1225+539	12 25 58.35	+53 54 04.6	12 28 21.29	+53 37 29.4	14*7	.0350	17.5	−18.5	de:				SBN					[30]
1226+539	12 26 19.55	+53 57 05.2	12 28 42.34	+53 40 30.2	13*9	.0571	16.5	−20.6	ds2e	05.01.84	3700–5900	BTA	SBN			R		[19]
1226+542	12 26 19.78	+54 13 57.8	12 28 42.45	+53 57 22.8	7*4	.0413	19.0	−17.4	de	11.02.91	3520–5500	BTA	BCDG					[23]
1227+568A	12 27 06.33	+56 50 38.9	12 29 27.53	+56 34 04.3	9	.0534	17.5	−19.4	sd1e	26.12.84	3500–5500	BTA	SBN					[19]
1227+568B	12 27 29.39	+56 51 02.8	12 29 50.42	+56 34 28.4	8	.0536	18.0	−18.9	ds3e	26.12.84	3500–5500	BTA	SBN	F12273+5651				[19]
1227+532	12 27 45.28	+53 13 41.8	12 30 07.80	+52 57 07.6	10*8	.0830	18.5	−19.5	ds2				E+A					[30]
1227+563	12 27 46.12	+56 21 48.1	12 30 07.26	+56 05 13.9	5	.0150	19.5	−16.6	de:				BCDG					[31]
1227+539	12 27 54.53	+53 55 41.3	12 30 16.70	+53 39 07.1	10	.0312	17.5	−18.3	s3	30.01.85	3800–6000	BTA	HII					[19]
1228+513	12 27 55.26	+51 25 23.9	12 30 18.39	+51 08 49.9	24	.0449	16.0	−20.5	se	15.03.00	3500–7000	BTA	SBN	F12282+5124	Sa			
1228+582	12 28 14.75	+58 14 37.7	12 30 34.73	+57 58 03.7	12*9	.0511	17.0	−19.8	d3e				SBN	F12282+5814		R		[31]
1228+533	12 28 18.10	+53 23 37.2	12 30 40.34	+53 07 03.3	9*6	.1450	18.5	−20.6	s3	18.02.82	5400–7500	BTA	SBN:					[19]
1228+572	12 28 58.42	+57 14 31.5	12 31 18.60	+56 57 57.9	10*7	.0160	18.0	−16.4	de				HII					
1229+506	12 29 02.49	+50 38 45.8	12 31 25.55	+50 22 12.3	8	.2630	18.2	−22.3	s2	15.03.00	3500–7000	BTA	Sy1.5					
1229+582A	12 29 02.85	+58 14 24.0	12 31 22.46	+57 57 50.5	78*60	.0104	13.2	−20.1	sd2e:	23.03.80	3500–7500	BTA	SBN	F12290+5814	SBa	R	Mkn 213	[27]
1229+538	12 29 20.24	+53 53 27.8	12 31 41.87	+53 36 54.5	10*6	.0650	17.5	−19.9	ds3				LINER					[30]
1229+578	12 29 24.82	+57 48 41.6	12 31 44.50	+57 32 08.3	9	.0558	17.5	−19.5	d2	12.02.91	3600–5500	BTA	SBN					[23]
1229+502A	12 29 30.56	+50 17 29.7	12 31 53.59	+50 00 56.5	11	.0895	18.0	−20.1	s2				SBN					[31]
1229+567	12 29 47.96	+56 44 49.1	12 32 08.03	+56 28 16.0	36*18	.0154	14.6	−19.7	sde	07.03.97	4000–7000	GHO	SBN	F12298+5644			NGC4511	[6]
1230+560	12 30 04.15	+56 00 32.9	12 32 24.48	+55 44 00.0	11*8	.0331	17.0	−18.9	ds2e	05.01.84	3700–5500	BTA	SBN					[19]
1230+520	12 30 51.55	+52 03 06.5	12 33 13.39	+51 46 34.1	9*7	.0331	16.5	−19.4	d3	23.03.80	3500–7500	BTA	SBN			R	Mkn 216	
1231+509	12 31 09.41	+50 55 08.8	12 33 31.62	+50 38 36.5	14*10	.0311	16.5	−19.3	dse				SBN	F12311+5054		R		[31]
1231+556	12 31 38.77	+55 36 51.6	12 33 58.64	+55 20 19.6	15*11	.0636	16.0	−21.4	sd3	05.01.84	3700–5900	BTA	LINER		S	R		[19,31]
1232+498	12 32 16.05	+49 52 58.8	12 34 38.26	+49 36 27.4	20	.0262	16.5	−18.9	ds3				Abs					[31]
1232+549	12 32 29.67	+54 58 22.2	12 34 49.52	+54 41 50.8	8*5	.0810	19.0	−18.9	de									
1232+593	12 32 54.49	+59 19 23.8	12 35 11.63	+59 02 52.6	30*24	.0436	16.2	−20.3	dse	03.05.98	4000–7100	GHO	Abs				VIIZw 473	[26]
1233+586	12 33 40.49	+58 37 53.3	12 35 57.72	+58 21 22.6	7	.2110	18.0	−21.9	sd1e	23.03.93	3300–6900	BTA	Sy1.5:					[1]
1233+552	12 33 57.52	+55 17 58.4	12 36 16.59	+55 01 27.9	7	.0660	18.5	−18.9	ds2				SBN					[31]
1235+559	12 35 18.69	+55 57 33.8	12 37 36.83	+55 41 04.2	7	.0302	18.5	−17.2	de	15.03.91	3660–5500	BTA	BCDG					[23]
1235+570	12 35 44.39	+57 03 49.6	12 38 01.67	+56 47 20.3	16*7	.0211	17.5	−17.6	sd3	30.01.85	3700–5900	BTA	SB					[19]
1236+562	12 36 19.66	+56 12 01.0	12 38 37.22	+55 55 32.2	20*8	.0100	15.6	−17.7	ds2	19.03.80	3500–7500	BTA	HII		Pec		Mkn 219	
1236+569	12 36 53.20	+56 56 45.6	12 39 10.06	+56 40 17.1	20*10	.0150	17.0	−19.1	dse:				E+A		S			[31]
1238+604	12 38 20.74	+60 27 50.5	12 40 34.37	+60 11 23.1	8	.1012	18.0	−20.5	s2				SB					[30]
1239+601	12 39 50.48	+60 07 42.6	12 42 03.64	+59 51 16.3	20*10	.0423	15.7	−20.1	s3e	25.03.98	4400–7100	BTA	E+A	F12398+6007				[26]
1240+554A	12 40 15.97	+55 26 36.0	12 42 32.35	+55 10 10.1	13*7	.0648	18.0	−19.3	sd2e	15.03.91	3660–5500	BTA	SBN		S	R		[23]
1240+554B	12 40 26.42	+55 25 09.2	12 42 42.75	+55 08 43.4	98*30	.0159	14.8	−19.5	sde	15.03.91	3660–5500	BTA	Abs		Sb		NGC4644	[19,31]
1240+554C	12 40 36.39	+55 25 10.6	12 42 52.65	+55 08 45.0	66*12	.0160	15.6	−18.8	sde	15.03.91	3660–5500	BTA	SB		S:		NGC4644A	[31]
1241+549	12 41 30.28	+54 55 11.6	12 43 46.50	+54 38 46.7	8*6	.0165	17.5	−16.9	sd1e	11.02.91	3620–5500	BTA	BCDG					[23]
1241+551A	12 41 31.97	+55 10 10.9	12 43 48.01	+54 53 46.0	60*36	.0165	14.1	−20.3	sd1e	19.03.80	3500–7500	BTA	SBN	F12415+5510	Pec	R	Mkn 220	[11,17,22]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1241+551B	12 41 33.38	+55 10 42.8	12 43 49.41	+54 54 17.9	12*6	.0165	14.7	−19.7	d3e:	19.03.80	3500–7500	BTA	HII	F12415+5510			Mkn 221	[31]
1242+564	12 42 17.48	+56 25 25.2	12 44 32.35	+56 09 00.9	98*18	.0160	15.3	−19.0	sde	08.02.83	5400–7500	BTA	E+A	F12422+5625	SBbc			
1242+549	12 42 20.06	+54 59 51.5	12 44 35.89	+54 43 27.3	20*10	.0160	16.0	−18.4	ds3e	11.02.91	3620–5500	BTA	SBN	F12423+5500	S:			
1242+607	12 42 34.63	+60 42 13.0	12 44 45.93	+60 25 48.9	7	.1505	18.0	−21.0	ds3				SBN	F12425+6042		R		[30]
1242+561	12 42 51.12	+56 10 42.4	12 45 05.92	+55 54 18.6	10	.0154	16.5	−17.6	ds2				SB					[31]
1243+541	12 43 13.35	+54 08 23.6	12 45 29.39	+53 52 00.1	10*7	.	17.0		dse						S:			
1244+518	12 44 47.44	+51 51 20.5	12 47 04.31	+51 34 58.3	16	.0299	16.5	−19.2	sd3e				SB					[30]
1245+542	12 45 54.42	+54 17 46.8	12 48 09.29	+54 01 25.6	28*14	.0115	14.9	−18.7	sde	07.04.92	3600–5500	BTA		F12458+5417				[26]
1248+518	12 48 16.66	+51 51 13.3	12 50 32.30	+51 34 54.5	14	.0112	17.0	−16.7	sd3				BCDG					[30]
1248+576	12 48 38.88	+57 36 59.6	12 50 50.04	+57 20 40.9	10	.0430	16.0	−20.5	de	14.03.97	4000–7000	GHO	E+A					[6]
1249+560	12 49 02.59	+56 01 15.5	12 51 14.91	+55 44 57.2	8*6	.0371	17.5	−19.6	sde				BCDG					[31]
1249+493	12 49 35.80	+49 19 44.7	12 51 52.53	+49 03 26.9	6	.0258	18.0	−17.3	dse	14.04.91	3700–7100	BTA	BCDG					
1249+498	12 49 36.48	+49 48 32.0	12 51 53.00	+49 32 14.8	10*8	.0398	18.0	−18.0	sd3				HII					[31]
1249+608	12 49 57.93	+60 48 03.5	12 52 05.40	+60 31 46.0	16*9	.0411	15.6	−20.8	sd1e	20.02.82	3500–7500	BTA	E+A	F12498+6048		R	Mkn 1476	
1250+603	12 50 19.90	+60 20 18.0	12 52 27.68	+60 04 00.9	24*12	.0437	15.7	−20.8	sde	08.02.83	5400–7500	BTA	SBN	F12503+6020	S	R		
1250+594	12 50 31.39	+59 29 46.1	12 52 39.93	+59 13 29.2	7	.0447	18.0	−18.6	sd2e	12.02.91	3600–5600	BTA	SB					[23]
1250+597	12 50 49.15	+59 42 46.9	12 52 57.33	+59 26 30.3	14*8	.0494	16.5	−20.3	de				Abs		S			[30]
1251+589	12 51 19.89	+58 56 37.9	12 53 28.60	+58 40 21.8	8	.0641	17.5	−20.3	sd2e				HII					[30]
1252+591	12 52 14.42	+59 09 56.6	12 54 22.48	+58 53 41.4	21*17	.0083	15.0	−17.9	de	09.03.97	4000–7000	GHO	SBN	F12522+5909				[6]
1252+570	12 52 41.35	+57 00 43.7	12 54 51.30	+56 44 28.7	8	.1240	17.5	−21.3	ds3				Sy1.9:					[31]
1254+571	12 54 04.62	+57 08 41.0	12 56 13.81	+56 52 27.7	78*60	.0422	14.20	−21.9	s1	09.03.81	3500–7500	BTA	BLS1	12540+5708	SApec	R	Mkn 231	[27]
1254+583	12 54 17.78	+58 23 20.9	12 56 25.67	+58 07 07.8	10*7	.0303	17.5	−18.2	de				HII					[31]
1254+602	12 54 41.33	+60 15 59.9	12 56 47.04	+59 59 47.2	9	.0434	17.0	−19.5	sd2e				SBN					[30]
1255+593	12 55 10.96	+59 20 14.5	12 57 17.45	+59 04 02.3	11*8	.0215	16.5	−18.5	d3e:	09.03.81	3500–7500	BTA	SBN	F12551+5920			Mkn 232	
1255+547	12 55 58.11	+54 44 11.6	12 58 08.67	+54 28 00.3	14*10	.0290	16.5	−19.1	sde	25.03.98	4400–7100	GHO	SBN	F12559+5444		R		[26]
1256+596	12 56 20.11	+59 38 04.3	12 58 25.73	+59 21 53.3	14	.0284	16.5	−19.1	dse	02.05.98	4000–7100	GHO	SBN					[26]
1256+593	12 56 20.80	+59 23 43.4	12 58 26.68	+59 07 32.4	10*8	.	17.0		sd3e									
1256+594	12 56 23.84	+59 24 07.6	12 58 29.69	+59 07 56.7	30*12	.0276	16.5	−19.1	d3	09.03.81	3500–5700	BTA	LINER	F12563+5923	S:	R	Mkn 233	
1256+508	12 56 34.61	+50 48 37.4	12 58 47.99	+50 32 26.9	24*15	.	17.0		dse									
1256+610	12 56 52.64	+61 03 41.3	12 58 56.32	+60 47 30.9	7	.0443	18.0	−20.7	de				HII					[30]
1257+607	12 57 30.11	+60 45 14.4	12 59 33.85	+60 29 04.7	18*9	.0432	15.2	−21.3	sde				Abs					[31]
1258+548A	12 58 19.47	+54 51 58.9	13 00 28.98	+54 35 50.2	6	.1084	18.0	−20.5	se				Abs			R		[31]
1258+551	12 58 28.82	+55 10 45.3	13 00 37.99	+54 54 36.7	8	.0865	17.7	−20.5	sd2e	27.04.87	3500–5400	BTA	LINER:			R		[21,27]
1258+548B	12 58 29.76	+54 53 05.8	13 00 39.18	+54 36 57.3	8	.1085	18.0	−20.5	d3e				Sy2		S:			[31]
1258+569	12 58 44.88	+56 57 15.2	13 00 52.24	+56 41 06.9	8	.0719	17.0	−20.4	s1	14.04.91	3700–7000	BTA	NLS1					
1259+505	12 59 57.70	+50 33 51.0	13 02 10.10	+50 17 44.3	24*16	.	16.5		dse					F12599+5033				
1300+520A	13 00 21.74	+52 02 31.0	13 02 32.85	+51 46 24.8	16	.0551	16.5	−21.4	s3e				E+A		SO/a	R	UGC08151	[30]
1300+520B	13 00 29.14	+52 02 50.6	13 02 40.30	+51 46 45.0	54	.0547	15.6	−21.3	sd3e	09.03.83	3500–5400	BTA	Sy2		SABc			
1301+605	13 01 21.87	+60 28 29.6	13 03 24.02	+60 12 24.5	12	.0600	17.0	−20.1	ds3e				E+A				A1666	[30]
1301+539	13 01 31.69	+53 59 28.6	13 03 40.73	+53 43 23.5	12	.0276	16.5	−19.1	sde				LINER					[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1301+608	13 01 38.19	+60 49 48.4	13 03 39.78	+60 33 43.4	7	.0613	17.5	−20.2	sd3				SBN					[30]
1301+594	13 01 45.08	+59 29 54.3	13 03 48.29	+59 13 49.4	12*8	.0271	17.5	−18.1	dse				SBN					[30]
1301+540	13 01 50.53	+54 03 34.9	13 03 59.39	+53 47 30.2	15*8	.0310	17.0	−18.8	ds2e	05.04.03	3900–8100	SPM	Sy1.5			R		
1301+609	13 01 57.16	+60 56 51.3	13 03 58.43	+60 40 46.7	10*7	.	17.0		sd1e					F13019+6056		R		
1302+609	13 02 01.76	+60 56 26.3	13 04 03.00	+60 40 21.8	8	.	17.5		sd3									
1302+572	13 02 29.36	+57 15 11.2	13 04 34.80	+56 59 07.3	12	.0583	17.0	−20.0	sd2				SBN			R		[31]
1302+557	13 02 44.93	+55 42 53.4	13 04 51.86	+55 26 49.8	20*8	.0278	17.0	−18.5	de				SBN					[31]
1303+538A	13 03 17.41	+53 51 33.8	13 05 25.90	+53 35 30.8	11*8	.0380	15.5	−20.7	s2	09.03.81	3500–7500	BTA	Abs				Mkn 239	
1303+538B	13 03 23.20	+53 53 15.3	13 05 31.63	+53 37 12.5	10*6	.0283	17.0	−18.6	ds3	30.03.83	3500–5400	BTA	SBN		SB:		Mkn 240	
1303+509	13 03 36.03	+50 56 34.0	13 05 46.92	+50 40 32.0	8	.0550	17.5	−19.5	ds2	01.03.00	3500–7000	BTA	NLS1				RBS 1214	[31]
1303+601	13 03 45.50	+60 06 38.3	13 05 46.98	+59 50 35.8	8	.0601	17.5	−21.5	ds3				Abs					[30]
1303+537	13 03 55.74	+53 45 45.4	13 06 04.08	+53 29 43.2	11*7	.0250	16.0	−19.3	d3e:	30.03.83	3500–5400	BTA	HII				Mkn 242	
1303+538C	13 03 57.70	+53 52 51.1	13 06 05.92	+53 36 49.0	36*18	.0242	15.7	−19.5	se	12.02.91	3520–5560	BTA	SBN	F13039+5352	S	R		[24]
1304+587	13 04 04.43	+58 43 08.6	13 06 07.54	+58 27 06.8	12	.0275	17.0	−18.6	se				SB					[30]
1304+594	13 04 04.94	+59 29 05.1	13 06 07.06	+59 13 03.0	24*14	.0322	15.5	−20.3	sde	12.04.96	4000–7000	GHO	ELG	F13040+5929	S	R		[5]
1304+568	13 04 59.00	+56 48 06.0	13 07 03.83	+56 32 05.3	16	.0800	16.5	−21.5	sd3	06.04.03	3900–8100	SPM	Sy1.9	F13049+5647	S	R		
1305+542	13 05 00.93	+54 13 45.6	13 07 08.41	+53 57 44.8	8	.0302	16.5	−19.2	s1e	27.01.90	3700–5500	BTA	HII			R		[22]
1305+528	13 05 15.97	+52 53 15.9	13 07 24.61	+52 37 15.4	14*9	.0262	17.0	−18.4	sd2e				HII					[30]
1305+547	13 05 21.69	+54 42 51.2	13 07 28.57	+54 26 50.8	18*8	.0328	16.0	−19.9	sd2e	27.01.90	3700–5500	BTA	HII			R		[22]
1305+541A	13 05 32.14	+54 06 25.1	13 07 39.54	+53 50 24.9	27*12	.0305	16.0	−19.7	sde	08.05.98	4000–7100	GHO	HII					[26]
1305+535	13 05 33.49	+53 32 35.9	13 07 41.42	+53 16 35.7	28*15	.0300	15.1	−20.6	se	09.03.97	4000–7000	GHO	E+A	F13055+5332	S			[6]
1305+502	13 05 34.33	+50 16 50.1	13 07 45.10	+50 00 49.9	12*8	.0332	17.0	−18.9	dse				SB				HS	[31]
1306+576	13 06 18.00	+57 38 32.7	13 08 21.34	+57 22 33.4	13*7	.0286	17.0	−18.6	sde				SBN		S			[31]
1306+550	13 06 27.47	+55 05 53.7	13 08 33.53	+54 49 54.7	28*15	.0166	15.2	−19.2	de	10.03.97	4000–7000	GHO	SBN:	F13064+5506	S:			[6]
1306+514	13 06 48.04	+51 26 22.4	13 08 57.39	+51 10 24.0	12	.0267	17.0	−18.6	sd3				SBN					[30]
1306+511	13 06 52.23	+51 07 30.5	13 09 01.85	+50 51 32.0	20*13	.0334	15.5	−20.4	de	09.03.97	4000–7000	GHO	SBN	F13068+5107	S:	R		[6]
1307+542	13 07 02.02	+54 12 34.4	13 09 08.75	+53 56 36.1	21*16	.0082	15.5	−17.6	d3e	10.03.97	4000–7000	BTA	SBN	F13070+5412	S:		IZw 52	[6]
1307+563B	13 07 41.67	+56 18 24.1	13 09 45.94	+56 02 26.6	6	.0176	18.0	−16.5	s1e	26.01.90	3700–5400	BTA	BCDG					[22]
1308+608	13 08 45.53	+60 51 22.7	13 10 43.54	+60 35 26.5	12	.0280	16.0	−19.5	d2	30.03.83	3500–5400	BTA	SBN				Mkn 243	
1308+501A	13 08 47.38	+50 07 30.9	13 10 57.21	+49 51 34.9	18	.0248	16.5	−18.7	sd3e:				SBN					[31]
1309+497	13 09 00.17	+49 47 26.4	13 11 10.21	+49 31 30.6	8	.0085	17.5	−15.4	sde	09.03.83	3500–5400	BTA	BCDG				HS	
1309+534A	13 09 17.11	+53 27 52.8	13 11 23.72	+53 11 57.4	16	.0300	15.5	−20.2	sde	10.03.97	4000–7000	GHO	SBN	F13092+5328	S			
1309+534B	13 09 25.12	+53 28 23.6	13 11 31.67	+53 12 28.4	10	.	17.0		dse									
1309+491	13 09 55.21	+49 06 38.6	13 12 05.52	+48 50 44.1	14*9	.0381	16.5	−19.7	sde				SBN				HS	[31]
1310+588	13 10 01.44	+58 52 58.1	13 12 01.58	+58 37 03.6	7	.0704	18.5	−18.9	sd2				SB					[30]
1310+506	13 10 12.52	+50 39 40.8	13 12 21.41	+50 23 46.6	11*8	.0290	17.0	−18.5	d1e:	23.03.80	3500–7500	BTA	SBN				Mkn 244	
1310+587	13 10 20.92	+58 45 05.3	13 12 21.09	+58 29 11.3	7	.0599	18.5	−18.6	s2				SB					[30]
1310+502	13 10 23.53	+50 13 03.8	13 12 32.75	+49 57 09.9	15*10	.0293	16.5	−19.1	sde	09.03.83	3500–5400	BTA	HII				HS	
1310+519	13 10 44.00	+51 57 45.0	13 12 51.50	+51 41 51.8	30*12	.0324	16.5	−19.3	dse				Abs					[30]
1311+563A	13 11 13.11	+56 21 45.7	13 13 15.86	+56 05 52.9	12*8	.0410	16.0	−20.4	d2e:	01.01.81	3500–7500	BTA	SBN				Mkn 246	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1311+516	13 11 31.47	+51 39 45.3	13 13 39.00	+51 23 52.9	14*10	.0318	17.0	−18.8	sd3e	25.03.98	4400–7100	GHO	LINER	F13115+5139		R		[26]
1311+535	13 11 45.34	+53 35 42.3	13 13 50.90	+53 19 50.2	16	.0166	16.0	−18.4	de	03.05.98	4000–7100	GHO	SBN					[26]
1311+563B	13 11 54.68	+56 23 29.3	13 13 57.11	+56 07 37.4	9*6	.0399	17.5	−18.8	d1e	02.03.92	3700–5500	BTA	HII					[26]
1311+571	13 11 57.45	+57 08 07.4	13 13 58.96	+56 52 15.6	16*7	.0790	17.5	−20.3	de				E+A					[31]
1312+522	13 12 01.80	+52 15 38.0	13 14 08.56	+51 59 46.5	18*15	.	16.5		ds3					F13120+5215				
1312+566	13 12 06.72	+56 37 56.0	13 14 08.78	+56 22 04.4	10*7	.0677	17.0	−20.4	ds1e	02.03.92	3650–5500	BTA	HII					[26]
1312+550	13 12 32.87	+55 03 44.5	13 14 36.56	+54 47 53.5	11	.0323	15.0	−20.8	s1e	12.02.91	3500–5500	BTA	SBN	F13125+5504		R	Mkn 247	
1313+534	13 13 07.75	+53 29 27.7	13 15 12.91	+53 13 37.5	9	.0773	17.0	−20.7	d1e	02.03.92	3700–5500	BTA	E+A					
1314+605	13 14 54.20	+60 34 21.0	13 16 49.63	+60 18 33.2	10*7	.0077	17.5	−15.2	d2e	12.02.91	3500–5500	BTA	BCDG					[24]
1315+578	13 15 08.16	+57 48 09.5	13 17 07.46	+57 32 22.1	30*20	.0094	13.9	−19.3	sd3e:	01.01.81	5400–7500	BTA	Abs		SO		Mkn 249	
1315+593	13 15 46.90	+59 20 19.2	13 17 43.77	+59 04 32.7	14*7	.0290	17.0	−18.6	ds2e	12.02.91	3600–5500	BTA	SB					[24]
1315+604	13 15 55.11	+60 26 27.1	13 17 50.26	+60 10 40.7	15*12	.1372	17.0	−22.0	s2	05.04.03	3900–8100	SPM	Sy1.8			R		
1317+583	13 17 00.13	+58 19 01.9	13 18 57.95	+58 03 17.4	12*10	.0986	17.5	−20.9	sde	01.01.85	3500–7500	BTA	Abs					
1317+548	13 17 13.81	+54 51 50.5	13 19 15.90	+54 36 06.1	14	.0332	15.16	−20.7	sd3e	10.04.96	4000–7000	GHO	Sy2		S			[5,31]
1317+523A	13 17 42.82	+52 19 57.5	13 19 47.52	+52 04 13.9	30*14	.0157	15.4	−18.9	sde	02.03.92	3650–5500	BTA	SBN					[26]
1317+523B	13 17 45.22	+52 19 24.3	13 19 49.92	+52 03 40.7	15*12	.0156	16.5	−17.8	d3e:	12.02.91	3600–5600	BTA	HII:					[5]
1317+528	13 17 52.87	+52 51 16.1	13 19 57.02	+52 35 33.1	6	.0920	17.5	−20.4	s2	12.02.98	4000–7500	BTA	BLS1			R	RBS 1249	[3]
1317+523C	13 17 56.30	+52 18 46.5	13 20 00.94	+52 03 03.2	20	.0154	16.0	−18.1	sde	10.04.96	4000–7000	GHO	LINER				Mkn 251	
1318+520	13 18 07.51	+52 01 37.3	13 20 12.39	+51 45 54.3	20*10	.0158	16.0	−18.4	de	15.03.91	3700–5500	BTA	SBN	F13181+5201				[24]
1318+566	13 18 25.52	+56 41 56.7	13 20 24.87	+56 26 14.1	18*8	.0220	15.8	−19.1	d3	01.01.81	3500–7500	BTA	SBN	F13184+5641	S:		Mkn 253	
1318+605A	13 18 49.07	+60 31 08.0	13 20 42.70	+60 15 25.9	9	.0993	16.41	−21.7	s1e	16.11.79	5400–7500	BTA	Sy1.5				RBS 1252	
1319+593	13 19 13.79	+59 21 46.0	13 21 09.04	+59 06 04.5	15	.0434	15.5	−21.0	d1	12.02.91	3700–5500	BTA	SBN	F13192+5921			Mkn 65	
1319+579A	13 19 25.34	+57 57 10.6	13 21 22.57	+57 41 29.4	7	.0074	18.5	−14.1	s1e	26.01.90	3700–5400	BTA	BCDG				NGC 5113	[22]
1319+579B	13 19 27.21	+57 57 21.7	13 21 24.42	+57 41 40.6	9*6	.0082	18.5	−14.4	ds2e	14.04.91	3700–5400	BTA	BCDG					[22]
1319+539	13 19 49.11	+53 57 05.6	13 21 51.27	+53 41 25.1	6	.0336	18.5	−17.4	de	12.02.91	3610–5630	BTA	BCDG					[24]
1320+596	13 20 22.57	+59 37 50.1	13 22 16.88	+59 22 10.3	13	.0651	17.0	−20.4	dse				Abs					[30]
1320+593	13 20 26.96	+59 21 26.0	13 22 21.66	+59 05 46.3	6	.1520	17.5	−21.7	de				Abs					[30]
1320+550	13 20 31.97	+55 04 45.5	13 22 32.52	+54 49 06.0	36*24	.0118	15.4	−18.3	dse				SBN	F13205+5504	S:			[31]
1320+519	13 20 46.68	+51 59 56.5	13 22 50.66	+51 44 17.5	20*12	.0300	15.4	−20.3	d2	07.01.81	3500–7500	BTA	SBN	F13207+5159		R	Mkn 254	
1320+551	13 20 48.85	+55 11 07.3	13 22 49.16	+54 55 28.3	20*16	.0652	15.56	−21.9	sd1e	14.02.94	4000–7000	BTA	Sy1.8			R	RBS 1256	[26,31]
1320+532	13 20 57.21	+53 13 49.3	13 22 59.78	+52 58 10.5	10*7	.0303	15.7	−20.0	d3e:	07.01.81	3500–7500	BTA	SBN	F13210+5313	S:		Mkn 255	
1323+610	13 23 18.20	+61 03 47.0	13 25 08.74	+60 48 11.7	9	.0708	17.5	−20.1	sde				LINER:					[30]
1323+598	13 23 30.82	+59 52 17.5	13 25 23.29	+59 36 42.6	18	.0267	14.5	−21.0	d2e:	09.03.81	3500–7500	BTA	ELG	F13235+5952		R	Mkn1478	
1323+551	13 23 32.71	+55 08 07.9	13 25 32.02	+54 52 33.1	10	.	16.5		de									
1323+575	13 23 57.98	+57 30 50.6	13 25 53.89	+57 15 16.4	24*18	.0218	15.0	−19.9	d3e:	12.02.91	3700–5500	BTA	HII	F13239+5731		R	Mkn 66	
1324+604	13 24 11.14	+60 27 33.7	13 26 02.30	+60 11 59.8	12	.0980	17.5	−20.9	sd1e	08.05.97	4000–7000	GHO	Sy1.5					[25,31]
1324+520	13 24 36.60	+52 02 08.0	13 26 39.19	+51 46 35.1	24*10	.	16.5		sd3					F13245+5202				
1324+599	13 24 38.94	+59 58 46.8	13 26 30.70	+59 43 13.7	24*12	.0288	15.6	−20.1	sde	10.04.96	4000–7000	GHO	SBN	F13246+5958	S	R		[5]
1324+589	13 24 40.14	+58 56 23.4	13 26 33.59	+58 40 50.3	9	.0233	17.5	−17.5	dse				BCDG					[30]
1325+557	13 25 14.07	+55 44 45.9	13 27 11.92	+55 29 13.8	60*54	.0158	14.6	−19.6	sd2	09.03.81	3500–7500	BTA	E+A	F13252+5544	SBb		Mkn 257	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1325+603	13 25 21.60	+60 22 59.6	13 27 12.34	+60 07 27.6	5	.	18.5		se:				BCDG:					
1325+597	13 25 26.71	+59 45 41.9	13 27 18.47	+59 30 10.0	20*13	.0154	15.5	−18.7	de	12.04.96	4000–7000	GHO	SBN	F13254+5945		R		[5]
1326+537	13 26 49.06	+53 42 03.8	13 28 48.94	+53 26 34.3	12	.0253	16.0	−19.3	d3e:	09.03.81	3500–7500	BTA	SBN	F13268+5342			Mkn 258	
1327+559A	13 27 30.82	+55 58 43.9	13 29 27.42	+55 43 15.6	12	.0429	17.0	−19.5	s3e				Sy2	F13275+5558	S:			[31]
1329+549	13 29 38.57	+54 56 27.8	13 31 35.79	+54 41 02.9	20*9	.0256	17.0	−18.5	de				SBN					[31]
1329+594	13 29 56.78	+59 26 11.3	13 31 47.07	+59 10 47.1	30*15	.0426	15.1	−21.4	sd3e				Sy2	F13299+5926		R		[31]
1330+608	13 30 02.94	+60 50 11.0	13 31 50.65	+60 34 48.0	16	.1194	17.0	−21.7	s3				BLS1		S			[30]
1330+504	13 30 27.17	+50 27 30.4	13 32 29.59	+50 12 07.0	9*7	.0282	17.0	−18.5	ds2e:	02.03.92	3700–5500	BTA	SBN					[26]
1331+493	13 31 19.94	+49 21 33.6	13 33 23.27	+49 06 11.6	60*36	.0024	14.9	−15.3	s2e	12.02.91	3600–5500	BTA	BCDG:		Irr			[26]
1331+585	13 31 33.99	+58 34 19.5	13 33 25.04	+58 18 58.1	22*15	.0252	16.5	−18.8	sde				SB:	F13316+5834				[30]
1332+521	13 32 11.94	+52 08 41.3	13 34 11.82	+51 53 20.8	12*7	.0629	17.0	−20.3	ds2e:	09.04.81	3500–7500	BTA	Abs	F13321+5208	SBc	R	Mkn 264	
1332+545	13 32 20.24	+54 31 08.2	13 34 17.02	+54 15 47.9	6	.0508	18.0	−18.8	sd1e:	12.02.91	3520–5500	BTA	HII					[24]
1332+592	13 32 20.63	+58 59 36.1	13 34 10.18	+58 59 36.1	24*12	.0678	17.0	−20.2	se				LINER:				A1767	[30]
1332+507	13 32 40.39	+50 43 10.6	13 34 41.76	+50 27 51.1	18*10	.	17.0		dse									
1332+518	13 32 42.46	+51 52 09.5	13 34 42.50	+51 36 49.9	98*80	.0009	14.2	−14.3	ds2e	21.02.82	5400–7500	BTA	ELG		SABdm		Mkn1479	
1332+580	13 32 43.96	+58 05 36.0	13 34 35.25	+57 50 16.3	8	.1240	17.5	−21.3	s2	09.05.00	4000–9000	GHO	BLS1					[29,30]
1332+599	13 32 56.91	+59 59 53.2	13 34 44.80	+59 44 33.8	8	.0302	17.5	−18.2	ds3e	14.03.91	3640–5500	BTA	HII					[24]
1333+550	13 33 54.40	+55 00 22.5	13 35 49.90	+54 45 05.5	8	.1070	17.52	−21.2	s1	06.04.03	3900–6180	SPM	BLS1				MS	
1334+597	13 34 00.36	+59 44 34.8	13 35 48.23	+59 29 17.3	13*7	.0661	17.0	−20.4	sde				SBN					[30]
1334+573	13 34 04.69	+57 20 39.0	13 35 56.63	+57 05 21.7	10*8	.0249	17.5	−17.8	de	15.03.91	3600–5600	BTA	SBN					[24]
1334+556A	13 34 39.38	+55 40 48.0	13 36 33.61	+55 25 31.9	24*12	.0170	16.5	−17.9	ds2e				E+A					[31]
1335+584	13 35 55.78	+58 24 53.7	13 37 45.16	+58 09 39.6	6	.0340	18.0	−18.0	ds2e				SBN					[30]
1337+591	13 37 04.28	+59 07 04.7	13 38 51.89	+58 51 52.9	10	.0424	17.0	−19.5	s3				SBN					[30]
1337+596	13 37 05.45	+59 36 26.0	13 38 52.18	+59 21 14.0	12*8	.0711	17.0	−20.6	s3	23.03.99	4000–7000	GHO	Abs					
1337+541	13 37 16.91	+54 10 38.7	13 39 12.34	+53 55 27.2	7	.2950	18.44	−22.2	s2	04.04.92	3300–7000	BTA	BLS1			R		[21,23]
1338+570	13 38 27.35	+57 03 23.5	13 40 17.93	+56 48 14.2	16	.0699	16.5	−21.2	sde				Abs	F13384+5704				[31]
1338+558	13 38 37.96	+55 48 45.6	13 40 30.48	+55 33 36.5	9*6	.0347	17.0	−19.2	d3e				SBN					[31]
1339+611	13 39 13.91	+61 08 57.1	13 40 56.60	+60 53 48.9	9*7	.0334	17.0	−18.9	de				SBN	F13393+6108:				[30]
1339+564A	13 39 34.20	+56 25 24.0	13 41 25.40	+56 10 17.0	36*10	.	16.5		sde					F13395+5625		R		
1339+564B	13 39 40.94	+56 26 10.4	13 41 32.04	+56 11 03.4	15	.0345	17.0	−19.0	se				E+A					[31]
1339+554	13 39 43.74	+55 29 45.3	13 41 36.32	+55 14 38.2	14	.2069	17.0	−22.7	s2				E+A			R		[31]
1339+559	13 39 48.65	+55 55 21.2	13 41 40.54	+55 40 14.3	78*60	.0252	13.6	−21.5	d3e	09.04.81	3500–7500	BTA	Sy2	F13397+5555	SAb:	R	Mkn 271	
1339+569	13 39 59.52	+56 57 53.1	13 41 49.66	+56 42 46.5	14	.0402	16.5	−19.8	d2	13.04.96	4000–7100	GHO	SBN					[5]
1340+569	13 40 20.21	+56 57 17.6	13 42 10.23	+56 42 11.6	14	.0401	16.98	−19.4	ds2	13.04.96	4000–7100	GHO	Sy1.8					[5,31]
1340+529	13 40 55.97	+52 57 35.3	13 42 51.79	+52 42 30.5	14	.0060	16.5	−15.8	sd1e	21.02.82	3400–7500	BTA	BCDG				Mkn1480	
1341+529	13 41 03.60	+52 56 22.6	13 42 59.40	+52 41 18.1	10	.0063	17.0	−15.3	d1e	21.02.82	3600–7500	BTA	BCDG				Mkn1481	
1341+490	13 41 05.38	+49 04 20.6	13 43 06.05	+48 49 16.2	10	.0910	17.5	−20.7	sd2	08.03.83	3500–5400	BTA	SBN	F13410+4904		R	HS	
1341+594	13 41 45.08	+59 25 07.9	13 43 30.09	+59 10 04.5	8	.0108	17.5	−16.0	d2e	12.02.91	3520–5560	BTA	BCDG					[24]
1342+600A	13 42 15.72	+60 03 10.9	13 43 59.26	+59 48 08.4	7	.0991	17.5	−20.8	ds1e				SBN	F13422+6003				[30]
1342+562A	13 42 37.05	+56 16 34.4	13 44 27.28	+56 01 32.7	7	.0709	18.0	−19.5	s2e	17.04.90	3700–5500	BTA	LINER	F13426+5616		R		

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1342+562B	13 42 37.29	+56 16 29.4	13 44 27.52	+56 01 27.7	7	.0712	17.0	−20.6	s1e	17.04.90	3700–5600	BTA	HII	F13426+5616				[22]
1342+590	13 42 38.56	+59 00 40.9	13 44 23.96	+58 45 39.2	7	.0407	18.0	−18.4	sd3e				Abs					[30]
1342+561	13 42 51.79	+56 08 11.1	13 44 42.16	+55 53 09.9	20*12	.0380	15.68	−20.3	d1e	09.04.81	3500–7500	BTA	Sy2	F13428+5608		R	Mkn 273	[8,11,27]
1342+600B	13 42 53.50	+60 02 11.0	13 44 36.79	+59 47 09.7	8	.0990	17.5	−20.8	s1	03.01.84	3500–5400	BTA	Sy1.5					[31]
1343+512	13 43 02.13	+51 16 27.5	13 44 59.46	+51 01 26.9	20*6	.	16.5		d3					F13430+5116				
1343+544	13 43 23.65	+54 24 25.4	13 45 16.52	+54 09 25.3	9	.2220	17.78	−22.3	s2	11.03.97	4000–7000	GHO	BLS1					[3]
1343+537	13 43 51.68	+53 47 51.7	13 45 45.28	+53 32 52.5	7	.1330	17.0	−22.2	s3	15.03.00	3500–7000	BTA	BLS1			R	RBS 1310	
1344+559	13 44 12.66	+55 57 53.7	13 46 02.78	+55 42 55.0	70*30	.0403	15.4	−21.0	se				E+A	F14342+5558	Sbc			[31]
1344+527	13 44 45.96	+52 43 33.7	13 46 40.78	+52 28 36.2	24*18	.0297	16.24	−19.5	d2e	28.12.97	4000–7400	BTA	Sy2			R		[6,7]
1344+600	13 44 59.05	+60 04 19.8	13 46 41.32	+59 49 22.6	14	.0066	16.5	−15.9	de	04.05.98	4000–7100	GHO	SBN					[26]
1345+558	13 45 24.68	+55 49 06.3	13 47 14.58	+55 34 10.0	30	.0155	15.5	−18.7	sde				SB					[31]
1346+550	13 46 22.51	+55 02 44.4	13 48 13.30	+54 47 50.0	30*24	.0255	15.2	−20.1	se				E+A	F13463+5503	S:			[31]
1346+592	13 46 27.10	+59 15 12.1	13 48 10.38	+59 00 17.8	8	.0321	17.0	−18.8	sd3e				SBN					[31]
1346+585	13 46 55.71	+58 33 45.0	13 48 40.27	+58 18 53.0	7	.1578	17.5	−22.2	sde				SBN	F13469+5833		R		
1347+496	13 47 03.93	+49 39 28.3	13 49 02.05	+49 24 35.6	36*12	.	16.5		sde									
1347+536	13 47 15.86	+53 37 00.4	13 49 08.53	+53 22 07.8	16*10	.0289	16.5	−19.1	ds2e	16.04.96	4000–7000	GHO	SBN	F13472+5337		R		[6]
1348+560	13 48 22.17	+56 02 40.2	13 50 10.57	+55 47 49.8	15*9	.0402	16.5	−19.8	d3				SBN					[31]
1349+499	13 49 00.63	+49 57 27.0	13 50 57.78	+49 42 38.1	12	.	17.0		sd3									
1349+570	13 49 16.94	+57 05 56.8	13 51 03.13	+56 51 08.2	13*6	.0551	18.0	−19.9	de				E+A					[31]
1350+551	13 50 26.77	+55 11 44.6	13 52 15.81	+54 56 58.4	5	.0402	19.0	−17.3	s1e	12.02.91	3700–5500	BTA	BCDG					[24]
1351+576	13 51 28.34	+57 39 37.3	13 53 12.62	+57 24 53.1	9*6	.0353	17.5	−18.8	sde				SBN					[31]
1351+578	13 51 55.00	+57 48 14.8	13 53 38.82	+57 33 31.5	20*10	.0254	16.0	−19.3	d2e	12.04.96	4000–7000	GHO	SBN					[5]
1351+577	13 51 57.78	+57 46 03.6	13 53 41.65	+57 31 20.4	15*8	.0261	16.5	−18.9	s2e	12.04.96	4000–7000	GHO	SBN	F13519+5746		R		[5]
1352+589	13 52 39.79	+58 54 54.7	13 54 21.09	+58 40 12.9	9*6	.0261	18.0	−17.4	sd2e:	12.02.91	3520–5500	BTA	BCDG					[24]
1352+543	13 52 48.64	+54 22 02.3	13 54 38.2	+54 07 21.0	18*10	.0696	17.0	−20.7	sde				Abs					[31]
1353+586	13 53 07.85	+58 37 57.5	13 54 49.54	+58 23 16.7	9*6	.0610	18.0	−19.3	d2e				Sy1.9:					[31]
1353+564	13 53 30.79	+56 27 24.4	13 55 16.50	+56 12 44.5	9	.1223	17.0	−21.5	s1	10.04.91	3600–7100	BTA	NLS1			R		[10]
1353+597	13 53 56.41	+59 45 19.9	13 55 35.39	+59 30 40.7	18*7	.0220	16.5	−18.5	d2e	12.02.91	3600–5500	BTA	SBN					[24]
1354+597	13 54 00.57	+59 42 19.1	13 55 39.63	+59 27 40.1	10	.0108	17.5	−16.0	de	12.02.91	3500–5500	BTA	BCDG					[24]
1354+586	13 54 19.84	+58 46 26.1	13 56 00.71	+58 31 47.9	24*6	.0410	16.5	−19.9	d3e	02.01.84	5400–7500	BTA		F13543+5846		R		
1354+580	13 54 42.16	+58 00 24.9	13 56 24.46	+57 45 47.4	10	.0274	17.0	−18.5	sd1e	12.02.91	3500–5500	BTA	HII					[26]
1355+506	13 55 17.19	+50 40 44.8	13 57 11.46	+50 26 08.8	26*13	.0062	15.5	−16.7	de	06.04.92	3600–5400	BTA		F13553+5040	Sa			
1355+544A	13 55 28.07	+54 27 12.4	13 57 16.53	+54 12 36.6	10*7	.	17.0		ds3e:									
1355+544B	13 55 36.69	+54 26 43.9	13 57 25.11	+54 12 08.4	10*7	.0255	17.0	−18.4	sd3e				SBN					[31]
1356+543	13 56 42.00	+54 19 00.0	13 58 30.23	+54 04 27.0	17*13	.	16.5		d2									
1356+593	13 56 46.59	+59 23 28.4	13 58 25.12	+59 08 55.4	30*27	.0515	16.5	−20.5	sde				SBN	F13567+5923	S:	R		[31]
1357+586A	13 57 19.74	+58 38 31.5	13 58 59.64	+58 23 59.7	24*16	.0603	16.5	−20.7	d3				Abs			R		[31]
1357+586B	13 57 26.50	+58 35 54.0	13 59 06.44	+58 21 22.5	16*12	.	16.5		dse					F13574+5835				
1357+562B	13 57 48.73	+56 17 00.1	13 59 33.12	+56 02 29.3	14*10	.0341	15.6	−20.4	dse	12.02.91	3530–5570	BTA	SBN	F13577+5617		R		[9]
1357+592	13 57 51.08	+59 14 14.6	13 59 29.51	+58 59 43.8	12	.0720	16.5	−21.1	ds3	02.05.98	4000–7100	GHO	SBN	F13578+5914				[26]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1358+576	13 58 09.37	+57 40 53.7	13 59 50.93	+57 26 23.6	11*7	.0338	17.0	−19.0	sd1e:	21.02.82	3700–5400	BTA	HII			R	Mkn1486	
1358+554	13 58 46.92	+55 29 14.8	14 00 32.40	+55 14 46.1	8	.0134	17.5	−16.4	sd2e	12.01.91	3520–5570	BTA	BCDG					[26]
1359+536	13 59 01.63	+53 38 52.9	14 00 50.18	+53 24 24.8	7	.1750	18.5	−20.9	s2	27.01.90	3700–5500	BTA	NLS1					[22,29]
1359+595	13 59 09.01	+59 34 12.4	14 00 46.15	+59 19 44.4	98*60	.0100	12.7	−20.7	sd2e	09.03.81	3500–7500	BTA	SBN	F13591+5934	SBb	R	Mkn 799	[11,17,27]
1359+504	13 59 21.34	+50 27 50.5	14 01 14.67	+50 13 23.2	14*9	.0060	16.5	−15.7	de	02.05.98	4000–7100	GHO	BCDG					[26]
1359+521C	13 59 25.14	+52 06 49.7	14 01 16.00	+51 52 22.5	15	.0076	15.4	−17.3	sd2	12.04.96	4000–7000	GHO	E+A				Mkn1488	
1359+518	13 59 52.94	+51 50 47.7	14 01 44.04	+51 36 21.7	9*7	.0701	17.0	−20.7	ds3e				SB					[30]
1400+520	14 00 17.21	+52 03 43.0	14 02 07.77	+51 49 18.6	15*9	.0405	15.7	−20.6	dse	11.03.97	4000–7000	GHO	SBN	F14003+5203		R		
1400+519	14 00 33.73	+51 55 37.4	14 02 24.51	+51 41 12.6	15	.0412	16.0	−20.4	sd3				Abs				IZw 79	[30]
1400+514	14 00 41.20	+51 25 56.0	14 02 32.70	+51 11 32.0	24	.	16.0		se									
1400+527	14 00 59.35	+52 44 24.3	14 02 48.72	+52 30 00.5	10*8	.0434	17.0	−19.5	dse	18.03.99	4000–7100	GHO	E+A				CG 331	[26]
1401+502	14 01 07.82	+50 15 05.0	14 03 00.92	+50 00 41.6	14	.0066	16.5	−15.2	s2e	16.04.96	4000–7000	GHO	BCDG				CG 333	[5]
1401+497	14 01 37.90	+49 42 30.0	14 03 31.70	+49 28 08.0	9	.	17.5		sde								CG 908	
1401+564A	14 01 44.24	+56 27 28.2	14 03 26.82	+56 13 06.0	8*6	.	17.0		s2e									
1401+490A	14 01 44.90	+49 02 13.9	14 03 39.50	+48 47 52.1	18*15	.0846	17.0	−21.2	sd3							R		
1401+490B	14 01 50.04	+49 00 19.3	14 03 44.68	+48 45 57.5	9	.0030	17.0	−13.2	de	12.02.91	3600–5400	BTA	BCDG				CG 337	[26]
1401+564B	14 01 50.88	+56 27 25.4	14 03 33.42	+56 13 03.4	10*7	.0720	17.5	−20.1	s3e	06.04.92	3600–5400	BTA	LINER:					[26]
1403+546	14 03 30.27	+54 39 16.4	14 05 15.55	+54 24 58.2	6	.0820	16.8	−20.8	s2e	05.04.03	5700–8000	SPM	BLS1:		Sc		MS	
1403+559	14 03 32.72	+55 54 08.9	14 05 15.69	+55 39 50.7	10*8	.	17.0		ds3e									
1403+577	14 03 43.60	+57 46 52.6	14 05 22.75	+57 32 34.8	10*6	.0545	17.0	−20.1	s2e				Abs					[31]
1403+509	14 03 46.57	+50 56 40.9	14 05 37.85	+50 42 23.4	9	.0061	17.0	−15.2	de	19.03.99	4000–7100	GHO	BCDG				CG 350	[26]
1404+582	14 04 26.86	+58 14 57.5	14 06 04.73	+58 00 41.3	10	.1250	17.5	−21.2	sd2e	08.05.00	4000–9000	GHO	NLS1					[29]
1404+571	14 04 53.14	+57 10 56.4	14 06 33.08	+56 56 41.2	21*14	.0410	16.5	−19.9	sd2e	12.02.91	3500–5500	BTA	SB	F14049+5710		R		[26]
1405+602	14 05 10.20	+60 17 02.1	14 06 43.08	+60 02 47.4	24*12	.0371	16.5	−19.6	sd2e:	21.02.82	3500–5400	BTA	Abs				Mkn1489	
1405+532	14 05 20.18	+53 12 03.5	14 07 07.36	+52 57 49.4	14*10	.0436	16.5	−20.5	d3e	09.05.98	4000–7100	GHO	SBN				CG 353	[26]
1405+520	14 05 24.91	+52 01 15.3	14 07 14.00	+51 47 01.5	8	.0646	18.0	−19.4	s2				SBN					[30]
1405+567	14 05 27.95	+56 46 38.9	14 07 08.50	+56 32 25.0	54*30	.0408	15.0	−21.3	se				E+A	F14054+5646	Sbc			[31]
1405+550	14 05 32.85	+55 02 16.1	14 07 16.72	+54 48 02.5	18*13	.0054	16.5	−15.4	sde	19.03.99	4000–7100	GHO	E+A				CG 355	[26]
1405+597	14 05 50.34	+59 44 22.9	14 07 24.25	+59 30 09.8	9*6	.0061	18.0	−14.2	sd3				BCDG					[30]
1405+510	14 05 54.70	+51 00 37.1	14 07 45.22	+50 46 24.5	12	.0719	17.0	−20.6	sde	19.03.99	4000–7100	GHO	SBN				CG 357	[26]
1405+530	14 05 54.89	+53 01 08.7	14 07 42.19	+52 46 56.0	10*6	.0804	17.0	−21.0	sd2e:				SBN					[31]
1406+540	14 06 13.62	+54 02 11.8	14 07 59.06	+53 47 59.8	6	.1730	18.5	−21.0	s1e	08.05.99	4400–7000	BTA	NLS1					
1406+490A	14 06 18 20	+49 07 55.2	14 08 11.43	+48 53 43.8	18*8	.0510	17.0	−20.3	sd3e									
1406+490B	14 06 20.38	+49 05 56.4	14 08 13.60	+48 51 44.8	15	.0517	15.99	−20.8	sd2e	10.04.96	4000–7100	GHO	HII:	F14063+4906		R	IZw 81	[5,11,15,16]
1407+546	14 07 06.12	+54 36 40.5	14 08 50.23	+54 22 30.5	4	-	19.0	-	se	09.05.99	4400–7000	BTA	Cont:					
1407+535	14 07 11.61	+53 31 16.1	14 08 57.63	+53 17 06.3	28*15	.0414	15.6	−20.8	sd2	24.03.98	4400–7100	BTA	E+A	F14071+5330			KUG	[26]
1407+540	14 07 24.83	+54 03 24.8	14 09 09.83	+53 49 15.5	35*15	.0068	15.4	−17.0	dse				BCDG	F14071+5403			CG 362	
1407+497	14 07 59.19	+49 44 42.1	14 09 51.00	+49 30 34.3	9	.0797	16.5	−21.4	dse								CG 365	
1408+558	14 08 05.59	+55 50 05.4	14 09 47.04	+55 35 57.7	14*9	.0264	16.5	−18.9	sd3	20.02.91	3600–5400	BTA	SBN	F14080+5550			CG 366	[26]
1408+551A	14 08 14.05	+55 10 56.2	14 09 56.70	+54 56 48.8	7	.0773	17.5	−20.3	ds3e	22.04.90	3600–5500	BTA	HII				CSO 612	[22]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1408+496	14 08 28.61	+49 39 32.9	14 10 20.41	+49 25 26.2	8	.0261	17.5	−18.0	sde	09.03.83	3500–5400	BTA	SBN				HS	
1408+590	14 08 29.32	+59 04 34.0	14 10 03.69	+58 50 27.0	6	.0608	18.0	−19.3	sd3				SBN		E			[30]
1408+551B	14 08 42.81	+55 07 54.9	14 10 25.39	+54 53 48.6	8*6	.0408	17.0	−19.3	s2e	22.04.90	3600–5500	BTA	HII				CG 371	[22]
1409+557	14 09 36.57	+55 44 46.0	14 11 17.64	+55 30 41.7	36*15	.0058	15.6	−17.6	de				E+A				CG 372	[31]
1409+552	14 09 47.33	+55 21 22.8	14 11 29.10	+55 07 19.0	30*18	.0407	15.3	−21.1	de					F14098+5521	S			
1410+530	14 10 03.54	+53 03 03.4	14 11 49.43	+52 49 00.3	12	.0760	16.5	−21.2	s2	24.03.98	4400–7100	BTA	E+A			R		
1410+576N	14 10 09.90	+57 40 08.0	14 11 46.76	+57 26 05.2	18	.0508	16.5	−20.3	d2e	22.03.99	4000–7100	GHO	SBN		S		KUG	[26]
1410+576S	14 10 09.70	+57 40 07.0	14 11 46.66	+57 26 04.2	18	.0511	16.5	−20.3	d2e	22.03.99	4000–7100	GHO	SBN		S		KUG	[26]
1410+541	14 10 10.20	+54 10 23.0	14 11 54.03	+53 56 20.4	24*15	.0062	16.0	−16.3	ds2e	18.03.99	4000–7100	GHO	BCDG	F14101+5410	S		KUG	[26]
1410+504	14 10 41.62	+50 28 26.9	14 12 31.54	+50 14 25.4	17*10	.0064	16.5	−15.8	d3e	26.03.98	4400–7100	BTA	BCDG		S:			[26]
1411+556A	14 11 06.80	+55 39 48.1	14 12 47.50	+55 25 47.5	15*9	.0415	16.5	−19.9	ds3e	12.02.91	3700–5400	BTA		F14111+5539			CG 377	[26]
1411+546A	14 11 08.65	+54 36 30.4	14 12 51.37	+54 22 29.9	14*8	.	17.5		de								KUG	
1411+556B	14 11 16.31	+55 39 54.5	14 12 56.95	+55 25 54.2	7	.0411	18.0	−18.4	de				HII					[31]
1411+584	14 11 28.43	+58 29 13.3	14 13 02.97	+58 15 13.4	7	.0747	18.0	−19.7	s2	12.02.91	3620–5570	BTA	SBN					
1411+549	14 11 39.80	+54 54 05.7	14 13 21.80	+54 40 07.0	24*6	.	17.0		de									
1412+592	14 12 11.04	+59 17 17.3	14 13 43.40	+59 03 19.1	5	.0857	18.0	−19.8	sd3				SBN					[30]
1412+583	14 12 22.06	+58 22 57.2	14 13 56.48	+58 08 59.4	15*10	.0399	16.5	−19.8	ds3	02.05.98	4000–7100	GHO	SBN	F14123+5822	S:	R		[26]
1412+538	14 12 36.18	+53 52 12.4	14 14 19.78	+53 38 15.4	7	.1640	17.5	−21.7	ds2	02.05.00	4000–9000	GHO	NLS1					[29]
1412+578	14 12 49.70	+57 51 50.0	14 14 25.10	+57 37 53.5	12	.1077	17.0	−21.6	sde				SBN		S		KUG	[31]
1413+501	14 13 05.38	+50 10 05.8	14 14 55.07	+49 56 10.1	13*8	.	17.0		sd2e:									
1413+495A	14 13 18.68	+49 34 27.3	14 15 09.22	+49 20 32.1	13*11	.0131	17.0	−16.9	d3e				BCDG				CG 383	
1413+495B	14 13 31.06	+49 33 29.9	14 15 21.57	+49 19 35.2	36*30	.0265	14.9	−20.5	ds3	18.02.82	3500–5400	BTA	Abs				Mkn 672	
1413+573	14 13 32.90	+57 19 10.0	14 15 09.24	+57 05 15.3	18*8	.0110	16.5	−16.9	d3e	23.03.99	4000–7000	GHO	BCDG				KUG	
1413+591	14 13 39.27	+59 11 37.0	14 15 11.26	+58 57 42.3	12	.0604	16.5	−21.1	sd2e	19.02.82	3500–5400	BTA	Abs				Mkn 807	
1413+602	14 13 48.80	+60 15 51.8	14 15 18.03	+60 01 57.4	10*6	.0293	17.0	−18.7	ds2e				SB					[30]
1413+509	14 13 51.48	+50 56 43.3	14 15 39.76	+50 42 49.7	12*10	.0498	17.0	−19.8	s3e					F14138+5056				
1414+542	14 14 01.53	+54 16 29.1	14 15 43.90	+54 02 35.4	32	.0408	15.5	−20.9	de	17.04.99	4200–9000	GHO	LINER:	F14140+5416	S			
1414+607	14 14 22.76	+60 42 27.7	14 15 50.58	+60 28 34.7	15	.0220	16.0	−19.0	dse	14.03.97	4000–7000	GHO	SBN	F14143+6042				[6]
1415+498	14 15 16.38	+49 48 35.4	14 17 06.00	+49 34 44.9	14*11	.0124	17.0	−16.7	d3e	20.03.99	4000–7100	GHO	BCDG			R	CG 390	[26]
1415+566	14 15 23.01	+56 39 51.3	14 17 00.11	+56 26 00.9	8	.1500	17.09	−21.9	s2e	02.01.84	3500–5400	BTA	NLS1				MS	
1415+578	14 15 47.50	+57 51 40.0	14 17 22.10	+57 37 48.0	78*12	.0102	14.6	−18.8	dse				SB	F14158+5751	Sbc		IC996	
1415+579	14 15 51.62	+58 58 47.1	14 17 22.80	+58 45 02.0	30	.0397	15.5	−20.8	sde				SBN	F14158+5858		R	NGC5561	
1416+531	14 16 47.45	+53 07 26.5	14 18 31.00	+52 53 39.9	16*10	.0818	17.0	−20.9	sd3e:				Abs					[31]
1417+518	14 17 07.56	+51 51 16.4	14 18 53.29	+51 37 30.5	9	.	17.0		ds3									
1417+530	14 17 26.74	+53 05 36.3	14 19 10.18	+52 51 51.1	8	.0818	17.5	−20.3	d3e:				E+A					[31]
1417+567	14 17 30.10	+56 42 45.7	14 19 06.30	+56 29 00.7	16*12	.0287	16.5	−19.1	sd3e	22.03.99	4000–7100	GHO	SBN		S		KUG	[26]
1417+564	14 17 38.28	+56 27 41.9	14 19 15.00	+56 13 57.0	14*10	.0619	16.0	−21.3	sd2e	20.03.99	4000–7100	GHO	LINER:	F14176+5627	S		KUG	[26,27]
1417+521	14 17 45.69	+52 09 13.8	14 19 30.69	+51 55 29.6	30*16	.0290	16.5	−19.1	sd3e				E+A		S	R		[31]
1417+494	14 17 53.85	+49 27 55.5	14 19 43.27	+49 14 11.6	15	.0256	16.0	−19.1	s3e:	21.02.82	5400–7500	BTA	LINER:	F14179+4927	Sa	R	Mkn1490	[11,17]
1418+523	14 18 08.75	+52 19 40.8	14 19 53.40	+52 05 58.0	20*16	.0436	16.5	−20.1	dse				Abs					[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1418+536	14 18 15.62	+53 41 56.2	14 19 57.68	+53 28 13.0	23*9	.0056	15.5	−16.3	ds3e:	15.04.96	4000–7000	GHO	BCDG		S		CG 407	
1418+519	14 18 26.57	+51 58 11.1	14 20 11.70	+51 44 28.4	8	.0511	17.0	−19.8	s3e:				SBN					[31]
1418+514	14 18 47.21	+51 26 25.1	14 20 33.15	+51 12 43.3	10*7	.	17.0		ds2					F14187+5126		R	CG 408	
1418+540	14 18 48.58	+54 05 41.0	14 20 30.13	+53 52 00.0	6	.1096	17.0	−21.5	s2	24.03.99	4000–7100	GHO	SBN				CSO 634	[26]
1420+544	14 20 59.11	+54 27 46.0	14 22 38.80	+54 14 09.6	6	.0217	18.5	−16.5	de	07.04.91	3700–5700	BTA	BCDG				CG 413	[24]
1421+601	14 21 10.48	+60 09 27.7	14 22 36.92	+59 55 51.5	15	.0290	15.3	−20.3	sd2e:	19.02.82	3500–5400	BTA	E+A	F14211+6009			Mkn 810	
1421+504	14 21 21.09	+50 26 51.9	14 23 07.95	+50 13 16.6	14*12	.0269	16.5	−19.1	sde				E+A					[31]
1421+555	14 21 41.30	+55 31 38.0	14 23 18.56	+55 18 03.5	18*6	.0292	16.5	−19.3	sd3				SBN				KUG	[31]
1422+545	14 22 14.89	+54 31 08.8	14 23 54.05	+54 17 35.6	25*13	.0207	16.5	−18.5	d3e	13.04.96	4000–7000	GHO	HII		Irr		CG 417	[5,31]
1422+546	14 22 45.32	+54 37 06.8	14 24 24.11	+54 23 34.9	18*12	.0717	16.5	−21.1	ds3	17.02.82	3500–5400	BTA	E+A				Mkn 811	
1422+538	14 22 54.18	+53 51 55.8	14 24 34.42	+53 38 24.3	28*9	.0305	16.6	−19.2	sde	03.02.84	5400–7500	BTA	SBN	F14228+5351		R		
1422+573	14 22 57.85	+57 21 49.1	14 24 30.61	+57 08 17.6	18*12	.0106	15.0	−18.5	sd3e	17.02.82	3500–5400	BTA	SBN	F14229+5721			Mkn 812	
1422+601	14 22 58.20	+60 06 32.1	14 24 24.17	+59 53 00.7	11	.1348	16.5	−22.4	s1e	12.03.02	4000–9000	SPM	BLS1			R		
1423+600W	14 23 32.51	+60 00 30.8	14 24 58.39	+59 47 00.7	15*12	.0374	16.5	−19.7	sde	04.05.98	4000–7100	GHO	SBN	F14235+6000				[26]
1423+600E	14 23 29.37	+60 00 51.8	14 24 55.91	+59 47 21.3	15*12	.0374	16.5	−19.7	sde	04.05.98	4000–7100	GHO	E+A	F14235+6000				[26]
1423+517	14 23 41.06	+51 46 44.9	14 25 24.95	+51 33 15.5	14*9	.0077	17.0	−15.7	sd3e	17.04.90	3700–5500	BTA	BCDG				CG 424	[22]
1425+541	14 25 03.07	+54 11 08.8	14 26 41.98	+53 57 42.8	25*16	.0386	15.5	−20.7	dse	25.03.98	4400–7100	BTA	SBN	F14250+5411	S		CG 431	[26]
1425+595	14 25 04.78	+59 33 46.4	14 26 31.24	+59 20 20.2	8	.0477	18.0	−18.7	d3e				HII					[30]
1425+607A	14 25 11.16	+60 47 28.9	14 26 34.17	+60 34 02.9	9	.	17.0		ds1e					F14251+6047				
1425+538	14 25 32.18	+53 50 51.2	14 27 11.61	+53 37 26.4	12	.	17.0		de								KUG	
1425+507	14 25 46.97	+50 45 15.2	14 27 32.05	+50 31 51.3	8	.0359	17.0	−19.1	sd2e:	08.03.92	3600–5500	BTA	HII				CG 913	[26]
1426+509	14 26 15.04	+50 57 43.3	14 27 59.62	+50 44 20.6	10	.	17.0		d2e					F14262+5057		R	CG 439	
1426+573	14 26 46.74	+57 23 41.1	14 28 18.04	+57 10 19.5	15	.0428	15.27	−21.2	ds3e	19.02.82	3500–7500	BTA	Sy2	F14267+5723	S	R		[8,9,22]
1427+528	14 27 37.18	+52 53 15.5	14 29 17.83	+52 39 56.2	30*24	.0304	15.4	−20.3	ds3e				SBN	F14276+5253		R	CG 448	[31]
1428+575	14 28 10.00	+57 29 57.0	14 29 40.53	+57 16 39.1	12	.0689	17.2	−20.5	sd3				E+A	F14281+5729		R	VIIZw552	[31]
1428+529	14 28 51.01	+52 55 39.6	14 30 31.14	+52 42 26.0	30*15	.0429	15.96	−20.4	sd2e	23.03.99	4000–7100	GHO	Sy1.9:	F14288+5255	SB	R		[26]
1429+554A	14 29 17.46	+55 27 54.9	14 30 52.29	+55 14 40.0	13*11	.0170	15.6	−18.8	ds2e	06.04.92	3600–5500	BTA	SBN	F14292+5527			CG 458	[26]
1429+554B	14 29 17.63	+55 25 36.6	14 30 52.55	+55 12 21.7	8	.0881	17.5	−20.7	d3e				E+A					[31]
1429+541	14 29 41.60	+54 08 24.0	14 31 19.09	+53 55 10.4	18	.0326	16.5	−19.4	ds3				E+A		S		KUG	[31]
1430+596	14 30 03.44	+59 36 42.2	14 31 27.81	+59 23 29.1	30*10	.0070	16.5	−16.0	de	20.03.91	3640–5630	BTA	BCDG			R		[24]
1430+529	14 30 20.85	+52 58 09.2	14 32 00.51	+52 44 57.2	10	.0449	15.5	−21.1	s3e:	23.03.99	4000–7100	GHO	Abs				Mkn 815	
1430+521	14 30 21.51	+52 06 04.2	14 32 02.83	+51 52 52.3	7	.0262	18.0	−17.4	s1e	27.01.90	3700–5700	BTA	BCDG				CG 468	[22,24]
1430+496	14 30 26.46	+49 41 01.1	14 32 12.08	+49 27 49.5	10*8	.0696	17.0	−20.7	d3e				SBN				CG 915	[30]
1430+580	14 30 28.28	+58 01 55.6	14 31 56.66	+57 48 43.7	10	.0403	17.0	−19.4	sde				E+A					[30]
1430+527	14 30 47.78	+52 42 17.1	14 32 27.97	+52 29 07.4	12*6	.0447	17.5	−19.1	sde				HII					[31]
1430+570	14 30 52.18	+57 04 19.9	14 32 22.78	+56 51 09.1	8	.0430	15.6	−20.9	sd3e:	21.02.82	3500–5400	BTA	SBN	F14308+5704			Mkn 473	
1430+526	14 30 53.20	+52 37 59.3	14 32 33.35	+52 24 48.8	14*10	.0109	17.0	−16.5	ds2e	12.02.91	3700–5400	BTA	BCDG				CG 470	[26]
1430+589	14 30 56.04	+58 55 43.0	14 32 21.92	+58 42 32.3	13	.0389	17.5	−20.0	dse				SBN	F14309+5855		R		[30]
1431+589	14 31 16.02	+58 59 55.5	14 32 41.59	+58 46 45.7	20*8	.0390	17.0	−19.3	de				E+A					[30]
1431+522	14 31 26.80	+52 13 12.0	14 33 07.58	+52 00 03.0	24*16	.	16.0		sde					F14314+5213	S		KUG	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1431+561	14 31 33.50	+56 10 56.0	14 33 05.94	+55 57 47.3	18*12	.0552	16.5	−19.0	ds3				SBN				KUG	[31]
1431+529	14 31 40.84	+52 59 27.2	14 33 20.06	+52 46 18.8	12	.0888	16.5	−21.5	s2e:	21.02.82	3500–5400	BTA	SBN				Mkn 816	[31]
1431+562	14 31 46.00	+56 13 16.0	14 33 18.28	+56 00 07.8	12	.1686	17.5	−22.1	dse				E+A				KUG	[31]
1432+567	14 32 21.47	+56 43 58.3	14 33 52.36	+56 30 51.6	26*13	.0309	15.6	−20.2	de				LINER	F14323+5643	S	R		[31]
1432+557	14 32 30.06	+55 43 06.3	14 34 03.26	+55 29 59.9	18*12	.0416	16.0	−20.4	de	18.03.99	4000–7100	GHO	SBN		S		CG 473	[26]
1432+530	14 32 45.36	+53 02 18.2	14 34 24.16	+52 49 12.7	11*8	.0446	17.0	−19.6	ds1e	17.04.90	3600–5600	BTA	HII				CG 474	[22]
1432+514	14 32 46.79	+51 27 56.4	14 34 28.60	+51 14 51.0	26*10	.0341	16.5	−19.4	ds3	25.03.98	4400–7100	BTA	SBN	F14327+5128	S		CG 475	[26]
1432+520	14 32 47.10	+52 02 10.0	14 34 27.90	+51 49 05.0	24*18	.0440	16.0	−20.5	sde				E+A		S:		KUG	[31]
1433+500	14 33 26.20	+50 01 21.4	14 35 10.42	+49 48 17.9	8	.1660	17.51	−21.9	s2e	15.04.97	4000–7100	GHO	BLS1			R	CSO 670	[6]
1433+554N	14 33 28.50	+55 25 54.2	14 35 02.02	+55 12 50.5	13*8	.0726	16.5	−21.1	d3	21.03.99	4000–7100	GHO	LINER:	F14334+5526	SBbc		CG 481	[26]
1433+554S	14 33 29.57	+55 24 50.2	14 35 03.19	+55 11 45.5	13*8	.0730	16.5	−21.1	d3	21.03.99	4000–7100	GHO	HII	F14334+5526	S		CG 481	[26]
1433+495	14 33 48.40	+49 34 09.0	14 35 33.29	+49 21 06.6	12	.0295	17.0	−18.7	sd3				SBN		S		KUG	[30]
1433+498	14 33 58.15	+49 50 57.4	14 35 42.53	+49 37 55.4	7	.0388	17.5	−18.8	s2e:				SBN				CSO 671	[31]
1434+594	14 34 37.23	+59 27 38.4	14 36 00.23	+59 14 37.8	39*12	.0685	16.0	−21.6	s3e									
1434+504	14 34 56.54	+50 27 24.1	14 36 39.58	+50 14 24.7	6	.0255	18.0	−17.4	s3e	08.03.83	3500–5400	BTA	BCDG				HS	
1434+590	14 34 58.12	+59 00 39.0	14 36 22.26	+58 47 39.2	36	.0315	14.08	−21.5	s1e	22.02.82	3500–5400	BTA	Sy1.5	F14349+5900	SBc	R	Mkn 817	[8,9,27]
1435+516	14 35 04.90	+51 40 34.6	14 36 45.66	+51 27 35.5	18*10	.0079	15.5	−17.1	se	20.03.99	4000–7100	GHO	BCDG		S		KUG	[26]
1435+550	14 35 41.55	+55 05 41.7	14 37 15.10	+54 52 44.1	7	.2520	18.22	−22.0	s2	23.03.93	3500–7000	MMT	NLS1				CBS 278	[2,23]
1435+500B	14 35 46.10	+50 01 08.6	14 37 29.70	+49 48 11.5	8	.1989	18.0	−21.8	s2				BLS1					[30]
1436+529A	14 36 06.81	+52 56 30.4	14 37 44.79	+52 43 34.1	28*14	.0119	15.6	−17.8	ds3e	27.04.00	4000–8000	GHO	BCDG				CG 491	[26]
1436+597	14 36 19.11	+59 47 42.8	14 37 40.53	+59 34 46.7	16	.0603	16.0	−21.2	d3e	14.03.97	4000–7000	GHO	E+A					[6]
1436+495	14 36 41.68	+49 32 35.8	14 38 25.87	+49 19 41.2	12*8	.0838	17.5	−20.4	sd3e				E+A				HS	[31]
1436+509	14 36 46.93	+50 58 30.3	14 38 28.52	+50 45 35.9	8	.1710	18.13	−21.3	s2	23.03.93	3500–7000	MMT	BLS1					[23]
1436+529B	14 36 57.50	+52 55 17.0	14 38 35.27	+52 42 23.0	18*10	.0095	15.7	−17.6	sd3	21.03.99	4000–7100	GHO	E+A		S		KUG	[26]
1437+496	14 37 01.56	+49 39 26.7	14 38 45.44	+49 26 33.2	16*12	.0382	17.0	−19.2	ds3e				E+A		S		KUG	[31]
1437+544	14 37 03.78	+54 29 34.1	14 38 38.22	+54 16 40.4	18*16	.0293	15.1	−20.5	sde				SBN	F14370+5429	E	R	CG 494	[31]
1437+515	14 37 05.54	+51 31 55.6	14 38 46.00	+51 19 02.0	66*54	.0072	15.5	−17.1	de					F14370+5132				
1437+509	14 37 05.78	+50 55 55.0	14 38 47.36	+50 43 01.4	15*10	.0061	16.5	−15.7	sd3	21.03.99	4000–7100	GHO	BCDG		S		CG 495	[26]
1437+512	14 37 06.50	+51 14 13.0	14 38 47.50	+51 01 20.0	20*10	.0464	17.0	−19.7	sde				E+A		S		KUG	[31]
1437+516	14 37 08.00	+51 37 04.0	14 38 48.26	+51 24 10.7	14	.0438	17.0	−19.5	sd3				E+A		S		KUG	[31]
1437+563	14 37 19.66	+56 23 34.9	14 38 49.67	+56 10 41.8	9x7	.	17.0		s2e									
1438+527	14 38 05.10	+52 47 08.0	14 39 42.79	+52 34 17.3	16	.0461	16.5	−20.2	sd2e				E+A	F14380+5247	S		KUG	[31]
1438+528	14 38 05.27	+52 52 39.6	14 39 42.80	+52 39 48.7	16*11	.0324	16.0	−19.8	dse	21.03.99	4000–7100	GHO	SBN				CG 500	[26]
1438+556	14 38 06.31	+55 39 24.7	14 39 37.27	+55 26 31.7	30*18	.0750	16.86	−20.6	se	01.02.85	5400–7500	BTA	SBN					[31]
1438+496	14 38 12.78	+49 40 55.0	14 39 56 40	+49 28 05.0	12	.1060	17.3	−21.5	ds3	06.04.03	3900–8100	SPM	Sy1.8					[31]
1438+594	14 38 13.56	+59 29 16.5	14 39 35.13	+59 16 25.7	7	.0293	18.0	−17.7	s1	23.03.93	3500–7000	MMT	SBN					
1438+557	14 38 27.50	+55 42 54.0	14 39 58.71	+55 30 04.2	15*12	.0776	17.0	−20.7	sd2e	21.03.99	4000–7100	GHO	SBN	F14384+5543		R	KUG	[26]
1438+549	14 38 34.10	+54 54 42.0	14 40 07.12	+54 41 52.6	14*8	.0487	16.5	−20.2	d3e:	21.03.99	4000–7100	GHO	E+A		S		CG 505	[26]
1438+507A	14 38 49.91	+50 45 53.4	14 40 31.03	+50 33 04.7	12	.	17.0		d3									
1438+507B	14 38 50.01	+50 45 54.4	14 40 31.43	+50 33 05.7	18*10	.0670	16.5	−21.0	de				SBN				CG 507	[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1439+537	14 39 02.68	+53 43 03.4	14 40 38.18	+53 30 15.2	14*12	.0380	15.33	−20.6	sd2e	22.02.82	3500–5400	BTA	Sy2	F14390+5343		R	Mkn 477	[8,9]
1439+510	14 39 08.50	+51 02 54.0	14 40 49.30	+50 50 06.0	9	.1174	17.0	−21.9	sd3e				Sy1.5				CG 510	[31]
1439+504	14 39 22.00	+50 29 37.0	14 41 03.75	+50 16 50.0	18*12	.0666	17.0	−20.4	sde				E+A		S		KUG	[31]
1439+507	14 39 22.40	+50 46 07.0	14 41 03.70	+50 33 20.0	36*6	.0300	17.0	−18.8	dse				SBN				KUG	[31]
1439+535	14 39 28.67	+53 35 55.7	14 41 04.36	+53 20 10.0	36*12	.1047	17.23	−21.0	s3e:	15.03.00	3500–7000	BTA	LINER	F14394+5332		R		[31]
1439+499	14 39 35.90	+49 55 39.0	14 41 18.62	+49 42 52.7	12	.0379	17.0	−19.2	sde				LINER	F14395+4955	S		KUG	[31]
1440+533	14 40 10.55	+53 19 44.4	14 41 46.53	+53 06 59.4	14	.0638	16.5	−20.9	ds3	22.03.99	4000–7100	GHO	E+A		S		CG 513	[26]
1441+610	14 41 00.82	+61 05 06.6	14 42 16.47	+60 52 23.5	15*10	.0077	16.5	−16.3	sde				BCDG					[30]
1441+524	14 41 14.30	+52 29 32.0	14 42 51.67	+52 16 50.2	20	.	17.0		d3e						S		KUG	
1441+548	14 41 34.30	+54 50 06.0	14 43 06.54	+54 37 25.0	15	.0642	16.5	−21.3	dse	22.03.99	4000–7100	GHO	SBN	F14415+5450			CG 519	[26]
1441+496	14 41 48.73	+49 36 14.9	14 43 31.48	+49 23 34.7	24*14	.0297	15.5	−20.1	dse	10.04.96	4000–7000	GHO	LINER	F14418+4936	S:	R	CG 520	[5,31]
1442+590	14 42 04.12	+59 05 55.1	14 43 25.49	+58 53 14.9	28*15	.0391	16.0	−20.2	sd3e				SBN	F14420+5906	S	R		[7,8,9]
1442+517	14 42 08.73	+51 43 29.3	14 43 47.40	+51 30 49.9	8	.2006	19.06	−20.7	s1e:				BLS1					[31]
1442+506	14 42 27.88	+50 39 47.6	14 44 08.50	+50 27 09.2	14*10	.0731	16.5	−21.1	ds2e	24.03.99	4000–7100	GHO	SBN	F14424+5040		R	CG 524	[26]
1443+548	14 43 06.52	+54 50 36.2	14 44 38.28	+54 37 59.5	12	.0446	16.5	−20.0	ds3e	24.03.99	4000–7100	GHO	SBN	F14430+5450			CG 526	[26]
1443+499	14 43 14.07	+49 55 26.7	14 44 55.87	+49 42 50.5	18	.0097	15.4	−17.9	de				SBN	F14432+4955			CG 528	[31]
1443+584	14 43 14.70	+58 24 54.0	14 44 37.42	+58 12 17.6	12	.	17.0		sde					F14432+5824				
1443+515	14 43 14.77	+51 33 03.9	14 44 53.58	+51 20 27.7	54*18	.0895	16.5	−21.6	sde						Pec		VV 517	
1443+503	14 43 54.40	+50 18 13.3	14 45 35.32	+50 05 39.0	9*6	.0308	18.0	−17.8	ds3	09.03.83	3500–5400	BTA	HII				HS	
1444+517	14 44 07.07	+51 47 24.9	14 45 45.06	+51 34 51.2	40*30	.0308	14.7	−21.0	se				LINER	F14441+5147	S:	R	CG 533	[27,31]
1444+588	14 44 24.02	+58 48 26.7	14 45 45.25	+58 35 53.4	9	.0681	17.0	−20.5	s1e	09.03.81	3800–7500	BTA	SBN					[22]
1444+492	14 44 50.00	+49 13 06.0	14 46 32.64	+49 00 34.6	12	.0374	17.0	−19.2	sde				SBN	F14449+4912			CG 916	[31]
1445+543	14 45 07.84	+54 19 16.0	14 46 40.17	+54 06 45.1	8*6	.0173	17.5	−17.0	se	24.03.99	4000–7100	GHO	BCDG					[26]
1445+491	14 45 38.41	+49 06 34.6	14 47 21.07	+48 54 05.4	15*11	.0072	15.5	−17.1	s1e:	17.05.93	3600–7200	BTA	BCDG	F14456+4906			CG 544	
1446+550	14 46 17.46	+55 03 46.2	14 47 47.73	+54 51 18.6	12*9	.0394	16.5	−19.7	sde				SBN		S:		KUG	[31]
1446+595	14 46 20.58	+59 34 19.3	14 47 38.87	+59 21 51.6	11	.0072	18.0	−14.6	d2e	12.02.91	3520–5570	BTA	BCDG					[24]
1446+512	14 46 39.30	+51 12 46.0	14 48 17.74	+51 00 19.7	8	.1357	17.5	−21.5	s1e:	17.05.93	3600–7200	BTA	HII					[26]
1446+552	14 46 55.20	+55 16 53.0	14 48 24.73	+55 04 27.3	18*12	.0461	16.5	−20.2	sd3e				SBN				KUG	[31]
1447+519	14 47 00.01	+51 55 56.9	14 48 36.91	+51 43 31.5	15*10	.0370	16.5	−19.7	sd3e				Sy2				CG 550	[31]
1447+500	14 47 01.60	+50 05 38.0	14 48 42.07	+49 53 13 0	24*12	.0105	16.5	−17.0	ds2e				E+A		S		KUG	[31]
1447+569	14 47 06.51	+56 56 35.3	14 48 31.87	+56 44 10.0	7	.0644	18.0	−19.3	s2e				SBN					[30]
1447+512	14 47 06.70	+51 13 13.0	14 48 44.98	+51 00 48.2	15	.	16.5		d3e						S		KUG	
1447+503	14 47 11.61	+50 21 20.9	14 48 51.54	+50 08 56.3	12*6	.0716	17.0	−20.6	dse				SBN		S:		KUG	[31]
1447+552A	14 47 25.94	+55 16 56.1	14 48 55.33	+55 04 31.8	13	.0388	16.0	−20.2	sd3e:	13.04.96	4000–7000	GHO	SBN	F14474+5517		R	CG 551	[5]
1447+589	14 47 47.54	+58 56 03.6	14 49 07.19	+58 43 40.2	18	.0291	17.0	−18.6	s3				Abs					[30]
1448+509A	14 48 06.04	+50 55 02.5	14 49 44.67	+50 42 40.4	12	.0135	15.0	−19.0	ds3	21.02.82	3500–5400	BTA	Abs	F14480+5055			Mkn 825	
1448+525	14 48 06.40	+52 33 30.2	14 49 41.69	+52 21 08.7	16*12	.0300	17.0	−18.8	dse				SBN		S:			[31]
1448+526A	14 48 23.40	+52 40 22.2	14 49 58.79	+52 28 01.2	8	.0951	17.5	−21.0	sd2				Sy2					[31]
1448+526B	14 48 27.60	+52 36 43.2	14 50 02.69	+52 24 22.1	13*9	.0024	15.0	−15.5	ds3	21.02.82	3500–5400	BTA	BCDG				Mkn 826	
1448+606	14 48 31.68	+60 36 17.1	14 49 45.94	+60 23 55.7	35*10	.0076	15.3	−17.4	de				BCDG	F14485+6036	SBcd			[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1448+509B	14 48 36.02	+50 57 00.6	14 50 14.46	+50 44 40.0	8	.0700	17.5	−20.2	dse				E+A					[31]
1448+593	14 48 48.53	+59 20 00.8	14 50 06.63	+59 07 40.3	11*8	.0695	17.0	−20.7	ds2e				SBN	F14487+5920		R		[30]
1448+603	14 48 50.74	+60 23 26.8	14 50 05.56	+60 11 06.3	12	.0570	16.5	−20.6	sd1e	09.03.81	5700–7500	BTA	SBN				Mkn1492	
1449+519	14 49 04.91	+51 54 35.4	14 50 41.29	+51 42 16.2	28*14	.0259	14.5	−20.9	de				SBN	F14490+5154		R	KUG	[31]
1449+528	14 49 06.90	+52 53 40.0	14 50 41.18	+52 41 20.9	12	.	17.0		sde								KUG	
1449+537	14 49 34.11	+53 46 11.6	14 51 06.36	+53 33 53.7	6	.4330	19.35	−22.3	s2	11.02.97	3800–7200	BTA	BLS1			R		[3,25]
1450+527	14 50 11.85	+52 47 23.3	14 51 46.07	+52 35 07.2	12	.0648	17.5	−19.9	dse	14.03.97	4000–7000	GHO	SBN	F14502+5247	S:		KUG	
1450+493	14 50 39.25	+49 22 20.4	14 52 20.23	+49 10 06.1	12	.0757	17.4	−20.3	sde				Abs					[31]
1450+609	14 50 42.74	+60 57 08.9	14 51 55.09	+60 44 54.1	36*20	.0484	15.4	−21.4	dse				E+A	F14507+6057	S:			[31]
1450+506	14 50 49.10	+50 40 00.0	14 52 27.49	+50 27 46.1	14	.0936	17.0	−21.4	de				LINER				CG 919	[31]
1451+493A	14 51 37.10	+49 23 49.0	14 53 17.79	+49 11 37.6	40*6	.0658	17.0	−20.4	se					F14515+4924	Scd		FGC1824	
1451+517	14 51 38.30	+51 45 33.0	14 53 14.30	+51 33 22.0	18*6	.	17.0		sde								KUG	
1451+603	14 51 39.80	+60 20 02.7	14 52 53.75	+60 07 50.6	18*13	.0378	16.0	−20.2	ds3e	21.02.82	5700–7500	BTA	SBN	F14516+6020	S:	R	Mkn 1493	
1451+583B	14 51 50.52	+58 22 07.1	14 53 10.38	+58 09 55.6	9	.1130	17.5	−21.2	sd3				LINER	F14518+5822		R		[30]
1451+493B	14 51 52.90	+49 20 17.0	14 53 33.56	+49 08 06.3	42*30	.0312	16.0	−19.8	sde					F14519+4920	S		KUG	
1451+587	14 51 59.69	+58 45 57.2	14 53 18.34	+58 33 46.2	6	.0695	18.5	−19.2	sd3e				HII					[30]
1452+540	14 52 07.38	+54 00 09.0	14 53 38.35	+53 47 58.7	9	.0112	17.0	−16.7	sd2e				BCDG					[31]
1452+571	14 52 13.26	+57 11 34.1	14 53 36.27	+56 59 23.9	7	.1210	18.0	−20.6	d2e				SBN					[30]
1452+492	14 52 40.49	+49 11 36.5	14 54 21.25	+48 59 28.0	10*6	.0363	17.5	−18.2	de				SBN					[31]
1452+533	14 52 46.30	+53 19 08.0	14 54 18.61	+53 06 59.8	15	.0845	17.0	−21.2	dse				E+A				KUG	[31]
1452+503	14 52 54.16	+50 21 26.1	14 54 32.64	+50 09 18.3	9*6	.0373	18.0	−18.2	s2e:				SBN					[31]
1452+586	14 52 59.65	+58 38 59.7	14 54 18.30	+58 26 51.7	10*7	.0678	18.0	−19.2	ds2e				SBN		S:			[30]
1453+516	14 53 05.66	+51 41 21.0	14 54 41.41	+51 29 13.6	20*8	.0370	16.5	−19.7	d3e				E+A		S:			[31]
1453+526	14 53 09.11	+52 37 52.3	14 54 42.85	+52 25 45.1	11*8	.0118	17.0	−16.7	sd1e	14.04.91	3690–5690	BTA	BCDG				CG 577	[24]
1453+557	14 53 20.25	+55 44 17.2	14 54 46.69	+55 32 10.4	12	.0322	16.0	−19.9	d3e:	19.02.82	3500–5400	BTA	SBN				Mkn 831	
1453+507	14 53 34.00	+50 42 02.0	14 55 11.61	+50 29 56.3	30*18	.0376	16.5	−19.7	ds3						S		KUG	
1453+601	14 53 46.56	+60 10 46.7	14 55 00.22	+59 58 40.9	13*7	.0273	17.0	−18.5	ds1				HII					[30]
1454+498	14 54 12.30	+49 50 55.0	14 55 51.42	+49 38 51.3	24*18	.0261	17.0	−18.5	ds3				E+A		S		KUG	[31]
1454+511	14 54 24.15	+51 08 23.3	14 56 00.68	+50 56 19.9	20*10	.0753	17.0	−20.4	dse				E+A				CG 582	[31]
1454+513	14 54 34.20	+51 21 13.0	14 56 10.23	+51 09 10.3	16	.	16.5		sd2e					F14545+5121			KUG	
1455+591	14 55 01.53	+59 10 58.3	14 56 17.87	+58 58 56.3	24*12	.0370	15.5	−20.7	s2	09.03.81	5400–7500	BTA	Abs					
1455+607	14 55 02.78	+60 43 58.8	14 56 14.16	+60 31 56.8	12*6	.0265	18.0	−17.4	sd3				SBN					
1455+533	14 55 42.59	+53 21 07.1	14 57 14.02	+53 09 07.6	20*10	.0294	16.0	−19.7	dse				SBN	F14556+5321	S		CG 589	[31]
1455+498B	14 55 54.70	+49 51 29.0	14 57 33.38	+49 39 30.4	29*12	.0319	17.5	−18.3	dse				BCDG				KUG	[31]
1456+506	14 56 01.50	+50 36 27.0	14 57 38.70	+50 24 29.0	24*10	.0654	16.5	−20.9	sde				E+A		S		KUG	[31]
1456+591	14 56 13.54	+59 09 58.5	14 57 29.51	+58 58 00.2	9*6	.0695	18.5	−19.2	ds2e				HII					[30]
1456+592	14 56 21.99	+59 14 18.3	14 57 37.69	+59 02 20.4	8	.0714	18.0	−19.5	ds3e				SBN					[30]
1456+586	14 56 45.24	+58 41 43.5	14 58 02.46	+58 29 46.8	8	.0838	18.0	−20.0	sde				SBN					[30]
1457+540	14 57 11.89	+54 03 24.2	14 58 41.27	+53 51 29.2	20*7	.0275	16.5	−19.0	s3e	17.04.90	3700–5500	BTA	E+A				CG 595	[22]
1457+524	14 57 38.86	+52 26 11.7	14 59 11.79	+52 14 18.2	16*12	.0298	16.5	−19.2	sd2e				E+A		S:		KUG	[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1457+491	14 57 54.30	+49 09 04.0	14 59 33.85	+48 57 11.6	30*6	.0280	17.5	−18.1	sde				E+A				KUG	[31]
1458+600A	14 58 08.32	+60 02 52.8	14 59 20.83	+59 51 00.3	14*8	.0395	17.0	−19.5	dse				SBN					[30]
1458+600B	14 58 10.46	+60 02 50.7	14 59 22.96	+59 50 58.3	12*6	.	17.5		de									
1458+516	14 58 10.90	+51 39 44.0	14 59 45.34	+51 27 52.4	16	.0115	17.0	−16.6	de				E+A		S		KUG	[31]
1458+606	14 58 19.87	+60 39 21.7	14 59 30.29	+60 27 29.7	9*6	.0393	17.0	−19.3	sd3				SBN					[30]
1458+544	14 58 20.58	+54 24 44.9	14 59 48.79	+54 12 53.4	24*15	.0331	16.5	−19.4	sd2e				SBN		S:		CG 603	[31]
1458+497	14 58 24.94	+49 44 44.7	15 00 03.24	+49 32 53.7	9	.0488	17.0	−19.7	ds1e	16.09.90	3700–5400	BTA	HII				CG 922	[26]
1458+593	14 58 25.19	+59 19 53.5	14 59 39.89	+59 08 01.9	7	.0510	17.5	−17.8	s3e				SB					[30]
1459+555	14 59 06.34	+55 33 58.3	15 00 31.46	+55 22 09.1	9*7	.0263	17.0	−18.4	d2e				HII					[30]
1459+498	14 59 07.80	+49 51 31.0	15 00 45.68	+49 39 42.3	18	.0642	17.0	−20.8	ds3				Abs		S		KUG	[31]
1459+532	14 59 09.60	+53 14 05.6	15 00 40.34	+53 02 16.7	13*10	.0762	16.5	−21.0	sd2				E+A		S		CG 606	[31]
1459+520	14 59 12.76	+52 00 49.4	15 00 46.18	+51 49 00.8	12	.0705	17.5	−20.2	sd3				SBN				KUG	[31]
1459+530	14 59 19.60	+53 02 08.0	15 00 50.72	+52 50 19.7	18	.0762	16.5	−21.2	sd3						S		KUG	
1459+559	14 59 30.76	+55 57 30.9	15 00 54.74	+55 45 42.9	14	.0371	16.5	−19.6	dse				SBN	F14595+5557			CG 607	[30]
1459+491	14 59 37.50	+49 06 02.0	15 01 16.74	+48 54 14.8	18	.0258	17.0	−18.5	dse				E+A				KUG	[31]
1500+495	15 00 01.60	+49 34 12.0	15 01 39.90	+49 22 26.0	30	.	16.0		sde						S		KUG	
1500+557A	15 00 02.87	+55 43 13.1	15 01 27.31	+55 31 26.8	8	.0372	17.5	−18.6	ds2e				HII					[30]
1500+557B	15 00 03.32	+55 43 19.3	15 01 27.75	+55 31 33.0	7	.0371	17.5	−19.6	ds2e				HII					[30]
1500+506A	15 00 15.24	+50 37 32.8	15 01 51.33	+50 25 47.4	8	.0259	17.5	−18.0	sd3				HII					[31]
1500+506B	15 00 27.50	+50 37 26.0	15 02 03.52	+50 25 41.4	16	.0264	16.5	−18.9	ds3e				HII	F15004+5037			KUG	[31]
1500+579	15 00 31.74	+57 56 57.8	15 01 49.90	+57 45 12.8	4	.0265	19.0	−16.4	sd2e				BCDG					[30]
1501+593	15 01 15.45	+59 19 51.7	15 02 29.17	+59 08 08.8	4	.0265	19.0	−16.4	sd1e				BCDG					
1501+524	15 01 45.90	+52 27 42.0	15 03 17.66	+52 16 01.3	18*12	.0755	17.0	−20.6	dse				E+A				KUG	[31]
1502+556	15 02 25.94	+55 40 11.4	15 03 49.80	+55 28 32.4	12	.0371	16.5	−19.6	ds3				SBN		S:		CG 616	[30]
1502+538	15 02 39.32	+53 49 46.8	15 04 07.70	+53 38 09.0	16	.0385	17.0	−18.3	sde				E+A				KUG	[31]
1502+507	15 02 44.29	+50 44 08.4	15 04 19.54	+50 32 30.7	16*12	.0136	16.5	−17.5	s3				BCDG				KUG	[31]
1502+496	15 02 47.03	+49 35 33.0	15 04 24.58	+49 23 55.5	42*36	.0263	14.8	−20.6	se				E+A	F15027+4935	S		KUG	[31]
1502+525	15 02 54.30	+52 32 14.0	15 04 25.59	+52 20 36.9	18*12	.0578	17.0	−20.1	ds2e				SB		S		KUG	[31]
1502+516B	15 02 55.41	+51 40 48.3	15 04 28.61	+51 29 11.2	9	.0253	17.0	−18.3	ds3e				HII				CG 617	[31]
1503+531	15 03 01.96	+53 06 53.8	15 04 31.92	+52 55 16.9	9*7	.0187	17.5	−17.2	d3e	12.02.91	3600–5600	BTA	BCDG				CG 618	[26]
1503+521	15 03 06.42	+52 07 29.3	15 04 38.57	+51 55 52.9	18*6	.0363	17.0	−18.7	dse				SBN	F15030+5207	S	R	KUG	[31]
1503+574	15 03 54.90	+57 30 33.0	15 05 13.23	+57 18 58.7	40*7	.0296	16.5	−19.1	sde					F15039+5730	Scd			
1504+537	15 04 05.20	+53 45 21.0	15 05 33.34	+53 33 47.5	18*12	.0740	17.5	−20.2	dse				SBN				KUG	[31]
1504+576	15 04 12.92	+57 36 25.3	15 05 30.89	+57 24 51.8	8*7	.0776	17.5	−20.2	de				Abs					[30]
1504+514	15 04 18.23	+51 26 38.5	15 05 51.59	+51 15 05.7	30	.0131	15.4	−18.5	sde	12.02.91	3610–5500	BTA	SB	F15043+5126			CG 625	[24]
1504+565	15 04 22.93	+56 35 04.8	15 05 43.75	+56 23 31.9	18	.0301	15.5	−20.3	d2e:	09.04.82	3500–7500	BTA	SBN	F15044+5635	Irr:	R	Mkn 843	
1504+536	15 04 41.30	+53 36 07.3	15 06 09.73	+53 24 38.7	48*42	.0344	15.5	−20.5	sde					F15046+5336	S		KUG	
1505+607	15 05 22.85	+60 47 10.2	15 06 30.26	+60 35 40.0	11*8	.	15.7		sde					F15053+6047			VIIZw583	
1505+605A	15 05 43.18	+60 30 39.9	15 06 51.43	+60 19 10.9	12*9	.	17.0		ds2									
1505+563	15 05 43.62	+56 20 25.0	15 07 04.70	+56 08 56.4	12	.0600	16.5	−20.6	sde	01.05.99	4000–9000	GHO	SBN	F15057+5620		R		

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1505+605B	15 05 44.73	+60 30 59.3	15 06 52.95	+60 19 30.4	12*6	.	17.0		ds2									
1505+529	15 05 51.77	+52 59 22.9	15 07 21.26	+52 47 55.0	9	.0379	17.5	−18.7	sd2e				HII					[31]
1506+576	15 06 12.00	+57 39 44.0	15 07 29.18	+57 28 16.8	18*15	.0480	17.0	−19.6	dse				E+A					[30]
1506+516	15 06 12.59	+51 38 37.3	15 07 45.03	+51 27 10.5	54*15	.0460	15.12	−21.3	s1e:	09.04.82	3500–7500	BTA	BLS1	F15061+5138	Sab	R	Mkn 845	[8]
1506+553	15 06 24.80	+55 22 35.0	15 07 48.24	+55 11 08.8	78*48	.0113	14.7	−18.9	de				HII	F15064+5522	S		CG 638	[30]
1506+577	15 06 34.09	+57 47 46.9	15 07 50.76	+57 36 20.9	14*12	.0790	16.5	−21.3	ds2e	15.09.88	3700–7500	BTA	LINER:				Mkn1495	
1506+566	15 06 52.85	+56 36 46.6	15 08 12.81	+56 25 21.8	16*12	.0295	16.5	−19.2	sd3e				SBN	F15068+5636		R	KUG	[30]
1507+524	15 07 02.40	+52 29 08.0	15 08 32.72	+52 17 43.9	36	.0082	14.3	−18.5	de				SBN	F15070+5229	S		CG 640	[31]
1507+526A	15 07 10.10	+52 38 37.2	15 08 40.05	+52 27 13.4	24*18	.0112	15.5	−18.2	ds3	09.04.81	3500–7500	BTA	SBN	F15071+5238		R	Mkn 846	[31]
1507+526B	15 07 29.48	+52 40 10.9	15 08 59.29	+52 28 48.2	8	.0374	18.5	−17.7	sd2e				HII					[31]
1507+496	15 07 34.36	+49 39 29.2	15 09 10.65	+49 28 06.9	14*9	.0269	16.5	−19.1	sd3e				E+A				CG 643	[31]
1509+583A	15 09 01.63	+58 22 00.7	15 10 15.85	+58 10 42.7	16	.0306	16.0	−19.9	dse				Abs					[30]
1509+583B	15 09 03.51	+58 21 56.9	15 10 17.66	+58 10 38.8	25*6	.0319	16.5	−19.3	ds3e	08.03.97	4000–7000	GHO	ELG	F15090+5821				[6]
1509+493	15 09 10.54	+49 23 34.8	15 10 46.98	+49 12 17.8	15	.0383	16.5	−19.7	de				HII				CG 649	[31]
1509+555	15 09 18.94	+55 32 15.6	15 10 41.14	+55 20 58.5	98*24	.0115	15.1	−18.5	se					F15093+5532	S:	R		
1509+522	15 09 31.67	+52 15 05.9	15 11 01.91	+52 03 49.7	12	.2100	17.65	−22.3	s2	22.03.93	3300–7000	MMT	NLS1					[21,23]
1509+527	15 09 31.86	+52 44 45.2	15 11 00.96	+52 33 29.0	18*13	.0124	15.6	−18.8	d3e:	12.02.91	3600–5600	BTA	HII				CG 652	[31]
1510+503	15 10 16.22	+50 19 37.9	15 11 50.50	+50 08 24.2	10*6	.0335	17.0	−18.9	sd2e				HII				CG 656	[31]
1510+538	15 10 34.92	+53 49 32.9	15 12 01.15	+53 38 20.0	10*7	.0742	16.0	−21.7	dse	08.03.97	4000–7000	GHO	SBN	F15105+5349	S:	R	CG 658	[6]
1510+507	15 10 44.80	+50 44 45.0	15 12 18.05	+50 33 32.9	54*30	.0372	15.5	−20.6	dse				SBN	F15107+5044	S	R		[31]
1510+571	15 10 55.51	+57 11 19.6	15 12 12.62	+57 00 07.6	24*12	.0022	16.5	−14.1	ds3				BCDG		S:		KUG	[30]
1511+515A	15 11 11.67	+51 34 44.4	15 12 43.01	+51 23 33.7	10*9	.0361	16.5	−19.2	ds2e	12.02.91	3700–5400	BTA	SBN				CG 659	[26]
1511+515B	15 11 19.34	+51 34 39.1	15 12 50.65	+51 23 28.7	20*10	.0363	16.0	−19.7	ds3	25.04.98	4400–7100	BTA	SB				CG 661	[26]
1511+515C	15 11 21.03	+51 35 04.6	15 12 52.32	+51 23 54.3	42*24	.0363	15.3	−20.4	ds3	25.04.98	4400–7100	BTA	SBN	F15113+5134	S	R	CG 662	[26]
1511+583	15 11 30.46	+58 21 45.8	15 12 43.84	+58 10 35.6	6	.0016	19.0	−10.2	s3	10.04.81	3500–5700	BTA	Abs					
1511+529	15 11 49.88	+52 58 08.3	15 13 17.86	+52 46 59.7	16*10	.0118	17.0	−16.7	sd3				BCDG				KUG	[31]
1512+586	15 12 16.82	+58 41 41.3	15 13 28.91	+58 30 33.6	30	.0084	15.0	−18.0	d2e:	12.02.91	3600–5500	BTA	SBN	F15122+5841	S:		Mkn 847	
1512+505	15 12 48.98	+50 30 55.0	15 14 22.30	+50 19 48.0	48*36	.0370	15.4	−20.8	dse				LINER			R	NGC5902S	[31]
1513+562	15 13 27.49	+56 13 03.2	15 14 46.64	+56 01 59.5	10*6	.0512	17.0	−19.8	d3e				HII					[30]
1514+546	15 14 39.60	+54 39 36.0	15 16 02.60	+54 28 36.5	72*36	.0399	15.2	−20.8	dse					F15146+5439	Sb		IC1111	
1514+536	15 14 47.14	+53 40 53.0	15 16 12.62	+53 29 53.8	15*12	.0534	16.0	−20.9	ds2e				E+A	F15147+5341			CG 673	[30]
1514+601	15 14 59.20	+60 10 59.7	15 16 05.41	+60 00 00.7	15*12	.0448	15.3	−21.1	sd2e	31.08.86	3830–5530	BTA	SBN:	F15149+6010		R		[8,9]
1515+506	15 15 01.10	+50 41 48.0	15 16 33.50	+50 30 50.0	9	.	17.0		dse								CG 923	
1515+605	15 15 17.73	+60 34 31.3	15 16 22.44	+60 23 33.3	10	.0747	17.5	−20.2	ds3e:	09.10.83	3320–6840	BTA	LINER	F15152+6034	S:			[22]
1515+492	15 15 17.77	+49 16 42.6	15 16 53.08	+49 05 45.3	12	.0359	16.5	−19.6	dse				SBN	F15152+4916			CG 674	[31]
1515+579	15 15 30.47	+57 54 16.5	15 16 44.04	+57 43 19.4	10*7	.0580	18.0	−18.9	s3e	31.08.86	3600–7300	BTA	Sy2			R		[22]
1515+590	15 15 44.39	+59 00 50.4	15 16 54.34	+58 49 54.0	15*10	.0747	16.5	−21.2	sde:	03.09.86	3800–5500	BTA	E+A		S:			[22]
1515+556	15 15 52.98	+55 37 36.8	15 17 13.08	+55 26 41.1	14*8		16.5		de								KUG	
1515+588	15 15 54.07	+58 50 41.4	15 17 04.53	+58 39 45.5	15*10	.0377	17.0	−19.2	de	10.10.88	3500–6900	BTA	SBN					[22]
1516+524	15 16 35.45	+52 27 13.8	15 18 03.45	+52 16 20.7	8	.0830	17.0	−21.0	d3e				SB					[31]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1517+582	15 17 10.20	+58 17 35.0	15 18 22.03	+58 06 43.5	24*12	.0297	16.5	−19.2	sd3				E+A	F15171+5817				[30]
1517+513	15 17 14.46	+51 23 18.4	15 18 44.77	+51 12 27.5	18*10	.0149	16.0	−19.0	sd3e				HII				CG 680	[31]
1517+507	15 17 28.64	+50 42 58.5	15 19 00.38	+50 32 08.5	40*8	.0382	16.5	−19.8	sd3e				E+A					[31]
1517+566	15 17 30.63	+56 39 55.2	15 18 47.33	+56 29 04.8	13x10	.0680	16.6	−20.9	s2	13.04.96	4000–7000	GHO	SBN	F15174+5640		R	VIIZw593	[5]
1517+575	15 17 39.19	+57 34 40.0	15 18 53.12	+57 23 50.0	16*8	.0491	17.0	−19.8	sde	11.06.96	4000–7400	BTA	E+A		S			
1517+522	15 17 39.30	+52 16 54.0	15 19 07.51	+52 06 04.6	12	.1391	17.5	−21.6	s3e	06.04.03	3900–8100	SPM	Sy2	F15176+5216		R		[8,9,31]
1518+593	15 18 13.44	+59 19 11.7	15 19 21.58	+59 08 23.5	12*10	.0781	16.10	−21.5	s1e	01.10.88	3600–7300	BTA	BLS1	F15182+5919	Sa:		VIIZw594	
1519+587	15 19 14.08	+58 45 30.6	15 20 23.78	+58 34 45.8	7	.1111	18.5	−20.0	dse:				SBN					[30]
1519+496	15 19 16.64	+49 41 34.4	15 20 50.20	+49 30 50.4	24*10	.0147	16.0	−17.5	d3e	12.02.91	3600–5500	BTA	BCDG	F15193+4941			CG 690	[26]
1519+507	15 19 33.13	+50 41 01.7	15 21 04.48	+50 30 18.5	8	.0760	17.0	−20.7	sde	13.04.99	4000–9000	GHO	HII			R		
1519+508A	15 19 36.39	+50 51 02.8	15 21 07.36	+50 40 19.8	24*10	.0560	15.5	−22.1	ds3e:	12.02.91	3600–5600	BTA	HII			R	CG 692	[26]
1519+508B	15 19 37.93	+50 50 50.4	15 21 08.90	+50 40 07.5	14	.0563	16.07	−20.8	sd3e	19.03.93	3300–6900	BTA	BLS1	F15195+5050			CG 693	
1520+572	15 20 12.74	+57 14 46.9	15 21 26.93	+57 04 05.5	9	.0722	18.5	−19.1	sd2e:	16.09.88	3600–5500	BTA	LINER					[22]
1520+503	15 20 30.38	+50 21 05.4	15 22 02.25	+50 10 25.4	12*8	.0740	16.5	−21.2	sd2					F15205+5021		R	CG 698	
1520+509	15 20 40.32	+50 55 26.4	15 22 10.88	+50 44 47.0	8	.0491	18.0	−18.7	s2				SBN					[31]
1521+603	15 21 09.15	+60 22 27.3	15 22 12.64	+60 11 48.8	12*7	.1073	18.0	−20.5	de	14.06.96	4000–7000	BTA	Abs					
1522+575B	15 22 38.28	+57 34 16.6	15 23 50.77	+57 23 43.3	6	.1696	18.5	−20.9	dse:	14.06.96	4000–7000	BTA	E+A					
1522+588	15 22 48.38	+58 52 53.3	15 23 56.58	+58 42 20.5	14*7	.0341	18.5	−17.5	dse	16.09.88	3900–7000	BTA	BCDG					[22]
1523+504	15 23 19.99	+50 29 24.3	15 24 50.90	+50 18 54.0	24*18	.0378	16.5	−19.7	sd2e				E+A	F15233+5029	S	R		[31]
1523+511	15 23 44.30	+51 08 13.7	15 25 13.68	+50 57 44.6	10*7	.0732	17.5	−20.0	dse				Abs					[31]
1523+519	15 23 51.61	+51 55 21.9	15 25 19.13	+51 44 53.2	13*9	.0127	17.5	−16.3	d3e	12.09.91	3500–5500	BTA	BCDG				CG 707	[26]
1524+500	15 24 01.48	+50 02 04.4	15 25 33.26	+49 51 36.3	15*13	.0948	16.5	−22.0	de				SBN		S		CG 709	[31]
1524+604	15 24 12.74	+60 24 37.3	15 25 15.11	+60 14 09.1	12	.0789	17.27	−20.3	sd1e	09.04.81	5400–7500	BTA	Sy1.8			R	VIIZw603	[22]
1524+589	15 24 17.29	+58 56 32.1	15 25 24.83	+58 46 04.3	12*6	.0602	17.5	−19.7	de	10.10.88	3500–7900	BTA	HII					[22]
1524+545	15 24 31.70	+54 32 39.0	15 25 52.41	+54 22 12.5	30*15	.0405	15.5	−20.9	sd3e	19.03.99	4000–7100	GHO	Sy2	F15245+5432		R	CG 714	[26]
1524+575A	15 24 36.82	+57 34 21.7	15 25 48.73	+57 23 55.1	12	.0304	17.5	−18.2	sd1e	09.04.81	3700–5500	BTA	SBN					[22]
1524+554	15 24 40.03	+55 25 28.6	15 25 58.31	+55 15 02.4	14*8	.0119	17.0	−16.7	d2e	14.03.91	3630–5500	BTA	BCDG					[24]
1524+570	15 24 47.03	+57 00 02.3	15 25 59.70	+56 49 38.5	14*12	.0517	17.0	−20.4	sd3e	08.02.83	5400–7500	BTA						
1524+575B	15 24 48.45	+57 34 21.9	15 26 00.31	+57 23 56.0	12*9	.0408	17.5	−18.9	ds3e:	17.09.88	3700–5500	BTA	HII					[22]
1525+580A	15 25 03.57	+58 05 07.3	15 26 13.72	+57 54 42.2	12*8	.0712	17.5	−20.1	sde:	07.09.86	3700–5500	BTA	Abs					[22]
1525+511	15 25 05.60	+51 10 54.0	15 26 34.55	+51 00 29.7	13*8	.0490	16.5	−20.3	d3	11.08.99	4000–9000	GHO	SBN	F15250+5111		R	CG 723	
1525+573	15 25 31.92	+57 22 04.2	15 26 44.21	+57 11 40.8	8*6	.1423:	19.0	−20.0	dse	14.06.96	4000–7000	BTA	E+A					
1526+585A	15 26 05.33	+58 34 15.2	15 27 13.58	+58 23 53.6	10*6	.0588	17.5	−19.7	s2e:	07.09.86	3700–5500	BTA	E+A					[22]
1526+585B	15 26 05.57	+58 35 40.2	15 27 13.74	+58 25 18.6	11*7	.0308	17.5	−18.3	sd2e	07.09.86	3500–6300	BTA	HII			R		[22]
1526+495	15 26 11.88	+49 35 11.6	15 27 44.17	+49 24 51.0	16*8	.0741	16.5	−21.2	sd2e				SBN	F15262+4935			CG 726	[31]
1526+518	15 26 32.20	+51 50 57.0	15 27 59.25	+51 40 38.6	60*18	.0513	16.0	−20.8	dse				E+A	F15265+5150	S			[30]
1526+556	15 26 33.21	+55 36 32.4	15 27 50.47	+55 26 12.6	14*12	.0110	15.6	−18.0	d3	09.04.81	3500–7500	BTA	SBN		Epec		Mkn 481	
1526+574	15 26 34.87	+57 28 20.8	15 27 46.54	+57 18 01.0	12	.0720	17.5	−20.1	de:	14.06.96	4000–7400	BTA	E+A		S			
1526+557	15 26 47.24	+55 43 03.3	15 28 04.13	+55 32 44.3	48*24	.0112	14.8	−18.9	ds3e:	09.04.81	3500–7500	BTA	SBN	F15267+5543	Sa	R	Mkn 482	
1526+532	15 26 55.95	+53 14 05 7	15 28 19.49	+53 03 46.8	16	.0532	16.0	−20.9	sd3				SBN	F15269+5314		R	CG 731	[30]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1527+585	15 27 19.58	+58 31 13.4	15 28 27.63	+58 20 56.0	9*6	.0487	18.0	−18.8	sde:	14.06.96	4000–7400	BTA	SBN					
1527+583	15 27 25.50	+58 22 02.7	15 28 34.03	+58 11 45.7	12*9	.0221	18.0	−17.1	dse:	29.04.89	3400–7000	BTA	BCDG					[22]
1527+532	15 27 39.25	+53 16 07.5	15 29 02.55	+53 05 51.6	8	.0768	17.5	−20.3	sde	01.05.99	4000–9000	GHO	SBN	F15276+5315:		R		
1527+564	15 27 52.89	+56 26 20.4	15 29 07.37	+56 16 05.1	14	.0990	16.63	−21.7	s2e	25.03.99	4000–7000	GHO	Sy1.5	F15279+5626		R	RBS 1503	
1528+584	15 28 20.21	+58 29 47.1	15 29 28.05	+58 19 33.2	10	.1440	18.0	−20.9	sd2e:	12.06.96	4000–7000	BTA	SBN					
1528+589	15 28 28.36	+58 58 02.6	15 29 34.56	+58 47 49.1	8*6	.0609	18.5	−18.8	s1e:	21.03.86	3800–5500	BTA	HII					[22]
1528+509A	15 28 28.82	+50 56 31.9	15 29 57.59	+50 46 19.0	9	.	17.5		d3e						SBd			
1528+509B	15 28 29.70	+50 56 38.2	15 29 58.46	+50 46 25.5	9	.0720	17.5	−20.1	d3e				SBN					[31]
1528+491A	15 28 31.07	+49 06 49.8	15 30 03.90	+48 56 37.2	15*9	.0727	16.5	−21.7	ds2e				SBN	F15285+4906		R	CG 739	[31]
1528+491B	15 28 43.10	+49 08 26.6	15 30 15.83	+48 58 14.7	10*6	.0255	17.0	−18.4	ds2e				HII				CG 742	[31]
1528+577B	15 28 50.39	+57 47 19.4	15 30 00.41	+57 37 07.3	12	.0766	17.5	−20.3	sd1e	07.09.86	3700–5500	BTA	SBN			R		[22]
1528+529	15 28 59.16	+52 54 57.5	15 30 23.04	+52 44 46.3	7	.0774	17.0	−20.7	s1	11.09.91	3400–7000	BTA	HII				CSO 762	[26]
1529+524	15 29 35.35	+52 26 11.3	15 31 00.29	+52 16 02.2	12	.0818	17.0	−20.9	dse:				E+A					[30]
1529+548	15 29 38.73	+54 51 39.6	15 30 57.30	+54 41 30.5	12*10	.0390	15.2	−21.1	d2e	12.02.91	3600–5600	BTA	HII	F15296+5451		R	Mkn 484	
1530+610	15 30 11.26	+61 02 12.4	15 31 09.33	+60 52 04.6	12	.0397:	17.5	−18.8	dse:	14.06.96	4000–7400	BTA						
1530+519	15 30 22.43	+51 56 11.5	15 31 48.42	+51 46 05.2	20*12	.0205	15.0	−19.9	d2	09.03.81	3500–7500	BTA	SBN	F15303+5156			Mkn 485	
1530+607	15 30 29.55	+60 47 59.5	15 31 28.44	+60 37 52.8	12*9	.0653:	17.5	−19.9	d3	13.06.96	4000–7400	BTA						
1531+572A	15 31 13.17	+57 15 45.5	15 32 24.28	+57 05 41.9	20*10	.0407	17.0	−19.4	dse				HII	F15311+5715				[30]
1531+580	15 31 23.16	+58 03 01.4	15 32 31.61	+57 52 58.1	24	.0392	15.5	−20.6	d3e:	12.02.91	3600–5600	BTA	SBN	F15313+5802		R	Mkn 289	[7,8,9]
1531+544	15 31 50.85	+54 23 44.9	15 33 10.14	+54 13 43.6	16	.0293	16.5	−19.1	d3e				SBN	F15318+5423	S			[30]
1532+589	15 32 31.01	+58 59 08.7	15 33 35.96	+58 49 09.3	5	.1600	18.5	−21.0	dse:	13.06.96	4000–7400	BTA	LINER					
1532+591	15 32 50.07	+59 07 44.2	15 33 54.42	+58 57 45.9	4	.0770	18.5	−19.2	dse	13.06.96	4000–7400	BTA	LINER					[31]
1532+585	15 32 56.27	+58 31 03.1	15 34 02.71	+58 21 05.2	7	.1100	18.0	−20.5	ds2e:	17.09.88	3700–5500	BTA	SBN					[22]
1533+574A	15 33 03.37	+57 27 04.3	15 34 13.31	+57 17 06.9	12	.0119	15.8	−18.0	ds1e	04.09.86	3800–7000	BTA	HII	F15330+5726			VIIZw611	[22]
1533+574B	15 33 04.09	+57 27 01.5	15 34 14.03	+57 17 04.1	10	.0126	16.6	−17.4	ds1e	10.09.91	3600–5600	BTA	BCDG	F15330+5726		R	VIIZw611	[22]
1533+602A	15 33 08.18	+60 14 27.8	15 34 08.39	+60 04 30.4	20*7	.0906	17.0	−21.1	de	13.06.96	4000–7400	BTA						
1533+585	15 33 09.07	+58 32 53.8	15 34 15.35	+58 22 56.6	14*10	.0926	17.5	−20.7	de	12.02.91	3700–7000	BTA	SBN	F15331+5832		R		
1533+609	15 33 09.26	+60 57 40.1	15 34 06.69	+60 47 42.7	5	.1045	18.5	−19.9	de	13.06.96	4000–7400	BTA						
1533+602B	15 33 48.50	+60 15 03.3	15 34 48.47	+60 05 08.3	5	.0099	19.0	−14.3	de:	14.06.96	4000–7400	BTA	BCDG					
1534+578	15 34 20.00	+57 49 11.4	15 35 28.39	+57 39 18.5	9*6	.0745	18.0	−19.7	de	13.06.96	4000–7400	BTA	E+A					
1534+600	15 34 33.10	+60 01 03.1	15 35 33.72	+59 51 10.7	12*10	.0578	17.0	−20.1	ds2	12.06.96	4000–7400	BTA						
1534+497	15 34 33.21	+49 45 03.8	15 36 03.40	+49 35 12.3	24	.0380	15.5	−20.8	d3e:	21.02.82	3500–7500	BTA	SBN	F15345+4944		R	Mkn 859	
1534+580	15 34 44.91	+58 04 00.4	15 35 52.37	+57 54 08.9	30*18	.0296	15.35	−20.4	s1e	16.03.80	3500–7500	BTA	Sy1.5	F15347+5802	E1	R	Mkn 290	
1534+537	15 34 51.56	+53 41 48.4	15 36 12.02	+53 31 57.8	24*12	.0462	16.0	−20.1	d3				E+A	F15348+5341				[30]
1535+547	15 35 20.88	+54 43 22.1	15 36 38.43	+54 33 33.0	15	.0389	15.21	−20.8	s1e	09.03.81	3500–7500	BTA	NLS1		SBb	R	Mkn 486	
1535+564A	15 35 26.20	+56 28 08.8	15 36 38.59	+56 18 19.8	7	.1076	17.5	−21.0	de				Abs					[30]
1535+564B	15 35 27.04	+56 28 02.2	15 36 39.43	+56 18 13.3	6	.	17.5		de									
1535+568	15 35 28.31	+56 51 36.5	15 36 39.48	+56 41 47.7	12	.0747	16.0	−21.7	ds2e	08.03.97	4000–7000	BTA	E+A	F15354+5651			VIIZw614	[6]
1535+581	15 35 37.27	+58 09 33.3	15 36 44.18	+57 59 44.9	4	.0659	19.0	−18.4	sd2e	12.06.96	4000–7400	BTA	SBN					
1535+554	15 35 48.92	+55 25 35.8	15 37 04.34	+55 15 48.3	18*12	.0022	15.2	−15.4	d2e	12.09.91	3700–5500	BTA	BCDG	F15358+5525			Mkn 487	

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1536+573	15 36 02.28	+57 23 05.6	15 37 11.63	+57 13 18.7	9	.0745	17.5	−20.2	s3	07.09.86	3600–5500	BTA	E+A					[22]
1536+498	15 36 02.81	+49 52 32.7	15 37 32.42	+49 42 46.4	7	.2800	18.5	−22.1	s2	23.03.93	3500–7000	BTA	NLS1			R		
1536+576	15 36 47.20	+57 37 17.2	15 37 55.58	+57 27 32.9	6	.0759	18.5	−19.2	d2	14.09.88	3800–5500	BTA	SBN					[22]
1536+588	15 36 49.05	+58 51 21.8	15 37 53.22	+58 41 37.5	9*6	.0708	18.0	−19.6	sd1e	07.09.86	3600–5500	BTA	HII	F15368+5851				[22]
1537+577	15 37 02.14	+57 45 56.6	15 38 09.98	+57 36 13.2	18	.0745	15.85	−21.2	sd2e:	07.09.86	3600–7300	BTA	Sy1.5:	F15369+5745	Sc			[22]
1537+532	15 37 08.72	+53 15 26.8	15 38 29.90	+53 05 44.5	11*9	.1037	16.5	−22.0	de	07.03.83	5400–7500	BTA	LINER	F15371+5315		R		
1537+606	15 37 16.17	+60 40 39.7	15 38 13.44	+60 30 56.8	6	.2378:	18.5	−21.7	sd2	12.06.96	4000–7400	BTA	BLS1					
1537+573	15 37 29.29	+57 19 47.5	15 38 38.42	+57 10 05.9	12	.0736	17.5	−20.1	ds3e	13.06.98	4000–7000	BTA	SBN					
1538+531	15 38 06.85	+53 09 31.0	15 39 28.00	+52 59 51.8	8	.0857	17.5	−20.3	sd2				SBN	F15381+5309		R		[30]
1538+508	15 38 14.50	+50 52 33.4	15 39 41.50	+50 42 55.0	8	.2020	17.5	−22.3	s2	15.03.00	3500–5400	BTA	NLS1				RBS 1521	
1538+580	15 38 37.12	+58 00 58.7	15 39 43.69	+57 51 20.9	4	.1075	18.5	−20.0	de	13.06.96	4000–7000	BTA	Abs					
1538+606	15 38 39.97	+60 41 40.3	15 39 36.76	+60 32 02.4	12	.1061	17.0	−21.8	dse:	13.06.96	4000–7000	BTA						
1538+565	15 38 41.57	+56 31 41.7	15 39 52.94	+56 22 04.3	10*8	.0451	17.0	−19.6	sd2e	13.04.96	4000–7000	GHO	SBN	F15387+5631		R		[5]
1538+584	15 38 51.79	+58 25 10.4	15 39 56.92	+58 15 33.4	4	.0441	19.5	−17.1	se	16.09.90	3700–5600	BTA	BCDG					[22]
1538+574A	15 38 56.13	+57 24 54.8	15 40 04.61	+57 15 18.2	8	.0809	17.0	−20.9	s1e	09.04.88	3600–7500	BTA	LINER	F15389+5724	S			[22]
1538+574B	15 38 56.25	+57 24 40.3	15 40 04.75	+57 15 03.7	8	.0805	17.5	−20.4	s1e:	18.09.81	5400–7500	BTA	SBN			R		[22]
1539+597	15 39 19.50	+59 45 40.9	15 40 19.68	+59 36 05.4	18*12	.0099	16.5	−16.8	sd3e	09.03.81	5400–7500	BTA	E+A	F15393+5945				[22]
1539+505	15 39 26.60	+50 32 38.6	15 40 53.96	+50 23 04.5	8*7	.	16.5		d3e									
1540+576A	15 40 02.20	+57 41 26.0	15 41 09.48	+57 31 53.3	10*7	.0121	18.0	−15.8	de	13.06.96	4000–7400	BTA	BCDG					
1540+502	15 40 39.50	+50 13 44.0	15 42 07.43	+50 04 14.3	36*12	.0551	15.61	−21.4	de				LINER	F15406+5013		R		[30]
1540+576B	15 40 40.46	+57 37 42.8	15 41 47.78	+57 28 12.4	14*7	.0742	17.5	−20.2	de:	14.06.96	4000–7400	BTA	E+A					
1541+515	15 41 38.87	+51 35 14.6	15 43 03.27	+51 25 48.2	10*7	.0360	18.0	−18.0	d3e	14.03.91	3640–5500	BTA	HII					[24]
1541+597	15 41 42.43	+59 44 15.3	15 42 42.02	+59 34 48.4	6	.1072	18.5	−20.2	de:	13.06.96	4000–7000	BTA						
1541+590	15 41 53.88	+59 04 35.1	15 42 55.85	+58 55 08.9	4	.0422	19.5	−17.0	se	12.02.91	3520–5500	BTA	BCDG					[24]
1542+573A	15 42 38.65	+57 23 53.2	15 43 46.23	+57 14 29.9	14*10	.0757	17.0	−20.7	d2e	14.06.96	4000–7400	BTA	SBN					
1542+573B	15 42 40.98	+57 23 20.2	15 43 48.58	+57 13 57.1	24*10	.0143	16.0	−18.0	d2e	17.09.88	3600–7100	BTA	SB		SB:			[22]
1542+573C	15 42 45.87	+57 22 47.6	15 43 53.48	+57 13 24.7	5	.0143	18.5	−15.6	de	16.09.88	3700–7100	BTA	BCDG:					[22]
1543+518	15 43 00.13	+51 50 26.0	15 44 23.62	+51 41 04.5	9*7	.0312	17.5	−18.3	s3				HII					[30]
1543+598	15 43 02.90	+59 51 34.4	15 44 01.65	+59 42 12.3	8*6	.0172:	18.5	−16.1	de	14.06.96	4000–7400	BTA	BCDG					
1543+610	15 43 08.94	+61 03 10.1	15 44 02.95	+60 53 48.2	8	.0686	18.5	−19.0	de:	14.06.96	4000–7400	BTA						
1543+528	15 43 21.46	+52 50 35.8	15 44 42.29	+52 41 15.5	20	.0670	15.5	−22.0	ds3				Abs					[30]
1545+593	15 45 24.35	+59 22 08.2	15 46 24.29	+59 12 54.7	18	.0112	15.7	−17.9	sd2e	29.04.89	3600–7100	BTA			S:			
1546+558	15 46 55.44	+55 52 13.8	15 48 06.84	+55 43 06.2	30*24	.0407	15.1	−21.3	sde					F15468+5552	S	R		
1547+513	15 47 58.22	+51 21 04.1	15 49 22.00	+51 12 00.9	24	.0506	16.5	−20.4	dse	09.03.83	3500–5400	BTA	SBN	F15479+5120		R		
1549+557	15 49 30.96	+55 45 36.7	15 50 42.09	+55 36 38.6	20*16	.0398	15.4	−20.9	dse				SBN	F15495+5545	S:	R		[30]
1549+595A	15 49 33.68	+59 35 54.3	15 50 31.63	+59 26 56.0	14*7	.	17.0		sd2e									
1549+595B	15 49 45.90	+59 33 11.6	15 50 43.97	+59 24 14.0	10	.0790	17.5	−20.3	ds2e	12.03.02	3900–8100	SPM	Sy1.8			R		
1550+583	15 50 37.75	+58 21 50.6	15 51 39.98	+58 12 56.4	12*8	.	17.0		sd3e					F15506+5821				
1551+593A	15 51 13.25	+59 23 47.6	15 52 11.53	+59 14 55.4	18*12	.0297	17.0	−18.7	sd1e	14.04.96	4000–7000	GHO	HII		E			
1551+593B	15 51 13.25	+59 23 26.6	15 52 11.82	+59 14 35.9	14*11	.0313	17.0	−18.8	sd1e	14.04.96	4000–7000	GHO	E+A					[5]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1551+601A	15 51 46.29	+60 11 28.1	15 52 41.34	+60 02 37.9	5	.0104	18.5	−14.9	s1e	16.09.90	3700–5500	BTA	BCDG					[22]
1551+601B	15 51 46.60	+60 11 34.1	15 52 41.64	+60 02 43.9	5	.0104	18.5	−14.9	s1e	16.09.90	3700–5500	BTA	BCDG					[22]
1552+598	15 52 18.77	+59 50 37.1	15 53 15.05	+59 41 48.9	10*7	.	18.0		sd2e									
1552+571	15 52 38.07	+57 08 14.6	15 53 44.04	+56 59 27.9	9	.	17.5		sd3e					F15526+5706		R		
1552+524A	15 52 49.26	+52 28 32.0	15 54 09.10	+52 19 46.4	20*10	.0463	16.5	−20.1	de				E+A					[30]
1552+524B	15 52 50.80	+52 27 54.5	15 54 10.66	+52 19 09.0	14*10	.0470	17.0	−19.7	sd2e	15.03.00	3500–7000	BTA	SBN	F15528+5228				
1553+573	15 53 42.47	+57 18 18.2	15 54 47.62	+57 09 35.5	14	.	17.0		s3					F15537+5718	E	R		
1554+496	15 54 17.09	+49 40 46.0	15 55 43.68	+49 32 06.1	30*18	.0190	15.3	−19.4	dse					F15542+4940	Sa			
1554+592	15 54 37.90	+59 13 19.2	15 55 35.96	+59 04 39.7	7	.	18.0		sd2e									
1555+515	15 55 40.24	+51 30 54.2	15 57 02.04	+51 22 19.4	7	.0131	18.0	−15.9	sde	14.03.91	3600–5500	BTA	BCDG					[24]
1556+583	15 56 54.79	+58 18 10.4	15 57 55.68	+58 09 39.6	24*18	.0346	15.3	−20.8	s1e	15.03.91	3500–5500	BTA	SBN:	F15569+5818		R	Mkn 865	
1558+589	15 58 01.83	+58 57 24.1	15 59 00.04	+58 48 57.4	13	.	17.0		ds3e									
1558+595	15 58 05.63	+59 32 48.1	15 59 01.56	+59 24 21.6	14*12	.0602	16.5	−20.6	sd2e						E	R		
1558+596	15 58 48.17	+59 36 58.2	15 59 43.66	+59 28 34.3	18*15	.0342	15.0	−21.1	s2	21.02.82	3500–5400	BTA	Abs				Mkn 866	
1558+585	15 58 55.00	+58 31 12.0	15 59 54.62	+58 22 48.7	9	.0142	17.5	−16.6	sd2e	12.02.91	3520–5560	BTA	BCDG					[24]
1559+604	15 59 10.15	+60 29 29.0	16 00 02.03	+60 21 06.4	7	.	18.0		sd3									
1559+585	15 59 11.22	+58 31 31.7	16 00 10.76	+58 23 09.4	32*20	.0142	14.8	−19.3	dse	12.02.91	3520–5560	BTA	SB	F15591+5831	E			[24]
1559+603A	15 59 16.84	+60 23 50.5	16 00 09.07	+60 15 28.3	9*6	.0425	17.5	−19.0	sd1e	26.08.89	3600–5500	BTA	SBN					[22]
1600+550	16 00 07.91	+54 00 16.9	16 01 22.01	+53 51 58.7	15*12	.1058	16.5	−22.1	sd2									
1600+540A	16 00 14.14	+54 05 08.2	16 01 28.07	+53 56 50.5	15*12	.0655	16.0	−21.4	sd3				Abs			R		[30]
1600+540	16 00 14.33	+54 02 32.5	16 01 28.38	+53 54 14.9	18	.0684	16.0	−21.5	sd2									[2]
1600+565	16 00 33.62	+56 32 27.3	16 01 39.77	+56 24 10.4	7	.	17.5		s2e:									
1602+523	16 02 11.00	+52 23 43.0	16 03 29.23	+52 15 32.8	24*12	.0456	17.0	−19.7	dse				SB	F16021+5223				[30]
1603+605	16 03 30.53	+60 33 00.5	16 04 21.05	+60 24 54.4	11*6	.	18.0		d2e:									
1606+604	16 06 55.63	+60 24 43.8	16 07 45.89	+60 16 50.8	12	.	17.5		sd1e									
1607+493	16 07 17.09	+49 18 38.8	16 08 42.36	+49 10 48.3	8	.0435	17.5	−19.0	de	12.02.91	3520–5500	BTA	HII	F16072+4918				[24]
1608+493A	16 08 27.60	+49 18 02.0	16 09 52.69	+49 10 16.1	18	.0630	16.5	−19.8	s3e	15.03.00	3500–7000	BTA	Abs:	F16084+4918	Sbc			
1608+493B	16 08 41.82	+49 22 41.2	16 10 06.76	+49 14 56.2	18*10	.0578	17.0	−20.2	se					F16087+4922		R		
1609+490	16 09 26.15	+49 02 20.9	16 10 51.73	+48 54 38.7	12	.0452	16.34	−20.1	sd3e	25.03.99	4000–7000	GHO	Sy2			R	HS	
1609+499	16 09 37.82	+49 55 24.0	16 11 01.28	+49 47 42.7	48*40	.0422	15.2	−21.3	dse				E+A	F16096+4955	SB			
1609+601	16 09 38.00	+60 09 35.6	16 10 28.66	+60 01 53.1	7	.	18.5		d2									
1609+580	16 09 53.44	+58 05 55.7	16 10 52.11	+57 58 14.4	8	.0838	18.0	−20.0	d2e	15.11.90	3650–5500	BTA						[26]
1609+581	16 09 53.54	+58 06 07.6	16 10 52.19	+57 58 26.3	9*7	.0839	18.0	−20.0	d2	15.09.90	3650–5500	BTA						[26]
1610+525	16 10 24.57	+52 35 05.1	16 11 40.81	+52 27 26.4	30*24	.0293	14.0	−21.7	s2e	12.02.91	3600–5500	BTA	SBN	F16104+5235		R	Mkn496ab	[11,17,27]
1610+589	16 10 29.44	+58 58 40.2	16 11 24.65	+58 51 01.1	15	.0321	15.68	−20.3	ds2e	13.04.96	4000–7000	GHO	Sy1.5	F16104+5858		R	RBS 1565	[5]
1610+586	16 10 42.44	+58 41 26.5	16 11 38.71	+58 33 48.3	14	.0454	17.0	−19.7	ds2e	12.02.91	3610–5500	BTA	LINER	F16107+5841				[24]
1610+607	16 10 58.75	+60 42 30.2	16 11 46.77	+60 34 52.8	42*18	.0147	14.5	−19.7	sd2e:	21.02.82	3500–5400	BTA	SB:	F16109+6042	SBc		Mkn 874	
1611+580D	16 11 16.82	+58 01 43.6	16 12 15.45	+57 54 07.7	9	.0464	15.7	−21.0	ds3e:	21.02.82	3500–5400	BTA	SB:	F16112+5802		R	Mkn 875	
1613+560	16 13 51.79	+55 59 50.6	16 14 57.00	+55 52 25.0	48*36	.0529	15.2	−21.7	ds3					F16138+5600				
1614+591	16 14 32.97	+59 07 22.9	16 15 26.72	+58 59 59.6	17*10	.0395	16.5	−19.8	ds3e	02.05.98	4000–7100	GHO	SBN					[26]

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1614+600A	16 14 37.40	+60 04 28.0	16 15 27.25	+59 57 05.0	30*12	.	16.0		sde					F16146+6004				
1614+600B	16 14 51.88	+60 02 58.8	16 15 41.80	+59 55 36.7	6	.0310	18.5	−17.3	s1e	12.02.91	3610–5500	BTA	BCDG					
1615+511	16 15 05.72	+51 10 29.9	16 16 25.09	+51 03 09.8	24	.0419	16.0	−20.4	se				LINER	F16150+5110		R		[30]
1615+521	16 15 28.44	+52 08 20.1	16 16 45.06	+52 01 01.2	24	.0327	16.0	−20.0	d2	09.03.81	3500–7500	BTA	SBN	F16154+5208	S:	R	Mkn 497	
1616+503	16 16 13.80	+50 21 55.2	16 17 35.04	+50 14 39.4	24*15	.0418	16.30	−20.2	ds3e	12.02.91	3610–5630	BTA	Sy2:	F16162+5021		R		
1616+594A	16 16 28.96	+59 26 27.8	16 17 21.02	+59 19 12.1	90*18	.0145	14.8	−19.4	s1e	15.02.94	3400–6900	BTA	SB	F16164+5926	Spec			[26]
1616+594B	16 16 35.46	+59 26 15.5	16 17 27.51	+59 19 00.2	22*10	.0147	15.7	−18.5	sd1e	17.05.93	3600–7200	BTA				R		[26]
1616+545	16 16 57.77	+54 31 36.5	16 18 07.13	+54 24 23.2	30*16	.0180	15.5	−19.1	de									
1617+529	16 17 00.67	+52 58 12.9	16 18 14.69	+52 51 00.0	24	.0199	15.8	−19.1	s3	09.03.81	3500–7500	BTA	Abs				Mkn 498	
1617+593	16 17 32.42	+59 19 30.3	16 18 24.72	+59 12 18.8	4	.0785	19.0	−18.8	s2e:	04.09.90	3700–5500	BTA	Abs:					[26]
1617+604	16 17 46.80	+60 26 18.0	16 18 34.41	+60 19 07.3	24*15	.	16.0		dse					F16177+6026		R		
1618+500	16 18 59.81	+50 03 41.1	16 20 21.60	+49 56 36.0	36	.0400	15.4	−21.0	de					F16189+5003				
1619+578	16 19 07.46	+57 50 39.0	16 20 05.15	+57 43 33.9	9	.	18.0		sd2e									
1619+560	16 19 48.70	+56 04 41.8	16 20 52.52	+55 57 39.6	15*7	.0313	16.5	−19.3	de	14.04.96	4000–7000	GHO	HII	F16199+5604				[5]
1620+577	16 20 15.41	+57 44 45.1	16 21 13.25	+57 37 44.5	8	.0198	17.5	−17.4	s1e	27.08.89	3700–5400	BTA	BCDG					[22]
1620+545	16 20 36.43	+54 34 22.7	16 21 45.01	+54 27 23.8	24*10	.0516	15.88	−20.4	ds3e:	12.03.97	4000–7100	GHO	Sy1.9:			R		[6]
1620+496	16 20 38.30	+49 38 12.0	16 22 00.71	+49 31 13.8	39*36	.0497	15.5	−21.3	sde				E+A		S			[30]
1620+504	16 20 57.63	+50 29 15.8	16 22 17.84	+50 22 18.7	54*12	.0568	15.7	−21.4	s3e					F16209+5029		R		
1622+526	16 22 05.66	+52 38 44.0	16 23 19.78	+52 31 51.2	14	.0557	16.5	−20.6	d3	10.04.81	3500–7500	BTA	Abs	F16221+5238		R	Mkn 698	
1622+540	16 22 06.18	+54 01 12.7	16 23 16.22	+53 54 19.8	18*14	.0337	16.0	−20.0	dse	12.04.96	4000–7100	GHO	ELG	F16221+5401		R		[5]
1623+532	16 23 24.92	+53 14 03.1	16 24 37.10	+53 07 15.6	24*12	.	16.5		d3e					F16234+5314		R		
1623+580	16 23 52.28	+58 02 50.8	16 24 48.29	+57 56 04.5	36	.0641	15.7	−21.7	ds2e	04.05.98	4000–7100	GHO	E+A	F16238+5802	S			[26]
1624+575	16 24 28.71	+57 34 12.6	16 25 26.39	+57 27 28.8	16*12	.0675	16.28	−21.2	s1e	15.11.85	3700–5500	BTA	BLS1					
1624+514	16 24 54.58	+51 27 19.8	16 26 11.61	+51 20 38.3	7	.1780	19.0	−20.4	s1	09.03.83	3500–5400	BTA	Sy1.5			R		
1625+496	16 25 40.15	+49 38 44.2	16 27 01.85	+49 32 06.0	20*15	.0475	14.7	−22.0	s3e:	21.02.82	5400–7500	BTA	Abs	F16256+4938		R	Mkn1497	
1625+524	16 25 51.59	+52 26 13.4	16 27 05.71	+52 19 35.8	22	.	17.0		de									
1626+596	16 26 20.40	+59 41 17.4	16 27 09.40	+59 34 40.8	10*7	.	17.5		sd2e					F16263+5941		R		
1626+518	16 26 48.46	+51 53 05.5	16 28 04.02	+51 46 31.7	14*10	.0547	16.5	−20.6	d3e	21.02.82	5400–7500	BTA	Sy1.9	F16268+5152		R	Mkn1498	[7,8,9]
1628+603	16 28 00.03	+60 21 01.0	16 28 45.85	+60 14 31.0	36*16	.	16.5		sd3e					F16280+6021				
1628+596	16 28 15.03	+59 41 22.4	16 29 03.64	+59 34 53.5	16*10	.	17.0		dse									
1628+573	16 28 50.68	+57 18 21.2	16 29 48.54	+57 11 55.0	10	.	18.0		sd3e									
1629+577	16 29 36.71	+57 42 40.1	16 30 32.93	+57 36 16.9	14*7	.	18.0		ds2e									
1629+501	16 29 49.78	+50 08 11.2	16 31 09.65	+50 01 49.6	42*18	.0202	15.5	−19.5	de					F16298+5008				
1630+580	16 30 30.65	+58 03 05.7	16 31 25.42	+57 56 46.1	13*10	.	16.5		ds2e					F16305+5802				
1631+521B	16 31 23.20	+52 06 57.0	16 32 37.43	+52 00 41.7	20	.	16.0		sde					F16313+5206				
1632+505	16 32 02.73	+50 30 34.0	16 33 21.30	+50 24 21.5	24	.0439	15.4	−21.2	sd3							R		
1632+598	16 32 11.60	+59 48 48.0	16 32 58.92	+59 42 35.0	15*6	.	16.5		sde					F16321+5948		R		
1632+578	16 32 40.85	+57 52 38.1	16 33 35.90	+57 46 27.3	5	.0181	19.0	−15.7	de	14.04.91	3700–5720	BTA	BCDG					[24]
1634+523	16 34 07.78	+52 18 56.9	16 35 21.07	+52 12 52.6	12*10	.0096	15.7	−17.5	ds1e	10.09.91	3600–7500	BTA	BCDG	F16340+5219		R	Mkn1499	
1636+579	16 36 15.45	+57 57 00.4	16 37 09.61	+57 51 04.2	9	.	18.0		s2e					F16362+5756		R		

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1636+582	16 36 15.73	+58 15 55.1	16 37 08.65	+58 09 58.9	30*24	.0523	16.0	−20.9	sde					F16362+5816	SBc	R		
1636+510	16 36 30.63	+51 04 58.0	16 37 47.08	+50 59 03.6	11	.	17.5		ds3e									
1636+601	16 36 38.92	+60 06 27.5	16 37 24.16	+60 00 32.6	6	.	18.5		sd3									
1636+550	16 36 44.92	+55 04 46.3	16 37 49.27	+54 58 52.4	14*10	.	17.0		s2e:					F16366+5504:	S			
1636+541	16 36 56.37	+54 10 43.2	16 38 03.66	+54 04 50.7	10*7	.0688	17.5	−20.2	sd3e:									
1638+538	16 38 22.00	+53 52 32.0	16 39 30.07	+53 46 45.1	12	.1103	16.5	−22.1	s3e								4C53.37	
1640+591	16 40 25.12	+59 10 45.4	16 41 13.66	+59 05 06.0	28*8	.0303	16.5	−19.2	de					F16404+5910		R		[27]
1640+516	16 40 48.36	+51 36 31.7	16 42 02.80	+51 30 54.8	20*14	.0299	15.6	−20.3	sd1e	10.09.91	3600–5500	BTA	SBN	F16408+5136		R	Mkn1500	
1641+548	16 40 59.92	+54 46 57.1	16 42 04.70	+54 41 20.7	16	.	16.5		se					F16409+5446		R		
1641+508	16 41 31.72	+50 53 27.0	16 42 48.08	+50 47 53.1	20*9	.0292	16.5	−19.2	sd2	09.03.83	3500–5400	BTA	HII	F16415+5053			HS	
1642+571	16 42 43.80	+57 08 36.0	16 43 40.10	+57 03 06.0	18*9	.	17.0		dse					F16427+5708				
1646+592	16 46 02.82	+59 10 56.7	16 46 50.44	+59 05 40.5	54*12	.0186	15.4	−19.3	dse				E+A	F16460+5910	S	R		
1646+536	16 46 05.86	+53 38 55.1	16 47 13.54	+53 33 39.9	30*9	.0282	16.5	−19.9	d3e	06.03.97	4000–7000	GHO	Sy2:	F16460+5338	S	R		[6]
1646+523	16 46 06.25	+52 19 53.8	16 47 17.93	+52 14 38.9	18*16	.0306	16.5	−19.4	sde					F16461+5219	S	R		
1646+499	16 46 16.61	+49 55 13.8	16 47 35.05	+49 49 59.6	10	.0450	17.0	−19.6	s2e	24.03.98	4400–7100	BTA	BLLac			R		
1646+551	16 46 22.93	+55 09 17.2	16 47 25.67	+55 04 03.0	9	.0183	16.5	−18.2	s2e	19.05.93	3600–7200	BTA						[26]
1646+568	16 46 30.24	+56 50 33 0	16 47 27.00	+56 45 19.0	22*16	.0590	15.4	−21.7	se					F16465+5650		R		
1646+526	16 46 42.70	+52 37 45.0	16 47 53.50	+52 32 33.0	20*16	.	16.0		sde					F16467+5237				
1648+547	16 48 43.30	+54 47 40.5	16 49 46.94	+54 42 36.0	8	.1050	17.5	−21.0	sd1e	16.09.90	3700–5600	BTA	LINER	F16487+5447		R		[27]
1650+598	16 50 11.88	+59 48 07.2	16 50 56.20	+59 43 08.2	54	.0099	14.1	−19.1	dse	12.04.96	4000–7000	GHO	ELG	F16501+5948	SBcd			[5]
1650+535	16 50 36.13	+53 30 36.5	16 51 43.70	+53 25 40.0	11	.0287	16.0	−19.6	se	12.04.96	4000–7000	GHO	SBN:	F16505+5330		R		[5]
1651+605	16 51 12.94	+60 30 24.9	16 51 53.95	+60 25 30.1	8*5	.0558	18.5	−18.6	sd1e	23.09.90	3400–6500	BTA	HII					[22]
1651+559	16 51 19.87	+55 59 13.3	16 52 19.08	+55 54 19.6	60*24	.0294	15.53	−20.2	s2e	10.04.96	4000–7000	GHO	Sy2	F16513+5559	Sab	R		[5]
1651+607	16 51 34.27	+60 44 59.6	16 52 14.10	+60 40 06.2	9*7	.	18.5		sd1e									
1652+574	16 52 09.48	+57 25 48.4	16 53 03.25	+57 20 57.9	14	.0114	15.0	−18.7	d3e	11.00.81	3500–7500	BTA	SB:				Mkn 889	
1652+519	16 52 58.41	+51 56 55.1	16 54 10.43	+51 52 08.7	24	.0529	15.4	−21.6	d3e					F16529+5156		R		
1653+505	16 53 03.44	+50 33 16.3	16 54 19.51	+50 28 30.5	36*30	.0097	15.6	−17.7	dse				E+A	F16530+5033	SO	R	IZw 168	
1653+544A	16 53 20.59	+54 28 47.8	16 54 24.71	+54 24 02.7	11	.	17.0		dse									
1653+599	16 53 56.25	+59 57 54.8	16 54 39.30	+59 53 11.4	20*8	.0133	16.5	−17.5	d3	03.05.98	4000–7100	GHO	HII					[26]
1655+550	16 55 22.40	+55 03 28.9	16 56 24.33	+54 58 52.2	48*15	.	16.0		dse					F16553+5503		R		
1656+578	16 56 04.27	+57 50 22.5	16 56 55.93	+57 45 48.4	8	.1980	18.5	−21.3	s2	04.05.00	4000–9000	GHO	NLS1					[29]
1656+524	16 56 33.48	+52 28 39.2	16 57 43.64	+52 24 09.8	30*20	.0354	15.5	−20.7	sde					F16565+5228	Sb	R		
1657+505	16 57 22.10	+50 33 54.1	16 58 37.64	+50 29 26.2	14	.0102	15.6	−17.8	dse	21.02.82	5400–7500	BTA	HII	F16573+5034			HS	
1657+575	16 57 36.38	+57 35 49.2	16 58 28.80	+57 31 21.6	10*8	.0510	16.1	−20.8	sd2e	10.09.91	3600–5500	BTA	SBN	F16576+5735		R	Mkn 891	
1657+590A	16 57 37.68	+59 01 48.7	16 58 24.27	+58 57 21.0	21*13	.0186	14.6	−20.1	de	12.04.96	4000–7000	GHO	HII		SO	R	NGC6285	[5]
1657+590B	16 57 44.90	+59 00 39.6	16 58 31.71	+58 56 14.5	84*72	.0185	14.2	−20.5	se	12.04.96	4000–7000	GHO	LINER	F16577+5900	Sbp	R	NGC6286	[11,17]
1657+571	16 57 48.82	+57 10 21.5	16 58 42.85	+57 05 54.8	20*14	.0114	14.6	−19.1	sde	12.04.96	4000–7000	GHO	HII	F16578+5710			NGC6262	
1657+598	16 57 50.01	+59 49 43.5	16 58 33.12	+59 45 16.5	42*24	.0201	15.3	−19.8	s2e	28.12.84	5000–7100	BTA	LINER	F16578+5949	SBb	R		[22]
1659+520	16 59 16.00	+52 03 30.8	17 00 27.15	+51 59 11.2	14*10	.0480	17.0	−19.6	ds2				Sy1.5					
1659+572	16 59 20.01	+57 17 16.0	17 00 13.42	+57 12 55.7	9	.	18.5		s2e									

TABLE 6 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	d*d (")	z o	B m_{pg}	M_B	Sur. type	Date of observ.	Wave-band	Instru ment	Spect. class	*IRAS* name	Morph.	F R	Other name	Ref.
1659+564	16 59 37.62	+56 24 19.1	17 00 34.31	+56 20 00.1	14	.1280	17.5	−21.5	sd1e	28.12.84	3500–7500	BTA	Sy1.5					[1]
1659+596	16 59 41.42	+59 36 44.3	17 00 25.23	+59 32 25.2	14*6	.	17.0		dse						S:	R		
1659+551	16 59 51.74	+55 10 18.0	17 00 52.78	+55 06 00.2	40*30	.0288	15.5	−20.1	de					F16596+5510				
1659+589	16 59 53.34	+58 59 34.9	17 00 39.80	+58 55 16.7	20*14	.	16.5		dse						S			
1700+603	17 00 32.42	+60 19 20.0	17 01 12.94	+60 15 04.3	21*14	.0127	15.1	−18.9	dse	09.03.97	4000–7000	GHO	SBN	F17005+6019				[6]
1701+610	17 01 34.10	+61 02 59.8	17 02 11.07	+60 58 48.4	9	.1640	18.84	−20.5	s1				Sy1.5				MS	[30]
1704+527	17 03 58.60	+52 46 30.0	17 05 07.03	+52 42 29.9	54*10	.0343	16.0	−20.0	sde					F17039+5246	Sbc			
1704+583	17 04 08.97	+58 20 47.7	17 04 57.68	+58 16 47.7	30*18	.0811	16.0	−22.0	dse				LINER	F17041+5820	S			[30]
1705+607	17 05 38.03	+60 46 12.9	17 06 15.80	+60 42 18.8	30*12	.0120	15.7	−18.2	d3	11.00.81	3500–7500	BTA	SBN				Mkn 892	[22]
1706+607	17 06 59.40	+60 47 34.2	17 07 36.90	+60 43 45.8	60*18	.0108	14.3	−19.3	de	28.12.84	5200–7100	BTA	Abs	F17069+6047	SBab	R	NGC6306	[22]
1707+565	17 07 03.45	+56 34 33.6	17 07 58.69	+56 30 46.1	14*10	.0123	17.0	−16.9	s3e	20.03.91	3640–5660	BTA	BCDG					[24]
1707+578	17 07 45.16	+57 52 21.8	17 08 35.32	+57 48 37.1	16*8	.0297	17.0	−18.8	de	15.04.97	4000–7000	GHO	HII					[6]
1708+602A	17 08 16.12	+60 14 58.4	17 08 56.01	+60 11 15.5	7	.	18.0		sd2					F17082+6015		R		
1708+608	17 08 35.82	+60 53 31.3	17 09 12.65	+60 49 49.7	12x8	.0469	16.5	−20.3	d3e	12.04.96	4000–7000	GHO	HII					[5]
1709+570	17 09 00.60	+57 02 16.8	17 09 53.90	+56 58 37.6	11	.0511	17.0	−19.8	sd1e				SBN	F17089+5702		R		[30]
1710+553	17 10 06.51	+55 20 11.1	17 11 05.93	+55 16 36.8	36*18	.	16.0		sde					F17101+5520				
1712+593A	17 12 23.66	+59 22 49.3	17 13 07.01	+59 19 24.2	60*30	.0039	14.3	−19.4	d2e	27.10.95	4000–7000	GHO	HII		Im			[5]
1712+577	17 12 24.72	+57 44 03.2	17 13 14.96	+57 40 38.4	16*10	.	16.0		de					F17124+5743				
1712+593B	17 12 26.91	+59 23 21.1	17 13 10.21	+59 19 56.2	14*8	.0044	17.0	−15.0	d2	27.10.95	4000–7000	GHO	E+A	F17124+5922	SBm			[5]
1713+580	17 13 22.50	+58 01 55.3	17 14 11.44	+57 58 34.6	10	.0920	16.5	−21.7	s2	12.04.96	4000–7000	GHO	BLS1	F17133+5802				
1713+524	17 13 38.96	+52 26 35.9	17 14 47.60	+52 23 17.0	60*24	.0238	15.5	−19.7	dse									
1714+602	17 14 23.01	+60 16 15.2	17 15 02.13	+60 12 58.5	12*7	.0201	16.5	−18.5	ds2	10.09.91	3700–5300	BTA	SBN				Mkn 893	
1715+579	17 15 44.58	+57 55 19.7	17 16 33.75	+57 52 09.2	30*10	.0278	16.5	−19.1	dse	21.10.95	4000–7000	GHO	SBN	F17157+5755				[5]

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It is necessary to note that in all such cases, our spectra as well as those found in the literature were not of good quality. Some redshifts especially for BCDG presented in the literature are measured from the H I 21 cm radio line.

For example: SBS 1118+578B z(opt) = 0.0057, z(21 cm) = 0.0078; SBS 1124+580 z(opt) = 0.0234, z(21 cm) = 0.0194; two objects have a mistake in the redshift value: SBS 1119+583 z(corr) = 0.0525, z(NED) = 0.0054; SBS 1145+558 z(corr) = 0.0510, z[23] = 0.0051.

For some SBS objects, the name is changed because of the new improved coordinates, for example: SBS 0750+539=SBS 0751+539; 0806+503=0805+503; 1214+599A=1212+601A; 1214+599B=1212+601B; 1352+578=1351+578; 1438+529=1438+528; 1450+526=1450+527, etc.

Some of the objects excluded from the General Catalogue, mainly because of a wrong classification, are suspected to be double stars or a galaxy + star, etc. They are: SBS0824+544; SBS0831+571; SBS0938+525; SBS0939+527; SBS0943+553; SBS0946+547B; SBS1030+573N/S; SBS1035+606; SBS1043+581; SBS1158+556 (G or *); SBS1204+554A; SBS1204+554B; SBS1210+499 (dbl *?); SBS1221+559; SBS1411+497; SBS1424+497; SBS1428+513; SBS1434+607; SBS1435+606; SBS1456+595; SBS1505+607; SBS1535+495; SBS1545+593; SBS1638+595; SBS1653+505. For some objects the spectral classification is mistaken because it was based on different objective prism plates: SBS1120+586A de: (1983, Astrophysics, 19, 639) to s1 (in the catalogue); SBS1120+586B sd3e (1983, Astrophysics, 19, 639) to de:; SBS1200+589B de (1993, Izv. SAO 35, 32) to sde; SBS1200+589C sde (1993, Izv. SAO 35, 32) to de; SBS1224+533 d2e+de (1985, Astrophysics, 23, 623) to d2e; SBS1227+568A sd3 (1985, Astrophysics, 23, 623) to sd1e; SBS1227+568B sd1e (1985, Astrophysics, 23, 623) to ds3e, etc.

5.0.4. *Comments on the SBS Galaxies and Common Names Used*

0742+599 Oval, with diffuse tail on the SE on POSS prints. Diffuse without nucleus in the prime focus of the 6 m telescope. Hα and [N II] emission is very strong, slightly inclined, extended and asymmetric.

0743+591A Lenticular, elongated in R.A. Member of a triple system.

0743+550 Close-binary in common envelope with an angular separation between components of $\sim 4''$.

0743+591B Blue compact dwarf galaxy (BCDG). Cometlike. Consists of three condensations, which lie in a common nebular diffuse shell. The SW condensation shows a very strong Hα and [O III]$\lambda\lambda$5007/4959 and Hβ in emission. The continuum is practically absent.

0743+591C Nuclear region of a spiral galaxy of Sb type. Member of a triple system.

0745+590 Close-binary in a diffuse common shell with an angular separation between components of $\sim$ 6 arcsec. A very strong Hα is observed from each component.

0745+571 V II Zw 181. Compact with jet.

0745+557 There are two spheroidal condensations in a red lenticular, galaxy elongated in the E-W direction with nebular shell.

0745+587 Cometlike, consists of a few starlike condensations, elongated in the NE-SE direction.

0745+601A Close-binary with angular separation of $\sim$ 3 arcsec in a common spheroidal shell. Very strong Hα and [O III]$\lambda\lambda$5007/4959 and Hβ are seen from each component.

0745+598 Consists of two condensations with angular separation $\sim 3''$. South component is very blue.

0746+611 Spheroidal. Elongated along declination.

0746+608 Diffuse object without nucleus in the prime focus of the 6 m telescope.

0747+593 Star-like blue object. Diffuse.

0748+608 Nuclear region of a spiral galaxy. Blue. In the prime focus of the 6 m telescope - diffuse object without nucleus.

0748+588 Diffuse, very blue. Member of a pair.

0748+555 Cometlike galaxy.

0749+553 Cometlike galaxy. May have double head.

0749+582 Star-like BCDG. Continuum is not seen in objective-prism spectra.

0750+559 Blue galaxy with two weak knots on E and W.

0751+603A Close-binary in a spheroidal diffuse nebular shell with component separation of $\sim$ 3 arcsec. Pair with SBS 0751+603B.

0751+603B Close-binary with component separation of $\sim$ 3 arcsec. Physical pair with SBS 0751+603A. Quadruple system consisting of a physical pair of galaxies each of whose individual components is a close-binary with angular separation of 3 arcsec.

0752+587 Hot spots or nuclear region of Irregular galaxy.

0753+581 Star-like and very compact blue galaxy. Has a red companion or satellite East with $B \sim 19.5$. In the prime focus of the 6 m telescope

TABLE 7

MARKARIAN GALAXIES IN SBS SURVEY AREA. N=188

SBS design.	Mkn	SBS design.	Mkn	SBS design.	Mkn	SBS design.	Mkn
0743+610	Mkn 10	1016+576A	Mkn 30	1152+579	Mkn 193	1405+602	Mkn 1489
0743+550	Mkn 1410	1016+576B	Mkn 31	1156+545	Mkn 433	1413+495B	Mkn 672
0744+543	Mkn 83	1020+610	Mkn 1431	1200+516	Mkn 1465	1413+591	Mkn 807
0750+584	Mkn 1411	1022+519	Mkn 142	1201+608	Mkn 45	1417+494	Mkn 1490
0751+558	Mkn 84	1023+565	Mkn 32	1211+548	Mkn 201	1421+601	Mkn 810
0751+604	Mkn 13	1029+546	Mkn 33	1213+511	Mkn 1469	1422+546	Mkn 811
0755+554	Mkn 1412	1030+526	Mkn 1433	1213+597	Mkn 1468	1422+573	Mkn 812
0808+558	Mkn 85	1030+583	Mkn 1434	1214+581	Mkn 48	1430+529	Mkn 815
0824+558	Mkn 88	1030+602	Mkn 34	1215+589	Mkn 202	1430+570	Mkn 473
0825+522	Mkn 89	1033+550	Mkn 1435	1219+534B	Mkn 1472	1431+529	Mkn 816
0826+528	Mkn 90	1042+562	Mkn 35	1221+603	Mkn 1473	1434+590	Mkn 817
0828+527	Mkn 91	1045+503	Mkn 152	1222+547	Mkn 207	1439+537	Mkn 477
0834+518	Mkn 94	1046+526	Mkn 153	1229+582A	Mkn 213	1448+509A	Mkn 825
0847+572	Mkn 17	1047+504	Mkn 154	1230+520	Mkn 216	1448+526B	Mkn 826
0847+612	Mkn 99	1047+593	Mkn 1441	1236+562	Mkn 219	1448+603	Mkn 1492
0858+603	Mkn 18	1048+599	Mkn 1442	1241+551A	Mkn 220	1451+603	Mkn 1493
0901+518	Mkn 101	1050+505A	Mkn 156	1241+551B	Mkn 221	1453+557	Mkn 831
0910+524	Mkn 1415	1052+499	Mkn 157	1249+608	Mkn 1476	1504+565	Mkn 843
0912+599	Mkn 19	1109+519	Mkn 164	1254+571	Mkn 231	1506+516	Mkn 845
0913+536	Mkn 104	1114+516	Mkn 1444	1255+593	Mkn 232	1506+577	Mkn 1495
0917+527	Mkn 1416	1114+517	Mkn 1445	1256+594	Mkn 233	1507+526A	Mkn 846
0921+525	Mkn 110	1115+540A	Mkn 38	1303+537	Mkn 242	1512+586	Mkn 847
0923+588	Mkn 1417	1115+540B	Mkn 39	1303+538A	Mkn 239	1526+556	Mkn 481
0926+560	Mkn 114	1119+514	Mkn 167	1303+538B	Mkn 240	1526+557	Mkn 482
0927+494	Mkn 115	1122+546B	Mkn 40	1308+608	Mkn 243	1529+548	Mkn 484
0930+502	Mkn 117	1123+594B	Mkn 169	1310+506	Mkn 244	1530+519	Mkn 485
0930+554	Mkn 116	1124+541	Mkn 1446	1311+563A	Mkn 246	1531+580	Mkn 289
0938+611	Mkn 1421	1125+588	Mkn 171	1312+550	Mkn 247	1534+497	Mkn 859
0939+592	Mkn 1423	1127+498	Mkn 1447	1315+578	Mkn 249	1534+580	Mkn 290
0942+573	Mkn 1424	1128+564A	Mkn 174	1317+523C	Mkn 251	1535+547	Mkn 486
0943+563A	Mkn 123	1129+532	Mkn 176	1318+566	Mkn 253	1535+554	Mkn 487
0944+542	Mkn 1425	1130+495	Mkn 178	1319+593	Mkn 65	1556+583	Mkn 865
0944+582	Mkn 21	1130+553	Mkn 177	1320+519	Mkn 254	1558+596	Mkn 866
0945+507	Mkn 124	1132+503	Mkn 1448	1320+532	Mkn 255	1610+525	Mkn 496ab
0946+558	Mkn 22	1133+551	Mkn 41	1323+575	Mkn 66	1610+607	Mkn 874
0949+524	Mkn 126	1135+581	Mkn 1450	1323+598	Mkn 1478	1611+580D	Mkn 875
0951+514	Mkn 127	1137+552B	Mkn 184	1325+557	Mkn 257	1615+521	Mkn 497
0953+602	Mkn 23	1140+537	Mkn 1451	1326+537	Mkn 258	1617+529	Mkn 498
0953+603	Mkn 128	1141+553	Mkn 1452	1332+518	Mkn 1479	1622+526	Mkn 698
0955+547	Mkn 24	1142+558	Mkn 1455	1332+521	Mkn 264	1625+496	Mkn 1497
0957+558	Mkn 131	1143+504	Mkn 186	1339+559	Mkn 271	1626+518	Mkn 1498
1000+596	Mkn 25	1144+527A	Mkn 1456	1340+529	Mkn 1480	1634+523	Mkn 1499
1002+539	Mkn 135	1144+527B	Mkn 1457	1341+529	Mkn 1481	1640+516	Mkn 1500
1008+589	Mkn 27	1144+562	Mkn 188	1342+561	Mkn 273	1652+574	Mkn 889
1008+591	Mkn 26	1145+527	Mkn 1458	1358+576	Mkn 1486	1657+575	Mkn 891
1009+586	Mkn 28	1148+553	Mkn 430	1359+521C	Mkn 1488	1705+607	Mkn 892
1014+603	Mkn 29	1152+514	Mkn 192	1359+595	Mkn 799	1714+602	Mkn 893

shows stellar nuclei.

0754+574 Low-contrast nuclei within diffuse envelope.

0754+592 Central part of galaxy with a weak extended corona. Member of a pair.

0755+574A Spheroidal, elongated in NE-SW direction. Consists of a few hot spots. Strong Hα in emission observed from all components.

0755+574B Blue, lenticular galaxy. Elongated in NE-SW direction. Pair with SBS 0755+574A.

0755+587 In the prime focus of the 6 m telescope shows stellar nucleus.

0755+604 Asymmetric Hα seen in emission.

0755+588 Nuclear region of a peculiar galaxy with star-like condensation West. Galaxy shows stellar nuclei in the prime focus of the 6 m telescope.

0756+556 Central region of a lenticular galaxy.

0756+611 BCDG. Star-like object in the prime focus of the 6 m telescope.

0757+565 Filament or jet seen in SW direction.

TABLE 8

COMMON NAMES

SBS design.	Other name	SBS design.	Other name	SBS design.	Other name	SBS design.	Other name	SBS design.	Other name
1220+544	4C54.27	0919+515	RBS 769	1415+498	CG 390	1502+556	CG 616	0750+603A	HS
1638+538	4C53.37	1023+554	RBS 867	1418+514	CG 408	1503+531	CG 618	0750+603B	HS
		1025+576	RBS 872	1418+536	CG 407	1504+514	CG 625	0752+560B	HS
0754+568	NGC2472	1046+581	RBS 906	1420+544	CG 413	1506+553	CG 638	0805+577	HS
0831+529A	NGC2600	1116+518	RBS 967	1422+545	CG 417	1507+496	CG 643	0915+556	HS
0831+529B	NGC2606	1116+583A	RBS 963	1423+517	CG 424	1507+524	CG 640	0929+496	HS
0831+530	NGC2602	1118+541	RBS 971	1425+507	CG 913	1509+493	CG 649	1037+495	HS
0928+577A	NGC2895	1136+579	RBS 1009	1425+541	CG 431	1509+527	CG 652	1211+501	HS
0953+592	NGC3043a	1136+594	RBS 1011	1426+509	CG 439	1510+503	CG 656	1305+502	HS
1048+556	NGC3398	1303+509	RBS 1214	1427+528	CG 448	1510+538	CG 658	1309+491	HS
1133+602	NGC3740	1317+528	RBS 1249	1429+554A	CG 458	1511+515A	CG 659	1309+497	HS
1140+529	NGC3829	1318+605A	RBS 1252	1430+496	CG 915	1511+515B	CG 661	1310+502	HS
1144+605	NGC3835A	1320+551	RBS 1256	1430+521	CG 468	1511+515C	CG 662	1341+490	HS
1211+598	NGC4195	1343+537	RBS 1310	1430+526	CG 470	1514+536	CG 673	1408+496	HS
1212+601A	NGC4199A	1527+564	RBS 1503	1432+514	CG 475	1515+492	CG 674	1434+504	HS
1212+601B	NGC4199B	1538+508	RBS 1521	1432+530	CG 474	1515+506	CG 923	1436+495	HS
1229+567	NGC4511	1610+589	RBS 1565	1432+557	CG 473	1517+513	CG 680	1443+503	HS
1240+554B	NGC4644			1433+554N	CG 481	1519+496	CG 690	1609+490	HS
1240+554C	NGC4644A	0901+557	IZw 17	1433+554S	CG 481	1519+508A	CG 692	1641+508	HS
1319+579A	NGC5113	0956+524A	IZw 23	1436+529A	CG 491	1519+508B	CG 693	1657+505	HS
1415+579	NGC5561	1307+542	IZw 52	1437+509	CG 495	1520+503	CG 698		
1512+535	NGC5902S	1406+490B	IZw 81	1437+544	CG 494	1523+519	CG 707	0818+544	MS
1657+571	NGC6262	1400+519	IZw 79	1438+507A	CG 507	1524+500	CG 709	1333+550	MS
1657+590A	NGC6286	1653+505	IZw 168	1438+528	CG 500	1524+545	CG 714	1403+546	MS
1657+590B	NGC6285			1438+549	CG 505	1525+511	CG 723	1415+566	MS
1706+607	NGC6306	1408+551A	CSO 612	1439+510	CG 510	1526+495	CG 726	1701+610	MS
0955+512	UGC05356	1418+540	CSO 634	1440+533	CG 513	1526+532	CG 731		
1300+520A	UGC08151	1433+500	CSO 670	1441+496	CG 520	1528+491A	CG 739		
		1433+498	CSO 671	1441+548	CG 519	1528+491B	CG 742		
1415+578	IC 996	1528+529	CSO 762	1442+506	CG 524				
1514+546	IC1111	1435+550	CBS 278	1443+499	CG 528	0749+568B	HS		
				1443+548	CG 526	0750+603A	HS		
0745+571	VIIZw181	1400+527	CG 331	1444+492	CG 916	0750+603B	HS		
0808+587	VIIZw217	1401+490B	CG 337	1444+517	CG 533	0752+560B	HS		
1113+598a	VIIZw384	1401+497	CG 908	1445+491	CG 544	0805+577	HS		
1113+598b	VIIZw384	1401+502	CG 333	1447+519	CG 550	0915+556	HS		
1157+565A	VIIZw432	1403+509	CG 350	1447+552A	CG 551	0929+496	HS		
1157+565B	VIIZw432	1405+510	CG 357	1450+506	CG 919	1037+495	HS		
1232+593	VIIZw473	1405+532	CG 353	1453+526	CG 577	1211+501	HS		
1428+575	VIIZw552	1405+550	CG 355	1454+511	CG 582	1305+502	HS		
1505+607	VIIZw583	1407+497	CG 365	1455+533	CG 589	1309+491	HS		
1517+566	VIIZw593	1407+540	CG 362	1457+540	CG 595	1309+497	HS		
1518+593	VIIZw594	1408+551B	CG 371	1458+497	CG 922	1310+502	HS		
1524+604	VIIZw603	1408+558	CG 366	1458+544	CG 603	1341+490	HS		
1533+574A	VIIZw611	1409+557	CG 372	1459+532	CG 606	1408+496	HS		
1533+574B	VIIZw611	1411+556A	CG 377	1459+559	CG 607	1434+504	HS		
1535+568	VIIZw614	1413+495A	CG 383	1502+516B	CG 617	0749+568B	HS		

0757+580 In the prime focus of the 6 m telescope, diffuse, without nucleus.

0757+573 Diffuse, without nucleus in the prime focus of the 6 m telescope.

0800+542 Blue, spheroidal. Central part diffuse, surrounded by weak nebular elliptical shell.

0801+556 Diffuse galaxy. Projected on the cluster of galaxies.

0803+565 Lenticular, with weak diffuse spiral arms.

0803+591 Diffuse object in the prime focus of the 6 m telescope.

0805+577 Star-like galaxy, as seen in the prime focus of the 6 m telescope.

0806+579A Probably the nuclear region of a spiral galaxy. Member of a pair.

0806+579B Diffuse object, in the prime focus of the 6 m telescope. Composes a physical pair with SBS 0806+579A.

0807+571 Probably the nuclear region of a spiral

TABLE 8 (CONTINUED)

SBS design.	Other name	SBS design.	Other name	SBS design.	Other name	SBS design.	Other name	SBS design.	Other name
0742+599	KUG	0925+542	KUG	0948+557	KUG	1435+516	KUG	1511+529	KUG
0745+587	KUG	0925+545	KUG	0949+539	KUG	1436+529B	KUG	1515+556	KUG
0745+590	KUG	0925+552	KUG	0950+498	KUG	1437+496	KUG		
0746+611	KUG	0926+522	KUG	0950+499	KUG	1437+512	KUG		
0748+588	KUG	0926+558N	KUG	0950+524	KUG	1437+516	KUG		
0748+608	KUG	0926+558S	KUG	0950+539	KUG	1438+527	KUG		
0751+574	KUG	0927+548	KUG	0951+543	KUG	1438+557	KUG		
0752+587	KUG	0927+553	KUG	0951+568	KUG	1439+499	KUG		
0753+577	KUG	0928+498	KUG	0952+519	KUG	1439+504	KUG		
0754+570	KUG	0928+509	KUG	0952+548	KUG	1439+507	KUG		
0755+574B	KUG	0929+527	KUG	0952+584	KUG	1441+524	KUG		
0755+588	KUG	0929+537	KUG	0953+574	KUG	1446+550	KUG		
0757+573	KUG	0929+540	KUG	0955+568	KUG	1446+552	KUG		
0801+571	KUG	0930+559	KUG	0958+599	KUG	1447+500	KUG		
0805+583	KUG	0931+512	KUG	0959+579	KUG	1447+503	KUG		
0806+573	KUG	0932+491	KUG	1004+605	KUG	1447+512	KUG		
0807+593	KUG	0932+516	KUG	1006+578A	KUG	1449+519	KUG		
0808+580A	KUG	0932+542	KUG	1008+608	KUG	1449+528	KUG		
0811+607A	KUG	0932+558	KUG	1011+575	KUG	1450+527	KUG		
0916+534	KUG	0933+511	KUG	1011+589	KUG	1451+493B	KUG		
0916+538	KUG	0933+578N	KUG	1020+571	KUG	1451+517	KUG		
0917+525	KUG	0933+578S	KUG	1030+573	KUG	1452+533	KUG		
0917+534	KUG	0934+549	KUG	1128+563	KUG	1453+507	KUG		
0918+509	KUG	0935+522	KUG	1129+541	KUG	1454+498	KUG		
0918+537A	KUG	0935+541	KUG	1129+542	KUG	1454+513	KUG		
0918+537B	KUG	0936+524	KUG	1132+558	KUG	1455+498B	KUG		
0918+564	KUG	0937+545	KUG	1149+522	KUG	1456+506	KUG		
0919+519	KUG	0937+568	KUG	1154+534	KUG	1457+491	KUG		
0919+527	KUG	0938+525	KUG	1159+540	KUG	1457+524	KUG		
0919+545	KUG	0938+566	KUG	1407+535	KUG	1458+516	KUG		
0919+554	KUG	0940+495	KUG	1410+541	KUG	1459+491	KUG		
0919+567	KUG	0940+505	KUG	1410+576N	KUG	1459+498	KUG		
0920+506	KUG	0940+512B	KUG	1410+576S	KUG	1459+520	KUG		
0921+519N	KUG	0940+517	KUG	1411+546A	KUG	1459+530	KUG		
0921+519S	KUG	0940+543	KUG	1412+578	KUG	1500+495	KUG		
0921+539	KUG	0940+563	KUG	1413+573	KUG	1500+506B	KUG		
0922+498	KUG	0941+521	KUG	1417+564	KUG	1501+524	KUG		
0922+500	KUG	0941+524	KUG	1417+567	KUG	1502+496	KUG		
0922+505	KUG	0942+565	KUG	1421+555	KUG	1502+507	KUG		
0922+553	KUG	0943+521A	KUG	1425+538	KUG	1502+525	KUG		
0923+500	KUG	0943+524	KUG	1429+541	KUG	1502+538	KUG		
0923+524	KUG	0943+543	KUG	1431+522	KUG	1503+521	KUG		
0924+507	KUG	0943+545	KUG	1431+561	KUG	1504+536	KUG		
0924+516	KUG	0943+563B	KUG	1431+562	KUG	1504+537	KUG		
0924+554N	KUG	0947+539	KUG	1432+520	KUG	1506+566	KUG		
0925+505	KUG	0947+552	KUG	1433+495	KUG	1510+571	KUG		

galaxy.

0807+593 The nuclear region of a diffuse blue galaxy.

0807+588 Diffuse, without nucleus, in the prime focus of the 6 m telescope. Weak knots seen on the West side of galaxy ~ 7 arcsec.

0808+580A Close-binary with distance separation of ~ 5 arcsec within a common shell. Strong slightly inclined Hα and $[SII]\lambda 6724$ seen in emission from both components.

0808+587 Sy2 galaxy. In the prime focus of the 6 m the galaxy shows clearly distinct stellar nuclei.

0809+582 Weak stellar nucleus seen on the slit of the prime focus of the 6 m telescope.

0809+577 Galaxy shows central condensation, but no nucleus in the prime focus of the 6 m telescope.

0810+583A On the slit of the spectrograph in the prime focus of the 6 m telescope the galaxy shows a stellar nucleus surrounded by halo.

0811+585B Galaxy looks stellar in the prime focus of the 6 m telescope.

0811+607A Close-binary in common nebular shell with a component separation of ~ 5 arcsec. Member of a pair.

0811+583 Two star-like nuclei seen on the slit of spectrograph in the prime focus of the 6 m telescope.

0811+607B Composes physical pair with SBS 0811+607A.

0812+576 Spheroidal galaxy, elongated by NW-SE direction. Shows stellar nucleus in the prime focus of the 6 m telescope.

0813+521 Weak $B \sim 19.5$ satellite seen in NE.

0814+579A Nuclear region of a spiral galaxy. There are two condensations (H II regions) on the NW and SE edges of spiral arms. Both of them and the nuclei of galaxy are very blue and show strong Hα in emission.

0816+610 Close-binary in a common diffuse envelope.

0830+563 Close-binary with a component separation of ~ 4 arcsec.

0831+529A Composes a triple system with SBS 0831+530 and SBS 0831+529B, NGC 2600, NGC 2602 and NGC 2606.

0841+533A Member of a pair.

0847+548 Spheroidal with asymmetric nebular shell.

0855+520 Lenticular. Elongated in the SW-NE direction.

0857+498 Cometlike galaxy.

0903+499A Composes physical pair with SBS 0903+499B.

0905+499A Composes triple system with SBS 0905+499B and SBS 0905+499C.

0906+502A Composes physical pair with SBS 0906+502B.

0907+593 BCDG. Continuum not seen in objective-prism spectra.

0909+570 Close-binary.

0915+515A Composes physical pair with SBS 0915+515B.

0915+556 South component of pair of galaxies with an angular separation of ~ 20 arcsec.

0916+543 Close-binary in a common nebular shell with a component separation of ~ 6 arcsec.

0917+525 Member of a pair of galaxies.

0921+519N North component of a close-binary system with SBS 0921+519S and with an angular separation of the components of ~ 3 arcsec.

0922+498 West component of a pair of galaxies.

0922+553 Member of a pair of galaxies.

0924+554N North component of a pair of galaxies.

0925+542 Close-binary.

0926+606A Detached close-binary in common nebular shell with a component separation of ~ 8 arcsec. Physical pair with SBS 0926+606B.

0926+606B The double head of a cometlike galaxy with a component separation of ~ 3 arcsec. Quadruple system of galaxies with SBS 0926+606A, each component consists of double nuclei.

0926+558S South component of a close-binary system with SBS 0926+558N with a component separation of ~ 3 arcsec.

0928+577B Star-like object on the E-edge of NGC 2895. Probably H II of NGC 2895.

0930+554 Well known as the most metal deficient galaxy Mkn 116, 1Zw 18. Close-binary blue compact dwarf galaxy.

0933+578N Cometlike. Member of a pair of galaxies.

0938+551 Star-like galaxy. Composes physical pair with another star-like galaxy SBS 0938+552.

0938+545 Close-binary in a common envelope and with the component separation of ~ 3 arcsec.

0938+544 Member of a pair of galaxies.

0940+544 BCDG. Continuum not seen in objective-prism spectra.

0941+559 Nuclear region of a SABc galaxy. Galaxy shows a central condensation, but without a nucleus in the prime focus of the 6 m telescope. Very weak, extended Hα emission line seen from superassociation located $10''$ to the west from the center of the galaxy.

0942+587A Composes physical pair with SBS 0942+587B.

0942+573 BCDG, Mkn 1424. Member of a pair of galaxies.

0943+495 Jet $B \sim 19$ mag seen in the north direction.

0943+563B BCDG. Companion or satellite of Mkn 123.

0943+521A Two oval objects (close-binary) in contact with a companion separation of ~ 3 arcsec.

0946+539 On the prime focus of the 6 m telescope the object is star-like.

0946+558 Mkn 22. Member of a pair of galaxies.

0950+538 Close-binary in a common envelope with a component separation of ~ 5 arcsec.

0950+539 Cometlike galaxy.

0953+603 Mkn 128. Pair with Mkn 23- SBS 0953+602.

0954+515 Continuum not seen, only emission lines are seen in objective-prism spectra.

0955+526 Close-binary.

0957+528 Galaxy shows asymmetric halo.

0959+579 Member of a pair of galaxies.

1000+536A Composes physical pair with SBS 1000+536B.

1001+555 Cometlike galaxy elongated along declination, with stellar nucleus.

1001+584 West component of a pair of galaxies.

1002+555 In the prime focus of the 6 m telescope is an edge-on spiral galaxy, with stellar nucleus.

1003+573 Interacting pair.

1005+589A Composes physical pair with SBS 1005+589B.

1007+536 Cometlike galaxy. Elongated by N-S direction.

1011+575 Member of a pair of galaxies

1011+601 Pair of galaxies with SBS 1011+600.

1016+576A Mkn 30. Physical pair with Mkn 31, SBS 1016+576B.

1017+542 BCDG. Continuum not seen in objective-prism spectra.

1020+526 Cometlike galaxy.

1021+586A West component of a physical pair of galaxies with SBS 1021+586A.

1021+584 Located $\sim$ 35$''$ to the NE from the center of a bright galaxy.

1026+511 Pair of galaxies.

1028+566 Close-binary.

1035+610 Star-like galaxy. Member of a pair of galaxies.

1036+609 Star-like galaxy. Probably composes a pair with other star-like galaxy SBS 1036+610.

1037+494 East of galaxy.

1038+580 Sy2 galaxy. Has a comma-like along SW-direction.

1040+560 Close-binary with a component separation of $\sim$ 3 arcsec.

1046+562 Close-binary elongated along declination.

1048+512 The head of a cometlike galaxy.

1048+556 Bright spiral galaxy SAb with two SAs.

1050+573 Two condensations, probably superassociation, on the NE edge of the bright galaxy NGC 3440. The nuclear part of NGC 3440 may by double.

1055+597 SE component of a pair of galaxies. May have a double nuclei.

1057+511A Composes physical pair with SBS 1057+511B.

1100+532 Close-binary in common envelope with a component separation of $\sim$ 3 arcsec.

1102+599A Triple system of galaxies with SBS 1102+599B and SBS 1102+599C.

1102+606 The head of a cometlike galaxy.

1110+567 Disturbed oval. Close-binary.

1113+560 Double head of a cometlike galaxy. Hα seen in emission from both stellar components.

1113+598AB VI IZw 384. Close-binary with a component separation of $\sim$ 7 arcsec. Both components are star-like galaxies.

1114+587 BCDG. This object is diffuse, compact, as seen on the spectrograph slit of the 6 m telescope.

1114+516 Mkn 1444. Close-binary.

1115+551 Companion or satellite to the SE.

1115+585 Close-binary with component separation of $\sim$ 5 arcsec.

1115+540A Mkn 38. Physical pair with Mkn 39, SBS 1115+540B.

1116+583A NLS1. Spheroidal, located on $\sim$ 5 minute from NGC 3613. The object shows stellar nucleus on the slit of spectrograph in the prime focus of the 6 m telescope.

1116+609 Close-binary with a component separation of $\sim$ 4 arcsec. Both components show Hα in emission.

1116+517 BCDG. Close-binary with a component separation of $\sim$ 3 arcsec. Both components show Hα in emission.

1118+586 Pair of oval galaxies, extended along declination. Hα seen in emission from both components.

1118+587 BCDG. Cometlike galaxy. Object shows stellar nuclei on the slit of the spectrograph of the 6 m telescope.

1120+586A Close-binary.

1120+586B Blue strip of knots, elongated along right ascension.

1121+491A May compose a pair with SBS 1121+491B, each component are galaxies with double nuclei with angular separation of components $\sim$ 15 arcsec.

1122+575 Cometlike galaxy.

1122+590 Close-binary with a component separation of $\sim$ 4 arcsec.

1122+610 BCDG. A very well formed starlike nucleus is seen on the slit in the prime focus of the 6 m telescope.

1123+576 BCDG. Spherical with West jet.

1123+570 Diffuse galaxy with two weak companions.

1123+550 The bright member of a group of galaxies.

1124+580 In the prime focus of the 6 m telescope the object is very compact, probably has stellar nucleus.

1124+561 Composes a physical pair with star-like galaxy SBS 1125+562.

1125+588 Mkn 171. Well known system of merger galaxies.

1126+586 South member of a triple system of galaxies.

1127+575 Sy2 galaxy. Stellar nucleus surrounded by weak diffuse envelope as seen on the slit of spectrograph in the prime focus of the 6 m telescope.

1128+573 BCDG. Continuum is not seen in objective-prism spectra.

1129+576 Head of cometlike galaxy, consisting of two components. Hα is seen in emission from both components. The profiles of Hα emission from both components are cone-like. Composes a physical pair with other BCDG SBS 1129+577.

1129+577 BCDG. Spiral galaxy without nucleus with hot spots in the prime focus of the 6 m telescope. We have obtained slit spectra from all three condensations. All of them show strong Hα in emission.

1132+503 Mkn 1448. Close-binary with a component separation of $\sim$ 4 arcsec.

1132+578 In the prime focus of the 6 m telescope the galaxy shows a stellar nucleus.

1132+579 Star-like nuclear region of a bright galaxy. The nuclei are double with a component separation of $\sim 3''$.

1133+605 In the prime focus of the 6 m telescope the object looks like a spiral galaxy with stellar nucleus.

1133+597 BCDG. The object shows stellar nucleus, in prime focus of the 6 m telescope.

1136+559A Composes a triple system of galaxies with SBS 1136+579B and SBS 1136+579C.

1136+607 BCDG. Shows weak nucleus in the prime focus of the 6 m telescope.

1136+580 Cometlike. Diffuse object in the prime focus of the 6 m telescope. The profile of Hα emission is cone-like.

1137+588 May compose a pair with SBS 1137+588.

1139+601 Galaxy shows stellar nucleus in the prime focus of the 6 m telescope. May compose a triple system with SBS 1139+600A and SBS 1139+600B.

1140+574 Very good stellar nucleus are seen on the slit of the spectrograph of the 6 m telescope.

1141+588 Object shows low surface brightness in the prime focus of the 6 m telescope.

1141+553 Mkn 1452. Close-binary with component separation of $\sim$ 3 arcsec.

1143+588 Diffuse object without nucleus in the prime focus of the 6 m telescope.

1144+590 Physical pair of two BCDG with SBS 1144+591.

1144+547 Close-binary.

1144+579 Close-binary or interacting system with a component separation of $\sim$ 7 arcsec. Hα in emission is observed from both condensations, oriented along declination.

1145+601 Weak nucleus is seen in prime focus of the 6 m telescope.

1146+604 Close-binary in a common nebular shell. East component may be a star.

1147+540B Spherical with a weak shell. Has two companions or satellites. The first companion $B \sim$ 19.5 located East, the second companion lies $\sim$ 45 arcsec NW.

1150+599B Has a companion or satellite East.

1150+579 Star-like galaxy with very blue nucleus.

1151+579 Nuclear region of a spiral galaxy. Two condensations that are probably H II regions, seen along S and N directions. South condensation is very blue.

1153+575 Lenticular. May have double nuclei.

1154+534 Bright galaxy with double nuclei or an H II region located $\sim$ 10 arcsec from the nucleus.

1155+530 Galaxy of M51 type, with a low luminosity galaxy at the end of spiral arm.

1155+576 Spiral galaxy, elongated along declination. Two weak condensations, probably H II regions, are seen at the North edge of galaxy.

1155+578 Star-like galaxy located $\sim$ 50 arcsec NW of the bright B = 14.8 galaxy.

1157+581 May have double nuclei.

1157+565A V II Zw 432. May compose a triple system with SBS 1157+565 and another field galaxy.

1158+590 May have double nuclei.

1159+544 Star-like galaxy. The brightest member of small group of galaxies.

1159+545 BCDG. Star-like galaxy with a nebular companion West. Continuum is not seen in objective-prism spectra.

1159+516A BCDG: Close-binary. The E-component is blue, compact; the W-component is blue, diffuse. Composes a physical pair with other BCDG SBS 1159+516B.

1200+608 Spherical with a weak corona and star-like nucleus. Star projected on SW side of the galaxy.

1200+589B BCDG. The head of a cometlike galaxy with tail. The tail contains a few condensations elongated in right ascension. Composes a physical pair with other BCDG SBS 1200+589C.

1200+589C BCDG. Spherical with SW jet. Pair with SBS 1200+589B.

1201+520 Galaxy shows two nuclei.

1202+583 Galaxy consists of two star-like nuclei. Hα and [O III]$\lambda\lambda$5007/4959 and Hβ seen in emission from both components.

1203+592 BCDG. Close-binary with a component separation of ~ 6 arcsec.

1203+582 East companion of the bright galaxy MCG10-17-141.

1204+505B Pair of galaxies with a separation of ~ 36 arcsec.

1204+591A Pair of spheroidal galaxies with SBS 1204+591B, with angular separation ~ 17 arcsec.

1204+579 Has a satellite with $B \sim 18.5$ to the West.

1206+609 South component of close-binary system elongated along declination.

1208+590 Disturbed oval. Central part consists of a strip of condensations.

1210+602 Spherical with a companion in the N.

1211+540 BCDG. Continuum is not seen.

1211+559 Weak galaxy with star-like kern in the center.

1212+563 BCDG. Continuum is not seen in objective-prism spectra.

1212+601A NGC 4199A. Physical pair with SBS 1212+601B, NGC 4199B.

1215+559 Close-binary with a component separation of ~ 3 arcsec.

1216+551 BCDG. Has a satellite with $B \sim 19.5$ to the NW.

1217+560 Sy2. Star-like object surrounded by a group of galaxies.

1218+551A Spherical. NW component of a pair of galaxies.

1219+534B Mkn 1472. Close-binary with component separation of ~ 5 arcsec. Show a satellite to the SE. Composes a physical pair with SBS 1219+534B.

1219+560 Probably H II region located on the SW arm of spiral galaxy.

1220+552 Elongated along R.A. Consists of three condensations. All of them show strong Hα and [O III]$\lambda\lambda$5007/4959 and Hβ in emission.

1222+614 West component of a close-binary system. East component may be a star.

1223+503A Close-binary: Physical pair with SBS 1223+503B.

1223+557 Close-binary.

1223+536 Galaxy shows a star-like nucleus in the prime focus of the 6 m telescope.

1223+537B Close-binary within a common envelope and with an angular separation of about ~ 3 arcsec. Very strong [O III]$\lambda\lambda$5007/4959 and Hβ seen in emission from both components. Physical pair with star-like galaxy SBS 1223+537A.

1224+533 Close-binary in a vast nebular envelope and with angular separation of about ~ 5 arcsec. West component is condensed and blue. East component is diffuse.

1226+539 Close-binary with component separation of ~ 5 arcsec.

1227+568A NE component of a wide pair of galaxies. Physical pair with SBS 1227+568B.

1228+533 Nuclear part of galaxy with tail along SW.

1230+560 North companion of a triple system.

1232+549 Close-binary.

1235+559 BCDG.The head of a cometlike galaxy consisting of two condensations with angular separation of $\sim 3''$.

1240+554B NGC 4644. Physical pair with SBS1240+554C, NGC 4644A.

1241+551A Triple system of galaxies with Mkn 220 and Mkn 221.

1242+549 Close-binary.

1243+541 Close-binary.

1249+493 BCDG. Continuum is not seen in objective-prism spectra.

1256+594 Pair with Mkn 233.

1301+609 Pair with SBS 1302+609 with angular separation of ~ 40 arcsec.

1303+538 Physical pair with Mkn 242, SBS 1303+537.

1305+547 Oval, consists of two stellar objects separated by ~ 3 arcsec. Very strong Hα, [O III]$\lambda\lambda$5007/4959, Hβ and [O II]λ3727 seen in emission from both components.

1305+541A, 1305+502, 1306+550, 1306+511, 1308+501A and 1312+566 are close-binary systems.

1317+523A Close-binary with SBS 1317+523B. NW component of a pair of galaxies.

1318+520 Close-binary.

1319+579A NGC 5113. BCDG. The structure of the galaxy is not clear. A central condensation is not seen, but to the NE and SW there are two strong condensations. Both of them show very strong Hα, [O III]$\lambda\lambda$5007/4959, Hβ and [O II]λ3727 in emission. Physical pair with other BCDG SBS 1319+579B.

1319+539 Close-binary or hot spots? Strong Hα seen in emission from both components.

1320+596 Close-binary.

1325+603 BCDG: Continuum is not seen in objective-prism spectra.

1331+493 Weak condensations within a common nebular shell. Hot spots galaxy.

1334+597 Has a NW satellite with $B \sim 18.5$.

1340+569 Physical pair with SBS 1339+569.

1340+529 Mkn 1480. BCDG. Physical pair with Mkn 1481, SBS 1341+539.

1342+562A Close-binary with SBS 1342+562B within a common nebular shell and with angular separation of $\sim 5''$.

1349+570 Close-binary.

1351+578 Physical pair with SBS 1351+577.

1354+586 Has a NW jet.

1354+580 Close-binary or companion with $B \sim 18.5$ and an angular separation of ~ 5 arcsec.

1358+576 Mkn 1486. Close-binary with a component separation of ~ 3 arcsec.

1358+554 Two blue diffuse condensations are seen along the NE direction extending over ~ 30 arcsec.

1400+520 Physical pair with IZw 79, SBS 1400+519.

1400+514 Has a SW satellite with $B \sim 19$.

1401+564A Star-like galaxy. May compose pair with other star-like galaxy SBS 1401+564B.

1403+546 BLS1. Shows two condensations within the main body of the galaxy.

1404+571 East component of a close-binary system with an angular separation of ~ 8 arcsec.

1406+490A Composes a physical pair with IZw 81, SBS 1406+490B.

1408+551B Shows blue jet in SW direction.

1410+576N Close-binary with SBS 1410+576S in a common envelope and an angular component separation of ~ 4 arcsec.

1411+556B Close-binary in a common nebular shell with a component separation of ~ 4 arcsec. May compose a physical pair with SBS 1411+556A.

1413+573 Member of a pair of galaxies.

1413+602 Close-binary with a component separation of ~ 3 arcsec.

1413+509 Close-binary.

1418+514 Close-binary.

1420+544 BCDG. Continuum is not seen in objective-prism spectra.

1422+545 Close-binary in common nebular shell with a component separation of ~ 5 arcsec. Physical pair with Mkn 811, SBS 1422+546.

1423+517 Cometlike galaxy.

1429+554B Star-like galaxy. May compose pair with SBS 1429+554A.

1430+596 BCDG. Head of cometlike galaxy.

1430+526 BCDG. Has satellites along N and S directions.

1432+557 Shows a few condensations within the main body of the galaxy.

1433+554N CG 481.Close-binary in a common envelope and with an angular component separation of $\sim 3''$.

1436+529A BCDG. Close-binary with a component separation of ~ 4 arcsec. Pair with SBS 1436+529B.

1438+507A Star-like galaxy. May compose pair with the other star-like galaxy SBS 1438+507B.

1439+537 Mkn 477. Member of a pair of galaxies.

1442+506 Close-binary with a component separation of ~ 2 arcsec.

1448+606 Cometlike. May have double head.

1449+528 Member of a pair of galaxies.

1451+603 Mkn 1493. Close-binary.

1453+601 Close-binary.

1454+513 Member of a pair of galaxies.

1457+540 Close-binary.

1458+600A West component of a pair of galaxies. May have a double nuclei.

1458+600B East component of pair of galaxies. Pair with SBS 1458+600A. Surrounded by group of weak red galaxies.

1500+557A Close-binary with SBS 1500+557B within a common nebular shell and with a component separation of $\sim 8''$.

1505+605A Pair of interacting galaxies with SBS 1505+605B with an angular separation of ~ 20 arcsec. Type "playing mice".

1507+524 Has three condensations located along right ascension.

1509+583 Galaxy appears as a strip with three condensations. May compose pair with SBS 1509+583A.

1511+515A Composes a triple system with SBS 1511+515B and SBS 1511+515C.

1513+562 Close-binary.

1515+556 Has a NE jet. Member of a pair of galaxies.

1517+566 Member of a pair with an angular separation of ~ 30 arcsec.

1519+496 Cometlike. May have double head.

1519+508A Physical pair with Sy1 galaxy SBS 1519+508B with an angular separation of ~ 15 arcsec.

1520+503 Member of a pair of galaxies.

1521+603 Member of a group of galaxies with an angular separation of ~ 10 arcsec.

1522+588 Close-binary.

1528+509A Star-like galaxy. May compose pair with SBS 1528+509B.

1530+607 Close-binary.

1532+591 Has a satellite $\sim 19''$ to the South.

1533+574A VI IZw 611. Close-binary system of galaxies with SBS 1533+574B, with an angular separation of ~ 10 arcsec.

1533+585 Close-binary with a component separation of ~ 4 arcsec.

1535+564A Pair with SBS 1535+564B?

1536+576 Stellar nuclear region of the galaxy with diffuse edges and a blue SE companion with

$B \sim 19.5$.

1538+531 Galaxy consists of a few condensations.

1538+584 BCDG. Continuum is not seen in objective-prism spectra.

1538+574A Close-binary with SBS 1538+574B with an angular separation of $\sim$ 15 arcsec.

1541+515 Close-binary with a component separation of $\sim$ 5 arcsec.

1541+590 BCDG. Continuum is not seen in objective prism spectra.

1542+573B A system of interacting galaxies or a galaxy with two H II regions located NW and SE along spiral arms. SBS 1542+573A probably is an H II region located on the NW arm. SBS 1542+573C probably is another H II region located on the SE arm.

1551+593A North component of a pair of spheroidal galaxies located along declination.

1551+601A Close-binary with SBS1551+601B within a common nebular shell and with a component separation of $\sim 6''$.

1552+524A Close-binary. May compose pair with SBS 1552+524B.

1554+592 Has a NE jet.

1558+585 Wide pair with SBS 1559+585.

1603+605 Member of a pair with an angular separation of $\sim$ 30 arcsec.

1609+580 Physical pair of distant galaxies with SBS 1609+581 located along declination with angular separation of $\sim$ 8 arcsec.

1610+586 Cometlike galaxy.

1616+594A Nuclear region of a bright B = 14.8 galaxy. May have a double nucleus. Physical pair with SBS 1616+594B with an angular separation of $\sim$ 90 arcsec.

1619+560 Pair with NGC 6136.

1620+577 Close-binary.

1623+532 Interacting system of galaxies.

1624+575 BLS1. Has a jet along the West direction.

1629+501 Close-binary.

1632+505 Member of a pair.

1632+578 BCDG. Continuum is not seen in objective-prism spectra.

1646+551 Galaxy with stars projected near the center of the galaxy.

1657+590A NGC 6285. Pair with NGC 6286, SBS 1657+590B with an angular separation of $\sim 90''$.

1705+607 Mkn 892. SW component of a pair of galaxies with NGC 6306, SBS 1706+607 with a component separation of $\sim$ 60 arcsec.

1707+565 Close-binary.

1712+593A Pair with SBS 1712+593B with a component separation of $\sim$ 50 arcsec.

161 objects: SBS 0750+571, SBS 0751+569, SBS 0752+560B, SBS 0754+570, SBS 0756+553, SBS 0805+607, SBS 0806+503, SBS 0809+549, SBS 0819+573, SBS 0826+582A, SBS 0843+582, SBS 0849+496, SBS 0906+545, SBS 0907+543, SBS 0909+501, SBS 0910+503, SBS 0919+527, SBS 0924+495, SBS 0929+496, SBS 0933+508, SBS 0934+546, SBS 0937+526, SBS 0939+567, SBS 0940+508, SBS 0940+512B, SBS 0941+565, SBS 0943+566, SBS 0943+499, SBS 0943+581, SBS 0943+506B, SBS 0944+526, SBS 0944+503, SBS 0944+515, SBS 0945+502, SBS 0946+495, SBS 0948+532, SBS 0948+503, SBS 0951+514, SBS 0951+518, SBS 0951+510, SBS 0951+504, SBS 0952+523, SBS 0957+517, SBS 1007+500, SBS 1021+579, SBS 1026+510, SBS 1032+496, SBS 1035+543, SBS 1035+519, SBS 1043+604, SBS 1045+581, SBS 1047+516, SBS 1101+577, SBS 1105+559, SBS 1105+502, SBS 1106+500B, SBS 1108+552, SBS 1119+549, SBS 1119+610A, SBS 1121+564, SBS 1121+562, SBS 1123+598, SBS 1124+610, SBS 1127+527, SBS 1135+601, SBS 1139+517, SBS 1140+529, SBS 1147+599, SBS 1148+601, SBS 1155+588, SBS 1158+595, SBS 1201+584, SBS 1202+606, SBS 1207+531, SBS 1210+583, SBS 1212+493, SBS 1213+554, SBS 1217+528, SBS 1217+553, SBS 1219+558, SBS 1219+539, SBS 1222+567, SBS 1224+519, SBS 1227+539, SBS 1229+567, SBS 1233+552, SBS 1238+604, SBS 1244+518, SBS 1250+594, SBS 1251+589, SBS 1256+610, SBS 1258+548A, SBS 1258+551, SBS 1302+542, SBS 1307+563B, SBS 1309+534B, SBS 1310+588, SBS 1310+587, SBS 1317+548, SBS 1323+551, SBS 1337+591, SBS 1337+596, SBS 1342+600A, SBS 1351+576, SBS 1405+520, SBS 1407+546, SBS 1407+497, SBS 1408+551A, SBS 1408+496, SBS 1410+530, SBS 1411+584, SBS 1346+592, SBS 1417+518, SBS 1417+530, SBS 1418+519, SBS 1418+540, SBS 1425+595, SBS 1425+607A, SBS 1426+509, SBS 1430+589, SBS 1433+498, SBS 1438+594, SBS 1443+548, SBS 1446+512, SBS 1447+569, SBS 1447+552A, SBS 1448+509B, SBS 1450+527, SBS 1451+587, SBS 1452+503, SBS 1456+586, SBS 1458+497, SBS 1458+593, SBS 1502+516B, SBS 1511+583, SBS 1516+524, SBS 1520+572, SBS 1524+604, SBS 1524+575A, SBS 1524+554, SBS 1528+584, SBS 1528+509A, SBS 1528+577B, SBS 1528+529, SBS 1532+585, SBS 1533+609, SBS

1636+573, SBS 1538+580, SBS 1541+597, SBS 1543+518, SBS 1549+557, SBS 1559+604, SBS 1600+565, SBS 1607+493, SBS 1614+600B, SBS 1628+573, SBS 1636+579, SBS 1636+510, SBS 1636+601, SBS 1646+499, SBS 1648+547, SBS 1650+535, SBS 1651+605, SBS 1653+544A, SBS 1659+572, SBS 1709+570 are star-like objects on both DSS1 and objective-prism plates.

Six objects: SBS 0749+568, SBS 1119+601A, SBS 1350+551, SBS 1430+521, SBS 1434+504 and SBS 1555+515 are star-like blue compact dwarf galaxies (BCDG).

10 objects: SBS 0936+562, SBS 1121+606, SBS 1212+558, SBS 1233+586, SBS 1324+604, SBS 1343+537, SBS 1415+566, SBS 1433+500, SBS 1527+564 and SBS 1713+580 are star-like Sy1 galaxies.

Six objects: SBS 1136+595, SBS 1213+549A, SBS 1258+569, SBS 1315+604, SBS 1353+564 and SBS 1412+538 are star-like narrow line Sy1 galaxies.

Two objects: SBS 1136+594 and SBS 1318+605 are star-like Sy1.5 galaxies. Two objects, SBS 1150+583 and SBS 1444+588 are star-like Sy2 galaxies.

5.1. *The SBS Seyfert Galaxy Sample*

It is useful to summarize the subsamples of SBS Seyfert galaxies separately to simplify work with them, even though their basic data are given in the Catalogue of SBS galaxies. In this section we define Sy galaxies as AGNs with optical luminosities $M(B) \geq -23.0$, H = 50 km s^{-1} Mpc^{-1} and $q_0 = 0$.

There are 155 Sy galaxies detected among the SBS UVX galaxies in the main sky area of the SBS survey: 38 of them are BLS1, 31 NLS1, 25 Sy1.5, 8 Sy1.8, 9 Sy1.9, and 44 Sy2. SBS UVX galaxies with AGNs are mostly stellar and semistellar objective-prism spectral class objects, of which the majority are strong or moderately strong UV-excess emitters. The total sample of SBS galaxies is not yet spectroscopically observed; therefore we expect a few dozen new AGN among them, especially of Sy2 type.

Table 9 presents the SBS Seyfert galaxy samples the basic data of which are drawn from Table 6. We have listed also the identification of all of them with soft X-ray $ROSAT$, IRAS, and FIRST radio sources. Many of them are new identifications. The columns are: (1) SBS designation; (2) redshift; (3) magnitude; (4) absolute magnitudes calculated with H = 50 km s^{-1} Mpc^{-1} and $q_0 = 0$; (5) 1RXSJ name; (6) IRAS name; (7) FIRST radio sources pointed out as "R"; (8) morphology; (9) other designations.

Table 10 summarizes the result of multiwavelength identification of the SBS Sy galaxy sample.

All subsamples of SBS AGN have not yet been investigated, although we have finished the compilation of their main parameters. Martel & Osterbrock (1994) investigated 18 SBS Sy galaxy candidates and classified 12 of them. As they pointed out, our classification is very close to their Lick Classification system and both are in very good agreement. The subsample of SBS NLS1 have been partly investigated (Stepanian et al. 2003) as well as the subsample of the SBS NLQSOs (Cruz-González et al. 2003, private communication). A follow-up to this, and additional analysis of SBS objects will be presented in Paper two of the SBS.

Controversial data are given in the literature and NED (NASA Extsgalactic Database) for many of the SBS Sy galaxies. For example the data for SBS 1343+537 given by Grazian et al. (2000) and NED, B = 15.8, z = 0.160, are incorrect. According to NED SBS 1343+537 is 1RXSJ134545.1+533300 = 2MASSJ1345453+533251 = FIRSTJ134545.4+533252 = NVSS 134545+533254 = RBS1310. The spectrum of this object is typical for a Sy1 galaxy with z = 0.133. FIR, radio and X-ray identifications were also corrected for many other SBS objects. For example: the galaxy SBS 1213+549A was misidentified by Boller et al. (1992), Moran, Halpern, & Helfand (1996) and by Condon et al. (1998) as MCG09-20-133 and as an IRAS source. The same mistakes are included in the other databases and the catalogue of Veron-Cetty & Veron (2001). There are three galaxies in this field: SBS 1213+549A, MCG 09-20-133, and SBS 1213+549B (MCG 09-20-134). The cross-identification show (Stepanian et al. 2003) that SBS 1213+549A is more likely to be a $ROSAT$ and FIRST source, but not an IRAS source. All of these misclassifications are corrected in the catalogue.

6. THE CATALOGUE OF SBS STELLAR POINT SOURCES OBJECTS

The Catalogue of SBS stellar objects is presented in Table 11. The columns list the following: Column 1, the SBS designation. Columns 2 to 5, the coordinates B1950 and J2000 with an accuracy of about ±1 arcsec (Bicay et al. 2000). The format of the coordinates is hours, minutes, and seconds for right ascension, and degrees, arcminutes, and arcseconds for declination. Column 6, magnitudes; there are two types of magnitudes in the catalogue: (a) the photometric B and V magnitudes measured mainly for starlike objects AGN and QSOs (Stepanian et al. 2001; Chavushyan et al. 1995, 2000) and the magnitudes of known objects (all of them with two digits

TABLE 9

THE SBS SY GALAXY SAMPLE. N=155

SBS design	z o	B m_{pg}	M_B M_{pg}	*ROSAT*, *FIR* and *FIRST* radio identifications 1RXSJ	*IRAS*	*FIRST*	Morph.	Other name
The sample of SBS BLS1 galaxies. N=38								
0743+610	0.0293	13.72	−23.0	074729.4+605601	07431+6103	···	SBbc	Mkn 10
0752+586	0.1680	17.5	−22.9	075704.9+583245	···	···		
0916+555	0.1235	16.11	−23.6	091954.9+552120	···	···		Mkn 106
0936+562	0.1172	16.84	−22.8	093942.8+560247	···	···		
0952+552	0.3170	19.0	−22.6	095613.3+545904	···	···		
1023+554	0.1190	17.5	−22.1	102653.0+550913	···	···		RBS 867
1025+576	0.1900	17.75	−22.8	102915.4+572402	···	···		RBS 872
1046+581	0.0720	17.3	−21.2	104926.6+575407	···	···		RBS 906
1102+591	0.1930	17.5	−23.1	110537.4+585128	···	···		
1116+518	0.1030	16.98	−22.4	111937.7+513313	···	R		RBS 967
1116+583A	0.0268	15.7	−20.3	111858.5+580325	···	···		RBS 963
1122+546B	0.0208	15.97	−19.9	112536.7+542243	···	R		Mkn40
1125+581	0.0510	14.80	−22.8	Non *ROSAT*	F11258+5806	R	SBc	
1136+579	0.1158	16.5	−23.0	113849.7+574245	···	···	N	RBS1009
1147+540B	0.0610	17.0	−20.3	Non *ROSAT*	···	···	S	new
1153+598	0.2400	18.0	−23.1	115559.8+593145	···	···		
1212+558	0.1380	17.0	−22.7	Non *ROSAT*	···	···		
1254+571	0.0422	14.20	−22.8	Non *ROSAT*	12540+5708	R	SApec	Mkn 231
1317+528	0.0920	17.5	−21.3	131957.2+523533	···	R		RBS 1249
1330+608	0.1194	17.0	−22.6	133151.7+603451	···	···	S	
1332+580	0.1240	17.5	−21.9	133434.3+575019	···	···		
1333+550	0.1070	17.52	−22.1	133552.9+544454	···	···		MS
1337+541	0.2950	18.44	−23.1	133912.3+535528	···	R		
1343+537	0.1330	17.0	−23.1	134545.1+533300	···	R		RBS 1310
1343+544	0.2220	17.78	−23.2	Non *ROSAT*	···	···		
1403+546	0.0820	16.8	−20.8	Non *ROSAT*	···	···	Sc	MS
1422+601	0.1348	16.5	−23.0	142425.2+595254	···	R		
1433+500	0.1660	17.51	−22.8	143509.6+494814	···	R		CSO 670
1435+500B	0.1980	18.0	−22.7	143729.3+494805	···	···		
1436+509	0.1710	18.13	−22.2	143829.5+504532	···	···		
1442+517	0.1990	19.06	−21.6	144346.8+513041	···	···		
1449+537	0.4330	19.35	−23.2	145106.4+533357	···	R		
1506+516	0.0460	15.12	−22.2	150744.6+512709	F15061+5138	R	Sab	Mkn 845
1518+593	0.0781	16.10	−22.4	151921.7+590823	F15182+5919	···	Sa:	VIIZw594
1519+508B	0.0563	16.07	−20.7	152108.6+504007	F15195+5050	···		CG 693
1537+606	0.2378:	18.5	−22.6	Non *ROSAT*	···	···		
1624+575	0.0675	16.28	−22.1	162526.8+572730	···	···		
1713+580	0.0920	16.5	−22.6	171410.8+575826	F17133+5802	···		
The sample of SBS NLS1 galaxies. N=31[a]								
0919+515	0.1610	17.33	−23.0	092246.4+512046	···	···		RBS 769
0924+495	0.1145	17.0	−22.4	Non *ROSAT*	···	···		
0929+540	0.0573	17.0	−21.1	093308.2+534754	···	···		
0933+511	0.0553	16.5	−21.5	093642.6+505249	···	···	S	
0945+507	0.0550	16.47	−21.5	094841.6+502926	F09453+5043	R	SBb	Mkn 124
0956+509	0.1432	17.0	−22.8	095932.6+504459	···	···		
1021+561	0.1970	18.02	−22.5	102435.5+555644	···	···		
1022+519	0.0450	15.81	−21.7	102531.2+514039	···	R	S:	Mkn 142
1045+544	0.1040	17.0	−22.4	Non *ROSAT*	···	···		
1055+605	0.1490	17.2	−22.8	105830.1+601602	···	···		RBS 925
1118+541[b]	0.1043	16.41	−22.9	112109.9+535125	···	R		RBS 971

TABLE 9 (CONTINUED)

SBS design	z o	B m_{pg}	M_B M_{pg}	*ROSAT*, *FIR* and *FIRST* radio identifications 1RXSJ	*IRAS*	*FIRST*	Morph.	Other name
1121+606	0.2061	17.73	−23.0	112417.9+602029	···	···		
1136+595	0.1138	17.0	−22.5	Non *ROSAT*	···	···		
1208+550	0.1180	18.0	−19.7	Non *ROSAT*	···	···		
1213+549A[b]	0.1505	16.91	−23.2	121549.3+544227	···	R		
1215+589	0.0210	15.5	−19.4	121754.7+583936	···	···		Mkn 202
1221+585	0.0148	17.5	−16.6	122343.1+581457	···	···		
1258+569	0.0719	17.0	−21.3	130052.9+564101	···	···		
1303+509	0.0550	17.5	−20.4	130546.4+504036	···	···		RBS 1214
1353+564	0.1223	17.0	−22.4	135515.9+561244	···	R		
1359+536	0.1750	18.5	−21.8	140048.5+532423	···	···		
1404+582	0.1250	17.5	−22.1	140606.1+580045	···	···		
1406+540	0.1730	18.5	−21.9	140800.2+534815	···	···		
1412+538	0.1640	17.5	−22.6	141419.2+533803	···	···		
1415+566	0.1500	17.09	−22.8	141700.1+562601	···	···		RBS 1362
1435+550	0.2520	18.22	−22.9	Non *ROSAT*	···	···		CBS 278
1509+522	0.2100	17.65	−23.2	Non *ROSAT*	···	···		
1535+547[b]	0.0397	15.21	−21.7	Non *ROSAT*	···	R	SBb	Mkn 486
1536+498	0.2800	18.3	−23.0	153732.5+494249	···	R		
1538+508	0.2020	17.5	−23.2	153941.8+504259	···	···		RBS 1521
1656+578	0.1980	18.5	−22.2	165656.5+574541	···	···		
The sample of SBS Sy1.5 galaxies. N=25								
0921+525	0.0353	15.63	−21.4	092512.3+521716	···	R		Mkn 110
1127+498	0.0959	16.43	−22.6	113030.1+493520	F11277+4951	R		Mkn1447
1136+594	0.0601	16.26	−21.8	113908.7+591206	···	···		RBS 1011
1142+507	0.2510	18.06	−23.2	Non *ROSAT*	···	R		
1142+592A	0.1540	18.0	−22.2	Non *ROSAT*	···	···		
1158+595	0.1120	18.0	−21.6	Non *ROSAT*	···	···		
1213+511	0.0311	15.41	−21.3	121607.4+504926	···	R	SBb:	Mkn1469
1217+560	0.1076	18.5	−20.6	Non *ROSAT*	···	R		
1220+544	0.1564	17.46	−22.7	122313.3+540906	···	R		4C+54.27
1229+506	0.2630	18.2	−23.2	123126.7+502214	···	···		
1233+586	0.2110	18.0	−22.7	123557.7+582125	···	···		
1301+540	0.0310	17.0	−19.7	130358.7+534745	···	R		
1318+605A	0.0993	16.41	−22.5	132042.4+601526	···	···		RBS 1252
1324+604	0.0980	17.5	−21.7	132602.2+601206	···	···		
1342+600B	0.0990	17.5	−21.7	134436.7+594718	···	···		
1434+590	0.0315	14.08	−22.4	143622.2+584750	F14349+5900	R	SBc	Mkn 817
1439+510	0.1174	17.0	−21.9	Non *ROSAT*	···	···		CG 510
1527+564	0.0990	16.63	−22.6	152907.5+561604	F15279+5626	R		RBS 1503
1534+580	0.0296	15.35	−21.3	153552.0+575404	F15347+5802	R	E1	Mkn 290
1537+577	0.0745	15.85	−22.1	Non *ROSAT*	F15369+5745	···	Sc	
1610+589	0.0321	15.68	−21.2	161124.8+585106	F16104+5858	R		RBS 1565
1624+514	0.1780	19.0	−21.2	162612.7+512028	···	R		
1659+520	0.0480	17.0	−20.7	RXJ170026.6+515908	···	···		
1659+564	0.1280	17.5	−22.4	170034.2+561947	···	···		
1701+610	0.1640	18.84	−21.5	170208.6+605849	···	···		MS
The sample of SBS Sy1.8 galaxies. N=8								
0818+544	0.0860	17.54	−21.3	MS0818.8+5428	F08187+5428	R		
1204+505B	0.0620	17.0	−21.2	Non *ROSAT*	···	···		
1315+604	0.1372	17.5	−22.4	131750.4+601047	···	R		
1320+551	0.0652	15.56	−22.8	132248.5+545526	···	R		RBS 1256
1340+569	0.0401	16.98	−20.3	134210.9+564219	···	···		
1438+496	0.1060	17.3	−22.4	143956.5+492754	···	···		

TABLE 9 (CONTINUED)

SBS design	z o	B m_{pg}	M_B M_{pg}	*ROSAT*, *FIR* and *FIRST* radio identifications 1RXSJ	*IRAS*	*FIRST*	Morph.	Other name
1524+604	0.0789	17.27	−21.1	Non *ROSAT*	⋯	R		VIIZw603
1549+595B	0.0790	17.5	−21.2	155045.5+592400	⋯	R		
The sample of SBS Sy1.9 galaxies. N=9								
0748+499	0.0246	15.82	−20.3	075151.6+494854	F07480+4956	R	SO	
0753+560	0.0457	16.5	−21.0	Non *ROSAT*	⋯	R		
1047+598	0.0856	17.48	−21.2	105057.1+593223	⋯	R		
1252+570	0.1240	17.5	−22.2	RXJ125451.3+564425	⋯	⋯		
1304+568	0.0800	16.5	−22.4	Non *ROSAT*	F13049+5647	R		
1353+586	0.0610	18.0	−19.3	Non *ROSAT*	⋯	⋯		
1428+529	0.0429	15.96	−21.3	Non *ROSAT*	F14288+5255	R		
1620+545	0.0516	15.88	−21.9	162145.2+542724	⋯	R		
1626+518	0.0547	16.5	−21.4	Non *ROSAT*	F16268+5152	R		Mkn1498
The sample of SBS Sy2 galaxies. N=44								
0755+509	0.0546	16.75	−21.2	⋯	F07559+5058	R		
0807+581	0.0279	15.93	−20.6	⋯	F08077+5806	R		
0808+580B	0.0273	15.63	−20.8	⋯	F08088+5804	R	SO:	
0808+587	0.0272	15.81	−20.6	⋯	F08082+5842	R	E:	VIIZw217
0909+570	0.0413	16.5	−20.0	⋯	⋯	⋯		
0950+541	0.0458	16.5	−20.1	⋯	F09500+5409	⋯		
0951+504	0.0529	17.5	−19.5	⋯	⋯	R		
0957+517	0.0967	18.0	−20.3	⋯	⋯	⋯	S	
1003+583B	0.0818	17.66	−21.1	⋯	⋯	R		
1012+492	0.0503	15.4	−21.5	⋯	⋯	⋯	S	
1016+592	0.0422	16.40	−20.8	⋯	⋯	R		
1025+493	0.0430	15.3	−22.0	⋯	F10256+4919	R		
1030+602	0.0505	15.36	−22.3	⋯	F10308+6017	R	S	Mkn 34
1037+498	0.0447	15.7	−21.6	⋯	F10369+4949	R		
1038+580	0.0676	16.42	−21.8	⋯	F10381+5800	R		
1103+506	0.0398	16.5	−19.8	⋯	F11034+5039	R		
1119+610A	0.1111	17.5	−21.9	⋯	⋯	⋯		
1129+532	0.0274	15.84	−20.7	⋯	F11299+5313	R	SA	Mkn 176
1133+572	0.0510	15.79	−21.9	⋯	F11330+5713	R		
1144+527B	0.0489	15.7	−22.0	⋯	F11447+5243	R		Mkn1457
1150+583	0.0655	17.5	−20.8	⋯	⋯	R		
1205+556	0.0517	17.08	−20.8	⋯	⋯	⋯		
1216+516	0.0489	16.5	−21.1	⋯	F12161+5141	⋯		
1218+551B	0.0364	16.5	−19.6	⋯	⋯	R	S	
1224+561A	0.0517	17.5	−19.4	⋯	F12240+5606	R	S	
1258+548B	0.1085	18.0	−20.5	⋯	⋯	⋯	S:	
1300+520B	0.0547	15.6	−22.2	⋯	⋯	⋯	SABc	
1317+548	0.0332	15.16	−21.5	⋯	⋯	⋯		
1327+559A	0.0429	17.0	−19.5	⋯	F13275+5558	⋯		
1329+594	0.0426	15.1	−21.4	⋯	⋯	R		
1339+559	0.0252	13.6	−22.4	⋯	F13397+5555	R	SAb:	Mkn 271
1342+561	0.0380	15.68	−21.2	⋯	F13428+5608	R		Mkn 273
1344+527	0.0297	16.24	−20.4	⋯	⋯	R		
1426+573	0.0428	15.27	−22.1	⋯	F14267+5723	R		
1439+537	0.0380	15.33	−21.5	⋯	F14390+5343	R		Mkn 477
1447+519	0.0370	16.5	−19.7	⋯	⋯	⋯		CG 550
1448+526A	0.0951	17.5	−21.0	⋯	⋯	⋯		
1515+579	0.0580	18.0	−19.8	⋯	⋯	R		
1517+522	0.1391	17.5	−22.5	⋯	F15176+5216	R		
1524+545	0.0405	15.5	−21.8	⋯	F15245+5432	R		CG 714

TABLE 9 (CONTINUED)

SBS design	z o	B m_{pg}	M_B M_{pg}	*ROSAT*, *FIR* and *FIRST* radio identifications 1RXSJ	*IRAS*	*FIRST*	Morph.	Other name
1609+490	0.0452	16.34	−21.0	···	···	R		HS
1616+503	0.0418	16.30	−21.1	···	F16162+5021	R		
1646+536	0.0282	15.72	−20.7	···	F16460+5338	···		
1651+559	0.0294	15.53	−21.1	···	F16513+5559	R	Sab	

[a]in Stepanian et al. (2003) the sample consists of 26 objects. High resolution and high $S/N(>30)$ spectra show that two objects SBS 1315+604 and SBS 1340+569 have very broad low contrast components of permitted $H\alpha$ and $H\beta$ and are reclassified as Sy1.8.
[b]Pair.

TABLE 10

THE SBS SY GALAXIES IDENTIFIED WITH *ROSAT*, *IRAS* AND *FIRST* SOURCES

Sy type	Total	SBS Sy galaxy identifications X-ray	*IRAS*	*FIRST*	Limiting redshift	mag.
NLS1	31	25	1	7	0.280	18.5
BLS1	38	31	7	11	0.433	19.5
Sy1.5	25	19	6	12	0.263	19.0
Sy1.8	8	6	1	5	0.137	17.6
Sy1.9	9	4	4	7	0.124	17.5
Sy2	44	···	25	30	0.139	18.0

after the decimal point), and (b) the original eye-estimated photographic magnitudes with an accuracy of about ±0.5 mag (one digit after the decimal point). Column 7, $B-V$ magnitudes. Column 8, spectral type; the abbreviations mean: QSO (quasi-stellar object); BALQSO (Broad Absorbtion-line QSO); DLAQSO (Damped Lyα QSO); NLQSO (Narrow-line QSO); BLLac (Lacertides); DA, DA1, DA2, DAF, DAO, DB, DBA, DC – different type of white dwarfs; sd, sdB, sdO, sdOA, sdOC, sdB-O – different types of subdwarfs; G, F–G, and F main sequence stars; NHB, HBB – different types of horizontal branch stars; DA+dMe, sdOA+K, DB+dM, etc., – Composite, binary stars; Continual (Cont.) – continuum only objects; CV – cataclysmic variables; PN – planetary nebula; Unclassified (Unclas.) – inconclusive spectra. Columns 9, 10 – data of spectroscopic observations and spectral range; the data of the first spectroscopic observations are given. Column 11 – instruments; BTA (Big Azimuthal Telescope, 6 m telescope of Special Astrophysical observatory, Russia), MMT (4.5 m Multi-Mirror telescope, USA), ZTA (2.6 m telescope of Byurakan observatory), GHO (2.1 m Guillermo Haro telescope of Cananea, México). Column 12 – The name of objects which were identified as X-ray sources, 1RXSJ (Voges et al. 2000), RXJ or 1WGAJ. Column 13 – the objects identified with FIRST (Becker et al. 1995) radio sources are labelled with symbol "R". Column 14 – other names of objects; the abbreviations mean: Mkn (Markarian objects); PG (Palomar-Green); F (Feige); G, GD, GR (Greenstein 1984); EG (Eggen, Greenstein); OJ, OM, OK, OL, OS (Ohio radio sources); 3C, 4C, 5C, 6C (Camridge radio sources); LP, LB (Luyten, 1955–1969); PHL (Haro & Luyten 1962); Haro (Haro 1956); NGC (New General Catalogue); 1RXSJ, RXJ (*ROSAT* sources); CBS (Case Blue Star); CSO (Case Stellar Object); HS (Hamburg objects); MS (Einstein Observatory X-ray source). Column 15 – the references.

6.1. *The Catalogue of SBS QSOs and BLLac Type Objects*

The Catalogue of 596 SBS QSOs is presented in Table 12. The columns list the following: Column 1 – SBS designation. Column 2 – B magnitudes (with two decimals, the accuracy of measurement is ±0.05 mag for bright $B \leq 17.5$ objects and ±0.1 for fainter objects) or m_{pg} magnitudes, with an accuracy of ±0.5 mag. Column 3 – the emission line redshift. Columns 4 to 7 – the observed equivalent

TABLE 11

THE CATALOGUE OF SBS STELLAR OBJECTS. N=1700

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0743+605	07 43 14.00	+60 32 57.3	07 47 33.50	+60 25 32.5	19.0		DAF	27.12.84	3500–5700	BTA				[16]
0743+601	07 43 57.31	+60 06 35.2	07 48 14.78	+59 59 07.6	17.0		G	04.01.84	3600–5700	BTA				[16]
0744+603	07 44 15.56	+60 19 18.3	07 48 33.86	+60 11 49.5	17.5		G	04.01.84	3600–5700	BTA				[16]
0745+601B	07 45 50.52	+60 10 00.8	07 50 07.80	+60 02 25.9	18.0		DAF	11.11.85	3700–5400	BTA				[16]
0746+600	07 46 33.83	+60 03 06.4	07 50 50.46	+59 55 28.7	19.0									
0746+587	07 46 50.45	+58 43 42.6	07 51 01.75	+58 36 04.0	18.0		DAF	27.12.84	3500–5700	BTA				[16]
0747+553	07 47 22.93	+55 19 36.8	07 51 22.25	+55 11 56.5	17.84	−0.47	QSO	16.11.90	3300–6700	BTA	075122.1+551156	R		[3,21,33]
0748+610	07 48 01.90	+61 05 36.0	07 52 22.63	+60 57 52.5	17.26	−0.02	QSO	10.04.81	3600–7500	BTA				[3,15,16,33]
0749+540	07 49 06.46	+54 00 46.5	07 53 01.41	+53 52 59.6	18.5		BLLac				RXJ0753.0+5352	R	4C+54.15	
0749+590	07 49 10.34	+59 02 27.5	07 53 22.32	+58 54 39.8	16.0		DA	07.02.83	3600–5700	BTA				
0749+583	07 49 35.34	+58 22 50.6	07 53 44.72	+58 15 01.4	17.5		G	02.11.91	3300–6800	BTA			Mkn 381	
0750+581	07 50 24.97	+58 06 17.8	07 54 33.15	+57 58 25.4	17.5		DAF	14.01.93	3500–6800	BTA				
0751+591	07 51 08.65	+59 11 19.8	07 55 20.75	+59 03 24.5	18.0		G	27.12.84	3500–5700	BTA				[16]
0751+600	07 51 15.48	+60 04 34.4	07 55 31.10	+59 56 38.6	18.0		F	04.01.84	3500–5200	BTA				[16]
0751+578	07 51 54.87	+57 50 18.2	07 56 01.75	+57 42 20.1	15.16	+0.08	DC5	22.02.87	3500–5700	BTA			GD96	
0753+610A	07 53 08.89	+61 02 17.6	07 57 28.09	+60 54 14.4	17.5		G	25 11 81	3500–5700	BTA				
0753+590	07 53 53.40	+59 03 40.7	07 58 04.37	+58 55 34.9	17.0		G	04.01.84	3600–5200	BTA				[16]
0754+606	07 54 01.24	+60 37 04.6	07 58 18.43	+60 28 58.1	19.0		QSO	11.03.86	3300–7000	BTA				[21]
0755+600	07 55 11.93	+60 02 02.6	07 59 26.41	+59 53 51.7	17.5		CV	25.11.81	3500–5700	BTA				
0755+515	07 55 46.58	+51 34 48.7	07 59 33.51	+51 26 36.5	17.0		NHB	25.02.92	3300–7000	BTA				
0756+508	07 56 18.91	+50 50 40.7	08 00 03.85	+50 42 26.5	17.0		G	13.04.96	4000–7000	GHO				
0756+581	07 56 32.40	+58 10 50.2	08 00 39.46	+58 02 34.4	16.5		sdB	07.02.83	3500–5700	BTA				
0756+566	07 56 32.74	+56 41 51.2	08 00 34.64	+56 33 35.6	17.0		DA	16.11.90	3300–6800	BTA				
0757+603	07 57 06.10	+60 23 23.7	08 01 21.56	+60 15 05.5	19.0		QSO	26.12.84	3500–5700	BTA		R		[13,18]
0758+517	07 58 39.77	+51 42 25.1	08 02 26.50	+51 34 02.0	17.5		QSO	16.12.86	3500–5700	BTA			HS0758+5142	
0759+603	07 59 14.76	+60 19 55.1	08 03 29.43	+60 11 28.8	18.0		Unclas	25.11.81	3500–5700	BTA				
0759+608	07 59 20.79	+60 53 54.1	08 03 37.78	+60 45 27.4	18.0		DA:	25.11.81	3400–5100	BTA				
0759+610	07 59 21.51	+61 02 12.0	08 03 39.09	+60 53 45.2	18.0		sdB	25.11.81	3500–5700	BTA				
0759+567	07 59 36.51	+56 44 20.2	08 03 37.86	+56 35 53.0	16.5		G	14.11.95	3500–7000	BTA				
0759+602	07 59 56.08	+60 17 40.1	08 04 10.42	+60 09 11.3	18.0		DA	26.12.84	3500–5200	BTA				[16]
0800+608	08 00 08.60	+60 48 37.5	08 04 25.01	+60 40 07.8	18.5		QSO				RXJ0804.4+6040	R	OJ+601	
0800+591	08 00 30.70	+59 11 07.0	08 04 40.53	+59 02 36.1	18.0		Unclas	11.01.92	3300–7000	BTA				
0800+491	08 00 41.15	+49 09 08.6	08 04 21.21	+49 00 38.0	11.0		NHB	06.11.91	3300–7000	BTA				
0801+537	08 01 29.66	+53 43 33.9	08 05 21.34	+53 34 59.9	17.0		F	16.11.90	3300–6800	BTA				
0801+581	08 01 35.73	+58 11 35.2	08 05 41.63	+58 03 00.4	17.22	+0.04	QSO	08.11.85	3700–5200	BTA				[2,12,16,23]
0801+601	08 01 44.66	+60 11 59.6	08 05 58.14	+60 03 24.0	18.5		G	26.12.84	3500–5200	BTA				[16]
0802+596	08 02 14.72	+59 39 44.4	08 06 25.94	+59 31 06.9	17.5		BLLac				080625.5+593105	R		
0803+510	08 03 16.13	+51 03 57.9	08 07 00.36	+50 55 17.5	16.0		sdO	09.04.91	3300–6800	BTA				
0803+591	08 03 51.17	+59 09 18.0	08 08 00.04	+59 00 34.6	18.0		sdOC	08.02.97	3800–7200	BTA				
0804+590	08 04 11.37	+59 01 07.5	08 08 19.64	+58 52 22.9	18.5		sdB	25.11.81	3400–7500	BTA				

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0804+563	08 04 56.53	+56 23 48.6	08 08 55.54	+56 15 01.5	16.5		Em*	14.11.95	3500–7000	BTA				
0804+499	08 04 59.00	+49 59 24.6	08 08 40.27	+49 50 37.9	18.49	+0.22	QSO					R	OJ+508	
0805+578	08 05 58.68	+57 52 36.3	08 10 02.40	+57 43 45.2	19.0		QSO					R	4C+57.15	
0806+505	08 06 20.26	+50 34 30.2	08 10 02.69	+50 25 38.4	17.01	+0.01	QSO	07.11.91	3300–6900	BTA	RXJ0809.9+5025	R		[23]
0806+516	08 06 22.59	+51 38 47.5	08 10 07.69	+51 29 55.5	15.02	−0.19	sdB						PG	[21]
0806+573	08 06 58.82	+57 23 07.4	08 11 00.61	+57 14 12.6	17.44	+0.29	QSO	29.04.00	4000–9000	GHO	081100.8+571415	R		
0807+521	08 07 50.51	+52 06 30.3	08 11 36.51	+51 57 32.8	17.5		DA	15.02.94	3400–6900	BTA				
0808+595	08 08 03.84	+59 32 47.3	08 12 13.09	+59 23 48.3	16.0		DA2	07.02.83	3500–5700	BTA			PG	
0809+531	08 09 31.34	+53 06 11.3	08 13 19.63	+52 57 07.6	14.5		sdB	03.02.89	3500–5700	ZTA				
0809+566	08 09 41.39	+56 36 14.1	08 13 39.95	+56 27 09.5	14.0		DA	04.02.89	3500–5700	BTA				
0809+593	08 09 53.82	+59 22 08.3	08 14 01.91	+59 13 02.6	17.5		DA	25.11.81	3400–6900	BTA				
0810+524	08 10 19.80	+52 26 22.1	08 14 06.15	+52 17 15.5	17.5		DA	09.04.91	3300–7000	BTA				
0810+519	08 10 37.00	+51 57 47.0	08 14 22.18	+51 48 39.3	17.69	+0.35	QSO	14.02.96	4000–7000	BTA			HS0810+5157	
0811+582A	08 11 10.23	+58 12 43.3	08 15 13.80	+58 03 33.1	18.0		Cont	25.11.81	3500–5700	BTA				
0811+542	08 11 28.02	+54 17 42.2	08 15 19.19	+54 08 31.3	17.0		DA	28.11.95	3500–7000	BTA				
0811+513	08 11 31.10	+51 22 25.6	08 15 14.49	+51 13 14.7	17.5		Cont	09.04.91	3300–7000	BTA				
0811+595	08 11 38.36	+59 31 02.7	08 15 46.53	+59 21 50.6	18.0									
0811+582B	08 11 43.45	+58 12 47.9	08 15 46.88	+58 03 35.7	18.0		Unclas	08.02.97	3800–7200	BTA				
0812+578	08 12 20.86	+57 48 23.7	08 16 22.73	+57 39 09.2	18.0		BLLac				081624.6+573910	R		
0813+607	08 13 03.10	+60 42 30.4	08 17 15.50	+60 33 13.1	17.0		G	15.12.87	3400–6900	BTA				
0814+582	08 14 01.46	+58 15 17.8	08 18 04.43	+58 05 57.2	18.0		Unclas	14.04.96	4000–7000	BTA				
0814+569	08 14 28.23	+56 54 28.4	08 18 26.59	+56 45 06.3	16.13		DA	05.02.89	3500–7000	ZTA			PG	[6]
0816+598	08 16 07.35	+59 51 56.6	08 20 15.58	+59 42 28.3	16.56	+0.25	QSO	07.11.91	3300–6900	BTA		R		[21,23]
0816+505	08 16 56.77	+50 33 30.2	08 20 37.09	+50 23 59.7	17.5		NHB	08.11.91	3300–6900	BTA				
0817+573	08 17 47.26	+57 21 59.9	08 21 46.26	+57 12 25.9	17.46	+0.38	QSO	07.11.91	3300–6900	BTA				[21,23]
0817+602	08 17 50.30	+60 12 54.9	08 21 59.37	+60 03 20.4	17.70	+0.22	QSO	06.03.92	3400–7100	BTA				[21,23]
0818+506	08 18 13.40	+50 40 54.9	08 21 53.75	+50 31 19.9	17.50	−0.01	QSO	07.11.91	3300–6900	BTA		R		[21,23]
0818+608	08 18 17.17	+60 48 23.1	08 22 28.42	+60 38 46.9	17.0		sdB	16.03.94	3400–6900	BTA				
0818+498	08 18 42.08	+49 52 23.2	08 22 20.45	+49 42 46.5	17.5		DA:	08.11.91	3200–6900	BTA				
0818+512	08 18 54.46	+51 15 02.3	08 22 36.03	+51 05 24.8	15.73	+0.15	CV	05.02.89	3500–5700	ZTA			PG	[6]
0818+579	08 18 56.72	+57 59 49.1	08 22 57.50	+57 50 10.9	17.5		sd	22.03.93	3300–7000	MMT				
0820+560	08 20 53.19	+56 02 27.7	08 24 47.23	+55 52 42.7	18.0		QSO				RXJ0824.7+5552	R	OJ+535	
0821+602	08 21 00.35	+60 13 44.1	08 25 08.54	+60 03 58.3	16.5		DA	09.04.91	3300–6900	BTA				
0822+552	08 22 41.31	+55 15 45.6	08 26 32.60	+55 05 54.4	16.5		G	22.02.87	3400–6900	BTA				
0822+546	08 22 59.97	+54 37 54.0	08 26 49.40	+54 28 01.7	13.25		sdOC	12.11.88	3600–6800	ZTA			PG	[6]
0823+499	08 23 59.43	+49 55 28.2	08 27 36.85	+49 45 32.8	12.19	−0.18	sdOA						PG	[6]
0825+591	08 25 54.46	+59 06 51.7	08 29 57.12	+58 56 48.8	17.5		DA	09.10.88	3600–7000	BTA				
0825+568	08 25 54.68	+56 51 17.2	08 29 49.90	+56 41 14.5	17.0		sdO:	09.04.91	3400–6900	BTA				
0826+569	08 26 39.84	+56 55 08.0	08 30 35.05	+56 45 02.7	17.0		DB	07.11.91	3600–6800	BTA				
0827+584	08 27 55.08	+58 27 13.5	08 31 54.89	+58 17 03.7	18.5		Unclas	09.10.88	3600–7000	BTA				

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0828+490	08 28 57.53	+49 02 13.8	08 32 31.98	+48 52 01.1	17.0		sdB	08.11.91	3300–6900	BTA				
0829+551	08 29 35.44	+55 06 50.8	08 33 24.57	+54 56 35.5	13.5		DA	05.02.89	3500–5700	ZTA				
0829+559	08 29 42.74	+55 57 46.9	08 33 34.26	+55 47 31.1	16.5		DB:	08.11.91	3400–6900	BTA				
0830+537	08 30 35.96	+53 46 34.3	08 34 21.22	+53 36 15.6	16.5		DA	29.03.87	3500–5700	BTA				
0831+557	08 31 04.37	+55 44 41.6	08 34 54.90	+55 34 21.1	18.0		QSO				083454.3+553417	R	4C+55.16	
0832+606	08 32 15.53	+60 38 17.0	08 36 21.77	+60 27 52.1	18.0		QSO	07.11.91	3200–6900	BTA				[21]
0832+608	08 32 17.40	+60 52 45.4	08 36 24.55	+60 42 20.3	18.0									
0832+536	08 32 58.55	+53 39 02.3	08 36 42.90	+53 28 35.5	16.0		CV	30.12.86	3500–5700	BTA	083641.7+532844		SW UMa	
0833+585	08 33 23.63	+58 35 30.3	08 37 22.29	+58 25 01.7	18.0		QSO	06.11.91	3300–6900	BTA	RXJ0837.3+5824	R		
0833+491	08 33 34.18	+49 07 27.7	08 37 07.86	+48 56 59.2	15.5		DAF	06.11.91	3300–6900	BTA				
0834+500	08 34 01.71	+50 02 59.2	08 37 37.28	+49 52 29.1	15.46	−0.36	DA1	12.11.88	3600–6800	ZTA			PG	[6]
0834+576	08 34 34.81	+57 37 22.1	08 38 30.00	+57 26 49.6	16.5		DA+G	09.04.91	3300–6900	BTA				
0835+580	08 35 10.08	+58 04 51.9	08 39 06.55	+57 54 17.3	18.11	+0.48	QSO					R	3C 205	
0836+533	08 36 40.48	+53 21 33.1	08 40 23.17	+53 10 53.8	15.5		DA	04.02.89	3500–5700	BTA				
0838+563	08 38 46.24	+56 18 07.0	08 42 36.27	+56 07 20.5	16.0		sdB	04.02.89	3500–5700	BTA				
0839+541	08 39 29.41	+54 08 07.2	08 43 13.35	+53 57 18.5	16.96	+0.07	QSO	08.04.91	3300–6900	BTA	084312.7+535718			[23]
0841+603	08 41 49.10	+60 20 10.7	08 45 51.09	+60 09 13.7	15.91		DA2						PG	[6]
0841+565	08 41 55.42	+56 33 14.0	08 45 45.27	+56 22 17.0	17.0		Cont	08.11.91	3400–6900	BTA				
0842+572	08 42 10.83	+57 14 28.5	08 46 02.62	+57 03 30.6	17.0		DA	09.04.91	3400–7000	BTA				
0842+584	08 42 28.75	+58 27 53.7	08 46 24.22	+58 16 54.7	18.0		QSO	16.02.94	3400–6900	BTA				
0843+516	08 43 25.44	+51 39 59.1	08 47 02.43	+51 28 57.5	15.90		DA3	05.02.89	3500–7000	ZTA			PG	[6]
0846+557	08 46 04.57	+55 46 25.8	08 49 51.05	+55 35 15.3	16.25	−0.17	DA1						PG	[6]
0846+596	08 46 12.00	+59 42 29.0	08 50 10.35	+59 31 17.7	16.83	+0.59	QSO	14.02.96	4000–7000	BTA		R	HS0846+5942	
0846+513	08 46 22.63	+51 19 40.1	08 49 58.15	+51 08 28.9	19.5		QSO					R		[25]
0846+604	08 46 52.25	+60 29 42.1	08 50 53.09	+60 18 28.6	18.0		Unclas	10.11.91	3300–7000	BTA				
0849+580	08 49 52.35	+58 00 04.4	08 53 44.06	+57 48 41.5	16.32		CV				085343.5+574846		BZ UMa, PG	
0850+581	08 50 50.15	+58 08 55.5	08 54 42.00	+57 57 29.5	18.0		QSO	10.11.91	3300–6800	BTA	RXJ0854.6+5757	R	4C+58.17	
0851+586	08 51 13.56	+58 36 59.7	08 55 06.72	+58 25 32.5	17.5		G	10.11.91	3400–6900	BTA				
0851+600	08 51 31.42	+60 05 08.4	08 55 29.23	+59 53 40.1	18.0									
0852+601	08 52 35.32	+60 09 18.2	08 56 33.00	+59 57 46.5	17.02	+0.23	QSO	05.04.93	3200–6900	MMT		R		[21,23]
0852+602	08 52 57.86	+60 17 36.0	08 56 55.87	+60 06 03.1	16.35	−0.12	DA2	12.11.88	3600–6800	ZTA			PG	[6]
0853+506	08 53 02.09	+50 39 21.2	08 56 34.54	+50 27 48.8	17.0		sd:	07.11.91	3500–6800	BTA				
0855+604A	08 55 39.89	+60 28 18.5	08 59 37.55	+60 16 37.2	16.59	+0.21	DCE	08.01.92	3300–6900	BTA			LP90–170	
0855+604B	08 55 45.92	+60 28 39.8	08 59 43.56	+60 16 58.1	16.8		DBQ	07.11.91	3300–6800	BTA			LP90–071	
0856+508	08 56 12.01	+50 52 33.2	08 59 44.13	+50 40 50.8	17.0		sd	07.11.91	3300–6900	BTA				
0859+593	08 59 10.30	+59 23 10.3	09 03 03.17	+59 11 18.2	15.87		HBB						PG	[6]
0900+554	09 00 04.76	+55 28 42.5	09 03 46.34	+55 16 47.9	13.83		DA3	05.02.89	3500–7000	ZTA			PG	[6]
0901+597	09 01 05.86	+59 47 17.9	09 04 59.32	+59 35 19.9	16.39		DA						PG	[6]
0902+561	09 02 25.56	+56 09 31.1	09 06 08.16	+55 57 29.3	15.5		DA	05.02.89	3500–5700	BTA				
0904+511	09 04 17.18	+51 09 58.0	09 07 47.82	+50 57 50.9	16.13		DA2				EUVEJ0907+509		PG	[6]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0904+566	09 04 39.77	+56 37 32.5	09 08 22.88	+56 25 24.0	17.0		G	07.11.91	3300–6900	BTA				
0905+498	09 05 19.56	+49 52 17.0	09 08 47.39	+49 40 06.8	17.20	+0.34	QSO	22.03.93	3300–6900	BTA	090847.8+493950			[3]
0905+605	09 05 47.77	+60 31 39.9	09 09 41.89	+60 19 27.7	17.0		DA	07.02.80	3600–5200	BTA			Mkn 393	
0905+549	09 05 51.52	+54 58 07.6	09 09 30.10	+54 45 55.6	16.5		sdB	08.02.89	3600–5700	BTA				
0906+532	09 06 06.09	+53 16 25.1	09 09 40.70	+53 04 12.5	15.0		sdB	25.02.88	3600–5700	BTA				
0906+597	09 06 30.07	+59 42 48.4	09 10 21.35	+59 30 34.2	15.17		sdB	12.11.88	3600–6800	ZTA			PG	[6]
0906+546	09 06 34.45	+54 39 34.1	09 10 12.20	+54 27 20.0	17.54	−0.32	QSO				091029.1+542723	R	4C+54.18	[23]
0906+552	09 06 57.66	+55 17 41.3	09 10 36.69	+55 05 26.0	15.5		DA	05.02.89	3600–5700	BTA				
0909+531	09 09 27.52	+53 11 51.0	09 13 01.00	+52 59 28.5	16.43	+0.46	QSO	25.02.88	3520–6980	BTA	091302.0+525942	R	Gr.lens	[3,19,23]
0910+586	09 10 39.17	+58 37 45.3	09 14 25.70	+58 25 18.9	17.89	+0.37	QSO	22.03.93	3300–6900	MMT				[3,21,23]
0910+584	09 10 47.66	+58 25 04.9	09 14 33.58	+58 12 38.1	17.0		sdOB	07.11.91	3300–6800	BTA				
0910+507	09 10 49.10	+50 46 54.6	09 14 17.21	+50 34 28.3	17.05	+0.35	NLQSO	10.11.91	3400–7100	BTA	091416.4+503408			[19,23]
0910+563	09 10 56.61	+56 23 23.3	09 14 37.09	+56 10 56.2	16.0		G	22.03.93	3500–5700	MMT				
0911+527	09 11 36.43	+52 44 22.9	09 15 08.32	+52 31 54.1	17.0		DA	10.11.91	3400–7100	BTA				
0912+536	09 12 28.08	+53 38 45.8	09 16 01.66	+53 26 14.5	14.09	+0.30	DC						PG	[6]
0913+604	09 13 27.42	+60 26 43.5	09 17 18.36	+60 14 08.9	18.0		Unclas	10.11.91	3300–6900	BTA				
0913+545	09 13 31.49	+54 30 50.8	09 17 06.68	+54 18 16.4	11.0		HBB	25.05.88	3500–5700	BTA				
0914+546	09 14 59.12	+54 40 59.1	09 18 34.24	+54 28 20.5	13.0		DAB	22.02.87	3500–5700	BTA				
0915+526	09 15 24.47	+52 37 33.2	09 18 55.03	+52 24 53.5	15.64		DA4	12.11.88	3600–6800	ZTA			PG	[6]
0916+595	09 16 17.26	+59 30 14.9	09 20 04.29	+59 17 32.3	17.97	+0.32	QSO	14.11.79	3600–5200	BTA		R		[2,19]
0916+513	09 16 29.83	+51 18 53.2	09 19 57.48	+51 06 10.5	16.33	+0.10	QSO	07.11.91	3300–6900	BTA			NGC 2841	
0917+578	09 17 03.82	+57 51 27.8	09 20 46.00	+57 38 43.1	18.66	+0.71	QSO	24.11.87	3400–6810	BTA				[3,19]
0917+543	09 17 34.00	+54 22 39.4	09 21 07.64	+54 09 53.5	17.0		HBB	22.03.93	3500–5700	MMT				
0919+529	09 19 22.29	+52 57 43.8	09 22 52.38	+52 44 52.9	16.0		DA	05.03.92	3400–7000	BTA				
0919+582	09 19 41.27	+58 15 48.2	09 23 23.59	+58 02 56.2	18.0		QSO							
0919+579	09 19 50.75	+57 58 50.2	09 23 32.27	+57 45 57.7	17.03	+0.45	QSO	29.03.87	3300–6800	BTA		R		[2,8,19]
0920+590	09 20 14.47	+59 01 59.7	09 23 58.68	+58 49 06.1	16.88	+0.01	QSO	22.03.93	3400–7100	MMT				[3,21,23]
0920+597	09 20 18.66	+59 44 22.0	09 24 04.84	+59 31 28.1	17.5		DA	15.11.79	3600–5700	BTA				
0920+544	09 20 27.88	+54 27 28.1	09 24 00.79	+54 14 34.1	16.5		F:	08.11.91	3300–6900	BTA				
0920+595	09 20 44.50	+59 33 52.7	09 24 30.02	+59 20 57.6	18.0									
0921+587	09 21 20.74	+58 42 55.9	09 25 03.67	+58 29 59.2	18.40	+0.35	QSO	22.03.93	3300–6900	MMT				[2,21,23]
0921+547	09 21 21.31	+54 47 19.7	09 24 54.66	+54 34 23.2	16.5		DA	08.11.91	3300–6900	BTA				
0921+549	09 21 40.72	+54 57 23.8	09 25 14.34	+54 44 26.4	16.37	+0.13	QSO	22.03.93	3200–6900	MMT				[3,21,23]
0921+582	09 21 42.76	+58 16 50.2	09 25 24.39	+58 03 52.6	18.0		QSO							
0923+526	09 23 35.09	+52 36 17.5	09 27 03.22	+52 23 15.2	17.5		QSO				1RXSJ			[25]
0924+606B	09 24 50.93	+60 38 27.1	09 28 37.97	+60 25 20.8	16.98	+0.26	QSO	29.03.87	3300–6800	BTA	RXJ0928.5+6025	R		[2,3,10,18]
0924+565	09 24 54.41	+56 31 16.7	09 28 30.53	+56 18 10.4	16.05		sd	05.02.89	3500–5700	ZTA			PG	[6]
0926+498	09 26 27.73	+49 49 24.2	09 29 49.95	+49 36 14.1	17.0		DB	05.03.92	3300–7000	BTA				[22]
0926+526	09 26 39.40	+52 41 14.8	09 30 06.77	+52 28 04.0	16.09		sdB	12.11.88	3600–6800	ZTA			PG	[6]
0926+581	09 26 59.77	+58 09 46.1	09 30 39.16	+57 56 34.1	17.5		G	08.01.92	3300–7000	BTA				[22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0927+540A	09 27 04.69	+54 04 09.1	09 30 34.69	+53 50 57.1	17.5		F	27.03.87	3300–6900	BTA				[22]
0927+575	09 27 10.59	+57 34 38.5	09 30 48.45	+57 21 26.1	17.5		NHB	08.01.92	3300–7000	BTA				[22]
0927+540B	09 27 26.10	+54 03 47.5	09 30 55.97	+53 50 34.6	16.5		F	27.03.87	3300–6900	BTA				[22]
0928+559	09 28 26.21	+55 55 52.9	09 31 59.76	+55 42 37.2	16.0		G	22.02.87	3500–5700	BTA				[22]
0928+557	09 28 26.86	+55 47 03.3	09 32 00.08	+55 33 47.5	17.0		QSO	24.03.99	4000–9000	GHO	RXJ0932.0+5534	R		
0929+593	09 29 12.79	+59 19 16.1	09 32 54.37	+59 05 58.2	17.5		G	08.01.92	3300–7000	BTA				[22]
0929+521	09 29 23.84	+52 08 46.3	09 32 49.37	+51 55 28.3	17.81	−0.48	QSO	06.04.91	3500–7000	BTA				[3,21,23]
0929+556	09 29 34.12	+55 39 41.6	09 33 06.69	+55 26 22.9	16.5		G:	08.11.91	3300–7000	BTA				[22]
0930+492	09 30 13.94	+49 12 56.9	09 33 34.12	+48 59 36.8	17.0		DA	02.12.95	3500–7000	BTA				
0932+501	09 32 31.97	+50 06 39.3	09 35 53.00	+49 53 13.1	17.13	+0.48	BALQSO	16.02.94	3400–6900	BTA				[3,23]
0933+579	09 33 24.87	+57 58 55.1	09 37 01.42	+57 45 26.3	17.5		G	08.01.92	3300–6900	BTA				[22]
0933+525	09 33 34.54	+52 31 42.3	09 36 59.51	+52 18 13.3	19.0		F	27.11.87	3300–6800	BTA				[16]
0933+584	09 33 48.53	+58 29 31.5	09 37 26.19	+58 16 01.7	18.0									
0933+495	09 33 55.01	+49 30 12.0	09 37 14.66	+49 16 42.3	18.5		DA:	10.11.85	3500–6000	BTA				[16]
0933+515	09 33 59.58	+51 31 27.7	09 37 22.62	+51 17 57.7	17.5		G:	08.01.92	3300–6800	BTA				[22]
0934+590	09 34 12.80	+59 04 43.5	09 37 51.79	+58 51 12.6	17.5		G	08.01.92	3300–7000	BTA				[22]
0934+504	09 34 17.45	+50 27 18.7	09 37 38.56	+50 13 48.0	19.5		Unclas	14.02.86	3400–5200	BTA				[16]
0934+499	09 34 34.64	+49 55 22.5	09 37 54.79	+49 41 51.1	17.0		DA	10.02.86	3700–5100	BTA				[22]
0934+557	09 34 49.15	+55 47 46.1	09 38 20.21	+55 34 13.8	18.0		DAF	11.11.85	3570–5340	BTA				[17]
0934+553	09 34 50.19	+55 19 25.8	09 38 20.25	+55 05 53.5	11.90	−0.26	sdO	23.03.80	3600–5700	BTA			PG	[6] [22]
0934+539	09 34 52.00	+53 57 51.5	09 38 19.30	+53 44 19.2	18.0		G	01.04.87	3300–6700	BTA				[17]
0935+551	09 35 01.04	+55 10 29.9	09 38 30.73	+54 56 57.1	18.0		F	01.04.87	3300–6700	BTA				[17]
0935+515A	09 35 15.08	+51 34 13.1	09 38 37.83	+51 20 39.9	18.0		QSO	07.11.91	3200–6200	BTA				[21]
0935+501	09 35 38.76	+50 09 31.0	09 38 59.00	+49 55 56.8	19.5		QSO	07.04.86	3500–5200	BTA				[16]
0935+552	09 35 44.20	+55 16 48.9	09 39 13.86	+55 03 14.3	18.0		QSO							[25]
0935+515B	09 35 52.52	+51 34 58.5	09 39 15.10	+51 21 23.7	19.5		QSO	25.11.87	3400–6900	BTA				[27]
0936+519	09 36 07.03	+51 54 38.7	09 39 30.12	+51 41 03.3	17.96		QSO	10.11.85	3300–5400	BTA	093929.8+514107			[14,16]
0936+522	09 36 14.28	+52 15 21.3	09 39 37.94	+52 01 45.6	18.0		QSO	06.04.86	3500–6700	BTA				[16]
0936+590	09 36 21.03	+59 00 26.5	09 39 59.00	+58 46 50.2	18.0		Unclas	15.11.79	3600–5700	BTA				
0936+514	09 36 23.45	+51 27 02.9	09 39 45.65	+51 13 26.8	17.15	+0.28	QSO	10.11.85	3300–6700	BTA				[3,14,16,23]
0936+553	09 36 49.94	+55 23 52.3	09 40 19.47	+55 10 14.9	19.5		G	14.03.83	3600–5200	BTA				[17]
0936+495	09 36 52.10	+49 34 39.3	09 40 11.05	+49 21 02.1	18.5		DA	10.02.86	3600–5700	BTA				[22]
0937+553	09 37 01.56	+55 23 39.9	09 40 31.02	+55 10 02.0	19.5		QSO	25.11.87	3440–5840	BTA				[17]
0937+505	09 37 02.19	+50 34 44.2	09 40 22.72	+50 21 06.5	15.74	−0.25	DA1	29.11.87	3300–6700	BTA	094021.7+502116		PG	[6]
0937+583	09 37 05.67	+58 23 27.6	09 40 41.82	+58 09 49.4	17.5		G	08.01.92	3300–7000	BTA				[22]
0937+510	09 37 06.87	+51 01 29.8	09 40 28.13	+50 47 51.9	18.0		sd	10.11.85	3300–5000	BTA				[22]
0937+526A	09 37 18.70	+52 38 42.6	09 40 42.74	+52 25 04.1	18.0		Unclas	13.02.86	3500–5200	BTA				
0937+561	09 37 27.30	+56 07 03.0	09 40 58.13	+55 53 24.0	17.15	+0.47	QSO	08.02.97	3800–7200	BTA			HS0937+5607	[7]
0937+503	09 37 31.42	+50 22 57.0	09 40 51.49	+50 09 18.1	18.65		QSO	06.04.86	3500–5200	BTA				[22]
0937+529	09 37 37.70	+52 55 48.4	09 41 02.16	+52 42 09.1	18.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0937+513	09 37 40.21	+51 20 57.7	09 41 01.86	+51 07 18.4	18.0		DA+dM	10.02.86	3500–5200	BTA				[27]
0937+552	09 37 48.98	+55 13 46.6	09 41 17.83	+55 00 06.8	18.5		F	17.03.80	3500–5700	BTA				[22]
0937+526B	09 37 49.10	+52 39 37.8	09 41 13.01	+52 25 58.1	18.0		sd	13.02.86	3500–5200	BTA				
0937+600	09 37 53.68	+60 01 51.4	09 41 33.68	+59 48 11.1	17.08	+0.23	QSO	10.11.91	3400–7100	BTA				[3,21,23]
0937+519	09 37 57.95	+51 56 42.5	09 41 20.54	+51 43 02.3	17.5		G	10.02.86	3500–7000	BTA				[22]
0937+521	09 37 58.51	+52 11 38.6	09 41 21.53	+51 57 58.5	18.0		QSO	31.03.87	3300–6800	BTA				[16]
0938+533	09 38 06.37	+53 22 25.3	09 41 31.50	+53 08 44.8	18.0		G	17.03.80	3500–5700	BTA				[22]
0938+548	09 38 10.40	+54 53 06.1	09 41 38.43	+54 39 25.4	19.0		QSO	07.11.91	3600–6800	BTA				[17]
0938+506	09 38 13.24	+50 40 18.7	09 41 33.59	+50 26 38.0	19.5		QSO	07.11.91	3200–6900	BTA				[21]
0938+537	09 38 16.45	+53 43 08.9	09 41 42.17	+53 29 28.0	19.5		DA							[25]
0938+507	09 38 17.38	+50 45 24.4	09 41 37.85	+50 31 43.5	19.5		Unclas	07.11.91	3300–6900	BTA				
0938+550A	09 38 35.01	+55 00 13.0	09 42 03.14	+54 46 31.2	18.0		DA	17.03.80	3500–5700	BTA				[22]
0938+605	09 38 35.22	+60 30 15.8	09 42 16.20	+60 16 33.8	17.5		G	06.04.91	3300–7000	BTA				[22]
0938+577	09 38 38.83	+57 47 24.1	09 42 12.96	+57 33 42.1	17.5		DA	14.11.79	3500–5700	BTA				[22]
0938+550B	09 38 41.69	+55 00 55.8	09 42 09.80	+54 47 13.8	15.20		DA4	17.03.80	3500–5700	BTA			PG	[6]
0938+559	09 38 44.71	+55 57 19.1	09 42 14.74	+55 43 36.9	19.5		QSO							
0938+496	09 38 55.06	+49 36 13.6	09 42 13.48	+49 22 31.2	19.5		QSO	27.11.87	3400–6700	BTA				[16]
0938+573	09 38 56.66	+57 18 45.9	09 42 29.58	+57 05 03.1	17.0		G	10.11.91	3400–7100	BTA				[22]
0939+548	09 39 14.24	+54 49 06.9	09 42 41.78	+54 35 23.5	18.0		G	17.03.80	3500–5700	BTA				[22]
0939+520	09 39 22.83	+52 02 33.8	09 42 45.16	+51 48 50.2	19.5		QSO							[25]
0939+535	09 39 46.27	+53 33 01.7	09 43 11.19	+53 19 17.0	19.5		Cont:	15.03.83	3800–7500	BTA				[17]
0940+534	09 40 16.08	+53 29 21.0	09 43 40.73	+53 15 35.1	18.5		DA	17.03.80	3500–5700	BTA				[22]
0940+566	09 40 29.73	+56 39 30.7	09 44 00.64	+56 25 44.1	19.0		QSO	29.03.86	3500–5200	BTA				[17]
0940+603	09 40 39.70	+60 19 12.0	09 44 19.32	+60 05 24.8	17.46	+0.54	QSO	08.02.97	3800–7200	BTA			HS0940+6019	[7]
0940+512A	09 40 51.68	+51 12 32.7	09 44 12.14	+50 58 45.4	18.0		G	05.04.86	3500–5200	BTA				[22]
0941+583	09 41 08.48	+58 23 41.5	09 44 43.07	+58 09 53.3	17.51	+0.05	QSO	10.11.91	3400–7100	BTA				[21,23]
0941+535	09 41 14.44	+53 35 18.5	09 44 38.95	+53 21 30.2	19.0		DA	15.03.83	3500–5700	BTA				
0941+537	09 41 17.52	+53 42 40.5	09 44 42.25	+53 28 52.1	17.5		G	17.03.80	3500–5700	BTA				[22]
0941+540	09 41 18.62	+54 00 31.5	09 44 43.90	+53 46 43.0	19.0		QSO							[25]
0941+502	09 41 20.29	+50 14 57.2	09 44 39.05	+50 01 08.8	19.0		QSO	26.11.87	3400–6800	BTA				[16]
0941+522	09 41 30.29	+52 16 22.5	09 44 52.36	+52 02 33.6	18.5		QSO					R	OK+568	
0941+551	09 41 31.36	+55 08 40.3	09 44 58.76	+54 54 51.3	17.5		DA	03.01.78	3500–5700	BTA				[22]
0941+530	09 41 38.99	+53 03 55.5	09 45 02.42	+52 50 06.2	18.0		Unclas	07.11.91	3400–6900	BTA				
0941+545B	09 41 40.65	+54 31 43.4	09 45 06.80	+54 17 54.0	19.0									
0941+558	09 41 41.31	+55 48 39.9	09 45 10.00	+55 34 50.4	12.0		DAF:	05.02.89	3500–5700	BTA				[22]
0941+514	09 41 55.73	+51 27 23.9	09 45 16.28	+51 13 34.0	18.5		DAO	14.02.86	3500–5700	BTA				[22]
0942+507	09 42 18.55	+50 44 28.5	09 45 37.81	+50 30 37.7	19.0		DAO	13.02.86	3500–5700	BTA				[22]
0942+563	09 42 28.59	+56 23 41.5	09 45 58.22	+56 09 50.1	18.5		BALQSO	11.11.85	3400–5400	BTA				[14,16]
0942+527A	09 42 38.44	+52 43 36.0	09 46 00.95	+52 29 44.3	18.0		NLQSO	04.05.00	4000–9000	GHO	094600.0+522945			[22,26]
0942+501	09 42 49.14	+50 08 04.8	09 46 07.29	+49 54 12.8	17.40	+0.30	QSO	04.10.88	3400–6800	BTA			HS0942+5008	[16]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0942+527B	09 42 51.17	+52 47 34.0	09 46 13.73	+52 33 41.8	18.5		DA:	29.11.87	3300–6700	BTA				[22]
0943+527	09 43 01.16	+52 47 27.2	09 46 23.66	+52 33 34.6	19.5		QSO	13.02.86	3440–5260	BTA				[16]
0943+512	09 43 06.17	+51 12 50.7	09 46 25.97	+50 58 58.0	18.5		QSO	11.11.85	3300–5100	BTA		R		[14,16]
0943+507A	09 43 11.37	+50 42 07.1	09 46 30.31	+50 28 14.2	14.5		G	15.12.87	3300–6900	BTA				[22]
0943+522	09 43 15.72	+52 17 59.9	09 46 37.29	+52 04 06.7	18.0		QSO							[25]
0943+510	09 43 15.74	+51 05 11.0	09 46 35.28	+50 51 17.9	19.5		sd	05.04.86	3500–5200	BTA				[16]
0943+603	09 43 17.24	+60 20 16.7	09 46 55.80	+60 06 23.1	17.5		DA	15.11.79	3500–5700	BTA				[22]
0943+560	09 43 18.62	+56 05 39.4	09 46 47.32	+55 51 46.0	19.0									
0943+532	09 43 23.97	+53 13 26.5	09 46 47.12	+52 59 33.0	18.0		G	08.03.88	3400–6800	BTA				[16]
0943+568	09 43 32.65	+56 52 48.3	09 47 02.92	+56 38 54.3	19.5									
0943+498	09 43 36.78	+49 49 07.9	09 46 54.21	+49 35 14.0	19.5		QSO	31.03.87	3300–6800	BTA				[16]
0943+592	09 43 48.45	+59 13 18.3	09 47 23.97	+58 59 23.5	17.0		G	10.11.91	3400–7000	BTA				[22]
0943+521B	09 43 50.63	+52 08 03.6	09 47 11.74	+51 54 09.0	15.32	+0.13	CV						PG	[6]
0944+506	09 44 14.28	+50 38 40.0	09 47 32.82	+50 24 44.5	18.0		DA	10.02.86	3300–6800	BTA				[22]
0944+540	09 44 31.63	+54 03 56.8	09 47 55.94	+53 50 00.5	16.84	+0.11	QSO	30.03.87	3330–7000	BTA		R		[3,11,16,23]
0944+560	09 44 59.91	+56 01 06.7	09 48 27.85	+55 47 09.2	18.0		DAF:	17.03.80	3500–5700	BTA				[22]
0945+578	09 45 21.99	+57 53 57.4	09 48 53.80	+57 39 59.0	17.5		DA+dM	08.01.92	3300–7000	BTA				[22]
0945+516	09 45 31.85	+51 38 51.8	09 48 51.62	+51 24 53.2	18.5		DA	12.02.86	3500–5400	BTA				[16]
0945+549	09 45 41.44	+54 59 09.6	09 49 07.09	+54 45 10.5	18.0		QSO	05.03.89	3300–6900	BTA				[10,16]
0945+501	09 45 53.44	+50 10 20.7	09 49 10.76	+49 56 21.3	18.0		Unclas	11.11.85	3320–5080	BTA				[16]
0946+501A	09 46 14.41	+50 09 20.1	09 49 31.60	+49 55 19.9	19.0		QSO	26.11.87	3300–6800	BTA				[16]
0946+514	09 46 17.24	+51 27 53.5	09 49 36.48	+51 13 53.1	18.0		DAO:	06.04.86	3500–5160	BTA				[16]
0946+522	09 46 31.94	+52 15 32.7	09 49 52.42	+52 01 31.7	16.0		sdB	02.02.89	3300–6800	ZTA				
0946+501B	09 46 48.11	+50 09 50.6	09 50 05.15	+49 55 49.0	17.0		DA	10.02.86	3500–6800	BTA				[22]
0946+499	09 46 53.99	+49 59 28.1	09 50 10.74	+49 45 26.3	19.0		QSO							[27]
0946+534A	09 46 55.07	+53 24 17.4	09 50 17.40	+53 10 15.4	18.5		Cont	08.11.85	3700–5400	BTA				[17]
0946+534B	09 46 55.96	+53 29 18.1	09 50 18.43	+53 15 16.1	15.56		DC6	05.02.89	3500–5700	ZTA			PG	[6]
0946+505	09 46 56.04	+50 32 39.9	09 50 13.63	+50 18 38.0	19.0									
0946+496	09 46 59.25	+49 36 44.0	09 50 15.40	+49 22 42.0	18.5		QSO	24.11.87	3430–6800	BTA				[16]
0947+549	09 47 15.97	+54 55 33.0	09 50 40.96	+54 41 30.2	18.0		sd:	17.03.80	3500–5700	BTA				[22]
0947+523	09 47 25.19	+52 23 50.7	09 50 45.62	+52 09 47.6	18.5		sd	27.11.87	3330–6730	BTA				[16]
0947+508	09 47 50.31	+50 49 59.8	09 51 08.08	+50 35 55.8	18.0		Unclas	10.02.86	3300–6800	BTA				
0947+507	09 47 56.65	+50 44 54.0	09 51 14.25	+50 30 49.7	18.5		QSO	25.11.87	3400–6800	BTA				[16]
0948+533	09 48 03.82	+53 23 35.6	09 51 25.75	+53 09 30.9	15.33		sd	24.11.87	3400–7000	BTA	EUVEJ0951+531		PG	[6]
0948+518	09 48 04.49	+51 50 27.6	09 51 23.80	+51 36 23.0	19.5		QSO	23.03.93	3300–6900	BTA				
0948+513	09 48 10.41	+51 23 52.0	09 51 28.97	+51 09 47.1	18.5		sd	26.11.87	3300–6800	BTA				[22]
0948+507	09 48 13.53	+50 46 56.0	09 51 31.10	+50 32 51.0	19.0									
0948+550	09 48 17.30	+55 04 26.7	09 51 42.22	+54 50 21.5	17.0		F	10.11.91	3300–7100	BTA				[22]
0948+505	09 48 24.95	+50 31 21.1	09 51 42.06	+50 17 15.7	18.0		DBA	10.02.86	3300–6800	BTA				[22]
0948+535	09 48 26.72	+53 32 26.6	09 51 48.78	+53 18 21.0	19.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0948+515A	09 48 27.93	+51 33 57.3	09 51 46.67	+51 19 51.8	19.0		QSO	26.11.87	3500–6800	BTA				[21]
0948+528	09 48 54.77	+52 51 13.6	09 52 15.49	+52 37 07.0	19.0									
0949+510	09 49 09.47	+51 02 58.1	09 52 27.18	+50 48 51.0	18.0		QSO	08.04.86	3500–5200	BTA		R		[16]
0949+521	09 49 20.76	+52 06 57.8	09 52 40.12	+51 52 50.2	18.5		QSO							[25]
0949+522	09 49 21.92	+52 12 56.7	09 52 41.43	+51 58 49.0	18.0		QSO	07.11.91	3300–6900	BTA				[21]
0949+495	09 49 31.75	+49 35 02.5	09 52 47.13	+49 20 54.5	18.0		DA							[27]
0949+549	09 49 32.41	+54 55 59.5	09 52 56.62	+54 41 51.3	19.5									
0949+554	09 49 39.49	+55 25 54.1	09 53 04.60	+55 11 45.6	16.0		F	19.03.80	3400–6900	BTA				[22]
0949+512	09 49 42.23	+51 13 03.7	09 53 00.04	+50 58 55.3	19.0									
0949+562	09 49 44.75	+56 12 48.5	09 53 11.36	+55 58 39.8	19.0									
0949+507B	09 49 46.07	+50 44 34.1	09 53 03.12	+50 30 25.5	19.0		QSO	25.11.87	3430–6800	BTA				[16]
0949+527	09 49 48.74	+52 44 38.5	09 53 08.99	+52 30 29.8	18.0		QSO	07.11.91	3200–6900	BTA				[21]
0949+553	09 49 56.77	+55 19 22.0	09 53 21.57	+55 05 12.9	19.0		Unclas	15.03.83	3500–5700	BTA				
0950+548	09 50 00.49	+54 52 47.1	09 53 24.44	+54 38 37.9	19.5									
0950+579	09 50 07.23	+57 56 07.5	09 53 37.27	+57 41 57.9	16.5		sdB	10.11.91	3400–7000	BTA				[22]
0950+498	09 50 27.88	+49 49 29.5	09 53 43.34	+49 35 19.4	19.5									
0950+513	09 50 33.03	+51 19 35.0	09 53 50.75	+51 05 24.6	19.0									
0950+562	09 50 34.51	+56 12 02.7	09 54 00.79	+55 57 52.1	19.0		DA	28.12.84	3500–5700	BTA				[22]
0950+568	09 50 39.47	+56 48 48.9	09 54 06.94	+56 34 38.1	17.5		G	08.02.83	3400–6900	BTA				[22]
0950+565	09 50 45.32	+56 31 07.9	09 54 12.16	+56 16 56.9	19.5		QSO	25.11.87	3430–6730	BTA				[13,17]
0950+575	09 50 47.40	+57 33 51.4	09 54 16.38	+57 19 40.2	17.0		G	08.01.92	3400–7100	BTA				[22]
0951+521	09 51 04.37	+52 10 59.0	09 54 23.29	+51 56 47.4	18.0		sdB	24.11.87	3430–6800	BTA				[16]
0951+544	09 51 20.58	+54 24 15.1	09 54 43.20	+54 10 02.8	18.5		DA	11.11.85	3500–5200	BTA				[17]
0951+591	09 51 26.40	+59 07 46.3	09 54 58.58	+58 53 33.6	16.5		G	08.01.92	3300–7000	BTA				[22]
0951+540	09 51 31.58	+54 03 12.7	09 54 53.51	+53 49 00.0	19.0									
0951+503	09 51 34.91	+50 23 12.9	09 54 50.87	+50 09 00.2	18.5		QSO							[27]
0951+497	09 51 45.83	+49 42 50.6	09 55 00.75	+49 28 37.5	18.0		G	10.10.88	3500–5200	BTA				[22]
0951+553	09 51 48.15	+55 21 46.9	09 55 12.37	+55 07 33.5	18.0		Unclas	15.03.83	3500–5700	BTA				
0951+529	09 51 55.32	+52 56 30.5	09 55 15.21	+52 42 16.9	18.0									
0951+502	09 51 59.66	+50 13 09.0	09 55 15.25	+49 58 55.3	19.0									
0952+518	09 52 01.60	+51 51 17.5	09 55 19.69	+51 37 03.7	12.38	−0.32	sdO	05.02.89	3500–5700	ZTA			PG	[6]
0952+520	09 52 02.43	+52 03 15.2	09 55 20.83	+51 49 01.4	19.5		DA							[25]
0952+515	09 52 09.25	+51 34 59.6	09 55 26.87	+51 20 45.5	19.0		QSO	25.11.87	3430–6800	BTA				[16]
0952+558	09 52 13.28	+55 51 59.4	09 55 38.30	+55 37 45.0	18.0		G	06.01.84	3500–5200	BTA				[17]
0952+505	09 52 19.63	+50 34 25.2	09 55 35.65	+50 20 10.8	17.5		DA	09.03.88	3430–6800	BTA				[16]
0952+526	09 52 26.98	+52 39 42.5	09 55 46.24	+52 25 27.7	18.5		QSO							[25]
0952+528	09 52 28.03	+52 53 15.5	09 55 47.66	+52 39 00.7	18.0		Unclas	09.03.88	3400–6800	BTA				
0952+585	09 52 37.25	+58 32 19.5	09 56 07.62	+58 18 04.1	18.0									
0952+506	09 52 59.75	+50 41 16.0	09 56 15.74	+50 27 00.0	19.5		QSO							[27]
0953+495	09 53 01.58	+49 33 33.3	09 56 15.91	+49 19 17.3	19.0		QSO							[27]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0953+566	09 53 07.89	+56 36 33.9	09 56 33.70	+56 22 16.3	19.0		QSO					R		[25]
0953+574	09 53 14.84	+57 27 41.4	09 56 42.66	+57 13 24.6	17.5		DA	06.04.91	3400–7000	BTA				[22]
0953+509	09 53 16.87	+50 56 41.3	09 56 33.16	+50 42 24.7	18.0		G	09.03.88	3400–6800	BTA				[22]
0953+555	09 53 21.66	+55 35 17.1	09 56 45.74	+55 21 00.2	18.0		QSO	07.12.85	3500–5200	BTA				[9,17]
0953+544	09 53 31.74	+54 28 07.4	09 56 53.72	+54 13 50.1	19.0									
0953+521	09 53 31.98	+52 06 29.2	09 56 50.00	+51 52 12.0	17.62	+0.06	QSO	22.03.93	3500–7000	MMT		R		[23]
0953+540	09 53 35.08	+54 04 41.0	09 56 56.35	+53 50 23.6	18.0		QSO	24.11.87	3400–6900	BTA				[9,17]
0953+549	09 53 51.92	+54 54 35.4	09 57 14.57	+54 40 17.3	17.74	+0.21	QSO	30.01.89	3600–5300	BTA				[8,17]
0954+556	09 54 14.25	+55 37 16.1	09 57 38.07	+55 22 57.2	18.0		QSO				095737.3+552306	R	4C+55.17	
0954+527	09 54 23.01	+52 43 47.0	09 57 41.75	+52 29 27.8	17.0		NHB:	22.03.93	3500–7000	MMT				[23]
0954+495	09 54 30.79	+49 32 42.0	09 57 44.67	+49 18 22.6	18.5		QSO	27.11.87	3300–6700	BTA				[16]
0954+540	09 54 37.11	+54 04 54.7	09 57 58.04	+53 50 35.0	18.5		sdB	28.11.81	3400–5100	BTA				[16]
0954+509	09 54 45.75	+50 59 52.9	09 58 01.67	+50 45 32.9	18.0		QSO	27.11.87	3300–6700	BTA				[16]
0954+504	09 54 51.96	+50 24 58.0	09 58 06.98	+50 10 37.8	19.0		QSO	26.11.87	3300–6700	BTA				[16]
0954+502	09 54 53.19	+50 15 14.3	09 58 07.97	+50 00 54.1	19.0		QSO	09.03.87	3400–6700	BTA				[16]
0954+503	09 54 59.23	+50 22 05.9	09 58 14.15	+50 07 45.5	19.5		QSO	26.11.87	3300–6700	BTA				[16]
0955+606	09 55 13.14	+60 36 08.8	09 58 47.21	+60 21 47.5	16.5		DAF	08.01.92	3300–7000	BTA				[22]
0955+560	09 55 13.16	+56 05 12.8	09 58 37.50	+55 50 51.7	18.0		QSO	24.11.87	3430–6830	BTA				[17]
0955+524	09 55 27.99	+52 29 19.7	09 58 45.99	+52 14 58.1	18.0		Cont	27.11.87	3300–6700	BTA				[22]
0955+514	09 55 35.55	+51 25 08.5	09 58 51.85	+51 10 46.7	17.21	−0.06	QSO	09.04.91	3400–7000	BTA				[3,21,23]
0956+540	09 56 07.53	+54 00 53.4	09 59 27.82	+53 46 30.3	17.0		G:	16.03.80	3500–5700	BTA				[22]
0956+492	09 56 10.26	+49 12 47.7	09 59 23.19	+48 58 24.7	17.5		sdB	27.11.87	3400–6700	BTA				[22]
0956+505	09 56 23.70	+50 30 02.6	09 59 38.39	+50 15 39.0	19.5		QSO							[27]
0956+497	09 56 32.17	+49 46 57.4	09 59 45.79	+49 32 33.5	18.5		DA	27.11.87	3300–6700	BTA				[16]
0956+513	09 56 37.19	+51 18 47.6	09 59 53.01	+51 04 23.5	17.5		F	15.02.94	3400–6900	BTA				[22]
0957+523	09 57 01.64	+52 18 23.8	10 00 18.85	+52 03 58.8	19.0									
0957+513	09 57 03.20	+51 18 29.5	10 00 18.87	+51 04 04.5	17.5		sdB	10.02.86	3300–6900	BTA				[22]
0957+553	09 57 21.35	+55 21 21.9	10 00 43.56	+55 06 56.1	17.0		F	16.03.80	3500–5700	BTA				[22]
0957+554	09 57 29.41	+55 25 13.4	10 00 51.68	+55 10 47.3	18.0		DA	06.01.84	3500–5200	BTA				[17]
0957+599	09 57 30.96	+59 58 40.7	10 01 02.53	+59 44 14.3	16.45	+0.34	QSO	14.11.95	3500–7000	BTA	100102.9+594426			[3]
0957+555	09 57 31.60	+55 30 34.5	10 00 54.02	+55 16 08.3	19.5		QSO							[27]
0957+537A	09 57 33.44	+53 46 16.8	10 00 52.83	+53 31 50.6	18.0		G	09.04.86	3500–5200	BTA				[17]
0957+537B	09 57 35.31	+53 46 32.4	10 00 54.70	+53 32 06.1	17.79	+0.10	QSO	09.04.86	3500–5200	BTA		R		[17,23]
0957+588	09 57 46.92	+58 48 41.0	10 01 15.77	+58 34 14.1	17.50	+0.14	QSO	23.03.93	3300–7000	BTA				[21,23]
0957+557	09 57 47.57	+55 43 00.4	10 01 10.27	+55 28 33.6	17.50	+0.11	QSO	04.03.89	3500–6960	BTA	RXJ			[9,17,23]
0957+561	09 57 57.85	+56 08 21.6	10 01 21.20	+55 53 55.7	17.00		QSO	16.03.80	3500–5700	BTA	100121.5+555351	R	Gr.Lens	
0957+551	09 57 57.62	+55 06 05.3	10 01 19.15	+54 51 38.1	17.5		DAF:	16.03.80	3500–5700	BTA				[22]
0958+532	09 58 06.50	+53 15 41.7	10 01 24.87	+53 01 14.3	18.0		DAF:	16.03.80	3500–5700	BTA				[22]
0958+551	09 58 08.18	+55 09 05.2	10 01 29.74	+54 54 37.7	16.25	+0.10	QSO	16.03.80	3500–5700	BTA			Mkn 132	[23]
0958+549	09 58 08.96	+54 57 06.9	10 01 30.16	+54 42 39.3	18.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
0958+521	09 58 13.61	+52 11 12.5	10 01 30.24	+51 56 44.9	18.5									
0958+533	09 58 16.80	+53 21 41.7	10 01 35.27	+53 07 13.9	19.0									
0958+546	09 58 19.34	+54 36 44.2	10 01 39.89	+54 22 16.3	19.5									
0958+519	09 58 24.71	+51 59 15.5	10 01 40.98	+51 44 47.5	19.0		QSO							[25]
0958+556	09 58 25.95	+55 36 08.6	10 01 48.21	+55 21 40.4	17.0		DBA:	28.11.81	3400–5100	BTA				[17]
0958+610	09 58 30.43	+61 03 36.8	10 02 04.15	+60 49 08.2	16.5		DA	29.02.92	3300–6800	BTA				[22]
0958+512	09 58 53.85	+51 12 55.1	10 02 08.81	+50 58 26.0	19.0									
0958+523	09 58 55.94	+52 22 30.1	10 02 12.63	+52 08 00.9	18.5		QSO							[25]
0958+580	09 58 56.06	+58 04 40.4	10 02 22.90	+57 50 11.0	17.5		G	06.04.91	3300–7000	BTA				[22]
0959+497	09 59 00.93	+49 44 03.4	10 02 13.74	+49 29 34.1	18.0		QSO	14.04.96	4000–7200	BTA			HS0959+4944	
0959+580	09 59 06.07	+58 03 01.8	10 02 32.78	+57 48 32.1	17.65	+0.05	QSO	08.01.92	3400–6600	BTA				[21,23]
0959+512	09 59 07.22	+51 16 36.8	10 02 22.20	+51 02 07.2	18.46	+0.24	QSO	22.03.93	3300–7000	MMT				[2,23]
1000+545	10 00 33.26	+54 30 11.4	10 03 52.84	+54 15 38.7	18.0									
1001+537	10 01 24.52	+53 46 25.9	10 04 42.59	+53 31 51.3	17.5		DB	16.03.80	3500–5200	BTA				[17]
1001+585	10 01 25.87	+58 32 42.5	10 04 52.65	+58 18 07.7	18.0									
1001+559	10 01 27.00	+55 58 33.1	10 04 48.82	+55 43 58.4	17.0		G	16.03.80	3400–6900	BTA				[22]
1002+540	10 02 03.50	+54 00 25.1	10 05 21.73	+53 45 49.2	18.0									
1002+505	10 02 16.31	+50 35 17.6	10 05 29.32	+50 20 41.3	15.36		CV						PG	[6]
1002+562	10 02 47.56	+56 15 21.4	10 06 09.37	+56 00 43.8	17.0		DAO	22.02.90	3300–7100	BTA				[22]
1003+606	10 03 51.36	+60 41 38.7	10 07 21.78	+60 26 58.8	16.5		G	09.01.92	3400–6600	BTA				[22]
1004+598	10 04 21.39	+59 52 30.3	10 07 49.75	+59 37 49.3	16.5		G	14.11.79	3400–6900	BTA				[22]
1004+572	10 04 21.81	+57 17 03.5	10 07 44.91	+57 02 22.6	17.5		F	09.04.91	3400–6900	BTA				[22]
1004+503	10 04 32.56	+50 22 26.0	10 07 44.58	+50 07 44.9	17.44	+0.83	NLQSO	10.11.91	3400–7100	BTA	100743.6+500753		RBS 829	[21,23]
1005+584	10 05 04.56	+58 24 35.7	10 08 29.56	+58 09 53.3	17.5		G	09.04.91	3400–7000	BTA				[22]
1006+524	10 06 30.74	+52 29 38.0	10 09 45.11	+52 14 52.8	17.5		DA+dMe	16.06.94	3400–6900	BTA				
1006+599A	10 06 51.00	+59 54 40.0	10 10 18.34	+59 39 53.9	17.0		G	09.04.91	3400–7000	BTA				[22]
1006+599B	10 06 53.81	+59 58 14.7	10 10 21.26	+59 43 28.5	18.0									
1006+578B	10 06 58.66	+57 52 35.5	10 10 21.84	+57 37 49.2	16.5		G	14.11.79	3400–6900	BTA				[22]
1007+573	10 07 29.28	+57 20 18.8	10 10 51.24	+57 05 31.5	17.54	+0.24	QSO	08.04.91	3400–7000	BTA				[3,21,23]
1007+568	10 07 43.60	+56 50 56.5	10 11 04.58	+56 36 08.7	18.0									
1009+538	10 09 11.55	+53 48 51.4	10 12 26.97	+53 34 00.8	17.5		DA	04.02.92	3300–6400	BTA				[22]
1009+567	10 09 24.04	+56 47 58.1	10 12 44.27	+56 33 07.0	17.5		QSO							[27]
1009+490	10 09 33.43	+49 04 28.5	10 12 42.25	+48 49 37.3	16.23		sdB	14.01.93	3400–6800	BTA			PG	[6]
1009+585	10 09 58.60	+58 34 34.8	10 13 21.87	+58 19 42.5	16.5		sdB	09.04.91	3400–5400	BTA				[22]
1010+535	10 10 15.57	+53 30 52.4	10 13 30.17	+53 15 59.7	16.13	−0.22	QSO	21.02.90	3300–7000	BTA				[19,23]
1011+524A	10 11 06.23	+52 25 02.2	10 14 18.96	+52 10 07.8	17.5		sdOA	16.02.94	3400–6900	BTA				
1011+540	10 11 08.62	+54 00 44.5	10 14 23.65	+53 45 50.0	18.0		DA							[25]
1011+570	10 11 16.69	+57 03 32.7	10 14 36.63	+56 48 37.9	16.08		DB4	04.05.87	3300–6800	ZTA			GD 303	
1011+524B	10 11 34.92	+52 28 15.4	10 14 47.56	+52 13 20.1	18.25	+0.45	QSO	22.03.93	3300–7000	MMT				[23]
1012+529	10 12 12.75	+52 57 14.7	10 15 25.86	+52 42 18.1	16.0		Cont	22.03.93	3300–7000	MMT				[23]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1012+586	10 12 20.20	+58 38 12.9	10 15 42.59	+58 23 15.9	18.0		QSO							[25]
1013+565	10 13 18.74	+56 30 18.6	10 16 36.93	+56 15 19.8	18.0		Pec *	10.11.91	3400–7100	BTA				[22]
1013+596	10 13 39.63	+59 39 28.2	10 17 03.43	+59 24 28.6	17.34	+0.20	QSO	22.03.93	3300–7000	MMT		R		[10,18,23]
1014+566	10 14 06.43	+56 36 07.6	10 17 24.47	+56 21 07.3	18.45	+0.39	QSO	10.11.91	3400–7100	BTA				[21,23]
1015+532	10 15 20.14	+53 12 11.1	10 18 32.52	+52 57 08.5	16.0		F	05.03.92	3400–7000	BTA				[22]
1015+589	10 15 41.72	+58 58 05.8	10 19 03.30	+58 43 02.4	18.0									
1016+510	10 16 07.16	+51 01 01.4	10 19 16.37	+50 45 57.4	18.03	+0.31	QSO	03.12.95	3500–7000	BTA		R		[3,22]
1016+563A	10 16 09.23	+56 18 34.9	10 19 25.98	+56 03 30.7	17.5		DA:	04.02.92	3300–6800	BTA				[22]
1016+527	10 16 11.90	+52 47 07.5	10 19 23.40	+52 32 03.3	16.5		DA	05.03.92	3500–6600	BTA				[22]
1016+575	10 16 59.94	+57 32 40.6	10 20 18.41	+57 17 34.8	18.0									
1017+533	10 17 14.66	+53 19 39.7	10 20 26.54	+53 04 33.5	17.0		CV	26.02.88	3300–6600	BTA	102027.1+530439			[5,22]
1018+604	10 18 11.59	+60 24 47.8	10 21 34.85	+60 09 39.7	18.5		QSO							[25]
1018+584	10 18 18.41	+58 26 32.0	10 21 37.90	+58 11 23.7	18.5									
1018+517	10 18 50.68	+51 44 15.8	10 21 59.91	+51 29 06.7	17.39	+0.11	QSO	05.02.92	3300–7000	BTA				[21,23]
1018+601	10 18 56.21	+60 07 12.9	10 22 18.55	+59 52 03.4	17.5		G	09.04.91	3400–7000	BTA				[22]
1020+541	10 20 15.48	+54 08 10.6	10 23 27.41	+53 52 58.9	17.5		Cont	08.02.97	3800–7200	BTA				
1020+562	10 20 22.33	+56 12 06.6	10 23 37.25	+55 56 54.6	18.0		G	07.11.91	3300–6800	BTA				[22]
1020+553A	10 20 22.81	+55 21 15.7	10 23 36.45	+55 06 03.7	16.5		G	10.11.91	3400–7100	BTA				[22]
1020+571	10 20 53.03	+57 11 19.9	10 24 09.31	+56 56 07.0	18.0									
1020+553B	10 20 56.44	+55 20 09.2	10 24 09.84	+55 04 56.2	18.39	+0.31	QSO	22.03.93	3300–7000	MMT				[21,23]
1021+577	10 21 34.92	+57 44 21.0	10 24 51.82	+57 29 06.8	18.5									
1021+562	10 21 38.30	+56 13 47.6	10 24 52.77	+55 58 33.4	18.02	+0.30	NHB	07.11.91	3300–6800	BTA				[22]
1022+594	10 22 40.84	+59 29 40.9	10 26 00.31	+59 14 24.7	17.5		DB	14.11.79	3500–5700	BTA				[22]
1022+583	10 22 47.53	+58 20 56.8	10 26 04.94	+58 05 40.5	18.0		QSO							[25]
1024+590	10 24 15.33	+59 03 39.9	10 27 33.32	+58 48 21.0	18.0		Unclas	16.11.79	3500–5700	BTA				
1024+561	10 24 24.25	+56 11 49.2	10 27 37.57	+55 56 30.1	18.77	+0.77	QSO	22.03.93	3300–7000	MMT				[21,23]
1026+560	10 26 48.89	+56 02 29.7	10 30 01.03	+55 47 06.4	18.0		DA	07.03.88	3500–6800	BTA				[22]
1027+500	10 27 12.45	+50 00 44.3	10 30 16.92	+49 45 20.5	16.5		sd	10.11.91	3400–7100	BTA				[22]
1027+555	10 27 13.71	+55 31 46.7	10 30 24.96	+55 16 22.7	17.5		NLQSO	28.04.00	4000–9000	GHO	103024.5+551630	R	RBS 874	[22,26]
1027+534	10 27 42.61	+53 25 53.5	10 30 50.90	+53 10 28.7	17.5		QSO				RXJ1030.7+5310	R		[27]
1029+537	10 29 02.04	+53 45 03.3	10 32 10.26	+53 29 36.4	13.5		DA	23.03.87	3400–6800	BTA	103210.2+532941			[22]
1029+526	10 29 08.84	+52 36 49.0	10 32 15.62	+52 21 21.9	16.0		sd	15.04.96	4000–7000	GHO				[22]
1030+599	10 30 15.02	+59 56 38.1	10 33 31.83	+59 41 09.0	18.0		DA							[25]
1030+590	10 30 37.75	+59 02 25.0	10 33 52.87	+58 46 55.3	15.02		CV						PG	[6]
1031+611	10 31 03.09	+61 08 48.4	10 34 21.66	+60 53 18.0	17.74	+0.44	QSO	22.03.93	3300–7000	MMT	103422.3+605316			[23]
1031+605	10 31 26.96	+60 35 15.2	10 34 44.33	+60 19 44.2	17.5		Unclas	23.03.87	3400–6800	BTA				
1031+558	10 31 28.73	+55 53 23.2	10 34 38.81	+55 37 52.2	19.72	+0.72	QSO	22.03.93	3300–7000	MMT				[3,21,23]
1033+579	10 33 28.10	+57 57 00.9	10 36 40.28	+57 41 26.7	18.0									
1033+571	10 33 29.72	+57 07 00.6	10 36 40.68	+56 51 26.4	17.39	+0.33	QSO	22.03.93	3300–7000	MMT		R		[2,22,23]
1033+556	10 33 38.81	+55 38 13.3	10 36 47.69	+55 22 38.9	18.55	+0.40	QSO	10.11.91	3500–7100	BTA				[3]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1034+583	10 34 12.21	+58 20 48.6	10 37 24.67	+58 05 13.3	18.5		QSO							[25]
1034+496	10 34 23.80	+49 41 17.2	10 37 25.65	+49 25 41.7	16.5		sd:	10.11.91	3500–7100	BTA				[22]
1034+606	10 34 29.64	+60 40 39.6	10 37 45.71	+60 25 03.8	19.0		Pec*							[25]
1034+492	10 34 41.83	+49 12 57.1	10 37 43.12	+48 57 21.1	15.27		DA3	23.03.87	3400–6800	BTA			PG	[6]
1034+557	10 34 56.52	+55 46 58.0	10 38 05.08	+55 31 21.6	17.0		DA	09.01.92	3400–6600	BTA				[22]
1035+576	10 35 44.40	+57 41 41.7	10 38 55.24	+57 26 04.0	18.0		DA							[25]
1035+532	10 35 48.90	+53 14 25.6	10 38 54.04	+52 58 47.8	15.81		DA1	23.03.87	3400–6800	BTA			PG	[6]
1035+541	10 35 57.60	+54 10 28.5	10 39 03.77	+53 54 50.5	17.5		DA	09.01.92	3400–6800	BTA				[22]
1036+490	10 36 20.91	+49 03 37.8	10 39 21.53	+48 47 59.3	16.02	−0.09	QSO	10.11.91	3400–7100	BTA	103922.2+484806			[3,21]
1036+550	10 36 22.15	+55 05 53.3	10 39 29.28	+54 50 14.7	17.5		DA	09.01.92	3300–6800	BTA				[22]
1037+512	10 37 14.86	+51 12 26.7	10 40 17.30	+50 56 46.8	16.18		DA2	05.02.89	3500–5700	ZTA			PG	[6]
1037+603	10 37 27.50	+60 18 19.3	10 40 41.53	+60 02 38.9	17.05	−0.42	NLQSO	22.03.93	3300–7000	MMT	104040.9+600242			[19,23]
1038+510	10 38 21.48	+51 00 03.9	10 41 23.34	+50 44 22.3	14.82		sdOB						PG	[6]
1038+528	10 38 43.08	+52 49 10.4	10 41 46.70	+52 33 28.3	17.15	+0.23	QSO				104147.5+523330	R	OL+564	[2]
1039+581	10 39 45.83	+58 11 33.8	10 42 55.62	+57 55 50.0	18.11	+0.28	QSO	14.11.79	3500–5700	BTA				[2,8,19]
1040+493	10 40 11.87	+49 18 07.1	10 43 11.51	+49 02 22.8	16.5		DA	29.02.92	3400–7100	BTA	104311.5+490227		RBS 896	[22]
1040+567	10 40 47.95	+56 43 43.5	10 43 55.30	+56 27 58.4	17.48	+0.44	QSO	25.02.88	3425-7095	BTA				[19,23]
1040+520	10 40 48.77	+52 00 54.1	10 43 50.81	+51 45 08.9	17.5		DA	09.01.92	3300–6800	BTA				[22]
1040+490	10 40 57.20	+49 04 17.0	10 43 56.39	+48 48 31.6	17.4		QSO	23.03.93	3500–6900	BTA			HS1040+4904	[3]
1041+493	10 41 15.69	+49 23 15.4	10 44 15.07	+49 07 29.6	16.0		sdB	03.12.95	3500–7000	BTA				
1041+580	10 41 37.55	+58 00 20.3	10 44 46.27	+57 44 33.8	14.55		DA2	05.02.89	3500–5700	ZTA	104446.6+574449		PG	[6]
1042+570	10 42 00.65	+57 00 47.9	10 45 07.90	+56 45 00.9	17.5		G	16.02.94	3400–6900	BTA				
1042+523	10 42 40.05	+52 18 23.5	10 45 41.73	+52 02 35.6	17.05	+0.16	NLQSO	28.11.95	3500–7000	BTA	104541.2+520242		RBS 900	[3,22,26]
1042+593	10 42 55.51	+59 21 46.8	10 46 05.54	+59 05 58.5	18.07	+0.13	DQ8	05.03.92	3400–7000	BTA			LHS 291	
1043+531	10 43 11.39	+53 11 40.4	10 46 13.80	+52 55 52.0	17.5		QSO	23.03.93	3500–7000	BTA	104614.2+525600		RBS 901	
1043+569	10 43 48.09	+56 59 47.2	10 46 54.57	+56 43 57.7	17.5		F	04.02.92	3300–6900	BTA				[22]
1044+594	10 44 25.88	+59 28 48.5	10 47 35.38	+59 12 58.1	18.0		QSO							[25]
1044+490	10 44 44.28	+49 02 02.6	10 47 42.24	+48 46 11.9	17.5		G	16.02.94	3400–6900	BTA				
1045+570	10 45 15.66	+57 03 29.4	10 48 21.60	+56 47 37.9	17.5		DA	09.01.92	3300–6800	BTA				[22]
1045+604	10 45 23.32	+60 24 37.3	10 48 33.71	+60 08 45.5	19.04	+0.37	QSO					R	4C+60.15	[2]
1046+501	10 46 13.00	+50 07 06.0	10 49 11.42	+49 51 13.2	17.5		QSO	08.02.97	3800–7200	BTA			HS1046+5007	[7]
1047+557A	10 47 26.47	+55 42 25.6	10 50 29.93	+55 26 31.1	17.0		DA	03.03.87	3400–6800	BTA				[22]
1047+550	10 47 43.09	+55 03 14.0	10 50 45.73	+54 47 19.2	17.46	+0.09	QSO	26.04.87	3210–6720	BTA				[19,23]
1047+557B	10 47 51.85	+55 43 18.3	10 50 55.15	+55 27 23.3	17.17	+0.19	NLQSO	03.03.87	3400–6900	BTA	105055.2+552731			[2,22,26]
1048+543	10 48 31.28	+54 22 51.2	10 51 32.90	+54 06 55.3	18.91		CV				105135.3+540438		EK UMa	
1049+541	10 49 10.46	+54 07 31.0	10 52 11.57	+53 51 34.3	16.0		DA	22.04.87	3400–6800	BTA				[22]
1049+594	10 49 41.41	+59 27 47.6	10 52 48.43	+59 11 50.1	18.5		QSO							[25]
1050+518	10 50 14.18	+51 52 38.9	10 53 12.78	+51 36 40.8	17.5		Unclas	16.02.94	3400–6900	BTA				
1050+582	10 50 51.49	+58 16 26.1	10 53 56.47	+58 00 27.2	17.0		DA	06.04.91	3400–7000	BTA				[22]
1051+528	10 51 16.39	+52 53 52.6	10 54 15.54	+52 37 53.2	19.0		QSO					R		[27]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1051+501	10 51 21.86	+50 06 00.1	10 54 18.56	+49 50 00.6	14.27	−0.32	sdB	23.03.87	3400–6800	BTA			PG	[6]
1051+516	10 51 24.05	+51 38 54.1	10 54 22.04	+51 22 54.6	17.0		DA+dMe	16.02.94	3400–6900	BTA				
1051+556	10 51 48.63	+55 39 08.8	10 54 50.26	+55 23 08.7	16.5		DA:	10.11.91	3400–7000	BTA				[22]
1051+579	10 51 56.48	+57 59 40.1	10 55 00.65	+57 43 39.8	18.0		DA							[25]
1051+498	10 51 56.85	+49 50 30.7	10 54 53.15	+49 34 30.5	18.5		DA							[27]
1052+518	10 52 34.57	+51 53 52.4	10 55 32.36	+51 37 51.4	18.30	+0.03	QSO	10.01.92	3300–7000	BTA				[21,23]
1052+550	10 52 47.43	+55 04 40.0	10 55 48.08	+54 48 38.7	16.21		HBB	23.03.87	3400–6800	BTA			PG	[6]
1053+561	10 53 26.66	+56 11 16.1	10 56 28.18	+55 55 14.0	17.5		sd	09.01.92	3400–6800	BTA				[22]
1053+597	10 53 55.24	+59 46 18.6	10 57 00.66	+59 30 15.9	18.0									
1054+499	10 54 01.36	+49 57 20.7	10 56 57.07	+49 41 17.9	16.5		PN:	14.11.95	3500–7000	BTA	105656.9+494111			
1054+586	10 54 29.38	+58 41 07.7	10 57 33.21	+58 25 04.3	18.0									
1054+606	10 54 45.14	+60 39 23.3	10 57 51.30	+60 23 19.5	18.5		sdB							[25]
1054+552	10 54 47.35	+55 15 38.7	10 57 47.39	+54 59 35.0	17.93	+0.20	QSO	25.02.88	3500–7000	BTA				[19,23]
1055+607	10 55 19.23	+60 42 24.5	10 58 25.17	+60 26 20.1	18.5		QSO							[25]
1055+584	10 55 59.21	+58 24 54.3	10 59 02.05	+58 08 49.1	18.04	+0.34	QSO	16.11.79	3700–5700	BTA				[8,19,23]
1056+516A	10 56 20.09	+51 40 48.9	10 59 16.37	+51 24 43.4	16.0		DA	10.11.91	3500–7100	BTA	105916.6+512452		LB 1919	[22]
1057+606	10 57 00.32	+60 39 43.2	11 00 05.37	+60 23 36.8	18.0		DA							[25]
1057+556	10 57 31.09	+55 38 47.0	11 00 30.39	+55 22 40.1	17.5		Cont	08.01.91	3300–7000	BTA				[22]
1058+570	10 58 10.81	+57 05 31.5	11 01 11.26	+56 49 23.8	17.5		DA	25.02.88	3500–6900	BTA				[22]
1058+561	10 58 38.79	+56 08 18.2	11 01 38.10	+55 52 10.0	18.84	+0.24	QSO	16.02.94	3400–6900	BTA				[2,22]
1058+559	10 58 51.56	+55 54 04.6	11 01 50.56	+55 37 56.1	16.0		DA	27.12.89	3400–6800	BTA				[22]
1059+531	10 59 00.97	+53 11 26.7	11 01 57.51	+52 55 18.1	17.76	+0.02	QSO	16.02.94	3400–6900	BTA				[3,22]
1059+568	10 59 23.36	+56 51 26.0	11 02 23.05	+56 35 16.9	16.5		DA:	09.01.92	3400–6800	BTA				
1059+599	10 59 34.43	+59 57 49.4	11 02 37.37	+59 41 40.1	17.86	+0.28	QSO	10.01.92	3300–7000	BTA				[3,21]
1100+525	11 00 00.28	+52 35 08.2	11 02 55.96	+52 18 58.5	16.22		sdOB	05.02.89	3500–5700	ZTA			PG	[6]
1100+503	11 00 11.53	+50 19 17.2	11 03 05.45	+50 03 07.3	17.5		HBB	08.02.97	3800–7200	BTA				
1100+591	11 00 41.81	+59 06 44.6	11 03 43.26	+58 50 34.1	13.48	−0.16	sd						PG	[6]
1100+604	11 00 42.12	+60 27 42.0	11 03 45.10	+60 11 31.5	13.78	−0.02	DA3	23.03.87	3400–6800	BTA			PG	[6]
1101+528	11 01 07.53	+52 53 23.8	11 04 03.04	+52 37 12.9	15.01	+0.13	sdB						PG	[6]
1101+525	11 01 18.91	+52 30 46.3	11 04 14.06	+52 14 35.2	17.5		DA	08.01.92	3300–6900	BTA				[22]
1102+583	11 02 16.22	+58 19 59.1	11 05 16.12	+58 03 46.9	18.5		QSO							[25]
1102+498	11 02 30.24	+49 51 11.6	11 05 23.06	+49 34 59.2	13.86		sdOB						PG	[6]
1102+558	11 02 51.61	+55 52 19.8	11 05 48.92	+55 36 07.0	17.0		F	08.01.92	3300–7000	BTA				[22]
1102+536	11 02 58.39	+53 36 51.2	11 05 53.78	+53 20 38.3	18.34	+0.43	QSO	22.03.93	3300–7000	MMT		R		[2,21,23]
1103+595	11 03 00.40	+59 33 49.2	11 06 01.24	+59 17 36.2	17.5		QSO	13.03.85	3500–5700	BTA				[22]
1103+583A	11 03 26.90	+58 20 12.8	11 06 26.27	+58 03 59.4	18.0									
1103+511	11 03 38.35	+51 09 17.6	11 06 31.67	+50 53 04.0	17.5		DAB:	09.01.92	3500–6800	BTA				[22]
1103+586	11 03 38.48	+58 41 08.2	11 06 38.11	+58 24 54.6	17.5		DA	09.01.92	3300–6800	BTA				[22]
1103+583B	11 03 44.83	+58 21 38.1	11 06 44.09	+58 05 24.4	18.5		QSO							[25]
1104+510	11 04 40.23	+51 04 12.3	11 07 33.13	+50 47 57.7	19.0		QSO							[25]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1104+602	11 04 43.17	+60 14 52.5	11 07 43.92	+59 58 37.7	13.78	−0.02	DA3	22.03.93	3300–7000	BTA			LB 253	
1105+581	11 05 36.68	+58 10 19.6	11 08 34.91	+57 54 04.0	18.0		sdB							[25]
1105+601	11 05 41.45	+60 06 23.7	11 08 41.58	+59 50 08.0	18.0		NLQSO	04.05.00	4000–9000	GHO	110842.1+595010			[26]
1106+500A	11 06 21.20	+50 04 53.0	11 09 12.88	+49 48 36.7	19.0									
1106+608	11 06 31.51	+60 51 20.1	11 09 32.03	+60 35 03.5	15.32		sdB						PG	[6]
1106+555	11 06 42.14	+55 34 36.0	11 09 37.62	+55 18 19.3	17.5		QSO	08.02.97	3800–7200	BTA				[3]
1106+574	11 06 55.72	+57 28 38.2	11 09 52.72	+57 12 21.3	18.5		QSO							[25]
1107+603	11 07 11.20	+60 18 00.1	11 10 10.79	+60 01 42.9	18.0		DA	13.03.85	3400–6800	BTA				[22]
1107+557	11 07 38.54	+55 44 24.0	11 10 33.76	+55 28 06.4	17.5		QSO					R		[25]
1108+506	11 08 06.81	+50 37 14.0	11 10 58.23	+50 20 56.0	17.0		sdB	09.01.92	3300–6800	BTA				[22]
1108+563	11 08 11.23	+56 21 04.3	11 11 06.72	+56 04 46.2	16.50		DA6						GD 305	
1108+526	11 08 19.22	+52 38 18.6	11 11 11.88	+52 22 00.4	18.5		QSO							[25]
1108+574	11 08 30.50	+57 28 57.1	11 11 26.80	+57 12 38.7	18.5									
1108+511	11 08 32.03	+51 07 50.3	11 11 23.62	+50 51 31.9	18.16	+0.27	QSO	10.01.92	3300–7000	BTA	111125.6+505137			[3,21]
1108+560	11 08 36.91	+56 03 43.1	11 11 31.99	+55 47 24.6	16.38	+0.27	QSO	21.02.90	3200–7000	BTA	111131.7+554742			[3,19,23]
1108+581	11 08 41.90	+58 06 48.0	11 11 38.67	+57 50 29.3	17.5		QSO	07.02.97	3800–7200	BTA			HS1108+5806	[7]
1108+540	11 08 46.12	+54 04 10.3	11 11 39.62	+53 47 51.6	17.0		DA	03.01.78	3500–6900	BTA				[22]
1110+511	11 10 40.11	+51 09 05.1	11 13 30.97	+50 52 44.7	18.0									
1110+603	11 10 50.75	+60 18 50.4	11 13 48.55	+60 02 29.8	18.5									
1110+595	11 10 55.89	+59 35 17.3	11 13 52.96	+59 18 56.6	18.5		QSO	13.01.78	3700–5700	BTA				[9,19]
1111+501	11 11 51.47	+50 09 28.4	11 14 41.33	+49 53 06.9	17.5		DA	05.12.94	3700–5700	BTA				
1112+515	11 12 07.71	+51 34 01.0	11 14 58.30	+51 17 39.3	16.96	−0.03	QSO	22.03.93	3300–7000	MMT	111457.5+511740			[3,21,23]
1112+536	11 12 19.49	+53 36 59.9	11 15 11.30	+53 20 38.0	17.70	+0.13	QSO	28.11.95	3500–7000	BTA	111514.5+532013			
1112+529	11 12 27.50	+52 55 23.1	11 15 18.81	+52 39 01.1	18.5		QSO							[27]
1112+572	11 12 34.25	+57 17 46.6	11 15 28.60	+57 01 24.5	17.0		DA	13.01.78	3500–5700	BTA				[22]
1112+524	11 12 38.01	+52 24 50.1	11 15 28.94	+52 08 28.0	18.5									
1113+500	11 13 14.51	+50 00 06.6	11 16 03.81	+49 43 43.9	17.0		sd	22.03.93	3300–7000	MMT				[23]
1113+554A	11 13 37.08	+55 24 02.2	11 16 29.58	+55 07 39.2	17.0		DA	04.02.92	3300–6900	BTA				
1113+554B	11 13 54.05	+55 27 50.1	11 16 46.48	+55 11 26.9	17.0		DA	22.03.93	3300–7000	MMT				[22,23]
1114+499	11 14 01.39	+49 55 26.3	11 16 50.39	+49 39 03.0	17.5		Cont	30.04.00	4000–9000	GHO				
1114+523	11 14 31.83	+52 21 25.4	11 17 22.02	+52 05 01.6	17.5		sdB	05.12.95	3600–7000	BTA				
1115+609	11 15 16.51	+60 58 02.9	11 18 12.70	+60 41 38.5	18.5		sdB	07.12.85	3600–5400	BTA				[17]
1116+603	11 16 19.22	+60 21 22.3	11 19 14.33	+60 04 57.0	17.54	0.00	QSO	03.03.89	3500–6900	BTA		R		[10,17,23]
1116+610	11 16 26.63	+61 05 16.1	11 19 22.33	+60 48 50.7	18.5		QSO	06.04.92	3300–7000	BTA				[12,17]
1116+523	11 16 58.66	+52 22 19.1	11 19 47.96	+52 05 53.4	17.30	+0.10	QSO	22.03.93	3300–7000	MMT	111946.3+520603			[23]
1117+534	11 17 21.21	+53 29 27.2	11 20 11.01	+53 13 01.2	17.14	+0.09	QSO	13.01.78	3700–5700	BTA				[8,19,23]
1117+503	11 17 21.81	+50 21 19.5	11 20 09.90	+50 04 53.5	18.5		QSO							[25]
1117+605	11 17 34.09	+60 33 07.3	11 20 28.75	+60 16 41.1	17.5		Unclas	08.02.83	3700–5700	BTA				[17]
1117+532	11 17 45.24	+53 14 25.3	11 20 34.74	+52 57 58.9	17.5		Unclas	13.01.78	3700–5700	BTA				
1118+609	11 18 26.71	+60 56 48.4	11 21 21.26	+60 40 21.5	17.34	+0.35	QSO	11.11.85	3320–5080	BTA				[10,17,23]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1118+496	11 18 26.72	+49 41 52.3	11 21 14.11	+49 25 25.4	17.5		QSO							[25]
1119+612	11 19 37.49	+61 12 37.6	11 22 31.65	+60 56 09.8	18.5		QSO	05.03.89	3400–6830	BTA				[10,17]
1119+587	11 19 44.52	+58 46 00.6	11 22 36.72	+58 29 32.7	17.5		QSO							[25]
1119+582	11 19 53.10	+58 12 10.0	11 22 44.83	+57 55 42.0	17.5		QSO	03.03.89	3500–5700	BTA	112245.4+575554		HS1119+5812	
1119+601B	11 19 59.37	+60 08 01.5	11 22 52.48	+59 51 33.4	18.0		QSO	07.11.91	3300–6900	BTA				
1120+491	11 20 33.41	+49 09 56.6	11 23 19.85	+48 53 28.2	17.5		DA	05.12.94	3500–7000	BTA				
1121+612	11 21 12.33	+61 17 21.0	11 24 05.74	+61 00 52.1	18.5		QSO	08.03.88	3400–6800	BTA				[10,17]
1121+594	11 21 41.55	+59 27 16.1	11 24 33.32	+59 10 46.8	19.0		DA	14.03.83	3400–5100	BTA				[17]
1121+508	11 21 45.16	+50 49 59.6	11 24 31.96	+50 33 30.3	15.0		DA	22.03.93	3500–7000	MMT				[23]
1121+595	11 21 45.18	+59 32 58.0	11 24 36.99	+59 16 28.7	19.0		QSO	08.03.88	3430–6800	BTA		R		[17]
1122+517	11 22 07.29	+51 45 03.4	11 24 54.39	+51 28 33.9	16.01		sdB-O	05.02.89	3500–5700	ZTA			PG	[6]
1122+495	11 22 22.64	+49 34 25.0	11 25 08.66	+49 17 55.3	18.0		QSO							[25]
1122+546A	11 22 31.21	+54 36 11.4	11 25 19.60	+54 19 41.6	15.51	+0.08	DA4	13.01.78	3500–5700	BTA			GD 307	
1122+518	11 22 36.77	+51 48 19.3	11 25 23.71	+51 31 49.4	18.0		QSO							[25]
1123+594A	11 23 02.67	+59 26 51.4	11 25 53.78	+59 10 21.2	16.69	+0.24	QSO	30.03.87	3300–6700	BTA				[17,23]
1123+612	11 23 03.45	+61 12 20.3	11 25 55.83	+60 55 50.1	18.0		Unclas	08.02.83	3500–5700	BTA				
1124+612	11 24 05.11	+61 17 21.1	11 26 57.02	+61 00 50.2	17.5		DA	08.02.83	3500–5700	BTA				[22]
1125+558	11 25 05.05	+55 51 53.6	11 27 53.06	+55 35 22.1	16.5		DB	29.02.92	3400–7000	BTA				[22]
1125+526	11 25 10.55	+52 36 53.5	11 27 56.92	+52 20 21.9	18.0		QSO							[25]
1125+596	11 25 15.52	+59 36 28.2	11 28 05.66	+59 19 56.6	16.5		DA	13.01.78	3500–5700	BTA				[22]
1125+584	11 25 28.59	+58 25 42.8	11 28 17.89	+58 09 11.0	17.44	+0.12	QSO	03.03.89	3350–6740	BTA				[8,17,23]
1126+581	11 26 37.37	+58 07 19.0	11 29 25.96	+57 50 46.5	19.0		QSO	08.03.88	3430–6800	BTA				[8]
1126+516	11 26 56.69	+51 37 22.4	11 29 42.00	+51 20 50.0	17.0		NLQSO	15.03.00	4000–7200	BTA	112942.3+512055	R	RBS 989	[26]
1127+512	11 27 09.68	+51 16 33.1	11 29 54.75	+51 00 00.3	17.0		sdO:	05.03.92	3400–7000	BTA				[22]
1128+574	11 28 01.53	+57 25 39.5	11 30 49.10	+57 09 06.2	17.95	+0.11	QSO	16.11.79	3500–5700	BTA				[8,23]
1128+499	11 28 16.17	+49 54 59.9	11 31 00.33	+49 38 26.5	16.0		DA	29.02.92	3400–7000	BTA				
1128+579	11 28 17.25	+57 56 47.6	11 31 04.97	+57 40 14.1	18.5		QSO							[27]
1128+521	11 28 29.33	+52 08 17.2	11 31 14.27	+51 51 43.6	18.0		DA							[27]
1128+564B	11 28 31.44	+56 28 03.8	11 31 18.29	+56 11 30.2	16.36		DA2	13.01.78	3500–5700	BTA			PG, LB 2033	[6]
1128+520	11 28 46.36	+52 02 19.6	11 31 31.15	+51 45 45.9	18.5		QSO							[25]
1129+589	11 29 24.97	+58 54 17.9	11 32 12.69	+58 37 43.8	18.0		QSO							
1130+496	11 30 16.59	+49 39 17.0	11 32 59.98	+49 22 42.4	17.5		QSO							[27]
1130+563	11 30 54.76	+56 23 00.7	11 33 40.54	+56 06 25.8	15.05	−0.21	sdB	13.01.78	3500–5700	BTA			PG, LB 239	[6]
1131+521	11 31 13.87	+52 08 40.3	11 33 57.80	+51 52 05.2	17.0		DA	05.03.92	3400–7000	BTA				[22]
1131+492	11 31 25.39	+49 12 37.7	11 34 08.25	+48 56 02.5	17.5		sd	05.12.94	3500–7000	BTA				
1131+510	11 31 28.98	+51 05 21.7	11 34 12.44	+50 48 46.5	17.5		QSO					R		[27]
1132+573	11 32 32.95	+57 18 42.6	11 35 18.43	+57 02 06.9	19.0		F	08.03.88	3400–6800	BTA				[17]
1133+558	11 33 09.29	+55 48 33.2	11 35 53.87	+55 31 57.2	17.0		DA	05.12.94	3600–7000	BTA				
1133+489	11 33 27.49	+48 59 55.7	11 36 09.61	+48 43 19.5	16.5		sdOB	29.02.92	3400–7000	BTA				[22]
1133+555	11 33 43.47	+55 35 09.3	11 36 27.72	+55 18 33.0	17.95	+0.35	QSO	04.04.92	3300–7000	BTA	113628.9+551839			[21,23]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1134+563	11 34 01.47	+56 20 26.2	11 36 45.89	+56 03 49.8	18.29	+0.39	QSO	25.02.88	3500–7000	BTA				[19,23]
1135+565	11 35 07.95	+56 33 52.8	11 37 51.89	+56 17 15.8	17.5		Cont	04.05.00	4000–9000	GHO				
1135+585	11 35 09.34	+58 32 01.6	11 37 54.17	+58 15 24.6	15.91		sdB	13.01.78	3500–5700	BTA			PG	[6]
1135+579	11 35 26.67	+57 55 55.9	11 38 11.11	+57 39 18.8	18.46	+0.02	Unclas	08.02.83	3400–6900	BTA				[3,17]
1136+575	11 36 04.75	+57 30 55.5	11 38 48.73	+57 14 18.1	18.5		BALQSO	06.04.92	3300–7000	BTA	113849.4+571430			[10,21,22]
1136+542	11 36 13.10	+54 12 58.5	11 38 55.84	+53 56 21.1	17.5		QSO							[27]
1137+515	11 37 56.80	+51 33 18.6	11 40 38.08	+51 16 40.5	18.5									
1138+596	11 38 34.61	+59 37 09.0	11 41 18.24	+59 20 30.6	17.0		F	22.03.93	3300–7000	MMT				
1138+584	11 38 38.55	+58 26 29.9	11 41 21.70	+58 09 51.5	18.25	+0.38	QSO	16.11.79	3400–5200	BTA				[3,9,17]
1139+593	11 39 13.77	+59 20 26.2	11 41 56.98	+59 03 47.6	18.00		QSO	07.12.85	3500–6400	BTA				[17]
1139+534	11 39 14.07	+53 29 46.2	11 41 55.40	+53 13 07.6	17.85	+0.52	BALQSO	02.12.95	3500–7000	BTA				[3]
1139+583	11 39 53.94	+58 22 28.0	11 42 36.48	+58 05 49.1	18.5		G	25.11.81	3500–5700	BTA				[22]
1141+504	11 41 10.01	+50 27 02.8	11 43 49.88	+50 10 23.5	16.14		DA	06.02.89	3500–5700	ZTA			PG, LB 2094	[6]
1142+531	11 42 08.45	+53 09 28.5	11 44 48.57	+52 52 48.9	17.5		DA	05.12.94	3500–7000	BTA				
1142+570	11 42 53.63	+57 00 26.4	11 45 34.39	+56 43 46.6	14.5		HBB	22.04.87	3500–5700	BTA				[22]
1144+603	11 44 12.11	+60 20 16.2	11 46 53.19	+60 03 36.0	18.0		F	25.11.81	3500–5700	BTA				[22]
1144+589	11 44 30.08	+58 56 43.1	11 47 10.62	+58 40 02.8	18.0		DA							[27]
1144+599	11 44 51.61	+59 55 59.9	11 47 32.24	+59 39 19.5	17.0		DA	13.01.78	3500–5700	BTA				[22]
1145+502	11 45 04.24	+50 16 39.5	11 47 42.71	+49 59 59.1	18.0		QSO							[27]
1146+596	11 46 20.29	+59 39 05.5	11 49 00.12	+59 22 24.7	18.0		QSO							[27]
1146+595	11 46 50.22	+59 31 28.3	11 49 29.77	+59 14 47.4	17.5		sd:	28.04.00	4000–9000	GHO				
1146+593B	11 46 54.97	+59 22 56.3	11 49 34.45	+59 06 15.4	19.0		QSO							[25]
1146+608	11 46 59.83	+60 52 57.5	11 49 39.63	+60 36 16.6	18.0		QSO							[25]
1147+538	11 47 27.93	+53 49 19.1	11 50 06.10	+53 32 38.1	16.90	−0.26	QSO	22.03.93	3300–7000	MMT				[23]
1147+601	11 47 45.39	+60 10 09.6	11 50 24.63	+59 53 28.5	18.0									
1148+564	11 48 00.01	+56 25 27.1	11 50 38.40	+56 08 46.0	15.0		DA	28.03.87	3500–5700	BTA				[22]
1148+544	11 48 23.23	+54 26 44.8	11 51 01.13	+54 10 03.6	16.92	+0.20	DA5	29.03.87	3500–5700	BTA			G197-35	
1148+549	11 48 42.69	+54 54 13.9	11 51 20.53	+54 37 32.6	16.12		QSO	13.01.78	3500–5700	BTA	115120.0+543742	R	PG, LB 2126	[2,6]
1149+598	11 49 03.63	+59 51 14.7	11 51 42.16	+59 34 33.4	18.5		sdOB	29.03.86	3500–5200	BTA				[22]
1149+578	11 49 24.08	+57 51 08.6	11 52 02.09	+57 34 27.2	19.0		QSO							[27]
1149+585	11 49 28.12	+58 35 56.5	11 52 06.22	+58 19 15.1	18.0									
1149+560	11 49 33.46	+56 04 48.1	11 52 11.12	+55 48 06.7	16.0		DAF:	28.03.87	3500–5700	BTA				[22]
1149+611	11 49 34.88	+61 08 57.3	11 52 13.39	+60 52 15.9	18.5									
1149+499	11 49 56.13	+49 56 20.3	11 52 32.88	+49 39 38.8	17.5		QSO	28.04.00	4000–9000	GHO	RXJ1152.5+4939	R		
1149+509	11 49 57.05	+50 56 37.8	11 52 33.90	+50 39 56.3	15.0		DA:	09.04.91	3300–6900	BTA				[22]
1150+599A	11 50 47.02	+59 56 38.5	11 53 24.70	+59 39 56.9	17.5		CV	04.04.86	3500–5200	BTA				[22]
1150+497	11 50 47.97	+49 47 49.9	11 53 24.41	+49 31 08.3	16.67	+0.04	QSO				115324.4+493108	R	4C+49.22	[23]
1150+594	11 50 53.62	+59 26 25.1	11 53 31.17	+59 09 43.5	19.0									
1151+570	11 51 13.80	+57 00 55.7	11 53 50.86	+56 44 14.0	18.69	+0.07	QSO	07.03.88	3480–6980	BTA				[2,19,23]
1151+548	11 51 19.12	+54 52 09.5	11 53 55.89	+54 35 27.8	17.42	−0.30	QSO	21.02.90	3300–6920	BTA				[19,23]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1151+587	11 51 58.87	+58 46 37.9	11 54 35.81	+58 29 56.1	17.0		DBA	13.01.78	3400–6900	BTA				[22]
1152+523	11 52 31.54	+52 18 11.5	11 55 07.58	+52 01 29.6	16.57	+0.17	NLQSO	25.03.92	3300–7000	BTA	115508.1+520134	R		[21,26]
1153+511	11 53 40.48	+51 07 23.2	11 56 16.02	+50 50 41.2	18.0									
1154+555	11 54 19.52	+55 34 20.7	11 56 55.10	+55 17 38.7	16.0		HBB	29.03.87	3500–5700	BTA				[22]
1154+583A	11 54 30.32	+58 21 21.1	11 57 06.02	+58 04 39.1	18.0		DA	04.04.86	3500–5200	BTA				[22]
1154+514	11 54 47.37	+51 26 54.5	11 57 22.52	+51 10 12.4	16.5		DA	25.03.92	3400–6800	BTA				[22]
1154+595	11 54 53.36	+59 31 54.9	11 57 28.97	+59 15 12.8	18.5									
1154+561	11 54 53.74	+56 11 50.6	11 57 29.12	+55 55 08.5	16.5		G	29.03.89	3400–6900	BTA				[22]
1155+492	11 55 09.77	+49 13 01.2	11 57 44.69	+48 56 19.1	15.03	+0.13	CV						PG, BE UMa	[6]
1155+603	11 55 10.03	+60 19 34.5	11 57 45.56	+60 02 52.4	18.0									
1155+578A	11 55 48.27	+57 53 02.5	11 58 23.34	+57 36 20.3	18.0		Unclas	16.04.96	4000–7000	BTA				
1155+594	11 55 52.75	+59 26 08.4	11 58 27.86	+59 09 26.3	17.0		DA	13.01.78	3500–5700	BTA				[22]
1156+573	11 56 08.38	+57 22 19.0	11 58 43.27	+57 05 36.8	19.0							R		
1156+533	11 56 35.90	+53 23 11.0	11 59 10.50	+53 06 29.0	18.08	+0.91	QSO				MS11565+5323		MS	[3]
1157+596	11 57 02.94	+59 39 05.4	11 59 37.49	+59 22 23.2	19.0									
1157+503	11 57 25.52	+50 22 37.0	11 59 59.70	+50 05 54.8	18.5									
1158+597	11 58 10.20	+59 42 40.3	12 00 44.20	+59 25 58.1	17.5		DB	13.01.78	3600–5200	BTA				
1158+587	11 58 28.28	+58 43 55.9	12 01 02.12	+58 27 13.7	19.0		QSO				1WGAJ1201+5827			[27]
1158+574	11 58 34.91	+57 28 47.7	12 01 08.70	+57 12 05.5	18.0		QSO							[27]
1158+538	11 58 36.65	+53 53 46.4	12 01 10.42	+53 37 04.2	18.66	−0.04	QSO	13.01.78	3600–5200	BTA				[3,22]
1158+580	11 58 37.48	+58 04 34.5	12 01 11.25	+57 47 52.3	19.0		QSO					R		[27]
1158+599	11 58 58.92	+59 57 17.7	12 01 32.51	+59 40 35.5	17.5		DA	13.12.85	3500–5700	BTA				[22]
1159+604	11 59 27.62	+60 29 16.8	12 02 00.97	+60 12 34.6	17.5		QSO	28.04.00	4000–9000	GHO			HS1159+6029	
1200+559	12 00 16.28	+55 58 30.1	12 02 49.34	+55 41 47.9	18.26	−0.15	QSO	22.03.93	3300–7000	MMT				[23]
1200+548	12 00 21.35	+54 53 52.1	12 02 54.40	+54 37 09.9	16.31		DA2	13.01.78	3500–5700	BTA			PG, LB 2181	[6]
1200+589A	12 00 40.49	+58 57 12.8	12 03 13.28	+58 40 30.6	17.0		F	04.04.86	3800–5500	BTA				[22]
1201+517	12 01 00.31	+51 46 56.8	12 03 33.20	+51 30 14.6	17.24	+0.34	QSO	06.03.97	4000–7000	GHO	120332.2+513024			[3,22]
1201+540	12 01 03.29	+54 04 03.7	12 03 36.08	+53 47 21.5	17.5		sdB	05.12.94	3600–7000	BTA				
1201+524	12 01 14.91	+52 24 32.2	12 03 47.69	+52 07 50.0	16.20	+0.10	QSO	25.02.92	3400–7100	BTA	120347.5+520748	R		[21,23]
1201+590	12 01 33.04	+59 02 17.7	12 04 05.40	+58 45 35.6	18.5		QSO							[25]
1202+492	12 02 03.55	+49 13 36.7	12 04 36.15	+48 56 54.6	18.30	+0.11	QSO				120435.1+485648	R		
1202+608	12 02 06.84	+60 48 51.2	12 04 38.81	+60 32 09.1	13.23	−0.38	sdB						PG	[6]
1202+596	12 02 29.26	+59 37 21.9	12 05 01.13	+59 20 39.8	18.5		QSO							[25]
1202+518	12 02 53.59	+51 48 23.3	12 05 25.78	+51 31 41.2	17.5		QSO							[25]
1203+587	12 03 19.86	+58 46 40.9	12 05 51.39	+58 29 58.9	18.5		DA	04.04.86	3500–5200	BTA				
1203+525	12 03 39.06	+52 32 20.0	12 06 10.92	+52 15 38.0	19.0									
1203+574	12 03 52.97	+57 26 19.7	12 06 24.36	+57 09 37.7	14.92		sdB	06.02.89	3500–5700	ZTA			PG, LB 2211	[6]
1204+560	12 04 23.47	+56 03 29.6	12 06 54.76	+55 46 47.7	17.0		DA	06.04.91	3400–7000	BTA		R:		[22]
1204+597	12 04 31.52	+59 45 35.0	12 07 02.37	+59 28 53.1	17.46	+0.33	QSO	13.01.78	3700–5700	BTA				[9,19,23]
1204+543	12 04 57.23	+54 18 11.8	12 07 28.45	+54 01 30.0	15.75		sdOC						PG, LB 2216	[6]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1205+528A	12 05 05.53	+52 53 53.5	12 07 36.82	+52 37 11.7	17.0		HBB	22.03.93	3500–7000	MMT				
1205+529	12 05 51.46	+52 56 55.3	12 08 22.45	+52 40 13.5	17.23	+0.23	QSO	27.12.97	3500–6900	BTA	120823.8+524022	R		[3]
1206+571	12 06 11.74	+57 10 18.3	12 08 42.12	+56 53 36.6	18.5									
1206+584	12 06 58.07	+58 24 37.9	12 09 27.92	+58 07 56.3	18.5		QSO							[27]
1207+562	12 07 18.68	+56 12 06.6	12 09 48.70	+55 55 25.1	18.0									
1207+519	12 07 44.68	+51 54 31.4	12 10 15.08	+51 37 50.0	19.0									
1207+544	12 07 59.53	+54 27 46.0	12 10 29.50	+54 11 04.6	18.0		QSO	13.12.85	3500–5400	BTA				[18]
1208+594	12 08 04.05	+59 28 38.7	12 10 33.20	+59 11 57.3	19.0		QSO							[25]
1208+559	12 08 11.05	+55 55 39.7	12 10 40.73	+55 38 58.3	19.5									
1208+558	12 08 24.57	+55 51 08.6	12 10 54.17	+55 34 27.3	18.5									
1208+554	12 08 26.07	+55 26 33.5	12 10 55.72	+55 09 52.2	19.58	+0.61	QSO	04.03.89	3500–6700	BTA				[3,13,18]
1208+549	12 08 27.23	+54 55 36.9	12 10 56.95	+54 38 55.6	18.5		NLQSO:							[27]
1208+563	12 08 40.90	+56 20 28.5	12 11 10.30	+56 03 47.2	19.0		Unclas	06.04.86	3600–5200	BTA				
1208+495	12 08 58.35	+49 33 40.1	12 11 28.60	+49 16 58.9	17.5		QSO	19.05.93	3400–6800	BTA				
1208+595	12 08 58.42	+59 30 10.9	12 11 27.12	+59 13 29.7	19.0									
1209+558	12 09 02.76	+55 49 11.4	12 11 32.09	+55 32 30.2	18.0		QSO	27.11.87	3500–6600	BTA				[13]
1209+551	12 09 41.44	+55 09 09.9	12 12 10.61	+54 52 28.8	18.0		Cont	14 12.85	3500–5400	BTA				[18]
1210+511	12 10 00.26	+51 10 43.2	12 12 29.93	+50 54 02.2	17.0		sd	25.02.92	3400–6900	BTA				[22]
1210+549	12 10 06.91	+54 55 39.5	12 12 35.95	+54 38 58.5	16.0		Unclas	15.04.89	3400–5700	BTA				
1210+576	12 10 25.82	+57 38 32.8	12 12 54.21	+57 21 51.9	18.0									
1210+537B	12 10 28.56	+53 43 37.4	12 12 57.66	+53 26 56.5	18.0		sdB-O	16.03.80	3500–5700	BTA				[22]
1210+570	12 10 33.97	+57 02 07.2	12 13 02.42	+56 45 26.3	18.5		QSO	14.05.85	3600–5100	BTA				[13,18]
1210+533	12 10 55.60	+53 20 40.1	12 13 24.58	+53 03 59.3	13.92		DAO	18.04.88	3500–5700	BTA			PG	[6]
1211+610	12 11 47.51	+61 00 52.5	12 14 14.43	+60 44 11.9	18.5									
1211+553	12 11 56.63	+55 19 07.0	12 14 24.83	+55 02 26.4	16.5		sd	14.12.80	3500–5400	BTA				[18]
1212+586	12 12 30.16	+58 40 55.3	12 14 57.35	+58 24 14.9	18.5									
1212+554	12 12 49.36	+55 29 15.6	12 15 17.16	+55 12 35.3	18.0		QSO							[27]
1213+538	12 13 01.01	+53 52 36.9	12 15 28.91	+53 36 06.4	18.0		QSO					R	4C+53.24	
1213+567	12 13 32.61	+56 47 10.6	12 15 59.80	+56 30 30.5	19.0		QSO	14.12.85	3560–5020	BTA				[14,18]
1213+528	12 13 41.68	+52 49 25.6	12 16 09.70	+52 32 45.5	13.87	+0.53	DA4+MV						EG 087	
1213+498	12 13 51.61	+49 49 54.3	12 16 20.15	+49 33 14.3	18.0		QSO							[25]
1214+523	12 14 36.35	+52 19 36.5	12 17 04.13	+52 02 56.7	18.5									
1215+521	12 15 09.01	+52 11 50.1	12 17 36.62	+51 55 10.4	17.33	+0.13	QSO	22.03.93	3500–7000	MMT		R		[14,19,23]
1215+497	12 15 12.61	+49 47 56.6	12 17 40.70	+49 31 17.0	17.64	+0.24	QSO	22.03.93	3500–7000	MMT				[3,23]
1215+500	12 15 29.23	+50 02 37.5	12 17 57.13	+49 45 58.1	17.5		QSO				1WGAJ1217.9+494			[25]
1215+557	12 15 29.68	+55 46 15.6	12 17 56.29	+55 29 36.0	17.5		Unclas	16.03.80	3500–5700	BTA				
1215+584	12 15 31.45	+58 29 29.9	12 17 57.26	+58 12 50.4	18.0		Unclas	06.04.92	3400–6800	BTA				
1215+552	12 15 49.03	+55 14 47.0	12 18 15.64	+54 58 07.6	19.5		QSO	27.12.84	3500–5400	BTA				[22,29]
1216+505	12 16 12.78	+50 32 16.7	12 18 40.50	+50 15 42.8	16.84	+0.38	QSO	15.04.91	3500–7000	BTA		R	HS1216+5032	[18,21,23]
1216+503	12 16 16.38	+50 18 36.6	12 18 43.99	+50 01 57.3	18.5									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1216+522	12 16 38.32	+52 12 10.9	12 19 05.37	+51 55 31.7	17.5		F	19.05.93	3400–6800	BTA				[22]
1216+610	12 16 57.86	+61 01 19.8	12 19 22.09	+60 44 40.7	17.5		G	11.04.91	3400–7000	BTA				[22]
1217+499	12 17 03.43	+49 57 30.2	12 19 30.85	+49 40 51.2	17.13	+0.37	QSO	22.03.93	3500–7000	MMT		R		[21,23]
1217+490	12 17 06.98	+49 02 13.1	12 19 34.58	+48 45 34.1	17.0		F:	12.03.97	4000–7000	GHO				[22]
1217+544	12 17 17.26	+54 25 12.9	12 19 43.49	+54 08 33.9	18.5		QSO	27.12.84	3500–5400	BTA		R		[13,18]
1217+535	12 17 21.69	+53 30 52.1	12 19 48.14	+53 14 13.2	18.0		DB	17.03.86	3500–5200	BTA				[18]
1217+597	12 17 37.56	+59 43 24.4	12 20 01.94	+59 26 45.6	18.5									
1217+566	12 17 43.08	+56 37 53.5	12 20 08.48	+56 21 14.7	19.5		QSO	05 04.86	3500–5200	BTA				[18]
1217+523	12 17 54.55	+52 23 34.3	12 20 21.08	+52 06 55.5	17.5		QSO	05.04.86	3500–5200	BTA				[18,25]
1217+559B	12 17 55.22	+55 59 47.2	12 20 20.73	+55 43 08.5	18.0		F	19.02.82	3500–5700	BTA				[22]
1218+497	12 18 38.74	+49 43 58.9	12 21 05.67	+49 27 20.4	15.64		DA1	23.03.87	3400–6800	BTA			PG, LB 2318	[6]
1218+516	12 18 50.16	+51 36 06.5	12 21 16.55	+51 19 28.1	18.5		sdB							[25]
1218+538	12 18 56.34	+53 53 59.9	12 21 22.06	+53 37 21.6	19.5		sd	20.02.82	3500–5700	BTA				[22]
1219+533	12 19 03.35	+53 21 15.3	12 21 29.18	+53 04 37.0	12.41		sd	18.04.88	3400–6800	ZTA			PG	[6]
1219+589	12 19 18.62	+58 59 32.4	12 21 42.46	+58 42 54.2	18.5		QSO							[27]
1219+594	12 19 20.27	+59 24 26.1	12 21 43.94	+59 07 47.9	18.5		DA							[25]
1219+551A	12 19 29.06	+55 07 26.0	12 21 54.19	+54 50 47.9	18.0		DA	17.03.86	3500–5200	BTA				[18]
1219+513	12 19 31.73	+51 23 01.9	12 21 57.93	+51 06 23.8	18.5		QSO							[27]
1219+542	12 19 41.80	+54 14 02.4	12 22 07.12	+53 57 24.4	19.0		QSO	26.02.88	3400–6700	BTA				[9,18]
1219+590	12 19 55.06	+59 04 00.8	12 22 18.58	+58 47 22.8	17.5		sd	01.05.00	4000–9000	GHO				
1220+590	12 20 01.50	+59 04 33.7	12 22 24.97	+58 47 55.8	18.0		DA							[27]
1220+567	12 20 05.27	+56 43 04.8	12 22 29.60	+56 26 26.9	19.0		QSO	22.02.82	3700–5400	BTA				[11,18]
1220+559	12 20 35.75	+55 56 37.5	12 23 00.14	+55 39 59.8	18.0		QSO	22.02.82	3400–6700	BTA				[11,18]
1220+564	12 20 39.16	+56 29 36.6	12 23 03.33	+56 12 58.9	19.5		Cont	04.04.86	3500–5200	BTA				[18]
1221+537	12 21 12.02	+53 45 07.1	12 23 36.89	+53 28 29.7	19.0		DA	17.03.86	3500–5200	BTA				[22]
1221+545A	12 21 18.76	+54 30 03.1	12 23 43.34	+54 13 25.7	18.5		QSO	11.04.81	3700–5500	BTA				[11,18]
1221+590	12 21 32.04	+59 05 05.3	12 23 54.78	+58 48 28.0	19.0		QSO							[25]
1221+503	12 21 44.20	+50 18 31.7	12 24 09.92	+50 01 54.5	17.49	+0.42	QSO	22.03.93	3500–7000	MMT		R		[3]
1222+546	12 22 18.14	+54 37 58.6	12 24 42.28	+54 21 21.6	18.5		QSO	11.01.85	3320–6600	BTA				[14,18]
1222+557	12 22 58.19	+55 44 08.3	12 25 21.65	+55 27 31.7	19.5									
1223+565	12 23 05.49	+56 32 57.6	12 25 28.57	+56 16 21.0	19.0		QSO	01.05.89	3500–6700	BTA				[18]
1223+533A	12 23 14.95	+53 18 52.6	12 25 39.17	+53 02 16.1	18.5		F:	22.02.82	3500–5700	BTA				[22]
1223+567	12 23 30.23	+56 43 32.8	12 25 53.06	+56 26 56.4	19.5									
1223+573	12 23 48.24	+57 22 52.8	12 26 10.66	+57 06 16.5	18.5									
1223+592	12 23 54.29	+59 12 05.2	12 26 15.84	+58 55 29.0	19.0									
1224+582	12 24 15.33	+58 16 04.6	12 26 37.15	+57 59 28.5	16.39		sd	18.04.88	3400–6800	ZTA			PG	[6]
1224+539	12 24 53.98	+53 58 30.3	12 27 17.32	+53 41 54.6	18.5		Unclas	30.04.89	3600–7000	BTA				
1224+561B	12 24 54.35	+56 11 07.0	12 27 16.77	+55 54 31.5	19.5		QSO	28.12.84	3500–5700	BTA				[13,18]
1224+569	12 24 55.39	+56 55 02.0	12 27 17.52	+56 38 26.3	19.0		DA	20.02.82	3500–5700	BTA				[22]
1224+607	12 24 57.49	+60 42 38.5	12 27 17.74	+60 26 02.8	18.5		DA							[25]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1226+514	12 26 11.92	+51 26 10.7	12 28 35.70	+51 09 35.6	17.5		QSO							[27]
1226+570	12 26 22.38	+57 01 36.1	12 28 43.82	+56 45 01.1	18.5		sdB	20.02.82	3500–5700	BTA				[22]
1226+601	12 26 54.06	+60 06 37.3	12 29 13.66	+59 50 02.6	19.0		QSO							[27]
1227+522	12 27 05.94	+52 16 03.5	12 29 29.09	+51 59 28.9	18.5		QSO							[27]
1227+553	12 27 15.19	+55 22 49.7	12 29 37.00	+55 06 15.2	16.5		QSO	16.03.80	3500–5400	BTA				[22]
1227+570	12 27 25.18	+57 04 02.3	12 29 46.14	+56 47 27.9	19.0									
1228+540	12 28 04.42	+54 05 47.4	12 30 26.45	+53 49 13.3	18.5									
1228+551	12 28 15.22	+55 07 33.1	12 30 36.73	+54 50 59.1	18.0		F:	19.02.82	3500–5700	BTA				[22]
1228+514	12 28 28.19	+51 28 41.9	12 30 51.14	+51 12 08.1	18.5									
1228+593	12 28 56.19	+59 23 40.7	12 31 15.17	+59 07 07.3	18.0		QSO	04.05.00	4000–9000	GHO	123114.9+590706			[22,26]
1228+557	12 28 57.22	+55 44 58.1	12 31 18.15	+55 28 24.5	18.0		QSO	05.03.89	3500–6700	BTA				[12,18]
1229+557	12 29 06.24	+55 43 38.5	12 31 27.12	+55 27 05.0	19.5		QSO	20.02.82	3500–5400	BTA				[27]
1229+569	12 29 17.14	+56 58 40.2	12 31 37.32	+56 42 06.8	19.5		QSO							[27]
1229+582B	12 29 21.58	+58 17 02.8	12 31 41.03	+58 00 29.5	19.0									
1229+597	12 29 27.65	+59 45 06.7	12 31 46.20	+59 28 33.4	18.0		QSO	13.01.78	3500–5700	BTA				[9,19]
1229+566	12 29 50.16	+56 40 30.6	12 32 10.25	+56 23 57.5	18.0		sd:	05.03.89	3500–6700	BTA				[18]
1229+580	12 29 52.54	+58 03 41.7	12 32 11.87	+57 47 08.7	17.0		DA	11.04.91	3400–7000	BTA				[22]
1229+571	12 29 55.41	+57 11 51.0	12 32 15.19	+56 55 18.0	18.0		QSO	18.03.86	3500–5200	BTA	123215.3+565527			[18,22]
1229+502B	12 29 57.18	+50 13 54.8	12 32 20.08	+49 57 21.8	17.0		NLQSO	04.05.00	4000–9000	GHO	123220.6+495731		RBS 1127	[26]
1230+507	12 30 00.15	+50 44 13.4	12 32 22.84	+50 27 40.5	18.0									
1230+565	12 30 15.05	+56 33 43.7	12 32 35.02	+56 17 10.9	19.0		QSO							[27]
1230+499	12 30 15.50	+49 59 58.5	12 32 38.39	+49 43 25.7	18.5		Cont							[27]
1230+559	12 30 34.95	+55 57 55.2	12 32 55.08	+55 41 22.6	18.0		QSO	26.12.84	3500–5900	BTA				[13,18]
1231+607	12 31 01.20	+60 45 33.0	12 33 18.32	+60 29 00.6	18.0									
1231+494	12 31 13.05	+49 27 00.5	12 33 35.82	+49 10 28.3	16.5		DA	16.04.96	4000–7000	GHO				[22]
1231+511	12 31 25.79	+51 11 15.9	12 33 47.79	+50 54 43.8	18.0		QSO							[27]
1232+563	12 32 13.83	+56 23 14.7	12 34 33.04	+56 06 43.1	18.5		sd:	22.02.82	3500–5700	BTA				[27]
1232+519	12 32 22.50	+51 56 23.1	12 34 43.84	+51 39 51.6	18.0		QSO							[27]
1232+500	12 32 28.67	+50 03 52.9	12 34 50.77	+49 47 21.5	13.94	−0.04	sd	18.04.88	3400–6800	ZTA			PG	[6]
1232+555	12 32 38.15	+55 34 29.4	12 34 57.62	+55 17 58.1	18.5		QSO	26.12.84	3500–5900	BTA				[13,18]
1233+582	12 33 01.32	+58 16 20.6	12 35 19.08	+57 59 49.5	18.5		sd							[27]
1233+523	12 33 20.92	+52 22 42.5	12 35 41.70	+52 06 11.6	17.0		DA	25.03.92	3300–6900	BTA				[22]
1233+594	12 33 32.64	+59 26 57.9	12 35 49.39	+59 10 27.1	17.25	+0.29	QSO	21.02.90	3300–7000	BTA				[19,23]
1234+610	12 34 00.48	+61 01 12.6	12 36 15.89	+60 44 42.1	17.0		Unclas	11.04.91	3400–7000	BTA				
1234+607	12 34 06.59	+60 46 51.1	12 36 22.12	+60 30 20.7	18.06	+0.12	QSO	21.02.90	3300–7000	BTA				[19,23]
1234+500	12 34 11.88	+50 03 31.2	12 36 33.40	+49 47 00.9	18.0									
1234+530	12 34 19.72	+53 05 13.4	12 36 39.79	+52 48 43.2	17.04	+0.04	QSO	12.03.97	4000–7000	GHO				[3,22]
1234+563	12 34 29.20	+56 21 11.4	12 36 47.46	+56 04 41.3	17.5		DA	20.02.82	3500–5400	BTA				[18]
1234+505	12 34 31.49	+50 31 43.1	12 36 52.69	+50 15 13.0	14.85		sdB	18.04.88	3400–6800	ZTA			PG	[6]
1234+519	12 34 43.85	+51 56 43.9	12 37 04.32	+51 40 14.0	18.5		QSO							[25]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1234+523	12 34 57.14	+52 21 49.7	12 37 17.33	+52 05 19.9	18.5		QSO							[25]
1235+591	12 35 44.57	+59 09 53.6	12 38 00.46	+58 53 24.3	18.5		QSO							[25]
1235+537	12 35 48.56	+53 42 24.9	12 38 07.86	+53 25 55.5	18.0		QSO				123808.3+532603	R	RBS 1137	[25]
1236+513	12 36 01.98	+51 23 23.2	12 38 22.25	+51 06 54.2	17.5		QSO							[27]
1236+593	12 36 41.99	+59 18 36.1	12 38 57.32	+59 02 07.5	18.5									
1236+507	12 36 56.61	+50 43 26.3	12 39 16.88	+50 26 57.9	18.0		DA							[27]
1236+495	12 36 59.10	+49 32 27.2	12 39 19.90	+49 15 58.8	18.0		QSO	08.02.97	3800–7200	BTA			HS1236+4932	
1237+562	12 37 06.18	+56 17 05.7	12 39 23.36	+56 00 37.4	18.20	+0.12	QSO	22.03.93	3500–7000	MMT				[23]
1238+515	12 38 18.85	+51 32 28.7	12 40 38.23	+51 16 01.3	13.29	−0.25	sdOB						PG	[6]
1238+505	12 38 21.56	+50 30 32.4	12 40 41.44	+50 14 05.1	18.0									
1238+519	12 38 57.57	+51 57 56.9	12 41 16.49	+51 41 26.4	18.0		QSO				124117.7+514131	R		[25]
1239+498	12 39 19.83	+49 50 31.8	12 41 39.70	+49 34 05.2	17.76	+0.06	QSO	20.03.96	3500–7000	BTA	124139.1+493406	R	HS1239+4950	[3]
1239+508	12 39 37.75	+50 52 27.8	12 41 57.00	+50 36 01.4	16.5		DA	05.03.92	3400–6900	BTA				[22]
1240+527	12 40 13.40	+52 42 50.7	12 42 31.45	+52 26 24.8	17.5		sdB							[25]
1240+546	12 40 25.56	+54 36 00.4	12 42 42.41	+54 19 34.6	18.28	+0.46	QSO	20.03.91	3300–7100	BTA				[21,23]
1240+507	12 40 45.24	+50 43 52.6	12 43 04.18	+50 27 27.1	17.0		sdB	02.04.92	3300–6900	BTA				[22]
1241+562	12 41 24.64	+56 12 30.5	12 43 40.03	+55 56 05.5	17.5		G	07.03.88	3500–6800	BTA				[22]
1241+586	12 41 54.34	+58 40 17.0	12 44 07.69	+58 23 52.4	17.5		DAO	11.04.91	3400–7000	BTA				[22]
1242+523	12 42 03.94	+52 18 49.0	12 44 21.53	+52 02 24.5	17.5		DA							[25]
1242+501	12 42 27.51	+50 09 53.6	12 44 46.16	+49 53 29.5	18.5		QSO							[27]
1242+493	12 42 28.89	+49 20 55.0	12 44 47.96	+49 04 30.9	18.5		QSO						HS1242+4920	
1242+494	12 42 32.12	+49 25 24.7	12 44 51.13	+49 09 00.6	18.5		QSO						HS1242+4925	
1242+601	12 42 38.26	+60 08 20.1	12 44 50.03	+59 51 56.1	18.5									
1242+604	12 42 55.47	+60 26 43.3	12 45 06.83	+60 10 19.5	15.69		sdB-O	06.02.89	3500–5700	ZTA			PG	[6]
1244+566	12 44 31.49	+56 36 24.5	12 46 45.27	+56 20 02.1	17.0		DA	11.04.91	3400–7000	BTA				[22]
1244+498	12 44 45.10	+49 50 43.1	12 47 03.15	+49 34 20.9	16.0		DB	22.03.93	3500–7000	MMT				
1245+567	12 45 14.78	+56 46 21.7	12 47 28.12	+56 29 59.9	16.5		sd	11.01.91	3300–7000	BTA				[22]
1245+553	12 45 23.14	+55 18 52.2	12 47 37.51	+55 02 30.5	17.0		DA+G	22.03.93	3500–7000	MMT				
1246+586	12 46 07.28	+58 36 49.9	12 48 18.72	+58 20 28.9	15.48		BLLac				124818.9+582031	R	PG, RBS1158	[6,27]
1247+568	12 47 04.63	+56 48 35.9	12 49 17.15	+56 32 15.8	17.5		DA	11.04.91	3400–7000	BTA				[22]
1247+575	12 47 04.71	+57 34 23.4	12 49 16.60	+57 18 03.2	16.23		DA	18.04.88	3400–6800	ZTA			PG	[6]
1247+523	12 47 06.39	+52 18 16.3	12 49 22.14	+52 01 56.2	16.5		F	22.03.93	3500–7000	MMT				
1247+527	12 47 16.32	+52 46 58.9	12 49 31.69	+52 30 39.0	16.58	+0.14	QSO	05.03.92	3400–7000	BTA	124931.6+523046		RBS 1163	[21,23]
1247+553	12 47 51.55	+55 22 21.8	12 50 04.86	+55 06 02.4	12.34	+0.03	DA3	27.12.89	3500–5700	BTA			PG	[6]
1247+581	12 47 55.52	+58 07 42.3	12 50 06.56	+57 51 22.9	18.0		sdB							[27]
1249+514	12 49 43.25	+51 29 05.9	12 51 58.59	+51 12 48.3	18.5		QSO							[25]
1249+503	12 49 43.90	+50 18 22.7	12 51 59.99	+50 02 05.1	17.88	+0.10	QSO	20.03.91	3300–7100	BTA				[21,23]
1250+568	12 50 15.08	+56 50 38.5	12 52 26.20	+56 34 21.3	17.76	−0.17	QSO				125228.7+563446	R	3C277.1	
1250+525	12 50 34.47	+52 32 20.9	12 52 48.79	+52 16 04.1	17.5		sdB							[25]
1251+572	12 51 14.65	+57 17 32.8	12 53 24.95	+57 01 16.6	17.83	+0.19	QSO	11.04.97	4000–7000	GHO				[3,22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1251+513	12 51 24.76	+51 18 20.1	12 53 39.62	+51 02 04.1	17.59	+0.09	QSO	16.04.97	4000–7000	GHO				[3,22]
1251+586	12 51 51.32	+58 36 03.0	12 54 00.12	+58 19 47.4	18.0		DA	14.05.85	3500–5050	BTA				[22]
1255+546	12 55 38.73	+54 41 46.8	12 57 49.45	+54 25 35.1	13.40		sdOA	29.12.89	3500–5700	BTA			PG	[6]
1256+495	12 56 50.39	+49 35 03.8	12 59 04.58	+49 18 53.5	18.5									
1257+609	12 57 34.73	+60 55 08.7	12 59 38.23	+60 38 59.1	16.5		sdB	05.03.92	3400–7000	BTA				[22]
1257+576	12 57 36.99	+57 39 54.9	12 59 44.12	+57 23 45.4	16.5		DO	04.05.87	3400–6800	ZTA				
1257+494	12 57 55.84	+49 24 40.2	13 00 09.79	+49 08 31.1	18.0		QSO				130009.0+490839			[27]
1258+585	12 58 11.30	+58 32 04.6	13 00 17.26	+58 15 55.7	18.41	+0.30	QSO	19.05.93	3400–6800	BTA				[3,22]
1258+593	12 58 30.01	+59 20 21.0	13 00 34.94	+59 04 12.4	15.44	+0.13	DA4	18.04.88	3400–6800	ZTA			PG	[6]
1258+518	12 58 30.82	+51 48 04.2	13 00 42.81	+51 31 55.7	18.5		NLQSO							[25]
1259+593	12 59 08.23	+59 18 14.6	13 01 12.90	+59 02 06.7	15.71		QSO	23.03.93	3500–7000	BTA			PG	[6]
1300+523	13 00 24.33	+52 23 19.4	13 02 35.17	+52 07 13.0	16.0		DAB	05.03.92	3400–7000	BTA				[22]
1300+514	13 00 25.19	+51 26 01.5	13 02 36.80	+51 09 55.2	16.5		G	13.03.97	4000–7000	GHO				[22]
1301+544	13 01 23.23	+54 28 29.4	13 03 31.89	+54 12 24.2	15.51		DA2	04.05.87	3500–5700	ZTA			PG	[6]
1302+516	13 02 11.56	+51 40 21.2	13 04 22.35	+51 24 16.9	18.0		QSO							[25]
1302+564	13 02 15.40	+56 24 22.8	13 04 21.83	+56 08 18.6	17.63	+0.22	QSO	26.02.88	3300–6800	BTA	130420.2+560818			[19,23]
1302+597	13 02 30.08	+59 43 31.4	13 04 32.65	+59 27 27.4	14.39	−0.13	DAB						PG	[6]
1303+555	13 03 04.11	+55 30 03.7	13 05 11.12	+55 14 00.5	17.5		QSO							[27]
1303+536	13 03 30.90	+53 38 11.2	13 05 39.51	+53 22 08.5	17.0		DA	06.04.91	3400–7000	BTA				[22]
1303+532	13 03 35.47	+53 17 39.1	13 05 44.36	+53 01 36.5	16.33	+0.23	QSO	22.03.93	3500–7000	MMT				[21,23]
1303+511	13 03 36.85	+51 11 19.1	13 05 47.54	+50 55 16.6	18.5									
1303+557	13 03 56.97	+55 45 46.2	13 06 03.36	+55 29 44.0	18.0		QSO				RXJ1306.0+5529	R		[27]
1303+565	13 03 57.21	+56 31 39.2	13 06 02.80	+56 15 37.0	17.0		DA:	26.04.87	3500–5700	BTA				[22]
1303+583	13 03 58.30	+58 19 22.4	13 06 01.88	+58 03 20.2	16.85	+0.05	QSO	22.03.93	3300–7000	MMT	130601.3+580323			[21,23]
1304+491	13 04 03.38	+49 06 22.8	13 06 15.57	+48 50 20.8	13.46		sdB-O						PG	[6]
1304+541	13 04 27.57	+54 06 09.8	13 06 35.39	+53 50 08.3	17.0		DA	02.04.91	3400–6800	BTA				[22]
1304+595	13 04 32.07	+59 30 36.3	13 06 33.95	+59 14 34.8	18.0									
1304+492	13 04 33.80	+49 12 31.0	13 06 45.75	+48 56 29.6	18.0		sd							[29]
1304+599	13 04 58.50	+59 56 58.6	13 06 59.61	+59 40 57.6	18.5		QSO							[25]
1305+599	13 05 02.47	+59 57 10.3	13 07 03.54	+59 41 09.4	18.0									
1305+545	13 05 09.75	+54 32 40.9	13 07 16.87	+54 16 40.2	18.0									
1305+510	13 05 10.34	+51 05 47.7	13 07 20.57	+50 49 47.1	18.0									
1305+538	13 05 21.41	+53 51 53.3	13 07 29.11	+53 35 52.9	17.46	+0.27	QSO	19.05.93	3400–6800	BTA		R		[3,22]
1305+583	13 05 27.55	+58 22 40.6	13 07 30.40	+58 06 40.3	18.5									
1305+517	13 05 32.17	+51 44 04.1	13 07 41.73	+51 28 03.9	18.0		QSO							[25]
1305+541B	13 05 45.97	+54 07 51.1	13 07 53.26	+53 51 51.2	19.5		CV	29.05.00	4000–9000	GHO	130753.6+535137		EV UMa	
1305+606	13 05 52.97	+60 41 48.3	13 07 52.63	+60 25 48.5	17.5		QSO							[25]
1306+509	13 06 08.76	+50 59 37.8	13 08 18.74	+50 43 38.4	18.0		DA							[25]
1306+544	13 06 12.96	+54 29 38.3	13 08 19.72	+54 13 39.0	17.5		QSO							
1306+563	13 06 25.52	+56 21 36.5	13 08 30.26	+56 05 37.4	17.0		sdB	02.04.91	3400–6800	BTA				[27]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1306+497	13 06 35.98	+49 45 59.9	13 08 46.83	+49 30 01.1	17.5		sdB							[22,27]
1306+520	13 06 50.44	+52 02 39.2	13 08 59.27	+51 46 40.7	18.0		DA							[25]
1306+561	13 06 51.05	+56 11 28.4	13 08 55.79	+55 55 29.8	18.0		DA							[27]
1307+563A	13 07 02.74	+56 19 23.5	13 09 07.26	+56 03 25.1	18.17	−0.13	QSO	26.02.88	3300–6800	BTA				[19,23]
1307+562	13 07 05.18	+56 13 35.5	13 09 09.79	+55 57 37.2	18.0		QSO	18.05.93	3300–6800	BTA	RXJ1309.0+5957	R		[22]
1308+512	13 08 56.78	+51 16 34.8	13 11 05.56	+51 00 39.0	17.74	+0.42	DLAQSO	06.04.91	3400–7000	BTA				[21,23]
1309+515	13 09 13.11	+51 31 19.1	13 11 21.58	+51 15 23.7	18.0		QSO							[25]
1309+544	13 09 42.68	+54 27 00.6	13 11 48.13	+54 11 05.8	17.0		DA+K	10.04.91	3800–5400	BTA				[22]
1309+580	13 09 43.54	+58 00 24.2	13 11 44.94	+57 44 29.3	17.5									
1309+550	13 09 52.11	+55 00 48.7	13 11 56.91	+54 44 54.1	16.0		DA	13.01.96	3500–7000	BTA				
1309+511	13 09 58.37	+51 09 23.5	13 12 06.90	+50 53 29.1	16.0		DA:	06.03.92	3400–6900	BTA				[22]
1310+519	13 10 00.42	+51 57 53.6	13 12 08.20	+51 41 59.2	18.0									
1310+535	13 10 18.61	+53 31 39.6	13 12 24.78	+53 15 45.6	18.0		QSO							[27]
1310+548	13 10 44.89	+54 48 38.1	13 12 49.56	+54 32 44.6	15.77	−0.21	sdB-O	29.01.89	3500–5700	BTA			PG	[6]
1310+566	13 10 53.77	+56 36 48.2	13 12 56.36	+56 20 54.9	18.5		DA							[27]
1310+583	13 10 56.34	+58 21 08.1	13 12 56.76	+58 05 14.9	13.89		DA5						PG	[6]
1311+546	13 11 03.90	+54 37 08.2	13 13 08.65	+54 21 15.2	17.5		QSO				131308.5+542116			[27]
1311+540	13 11 15.33	+54 00 30.0	13 13 20.65	+53 44 37.2	17.75	−0.10	QSO	26.02.88	3300–6800	BTA	1WGAJ1313.2+534			[21,23]
1311+504	13 11 31.65	+50 24 27.2	13 13 40.33	+50 08 34.9	16.0		HBB	13.01.96	3500–7000	BTA				[22]
1311+579	13 11 37.45	+57 54 09.8	13 13 38.15	+57 38 17.5	16.0		Cont	06.03.97	4000–7000	GHO				[22]
1311+537	13 11 41.32	+53 47 40.3	13 13 46.70	+53 31 48.1	18.5		QSO							[27]
1311+573	13 11 42.47	+57 19 56.2	13 13 43.85	+57 04 04.0	17.5		sdB:	28.04.00	4000–9000	GHO				
1312+526	13 12 00.31	+52 39 41.7	13 14 06.72	+52 23 50.0	17.5		Cont:	16.02.94	3400–6900	BTA				
1312+537	13 12 11.15	+53 43 51.4	13 14 16.41	+53 27 59.9	16.97	+0.09	sd	22.03.93	3500–7000	MMT				[23]
1312+495	13 12 40.29	+49 32 25.8	13 14 49.35	+49 16 35.0	20.51	+0.08	QSO	22.03.93	3500–7000	MMT	131448.0+491629			[3,23]
1313+517	13 13 03.53	+51 42 57.1	13 15 10.48	+51 27 06.8	18.0									
1313+516	13 13 37.66	+51 38 47.8	13 15 44.48	+51 22 58.3	17.5		QSO	04.05.00	4000–9000	GHO	131544.1+512309			
1313+594	13 13 53.49	+59 29 40.0	13 15 51.01	+59 13 50.8	17.5		QSO							[25]
1314+537	13 14 36.41	+53 43 03.9	13 16 40.78	+53 27 15.8	16.5		DA:	06.03.89	3500–5700	BTA				[22]
1314+587	13 14 41.69	+58 42 39.8	13 16 39.95	+58 26 51.7	18.5									
1314+589	13 14 50.51	+58 55 50.2	13 16 48.40	+58 40 02.3	15.5		sdB	13.01.96	3500–7000	BTA				
1315+543	13 15 15.14	+54 19 05.2	13 17 18.61	+54 03 18.0	18.5		QSO							[27]
1315+605	13 15 20.15	+60 31 20.2	13 17 15.45	+60 15 33.0	17.90	+0.23	QSO	16.11.79	3700–5700	BTA				[9,20,23]
1315+577	13 15 42.79	+57 46 35.7	13 17 41.87	+57 30 49.1	17.96	−0.05	QSO	20.03.91	3400–7100	BTA				[21,23]
1315+603	13 15 54.65	+60 21 19.6	13 17 49.93	+60 05 33.2	17.5		QSO							[25]
1316+577A	13 16 01.57	+57 43 49.9	13 18 00.58	+57 28 03.7	16.5		CV:							
1316+591	13 16 17.62	+59 10 33.1	13 18 14.50	+58 54 47.3	17.5		QSO							[25]
1316+503	13 16 19.02	+50 19 35.0	13 18 26.19	+50 03 49.4	17.20	+0.03	BLLac	22.03.93	3500–7000	MMT				[3]
1316+577B	13 16 28.16	+57 47 18.1	13 18 26.90	+57 31 32.6	18.5		QSO							[27]
1316+494	13 16 31.64	+49 29 59.6	13 18 39.50	+49 14 14.3	18.5		NLQSO	05.06.00	4000–9000	GHO	131840.5+491418			[26]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1317+535	13 17 22.42	+53 32 59.6	13 19 25.94	+53 17 15.5	18.0		sd							[27]
1317+526	13 17 24.19	+52 39 19.3	13 19 28.66	+52 23 35.2	17.0		DA	04.04.92	3400–6800	BTA				[22]
1317+525	13 17 34.78	+52 34 32.8	13 19 39.28	+52 18 49.0	17.5		QSO	02.05.00	4000–9000	GHO				
1317+520	13 17 41.21	+52 03 49.3	13 19 46.20	+51 48 05.6	17.19	+0.40	QSO				131946.5+514812	R	4C+52.27	[23]
1317+515	13 17 41.91	+51 35 58.4	13 19 47.37	+51 20 14.8	18.5									
1317+601	13 17 42.88	+60 08 40.7	13 19 37.63	+59 52 57.0	17.0		sdO	22.03.93	3500–7000	MMT				[23]
1318+556	13 18 15.11	+55 39 36.4	13 20 15.84	+55 23 53.5	16.5		sdB	15.02.94	3400–6900	BTA			Mkn 252	
1318+605B	13 18 54.50	+60 35 28.4	13 20 47.97	+60 19 46.4	17.5		QSO							[27]
1319+555	13 19 17.59	+55 32 25.1	13 21 18.06	+55 16 43.8	17.0		DA	26.02.88	3300–6800	BTA				[22]
1319+518	13 19 21.11	+51 52 28.9	13 21 25.72	+51 36 47.7	18.0									
1319+562	13 19 53.33	+56 16 38.2	13 21 52.63	+56 00 57.8	18.0		QSO							[27]
1320+501	13 20 13.13	+50 11 00.2	13 22 19.15	+49 55 21.3	18.0		QSO							[27]
1320+534	13 20 45.02	+53 26 36.6	13 22 47.42	+53 10 57.5	17.5		sdB	26.04.00	4000–9000	GHO				
1321+603	13 21 11.48	+60 21 22.1	13 23 04.24	+60 05 43.6	17.98	+0.04	QSO	22.03.93	3500–7000	MMT				[23]
1321+588	13 21 47.76	+58 51 21.0	13 23 42.62	+58 35 43.4	17.5		DA	30.04.00	4000–9000	GHO				
1321+496	13 21 54.85	+49 38 07.7	13 24 00.86	+49 22 30.4	12.0		sdB	20.05.93	3400–6800	BTA				[22]
1322+569	13 22 29.46	+56 56 58.1	13 24 26.79	+56 41 21.6	17.5		QSO	26.04.00	4000–9000	GHO				
1322+543	13 22 39.70	+54 22 31.4	13 24 40.30	+54 06 55.2	18.0									
1323+566	13 23 09.88	+56 37 40.4	13 25 07.37	+56 22 05.0	17.93	+0.28	QSO	04.04.92	3300–7000	BTA				[21,23]
1324+526	13 24 26.26	+52 41 56.0	13 26 28.18	+52 26 22.6	18.0									
1324+596	13 24 49.41	+59 37 13.3	13 26 41.69	+59 21 40.4	17.5		DA							[25]
1325+512	13 25 22.43	+51 12 43.4	13 27 25.69	+50 57 11.5	17.0		DA	22.03.93	3500–7000	MMT				[23]
1325+569	13 25 51.78	+56 56 11.6	13 27 47.73	+56 40 40.5	17.5		sd	29.04.00	4000–9000	GHO				
1326+551	13 26 11.35	+55 10 23.5	13 28 09.59	+54 54 52.9	17.5		QSO							[27]
1326+529	13 26 14.66	+52 59 34.0	13 28 15.60	+52 44 03.5	16.47	+0.21	QSO	06.03.92	3400–7100	BTA	132815.2+524404			[21,23]
1326+506	13 26 29.10	+50 41 49.3	13 28 32.55	+50 26 19.3	18.5									
1327+594	13 27 07.10	+59 24 20.2	13 28 58.69	+59 08 51.0	18.0		QSO							[25]
1327+545	13 27 18.87	+54 35 57.8	13 29 17.43	+54 20 29.1	15.17		sdB	18.04.88	3400–6800	ZTA			PG	[6]
1327+543	13 27 58.49	+54 20 33.4	13 29 57.13	+54 05 05.8	16.77	+0.40	QSO	22.03.93	3500–7000	MMT				[23]
1327+516	13 27 59.60	+51 39 24.2	13 30 01.48	+51 23 56.6	18.0									
1328+584	13 28 13.38	+58 25 40.1	13 30 06.07	+58 10 12.8	17.5		QSO	06.05.00	4000–9000	GHO				
1328+574	13 28 39.13	+57 27 50.5	13 30 33.14	+57 12 23.9	17.5		QSO							[25]
1328+563	13 28 52.72	+56 23 31.8	13 30 48.22	+56 08 05.6	18.0		sdB:							[27]
1330+528	13 30 02.87	+52 52 59.4	13 32 02.59	+52 37 35.2	18.0		sd							[27]
1330+580	13 30 06.44	+58 00 34.2	13 31 58.99	+57 45 10.0	16.5		DB	20.03.91	3400–7000	BTA				[22]
1330+519	13 30 20.35	+51 59 39.8	13 32 21.04	+51 44 16.1	17.5		NLQSO	08.05.00	4000–9000	GHO	133222.5+514420			[26]
1330+588	13 30 40.65	+58 53 43.9	13 32 31.50	+58 38 20.7	16.5		F	22.03.93	3500–7000	MMT				[23]
1330+546	13 30 49.10	+54 41 31.5	13 32 46.21	+54 26 08.6	18.0		QSO					R		[27]
1331+586	13 31 11.58	+58 36 53.5	13 33 02.67	+58 21 31.1	18.5									
1331+590	13 31 47.93	+59 04 55.6	13 33 37.96	+58 49 34.3	15.01		sdB	06.02.89	3500–5700	ZTA			PG	[6]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1332+564	13 32 10.31	+56 28 14.1	13 34 04.37	+56 12 53.5	18.5		QSO							[27]
1332+552	13 32 15.90	+55 16 45.0	13 34 11.66	+55 01 24.5	18.89	+0.34	QSO					R	4C+55.27	[3]
1332+520	13 32 39.87	+52 04 54.0	13 34 39.67	+51 49 34.3	18.0									
1333+602	13 33 03.24	+60 12 57.6	13 34 50.68	+59 57 38.4	18.5		QSO							[25]
1333+510	13 33 13.78	+51 05 31.4	13 35 14.57	+50 50 12.7	16.39		DA	18.04.88	3400–6800	ZTA			PG	[6]
1333+497	13 33 18.90	+49 46 24.3	13 35 21.16	+49 31 05.8	15.30		DA2						PG	[6]
1333+519	13 33 28.27	+51 59 11.2	13 35 27.91	+51 43 52.9	17.5									
1333+524	13 33 47.97	+52 28 13.3	13 35 46.90	+52 12 55.6	16.22		DA3	18.04.88	3400–6800	ZTA			PG	[6]
1333+561	13 33 52.24	+56 09 46.3	13 35 46.09	+55 54 28.6	18.5		sdB							[27]
1333+543	13 33 58.30	+54 18 08.5	13 35 54.77	+54 02 51.1	18.5		QSO							[27]
1334+606	13 34 22.06	+60 40 22.2	13 36 08.01	+60 25 05.3	18.0									
1334+542	13 34 23.28	+54 17 07.2	13 36 19.62	+54 01 50.5	18.0		QSO							[27]
1335+600	13 35 32.72	+60 04 20.4	13 37 19.28	+59 49 05.6	18.0		QSO					R		[25]
1335+593	13 35 45.45	+59 21 37.0	13 37 33.23	+59 06 22.6	17.40	+0.43	QSO	04.04.92	3300–7000	BTA				[21,23]
1335+605	13 35 48.67	+60 32 23.5	13 37 34.21	+60 17 09.2	18.5		QSO							[25]
1336+572B	13 36 59.07	+57 14 15.5	13 38 49.98	+56 59 03.4	18.0									
1337+516	13 37 33.52	+51 37 31.5	13 39 32.23	+51 22 20.5	18.0									
1337+578	13 37 46.76	+57 51 42.2	13 39 36.30	+57 36 31.5	18.5		QSO							[25]
1337+570	13 37 55.75	+57 00 15.0	13 39 46.66	+56 45 04.6	17.5		DA	20.03.91	3400–7000	BTA				[22]
1338+514	13 38 06.23	+51 25 11.5	13 40 05.02	+51 10 01.5	18.0									
1338+603	13 38 33.55	+60 19 38.5	13 40 18.23	+60 04 29.1	17.5		DA+dM	29.04.00	4000–9000	GHO				
1338+551	13 38 48.77	+55 11 32.6	13 40 42.16	+54 56 23.8	18.76	+0.19	QSO	18.05.93	3400–6800	BTA		R		[3,22]
1339+608	13 39 08.49	+60 52 34.1	13 40 51.79	+60 37 25.8	18.0		QSO							[25]
1339+606	13 39 16.28	+60 41 19.7	13 40 59.90	+60 26 11.6	17.0		DA	24.03.92	3400–6800	BTA				[22]
1339+605	13 39 33.16	+60 31 27.4	13 41 16.99	+60 16 19.9	18.0		QSO							[25]
1340+607	13 40 16.61	+60 44 48.0	13 41 59.65	+60 29 41.8	12.56		sdB						PG	[6]
1340+509	13 40 22.07	+50 57 35.1	13 42 20.69	+50 42 29.3	18.0									
1340+605	13 40 28.47	+60 30 30.9	13 42 11.90	+60 15 25.1	17.72	+0.09	QSO	21.02.90	3200–6960	BTA		R		
1340+572	13 40 29.68	+57 16 23.4	13 42 19.10	+57 01 17.7	17.28	+0.55	DA4						GR 103	
1340+606	13 40 29.99	+60 36 48.4	13 42 13.20	+60 21 42.6	18.51	+0.39	QSO					R	3CR288.1	
1340+575	13 40 39.15	+57 35 23.7	13 42 27.97	+57 20 18.3	17.5		DA:	15.04.91	3300–7000	BTA				[22]
1341+576	13 41 40.40	+57 36 51.3	13 43 28.75	+57 21 47.8	18.13	+0.34	QSO	15.04.91	3400–7000	BTA		R		[21]
1342+550	13 42 33.41	+55 04 49.5	13 44 25.56	+54 49 47.7	17.5		Unclas	20.03.90	3400–7000	BTA				
1342+560	13 42 57.19	+56 01 56.6	13 44 47.69	+55 46 55.6	17.33	+0.25	QSO	21.02.90	3300–7000	BTA				[21,23]
1343+577	13 43 13.94	+57 45 13.9	13 45 01.41	+57 30 13.4	13.44		HBB						PG	[6]
1343+547	13 43 23.11	+54 42 42.0	13 45 15.52	+54 27 41.8	16.0		NHB	22.03.93	3500–7000	MMT				
1344+572	13 44 15.25	+57 15 22.8	13 46 03.18	+57 00 24.2	12.95		DA3						PG	[6]
1344+509	13 44 27.02	+50 56 00.8	13 46 24.36	+50 41 02.8	15.93		DA3	18.04.88	3400–6800	ZTA			PG	[6]
1345+566	13 45 23.85	+56 36 08.2	13 47 12.45	+56 21 11.9	17.5		sdO							[27]
1345+592	13 45 35.77	+59 17 28.6	13 47 19.35	+59 02 32.6	16.43	+0.25	QSO	16.04.96	4000–7000	GHO				[3,22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1345+584	13 45 55.90	+58 27 37.4	13 47 40.94	+58 12 42.1	19.17	+0.64	QSO					R	4C+58.27	[23]
1346+586	13 46 05.10	+58 36 04.5	13 47 49.81	+58 21 09.5	16.83	+0.22	QSO	21.03.96	3500–7000	BTA	134749.3+582104			[3]
1346+503	13 46 23.43	+50 18 30.8	13 48 20.96	+50 03 36.6	17.80	+0.13	QSO	23.03.93	3300–6900	BTA	134820.8+500342			[3]
1346+607	13 46 29.81	+60 45 46.0	13 48 09.92	+60 30 51.7	16.0		G	22.03.93	3500–7000	MMT				[23]
1347+550	13 47 07.85	+55 05 07.1	13 48 58.30	+54 50 14.2	18.0		QSO							[27]
1347+539A	13 47 31.11	+53 58 13.4	13 49 23.16	+53 43 21.3	16.0		NHB:	10.04.96	4000–7000	GHO				[22]
1347+539B	13 47 42.56	+53 56 08.9	13 49 34.59	+53 41 17.2	17.89	+0.50	QSO				RXJ1349.5+5341	R	4C+53.28	[3]
1348+495	13 48 30.64	+49 31 12.4	13 50 28.53	+49 16 22.4	18.0									
1348+606	13 48 36.62	+60 39 28.5	13 50 15.99	+60 24 38.4	15.78		sdOC	06.02.89	3500–5700	ZTA			PG	[6]
1348+583	13 48 54.37	+58 19 06.7	13 50 38.44	+58 04 17.3	18.0		QSO							[27]
1348+575	13 48 59.10	+57 31 32.4	13 50 44.63	+57 16 43.2	17.48	+0.41	DLAQSO	06.04.91	3400–7000	BTA				[21,23]
1349+560	13 49 05.97	+56 04 17.0	13 50 54.04	+55 49 28.0	17.5		sdB	10.04.91	3400–5800	BTA				[27]
1349+552	13 49 30.45	+55 12 31.4	13 51 19.82	+54 57 43.3	15.51		DA4	18.04.88	3400–6800	ZTA			PG	[6]
1349+545	13 49 51.39	+54 34 33.7	13 51 41.66	+54 19 46.3	16.53	+0.25	DA Mag	22.03.93	3500–7000	MMT				[23]
1350+538	13 50 42.10	+53 52 06.4	13 52 33.18	+53 37 20.7	17.73	−0.02	QSO	28.06.89	3370–7050	BTA				[20,23]
1351+549	13 51 22.06	+54 58 54.5	13 53 11.12	+54 44 10.2	18.0		QSO	10.04.91	3500–7000	BTA				[21]
1351+526	13 51 23.62	+52 41 12.4	13 53 16.26	+52 26 28.2	18.5									
1352+596	13 52 07.28	+59 40 49.8	13 53 47.21	+59 26 06.9	18.0		sdB							[25]
1352+546	13 52 24.07	+54 36 22.7	13 54 13.37	+54 21 40.5	17.5		sdB:	01.05.00	4000–9000	GHO				
1352+542	13 52 44.70	+54 15 58.9	13 54 34.43	+54 01 17.4	17.5		F	10.04.91	3400–6900	BTA				[22]
1352+564	13 52 51.91	+56 26 52.2	13 54 37.88	+56 12 10.9	18.14	+0.34	QSO	10.04.91	3500–7000	BTA				[21]
1353+579	13 53 19.66	+57 55 39.7	13 55 02.67	+57 40 59.3	16.5		sd+G:	23.03.93	3500–7000	MMT				[23]
1353+538	13 53 25.69	+53 49 22.1	13 55 15.89	+53 34 42.1	11.0		sdOA	06.03.89	3500–5700	BTA				[22]
1353+602	13 53 48.44	+60 14 03.4	13 55 26.41	+59 59 23.9	18.0		QSO							[25]
1353+519	13 53 59.16	+51 59 22.4	13 55 51.97	+51 44 43.6	17.0		HBB	23.03.93	3500–7000	MMT				[23]
1354+552	13 54 27.58	+55 16 30.9	13 56 15.01	+55 01 53.0	18.5		QSO							[27]
1354+555	13 54 54.06	+55 30 46.1	13 56 40.92	+55 16 09.1	18.0		Unclas	10.04.91	3400–6700	BTA				
1355+502	13 55 29.56	+50 13 33.7	13 57 24.37	+49 58 58.3	17.0		DB	23.03.93	3500–7000	MMT				[23]
1355+533	13 55 56.57	+53 22 33.4	13 57 46.61	+53 07 58.7	18.0		sdB							[25]
1356+564	13 56 06.80	+56 25 36.5	13 57 51.57	+56 11 02.0	17.0		DA	06.03.92	3400–7000	BTA				[22]
1356+581	13 56 36.23	+58 06 38.3	13 58 17.55	+57 52 04.8	17.32	+0.22	QSO				RXJ1358.2+5752	R	4C+58.29	[3]
1357+543	13 57 03.68	+54 22 38.2	13 58 51.70	+54 08 05.8	17.99	+0.09	QSO	28.06.89	3370–7050	BTA				[20,23]
1357+562A	13 57 14.49	+56 12 14.0	13 58 59.24	+55 57 42.0	18.93	−0.14	BALQSO	10.04.91	3400–7000	BTA				[21,23]
1357+501	13 57 23.56	+50 08 32.6	13 59 17.94	+49 54 01.1	15.94		sdB	18.04.88	3400–6800	ZTA			PG	[6]
1357+577	13 57 37.17	+57 46 23.4	13 59 18.76	+57 31 52.1	18.0		QSO					R		[27]
1357+513	13 57 46.82	+51 19 42.2	13 59 39.39	+51 05 11.5	18.0									
1357+518	13 57 51.68	+51 52 57.7	13 59 43.40	+51 38 27.1	16.5		NHB	23.03.93	3500–7000	MMT				
1358+539	13 58 06.38	+53 59 51.6	13 59 54.67	+53 45 21.5	19.0									
1358+558	13 58 52.04	+55 50 03.2	14 00 36.86	+55 35 34.7	17.07	+0.06	QSO	07.03.92	3400–7100	BTA				[21,23]
1359+506	13 59 07.36	+50 39 56.4	14 01 00.47	+50 25 28.6	17.0		HBB	15.04.91	3300–7000	BTA				[22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1359+521A	13 59 16.53	+52 09 13.0	14 01 07.38	+51 54 45.5	19.0		QSO							[25]
1359+521B	13 59 22.28	+52 09 59.3	14 01 13.08	+51 55 32.0	16.5		NHB	06.03.92	3400–7000	BTA				[22]
1359+526	13 59 24.67	+52 39 57.8	14 01 14.68	+52 25 30.6	18.0									
1359+529	13 59 34.62	+52 56 54.1	14 01 24.12	+52 42 27.2	18.0									
1359+511	13 59 49.67	+51 10 08.4	14 01 41.83	+50 55 42.1	18.5		QSO					R		[25]
1400+530	14 00 08.33	+53 02 36.0	14 01 57.49	+52 48 10.4	17.5		HBB	19.05.93	3500–7000	MMT				[23]
1400+564	14 00 20.50	+56 25 13.2	14 02 03.68	+56 10 47.9	17.77	+0.09	QSO	20.03.91	3500–7100	BTA	140203.2+561045			[21,23]
1400+541	14 00 36.88	+54 09 42.3	14 02 24.03	+53 55 17.7	17.95	+0.01	QSO	29.06.89	3360–7060	BTA				[3,20]
1400+526	14 00 40.59	+52 36 41.5	14 02 30.27	+52 22 17.1	15.5		HBB	11.04.96	3500–7000	GHO				[22]
1400+497	14 00 53.86	+49 47 43.9	14 02 47.68	+49 33 20.0	18.59	−0.26	sd	08.02.97	3800–7200	BTA			CBS 254	
1400+573	14 00 57.46	+57 22 11.8	14 02 38.54	+57 07 47.8	18.5		sdB							[27]
1401+577	14 01 15.34	+57 46 21.9	14 02 55.48	+57 31 58.6	18.0		Pec*							[27]
1401+520	14 01 15.70	+52 02 44.2	14 03 06.08	+51 48 21.1	19.0		QSO							[25]
1401+511	14 01 23.46	+51 06 19.2	14 03 15.23	+50 51 56.4	18.5									
1401+510	14 01 26.31	+51 05 44.8	14 03 18.08	+50 51 22.1	18.5		QSO							[25]
1401+523	14 01 54.94	+52 21 14.8	14 03 44.62	+52 06 53.1	16.5		DA7	06.02.89	3500–5700	ZTA			CBS 256	
1402+549	14 02 22.09	+54 56 11.7	14 04 07.27	+54 41 50.9	18.58	+0.02	QSO	30.06.89	3440–6960	BTA				[20,23]
1402+560	14 02 30.41	+56 02 36.3	14 04 13.50	+55 48 15.8	19.0		QSO							[27]
1402+530	14 02 47.12	+53 00 51.0	14 04 35.45	+52 46 31.2	17.5		Unclas	08.02.97	3800–7200	BTA				
1402+529	14 02 50.39	+52 57 47.7	14 04 38.79	+52 43 28.1	17.0		F:	11.07.91	3400–7000	BTA				[22]
1402+533	14 02 57.80	+53 22 33.1	14 04 45.48	+53 08 13.7	18.0									
1403+527	14 03 12.66	+52 47 37.4	14 05 01.22	+52 33 18.6	19.0		QSO							[25]
1403+513	14 03 41.34	+51 20 01.2	14 05 32.05	+51 05 43.5	18.0									
1403+541	14 03 44.40	+54 11 25.2	14 05 30.42	+53 57 07.5	18.5									
1403+535	14 03 55.48	+53 30 09.1	14 05 42.62	+53 15 51.9	17.0		sdB:	14.04.96	4000–7000	GHO				[22]
1404+594	14 04 19.77	+59 26 44.4	14 05 55.00	+59 12 27.9	18.00	+0.14	QSO	19.05.93	3500–7000	MMT				[3,23]
1404+568	14 04 22.44	+56 49 47.8	14 06 03.29	+56 35 31.5	17.5		DA	14.05.99	3500–7000	BTA				
1404+566	14 04 34.79	+56 41 42.6	14 06 15.83	+56 27 26.8	18.5		sd							[27]
1404+593	14 04 36.49	+59 23 38.0	14 06 11.73	+59 09 22.1	18.0		QSO							[27]
1404+539	14 04 58.72	+53 59 18.7	14 06 44.67	+53 45 03.9	17.5		DA	11.02.97	3800–7200	BTA				
1405+501	14 05 24.64	+50 10 27.8	14 07 16.57	+49 56 14.1	19.0									
1405+560	14 05 26.21	+56 05 50.5	14 07 08.11	+55 51 36.6	19.0									
1405+536	14 05 44.72	+53 38 06.8	14 07 31.02	+53 23 53.7	19.0									
1405+561	14 05 46.39	+56 07 16.0	14 07 28.12	+55 53 02.9	19.5									
1406+521	14 06 01.51	+52 08 11.4	14 07 50.22	+51 53 59.0	19.0									
1406+516A	14 06 04.78	+51 39 09.8	14 07 54.25	+51 24 57.5	18.5		QSO							[25]
1406+510	14 06 05.71	+51 02 10.3	14 07 56.14	+50 47 58.1	18.18	+0.09	QSO	11.02.97	3800–7200	BTA				[3]
1406+564	14 06 32.04	+56 27 43.3	14 08 12.82	+56 13 31.9	19.5		QSO					R		[27]
1406+516B	14 06 32.75	+51 37 30.2	14 08 22.12	+51 23 19.0	17.0		DB	23.03.93	3500–7000	MMT			CSO 608	[23]
1406+509	14 06 33.16	+50 54 05.9	14 08 23.66	+50 39 54.8	18.5		NLQSO	05.06.00	4000–9000	GHO	140825.3+503958			[26]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1406+492	14 06 35.66	+49 16 33.5	14 08 28.56	+49 02 22.5	17.98	−0.03	QSO	02.04.92	3300–7000	BTA			CSO 609	[21,23]
1406+548	14 06 40.96	+54 52 28.7	14 08 24.73	+54 38 17.7	18.0		NLQSO	09.05.00	4000–9000	GHO	140825.0+543834			[22,26]
1406+599	14 06 59.31	+59 54 36.1	14 08 32.32	+59 40 25.6	13.10	−0.28	DA1	04.05.87	3400–5400	ZTA			F091	
1407+528	14 07 02.88	+52 53 17.1	14 08 50.03	+52 39 07.0	17.0		DA	22.03.93	3500–7000	MMT			CSO 610	[2,23]
1407+559	14 07 03.73	+55 59 24.6	14 08 45.25	+55 45 14.5	18.5		QSO	10.04.91	3400–7000	BTA				[21]
1407+556	14 07 04.19	+55 37 45.9	14 08 46.40	+55 23 35.8	16.50	−0.07	QSO	31.05.89	3580–7080	BTA			CSO 611	[2,20,23]
1407+586	14 07 18.33	+58 38 56.3	14 08 54.16	+58 24 46.6	18.0		QSO							[25]
1407+555	14 07 19.91	+55 32 08.1	14 09 02.21	+55 17 58.6	18.5									[3]
1407+509	14 07 42.77	+50 56 04.5	14 09 32.86	+50 41 56.0	18.0		QSO							[27]
1407+521	14 07 46.44	+52 08 07.6	14 09 34.60	+51 53 59.2	17.0		DA	24.03.92	3400–6800	BTA				[22]
1407+493	14 07 59.78	+49 23 09.9	14 09 52.12	+49 09 02.1	18.5									
1408+567	14 08 15.85	+56 42 34.4	14 09 55.48	+56 28 27.0	17.56	+0.26	BALQSO	16.03.86	3450–6630	BTA				[20,23]
1408+544A	14 08 23.65	+54 26 10.9	14 10 07.63	+54 12 03.9	18.32	+0.16	QSO	10.04.91	3400–7000	BTA				[21,23]
1408+524	14 08 29.58	+52 26 19.5	14 10 17.01	+52 12 12.8	15.0		sdOA+K	14.02.94	3400–6900	BTA			CBS 258	
1408+544B	14 08 37.27	+54 28 59.1	14 10 21.09	+54 14 52.6	17.82	+0.13	QSO	11.02.97	3800–7200	BTA				
1408+550	14 08 59.21	+55 00 25.3	14 10 41.93	+54 46 19.7	18.5		QSO							[27]
1409+516	14 09 30.57	+51 36 45.7	14 11 19.04	+51 22 41.4	19.0									
1409+604	14 09 31.17	+60 28 16.8	14 11 01.70	+60 14 12.2	14.53		sdB-O	20.03.91	3400–7000	ZTA			PG	[6]
1409+584	14 09 54.99	+58 25 32.2	14 11 30.28	+58 11 28.6	18.5									
1410+551	14 10 49.29	+55 09 13.0	14 12 31.09	+54 55 11.7	19.0		QSO					R		[27]
1410+592	14 10 56.56	+59 15 14.1	14 12 29.51	+59 01 12.9	16.5		sd	20.03.91	3400–7000	ZTA				
1411+503	14 11 06.41	+50 18 12.5	14 12 56.47	+50 04 12.0	18.0									
1411+498	14 11 10.92	+49 53 56.9	14 13 01.58	+49 39 56.6	16.5		DB	23.03.93	3500–7000	MMT			CSO 616	[23]
1411+557	14 11 27.19	+55 45 28.0	14 13 07.58	+55 31 28.2	18.5		QSO							[27]
1411+546B	14 11 35.24	+54 37 40.5	14 13 17.77	+54 23 41.0	17.0		Cont	20.03.91	3400–7000	BTA			CBS 259	[22]
1411+590	14 11 39.19	+59 00 10.5	14 13 12.45	+58 46 11.0	15.68		sdB						PG	[6]
1411+533	14 11 39.38	+53 19 26.5	14 13 24.27	+53 05 27.2	19.0		QSO					R		[27]
1412+490	14 12 07.94	+49 05 19.1	14 13 59.54	+48 51 21.1	16.79	+0.35	QSO	19.03.96	3500–7000	BTA	RXJ1413.9+4851		CSO 617	[3]
1412+542	14 12 37.29	+54 17 45.5	14 14 20.10	+54 03 48.5	16.5		DA	28.02.92	3400–7000	BTA			CBS 260	[22]
1413+567	14 13 08.27	+56 47 39.6	14 14 45.92	+56 33 43.8	17.5		DBA							[27]
1413+556	14 13 14.71	+55 41 57.3	14 14 54.58	+55 28 01.8	18.5		QSO	02.08.89	3540–7210	BTA				[20]
1413+534	14 13 36.00	+53 25 03.0	14 15 20.09	+53 11 08.4	19.5		DA							[27]
1413+538	14 13 51.04	+53 51 08.0	14 15 34.26	+53 37 14.0	17.98	+0.36	QSO	10.04.91	3400–7000	BTA			CSO 619	[21,23]
1414+538	14 14 06.09	+53 50 33.0	14 15 49.24	+53 36 39.6	16.0		sdB	23.03.93	3500–7000	MMT			CBS 261	[23]
1414+518A	14 14 09.44	+51 51 31.8	14 15 56.07	+51 37 38.6	19.0									
1414+507	14 14 20.73	+50 42 11.4	14 16 09.21	+50 28 18.7	19.0		QSO							[27]
1414+531	14 14 51.63	+53 10 40.9	14 16 35.75	+52 56 49.4	19.5		QSO							[27]
1414+512	14 14 51.66	+51 14 36.6	14 16 39.11	+51 00 45.1	17.92	−0.23	sd	11.02.97	3800–7200	BTA			CBS 262	
1414+525	14 14 57.13	+52 32 04.5	14 16 42.36	+52 18 13.2	18.0		QSO							[27]
1414+518B	14 14 57.65	+51 51 57.0	14 16 44.03	+51 38 05.8	19.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1415+524	14 15 01.72	+52 25 07.1	14 16 47.13	+52 11 16.0	18.0		QSO							[27]
1415+491	14 15 12.12	+49 11 20.0	14 17 02.72	+48 57 29.4	14.44		sdOD						PG	[6]
1415+541	14 15 17.60	+54 11 57.0	14 16 59.69	+53 58 06.5	17.88	+0.21	QSO	23.03.93	3500–7000	MMT			CSO 625	[23]
1415+499	14 15 35.36	+49 55 17.9	14 17 24.72	+49 41 28.3	17.5		NHB:	12.04.96	4000–7000	GHO			CSO 627	[22]
1415+573	14 15 35.75	+57 21 06.3	14 17 11.27	+57 07 16.4	16.5		NHB	28.02.92	3400–7000	BTA				[22]
1415+515	14 15 53.67	+51 30 36.2	14 17 40.36	+51 16 47.2	18.5									
1416+519	14 16 21.20	+51 57 43.6	14 18 06.98	+51 43 55.8	18.0		DA	28.02.92	3400–7000	BTA				[22]
1416+506	14 16 22.59	+50 38 54.7	14 18 10.56	+50 25 06.9	18.5									
1417+510	14 17 24.32	+51 00 44.6	14 19 11.39	+50 46 59.4	18.55	+0.03	QSO	11.02.97	3800–7200	BTA			CSO 630	[3,22]
1417+596	14 17 36.97	+59 36 57.4	14 19 06.30	+59 23 12.3	17.76	+0.36	DLAQSO	12.07.91	3500–7100	BTA				[21,23]
1417+603	14 17 46.90	+60 18 36.9	14 19 14.34	+60 04 52.2	16.5		NHB	23.03.93	3500–7000	MMT				[23]
1417+514	14 17 51.53	+51 28 28.1	14 19 37.69	+51 14 44.0	18.40	+0.20	QSO	04.06.94	4000–7000	BTA			CSO 632	[3,22]
1418+546	14 18 06.09	+54 36 58.4	14 19 46.44	+54 23 14.8	16.65	+0.61	BLLac				141946.4+542324	R	OQ 530	
1418+547	14 18 14.20	+54 43 58.3	14 19 54.27	+54 30 15.0	17.71	+0.10	QSO	02.08.89	3540–7210	BTA				[20,23]
1418+536	14 18 23.67	+53 36 21.4	14 20 05.84	+53 22 38.7	17.5		sdB	11.02.97	3800–7200	BTA				
1418+518	14 18 32.09	+51 52 46.7	14 20 17.35	+51 39 04.3	18.5		sd							[27]
1418+524	14 18 36.62	+52 29 30.7	14 20 20.78	+52 15 48.4	17.0		DA	28.02.92	3400–7000	BTA			CBS 264	[22]
1419+512	14 19 15.60	+51 17 21.2	14 21 01.66	+51 03 40.6	17.5		DA	11.02.97	3800–7200	BTA			CSO 637	
1419+538	14 19 25.44	+53 51 26.0	14 21 06.82	+53 37 45.7	16.89	+0.28	QSO	20.03.91	3300–7100	BTA			CSO 638	[21,23]
1419+576	14 19 31.76	+57 38 37.2	14 21 05.14	+57 24 57.0	17.5		DB+dM	19.05.93	3500–7000	MMT				[23]
1420+528	14 20 13.95	+52 52 43.0	14 21 56.91	+52 39 04.8	19.5									
1420+530	14 20 17.13	+53 04 30.3	14 21 59.71	+52 50 52.2	18.5									
1420+506	14 20 55.55	+50 41 32.6	14 22 42.10	+50 27 56.4	18.0		QSO							[25]
1420+518	14 20 57.37	+51 49 14.9	14 22 42.00	+51 35 38.6	15.75		sdB	06.02.89	3500–5700	ZTA			PG, CBS 266	[6]
1421+593	14 21 21.38	+59 22 11.6	14 22 49.83	+59 08 35.9	17.5		DA	19.05.93	3500–7000	MMT				
1421+511	14 21 28.67	+51 09 13.9	14 23 14.31	+50 55 38.9	16.64	+0.12	QSO	29.02.92	3400–7100	BTA	142313.4+505537	R	CSO 643	[21,23]
1422+589A	14 22 06.44	+58 58 13.1	14 23 35.62	+58 44 39.4	17.5		F	19.05.93	3500–7000	MMT				[22]
1422+589B	14 22 27.88	+58 58 49.2	14 23 56.89	+58 45 16.4	17.0		G	28.02.92	3400–7000	BTA				[22]
1422+497	14 22 53.15	+49 43 29.5	14 24 40.77	+49 29 58.1	16.0		DA	06.04.92	3400–7000	BTA			CSO 645	[22]
1423+500	14 23 13.15	+50 00 59.1	14 25 00.20	+49 47 28.6	18.29	+0.57	BALQSO	04.06.94	4000–7000	BTA			CSO 646	[22]
1423+498	14 23 27.64	+49 51 17.8	14 25 14.89	+49 37 47.9	18.0									
1424+543	14 24 04.35	+54 19 48.2	14 25 43.29	+54 06 19.7	18.0		QSO							[27]
1424+534	14 24 14.85	+53 28 52.7	14 25 55.41	+53 15 24.7	15.86		DO	06.02.89	3500–5700	ZTA			PG, CBS 267	[6]
1424+502A	14 24 19.49	+50 17 53.0	14 26 05.76	+50 04 25.3	18.00	+0.32	QSO	29.02.92	3400–7100	BTA				[21,23]
1424+502B	14 24 41.74	+50 16 13.5	14 26 27.95	+50 02 46.8	18.09	+0.22	QSO	16.02.94	3400–6900	BTA			CSO 647	[22,23]
1424+569	14 24 57.96	+56 56 20.3	14 26 30.98	+56 42 54.0	17.5		QSO							[27]
1424+503	14 24 58.08	+50 19 59.7	14 26 44.30	+50 06 33.3	14.0		DA+dMe	16.02.94	3400–6900	BTA	142644.1+500633		CBS 268	
1425+496	14 25 09.26	+49 41 31.9	14 26 56.31	+49 28 06.4	18.01	+0.11	QSO	23.03.93	3500–7000	MMT			CSO 648	[23]
1425+590	14 25 32.43	+59 00 25.6	14 27 00.18	+58 47 00.7	15.74		sdOC						PG	[6]
1425+606	14 25 32.93	+60 39 15.5	14 26 56.18	+60 25 50.5	16.83	+0.97	DLAQSO	21.02.90	3300–6980	BTA				[20,23]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1425+607B	14 25 33.48	+60 42 28.2	14 26 56.58	+60 29 03.2	18.0		QSO					R		[25]
1425+552	14 25 47.95	+55 12 50.3	14 27 24.50	+54 59 26.2	18.0									
1425+540	14 25 59.01	+54 01 45.1	14 27 37.94	+53 48 21.6	14.97	−0.07	DBA3						PG	[6]
1425+578	14 25 59.61	+57 52 34.9	14 27 30.03	+57 39 11.2	17.5		HBB	19.05.93	3500–7000	BTA				[22]
1426+557	14 26 06.10	+55 46 09.2	14 27 41.35	+55 32 45.9	18.0									
1426+506	14 26 32.34	+50 40 35.8	14 28 17.34	+50 27 13.9	16.63	0.00	QSO	07.03.92	3400–7100	BTA			CSO 654	[21,23]
1426+591	14 26 49.71	+59 07 54.3	14 28 16.63	+58 54 32.7	18.0		QSO							[25]
1426+499	14 26 52.91	+49 55 03.5	14 28 39.10	+49 41 42.5	17.5		DA+G:	16.02.94	3400–6900	BTA				
1426+574	14 26 53.47	+57 24 20.0	14 28 24.70	+57 10 58.7	17.5		F	15.04.91	3300–7000	BTA				[22]
1427+498	14 27 06.23	+49 53 03.8	14 28 52.42	+49 39 43.4	17.5		G	16.02.94	3400–6900	BTA			CSO 655	
1427+503	14 27 09.31	+50 21 01.5	14 28 54.70	+50 07 41.2	17.0		G	23.03.93	3500–7000	MMT			CSO 656	
1428+490A	14 28 07.49	+49 01 53.6	14 29 54.81	+48 48 35.9	17.5		sdB	20.05.93	3400–6800	BTA			CBS 270	[22]
1428+512	14 28 22.83	+51 16 32.3	14 30 06.25	+51 03 15.2	16.25		sdOB						PG, CBS 271	[6]
1428+567	14 28 24.47	+56 45 03.6	14 29 56.70	+56 31 46.3	16.0		sdB	11.04.91	3400–7000	BTA				[22]
1428+490B	14 28 34.16	+49 04 55.2	14 30 21.28	+48 51 38.7	14.0		sdB	20.05.93	3400–6800	BTA			CBS 272	[22]
1428+503	14 28 42.48	+50 18 52.2	14 30 27.49	+50 05 36.0	19.19	+0.64	QSO	11.02.97	3800–7200	BTA				[3]
1428+498	14 28 53.43	+49 48 53.8	14 30 39.25	+49 35 38.1	17.12	+0.23	QSO	19.03.96	3500–7000	BTA	143039.0+493534		CSO 661	[3,22]
1429+513	14 29 04.32	+51 20 43.9	14 30 47.41	+51 07 28.6	17.5		DA	13.04.96	4000–7000	BTA			CSO 662	[22]
1429+505	14 29 42.80	+50 34 31.4	14 31 27.08	+50 21 17.8	17.5		DA	11.02.97	3800–7200	BTA				
1430+503	14 30 16.44	+50 21 23.1	14 32 00.95	+50 08 11.1	18.0		QSO							[25]
1430+499	14 30 46.03	+49 57 20.1	14 32 31.09	+49 44 09.3	17.5		NHB	12.03.97	3800–7200	GHO				[22]
1430+592	14 30 58.91	+59 14 14.0	14 32 23.94	+59 01 03.4	17.5		F	19.05.93	3500–7000	MMT				
1431+533	14 31 36.30	+53 22 44.7	14 33 14.77	+53 09 36.1	17.0		sdB	23.03.93	3500–7000	MMT			CBS 274	
1432+492	14 32 04.17	+49 14 21.8	14 33 50.10	+49 01 14.6	18.0		HBB							[27]
1432+507	14 32 46.66	+50 42 28.0	14 34 29.85	+50 29 22.7	16.5		NHB	14.04.96	3800–7200	GHO				[22]
1432+504	14 32 47.28	+50 24 07.5	14 34 31.01	+50 11 02.2	17.0		F	05.04.92	3400–6800	BTA				[22]
1432+526	14 32 55.47	+52 39 49.9	14 34 34.95	+52 26 44.9	18.0		DA							[27]
1433+538	14 33 06.79	+53 48 24.7	14 34 43.92	+53 35 20.2	16.06	−0.03	DA3	06.02.89	3500–5700	ZTA			PG, CBS 276	[6]
1433+536	14 33 21.96	+53 40 45.9	14 34 59.27	+53 27 42.0	18.23	+0.14	Unclas	16.04.96	4000–7000	BTA			CSO 668	
1433+542	14 33 24.33	+54 12 57.8	14 35 00.51	+53 59 54.0	16.98	+0.17	DLAQSO	26.02.88	3300–6750	BTA			CSO 669	[20,23]
1433+510	14 33 32.49	+51 05 25.8	14 35 14.77	+50 52 22.5	17.0		DA	05.04.92	3400–6800	BTA				[22]
1433+573	14 33 50.70	+57 22 08.5	14 35 19.53	+57 09 05.8	17.0		Unclas	22.04.87	3500–5700	BTA				
1434+498	14 34 15.07	+49 50 57.7	14 35 59.38	+49 37 56.4	18.0		DA						CSO 671	[25]
1434+549	14 34 19.91	+54 57 50.1	14 35 54.19	+54 44 48.8	16.0		NHB	23.03.93	3500–7000	MMT			CBS 277	
1434+526	14 34 22.34	+52 40 43.0	14 36 01.36	+52 27 41.9	18.0									
1434+496	14 34 32.23	+49 40 16.1	14 36 16.77	+49 27 15.6	17.0		F:	11.02.97	3800–7200	BTA				
1434+548	14 34 32.41	+54 53 08.3	14 36 06.79	+54 40 07.6	18.0		sd							[27]
1434+592A	14 34 35.70	+59 13 17.8	14 35 59.40	+59 00 17.0	17.5		NHB:	19.05.93	3500–7000	MMT				[22]
1434+503	14 34 50.06	+50 23 26.8	14 36 33.25	+50 10 27.1	18.0		DA							[25]
1434+592B	14 34 56.43	+59 16 57.1	14 36 19.83	+59 03 57.2	17.5		F	14.05.85	3600–5000	BTA				

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1435+500A	14 35 04.03	+50 05 54.5	14 36 47.68	+49 52 55.4	17.68	+0.14	BALQSO	04.06.94	4000–7000	BTA			CSO 673	[2,22]
1435+509	14 35 44.30	+50 58 53.2	14 37 26.17	+50 45 55.9	17.97	+0.31	QSO	27.12.97	3500–6900	BTA	RXJ1437.4+5045	R		[3,23]
1436+526	14 36 03.06	+52 36 10.9	14 37 41.74	+52 23 14.4	16.33		DA2	20.03.91	3400–7000	ZTA			PG, CBS 279	[6]
1436+496	14 36 54.66	+49 41 45.7	14 38 38.53	+49 28 51.8	18.34	+0.12	QSO						CSO 676	
1437+508	14 37 11.25	+50 52 44.5	14 38 52.91	+50 39 51.3	18.40	+0.12	QSO	12.07.91	3400–7100	BTA			CSO 677	[21,23]
1437+567	14 37 47.79	+56 44 44.6	14 39 16.78	+56 31 52.8	17.5		QSO					R		[25]
1437+527	14 37 54.89	+52 47 39.7	14 39 32.64	+52 34 48.4	17.0		BLLac	06.03.97	4000–7000	GHO		R		[22]
1437+591	14 37 55.56	+59 06 23.4	14 39 18.32	+58 53 31.8	18.0		DA							[25]
1438+602A	14 38 16.67	+60 16 56.8	14 39 35.89	+60 04 06.1	17.5		F	19.05.93	3500–7000	MMT				[23]
1438+586	14 38 18.99	+58 40 49.7	14 39 42.79	+58 27 59.2	18.11	−0.15	QSO	19.05.93	3500–7000	MMT	RXJ1439.7+5827	R		[23]
1438+602B	14 38 19.11	+60 15 38.8	14 39 38.38	+60 02 48.2	17.0		NHB	05.04.92	3400–6800	BTA				
1438+576	14 38 54.61	+57 39 27.5	14 40 20.92	+57 26 38.7	17.5		DA							[25]
1439+572	14 39 04.28	+57 13 16.6	14 40 31.65	+57 00 28.3	18.0									
1439+522	14 39 12.33	+52 17 33.6	14 40 50.71	+52 04 45.9	16.52	−0.12	QSO	05.04.92	3300–7000	BTA	144051.8+520441		CSO 680	[21]
1439+580	14 39 41.79	+58 02 26.6	14 41 06.81	+57 49 40.0	18.0		QSO							[25]
1439+491	14 39 55.41	+49 07 32.7	14 41 39.49	+48 54 47.2	18.5									
1440+586	14 40 04.68	+58 36 03.0	14 41 28.05	+58 23 17.4	18.0		DA							[25]
1440+532	14 40 25.46	+53 17 10.7	14 42 01.45	+53 04 26.4	18.62	−0.25	QSO	23.03.93	3500–7000	MMT			CSO 683	[2,23]
1440+568	14 40 34.68	+56 50 45.0	14 42 02.48	+56 38 01.0	17.0		sdB	30.04.00	4000–9000	GHO				
1440+492	14 40 37.65	+49 17 43.4	14 42 21.25	+49 04 59.9	17.54	+0.15	QSO	23.03.93	3500–7000	MMT			CSO 684	[23]
1440+562	14 40 49.19	+56 15 12.4	14 42 18.37	+56 02 29.1	17.5		Cont	20.03.91	3400–7000	BTA				[22]
1441+514	14 41 13.82	+51 29 57.4	14 42 53.18	+51 17 15.5	17.0		NHB	05.04.92	3400–6800	BTA			CBS 280	[22]
1441+519	14 41 23.16	+51 56 52.6	14 43 01.60	+51 44 11.1	16.0		DA	11.04.91	3400–7000	BTA			CBS 281	
1441+535	14 41 41.33	+53 35 17.5	14 43 16.30	+53 22 36.8	18.5									
1442+495	14 42 03.82	+49 30 13.4	14 43 46.68	+49 17 33.9	17.0		sdB	05.04.92	3400–6800	BTA			CBS 282	[22]
1442+493	14 42 56.14	+49 18 55.7	14 44 39.11	+49 06 18.7	18.5		sd							[27]
1443+497	14 43 26.40	+49 43 53.9	14 45 08.49	+49 31 18.4	18.57	−0.15	QSO	22.05.01	4000–9000	GHO	144509.4+493125		CSO 685	[22,26]
1443+533	14 43 27.83	+53 23 38.0	14 45 02.69	+53 11 02.4	18.5		sdB							[27]
1443+590	14 43 57.07	+59 03 09.0	14 45 17.76	+58 50 34.4	17.5		DB	19.05.93	3500–7000	MMT				[23]
1444+535	14 44 08.45	+53 34 54.9	14 45 42.71	+53 22 21.2	18.0									
1445+522	14 45 30.67	+52 16 10.3	14 47 07.30	+52 03 40.6	18.48	+0.43	QSO	19.05.93	3500–7000	MMT		R	CSO 690	[23]
1445+514	14 45 30.89	+51 29 10.4	14 47 09.10	+51 16 40.8	18.0		DAB							[27]
1445+583A	14 45 35.04	+58 21 49.8	14 46 57.10	+58 09 20.0	15.85	+0.06	CV						PG	[6]
1445+583B	14 45 38.45	+58 21 58.8	14 47 00.48	+58 09 29.1	19.0		QSO							[27]
1445+544	14 45 43.80	+54 29 42.7	14 47 15.55	+54 17 13.5	18.0		QSO							[27]
1446+575	14 46 10.06	+57 33 21.5	14 47 34.12	+57 20 53.4	18.0		sd							[25]
1446+510	14 46 12.92	+51 05 57.3	14 47 51.70	+50 53 29.7	18.0		NLQSO	23.05.01	4000–9000	GHO	144751.4+505320			[26]
1446+504	14 46 13.27	+50 26 00.6	14 47 53.33	+50 13 33.1	18.0		QSO							[27]
1446+502	14 46 23.32	+50 16 45.3	14 48 03.63	+50 04 18.3	18.0		QSO							[27]
1447+505	14 47 13.06	+50 33 43.1	14 48 52.62	+50 21 18.5	19.0		DA							[27]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1447+545	14 47 25.45	+54 33 01.5	14 48 56.56	+54 20 37.3	18.0									
1447+592	14 47 28.60	+59 14 18.8	14 48 47.47	+59 01 54.4	18.0									
1447+507	14 47 32.31	+50 43 46.6	14 49 11.43	+50 31 23.0	18.0									
1447+552B	14 47 42.43	+55 16 53.0	14 49 11.74	+55 04 29.5	18.04	−0.16	QSO	11.04.97	4000–7000	GHO	144910.9+550433			[3,22]
1447+580	14 47 56.00	+58 02 16.3	14 49 18.14	+57 49 53.3	18.0		QSO							[25]
1448+530	14 48 27.72	+53 03 48.1	14 50 01.84	+52 51 27.0	18.0		QSO							[27]
1448+573	14 48 35.63	+57 23 17.5	14 49 59.32	+57 10 56.5	18.0									
1448+584	14 48 46.21	+58 27 17.2	14 50 06.89	+58 14 56.6	17.57	+0.21	QSO	23.03.93	3500–7000	BTA	145007.3+581450			[3]
1449+588	14 49 07.26	+58 52 04.2	14 50 26.63	+58 39 44.7	16.0		QSO	16.03.80	3500–5700	BTA			Mkn 830	
1449+522	14 49 23.04	+52 15 31.5	14 50 58.61	+52 03 13.1	19.0		DA							[27]
1449+570	14 49 29.59	+57 00 51.7	14 50 53.97	+56 48 33.4	18.5		sdB							[25]
1449+498	14 49 37.08	+49 53 23.7	14 51 17.30	+49 41 06.1	17.0		F	23.03.93	3500–7000	MMT			CSO 694	[23]
1449+550	14 49 39.97	+55 01 41.4	14 51 09.28	+54 49 23.7	17.5		DA	27.06.89	3400–7000	BTA			CSO 695	[27]
1449+513	14 49 41.34	+51 23 05.2	14 51 18.62	+51 10 47.8	16.0		DA	06.03.92	3400–7000	BTA			CBS 289	[22]
1449+545	14 49 41.93	+54 30 48.9	14 51 12.44	+54 18 31.3	18.57	+0.29	QSO	27.06.89	3360–7040	BTA				[2,20,23]
1449+530	14 49 43.61	+53 02 37.8	14 51 17.41	+52 50 20.4	15.13		sdO	29.01.90	3500–5700	BTA			PG, CBS 290	[6]
1449+582	14 49 53.97	+58 17 53.4	14 51 14.70	+58 05 36.2	15.43		sdB	20.03.91	3400–7000	ZTA			PG	[6]
1450+505	14 50 27.61	+50 34 33.4	14 52 06.29	+50 22 18.3	18.5									
1450+579	14 50 29.74	+57 55 46.4	14 51 51.31	+57 43 31.0	18.0		QSO							[25]
1450+594	14 50 34.33	+59 26 19.4	14 51 51.48	+59 14 04.0	17.5		QSO							[27]
1451+528	14 51 08.15	+52 49 16.5	14 52 42.04	+52 37 03.3	16.23		sdB	20.03.91	3400–7000	ZTA			PG, CBS 292	[6]
1451+572	14 51 13.52	+57 13 06.8	14 52 36.79	+57 00 53.6	19.0									
1451+491	14 51 23.25	+49 11 46.3	14 53 04.32	+48 59 34.0	13.06	−0.19	HBB	06.02.91	3500–5700	BTA			PG, CBS 293	[6]
1451+574	14 51 46.74	+57 25 28.6	14 53 09.27	+57 13 17.0	18.0		DA							[25]
1451+583A	14 51 46.80	+58 20 40.4	14 53 06.75	+58 08 28.8	18.0									
1451+494	14 51 57.86	+49 26 01.2	14 53 38.35	+49 13 50.6	17.5		NHB:	11.04.97	4000–7000	GHO				[22]
1451+606	14 51 58.13	+60 36 20.4	14 53 11.08	+60 24 09.2	17.5		G	20.03.91	3400–7000	BTA				[22]
1452+600	14 52 09.12	+60 03 08.0	14 53 23.79	+59 50 57.3	17.5		DA	19.05.93	3500–7000	MMT				
1452+595	14 52 47.58	+59 30 10.4	14 54 04.81	+59 18 01.7	18.0		QSO							
1452+553	14 52 48.57	+55 23 58.4	14 54 16.02	+55 11 50.0	16.0		DA	28.01.90	3500–5700	BTA			CBS 295	[22]
1452+516	14 52 51.15	+51 36 41.7	14 54 27.12	+51 24 33.6	18.5		QSO	27.12.97	4000–7000	BTA	RXJ1454.4+5124	R		[27]
1453+506	14 53 10.14	+50 41 16.6	14 54 47.90	+50 29 09.6	19.04	+0.35	QSO	12.04.97	4000–9000	GHO				[3,22]
1453+529	14 53 14.17	+52 55 16.3	14 54 47.25	+52 43 09.4	18.5		QSO	24.05.00	4000–9000	GHO	145447.7+524300			
1453+491	14 53 22.15	+49 07 31.6	14 55 02.87	+48 55 25.3	17.0		HBB	23.03.93	3500–7000	MMT				[23]
1453+600	14 53 32.41	+60 01 57.8	14 54 46.63	+59 49 51.3	19.0									
1453+518	14 53 33.31	+51 53 27.0	14 55 08.51	+51 41 21.1	18.0		QSO							[27]
1453+591	14 53 40.22	+59 10 09.9	14 54 57.08	+58 58 03.9	18.0		QSO							
1453+595	14 53 46.67	+59 34 55.0	14 55 02.23	+59 22 49.3	19.0									
1453+571	14 53 59.14	+57 07 48.9	14 55 21.74	+56 55 44.0	15.0		DA	28.04.87	3400–6800	ZTA				
1454+506	14 54 10.91	+50 39 29.2	14 55 48.47	+50 27 25.2	17.84	+0.19	DA	14.07.97	4000–7000	GHO			CSO 700	[22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1454+606	14 54 17.19	+60 39 36.0	14 55 29.09	+60 27 31.7	18.5									
1454+525	14 54 20.48	+52 30 32.4	14 55 54.15	+52 18 28.8	18.0		QSO							[27]
1454+493	14 54 26.80	+49 23 19.6	14 56 06.76	+49 11 16.5	16.39		sd	06.02.89	3500–5700	ZTA			PG, CBS 296	[6]
1454+502	14 54 28.14	+50 13 57.4	14 56 06.47	+50 01 54.3	16.49	−0.34	sd	20.03.91	3400–7000	ZTA			PG, CBS 297	[6]
1454+512	14 54 38.13	+51 14 11.7	14 56 14.40	+51 02 09.1	19.0									
1454+578	14 54 40.28	+57 53 55.1	14 56 00.52	+57 41 52.2	16.5		DA	23.03.93	3500–7000	MMT				[23]
1455+507	14 55 01.67	+50 43 44.1	14 56 38.87	+50 31 42.7	19.0									
1455+500	14 55 19.30	+50 05 10.6	14 56 57.70	+49 53 10.1	15.26	−0.11	sdB	20.03.91	3400–7000	ZTA			PG, CBS 298	[6]
1455+531	14 55 23.33	+53 10 05.0	14 56 55.26	+52 58 04.5	17.5		DA	23.03.93	3500–7000	MMT			CSO 704	[23]
1455+511	14 55 43.82	+51 06 20.2	14 57 20.08	+50 54 20.9	18.5									
1455+603	14 55 48.78	+60 22 29.7	14 57 01.06	+60 10 30.0	17.5		QSO				145701.2+601034			[25]
1456+527	14 56 04.17	+52 46 52.5	14 57 36.78	+52 34 54.1	18.0		QSO					R		[27]
1456+523	14 56 04.55	+52 23 29.8	14 57 38.01	+52 11 31.5	18.11	−0.12	DA	11.04.96	3500–7000	BTA			CSO 706	
1456+533	14 56 22.11	+53 18 39.3	14 57 53.45	+53 06 41.8	18.0		QSO							[27]
1456+531	14 56 34.60	+53 08 20.2	14 58 06.27	+52 56 23.4	18.0		QSO							[27]
1456+540	14 56 47.77	+54 04 26.0	14 58 17.23	+53 52 29.8	18.36	+0.02	QSO	28.06.89	3370–7050	BTA				[20,23]
1456+560	14 56 59.41	+56 05 41.2	14 58 23.81	+55 53 45.4	18.0									
1457+531	14 57 17.08	+53 06 44.8	14 58 48.61	+52 54 50.1	17.5		QSO	11.04.97	4000–7000	GHO		R		[27]
1457+606	14 57 27.89	+60 39 55.3	14 58 38.60	+60 28 00.6	18.0									
1457+575	14 57 31.50	+57 30 45.4	14 58 51.89	+57 18 51.2	18.0		QSO							[25]
1457+553A	14 57 37.48	+55 20 08.2	14 59 03.63	+55 08 14.4	18.5									
1457+553B	14 57 51.71	+55 22 52.8	14 59 17.67	+55 10 59.8	17.5		QSO	12.04.97	4000–7000	GHO				
1458+517	14 58 01.64	+51 44 35.3	14 59 35.97	+51 32 43.0	19.0		QSO							[27]
1458+535	14 58 19.24	+53 31 00.2	14 59 49.56	+53 19 08.7	17.02	+0.06	QSO	06.04.91	3400–7000	BTA	145949.9+531906			[3,21]
1458+506	14 58 43.38	+50 36 24.8	15 00 19.89	+50 24 34.6	19.0									
1458+567	14 58 45.18	+56 47 53.5	15 00 07.16	+56 36 03.1	18.5		QSO					R		[25]
1459+554	14 59 05.36	+55 28 58.1	15 00 30.70	+55 17 08.8	17.31	+0.04	QSO	23.03.93	3500–7000	MMT	150031.0+551724		CSO 712	[23]
1459+549	14 59 12.70	+54 54 33.1	15 00 39.44	+54 42 44.2	18.0		QSO							[25]
1459+596	14 59 20.94	+59 36 55.1	15 00 34.42	+59 25 06.3	18.0									
1459+494	14 59 44.30	+49 29 47.9	15 01 22.77	+49 18 01.0	18.86	+0.14	Unclas	16.04.96	4000–7000	BTA			CSO 713	
1500+530	15 00 06.23	+53 05 19.9	15 01 37.04	+52 53 33.9	18.0		QSO							[27]
1500+557C	15 00 26.71	+55 44 25.6	15 01 50.98	+55 32 40.5	17.57	+0.11	QSO	23.03.93	3500–7000	MMT			CBS 299	[21,23]
1500+568	15 00 33.74	+56 49 18.4	15 01 55.08	+56 37 33.6	17.5		NLQSO	04.05.00	4000–9000	GHO	150154.8+563742			[26]
1500+520	15 00 34.06	+52 03 50.1	15 02 07.03	+51 52 05.6	17.0		DA	10.07.91	3400–7000	BTA			CSO 715	[22]
1500+510	15 00 36.17	+51 01 19.3	15 02 11.35	+50 49 35.0	18.5									
1500+531	15 00 49.35	+53 10 37.3	15 02 19.76	+52 58 53.5	17.5		NHB	12.04.97	4000–7000	GHO				[22]
1501+512	15 01 15.40	+51 16 47.0	15 02 49.88	+51 05 04.7	18.5									
1501+506	15 01 22.33	+50 40 58.9	15 02 58.02	+50 29 17.0	16.67	−0.04	QSO	07.03.92	3400–7100	BTA	150258.9+502924			[21,23]
1501+605	15 01 53.85	+60 33 09.8	15 03 03.32	+60 21 28.8	18.5		QSO							
1501+580	15 01 56.08	+58 03 32.6	15 03 13.46	+57 51 52.0	18.0		QSO							

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1502+511	15 02 06.48	+51 06 28.4	15 03 41.10	+50 54 48.7	18.0									
1502+516A	15 02 39.37	+51 37 03.7	15 04 12.77	+51 25 25.7	18.5									
1502+588	15 02 41.18	+58 49 40.7	15 03 55.99	+58 38 02.3	19.0									
1502+547	15 02 55.23	+54 47 44.9	15 04 21.18	+54 36 07.5	17.20	+0.40	QSO	13.04.97	4000–7000	GHO		R		[27]
1502+602	15 02 58.82	+60 12 32.9	15 04 09.07	+60 00 55.3	18.0		QSO					R	3C 311	
1503+543	15 03 10.72	+54 23 26.1	15 04 37.60	+54 11 49.6	17.00	+0.02	QSO	23.03.93	3500–7000	MMT			CSO 720	[23]
1503+570	15 03 35.46	+57 00 57.3	15 04 55.32	+56 49 21.9	17.45	+0.09	QSO	05.04.92	3300–7000	BTA	RXJ1504.8+5649	R		[21,23]
1503+585	15 03 39.12	+58 33 01.2	15 04 54.46	+58 21 25.9	18.0		QSO							
1504+515	15 04 12.53	+51 34 13.9	15 05 45.64	+51 22 40.8	18.0		QSO	26.04.87	3400–6800	BTA		R	CSO 721	[27]
1504+546	15 04 39.68	+54 39 50.0	15 06 05.46	+54 28 18.2	16.0		DA+dMe	23.03.93	3500–7000	MMT			CBS 301	[23]
1504+502	15 04 41.35	+50 15 20.7	15 06 17.11	+50 03 49.2	19.0									
1504+543	15 04 44.97	+54 23 27.2	15 06 11.41	+54 11 55.7	18.11	+0.14	QSO	05.04.92	3300–7000	BTA			CSO 722	[2,21,23]
1504+596	15 04 50.49	+59 38 03.7	15 06 02.00	+59 26 32.0	18.0		QSO							
1505+577	15 05 21.54	+57 46 29.4	15 06 38.66	+57 34 59.5	18.5		QSO							[25]
1505+596	15 05 54.37	+59 36 10.4	15 07 05.62	+59 24 42.1	18.5		QSO							
1506+520	15 06 00.45	+52 02 10.2	15 07 32.07	+51 50 42.8	18.5		QSO							[27]
1506+496	15 06 19.60	+49 37 11.4	15 07 56.26	+49 25 45.1	16.0		G	06.04.92	3400–7000	BTA			CSO 724	[22]
1506+501	15 06 20.63	+50 10 14.5	15 07 56.17	+49 58 48.3	18.5		QSO				150756.4+495850			[27]
1506+519	15 06 28.04	+51 55 33.9	15 07 59.79	+51 44 07.9	18.5									
1506+583	15 06 32.78	+58 19 56.4	15 07 47.84	+58 08 30.3	18.0		QSO							
1506+505	15 06 39.78	+50 33 33.1	15 08 14.43	+50 22 07.9	19.0		sdB							[27]
1506+498	15 06 53.10	+49 52 13.5	15 08 29.12	+49 40 49.0	17.0		sd	12.03.97	4000–7000	GHO			CBS 302	[22]
1507+523	15 07 07.02	+52 21 43.4	15 08 37.63	+52 10 19.5	18.5									
1507+577	15 07 12.81	+57 43 55.0	15 08 29.47	+57 32 31.0	18.0		Cont	18.03.86	3500–5200	BTA				[22]
1507+524A	15 07 15.48	+52 29 54.3	15 08 45.74	+52 18 30.8	18.0									
1507+586	15 07 19.61	+58 37 07.8	15 08 33.54	+58 25 44.1	18.0									
1507+501	15 07 25.67	+50 11 37.0	15 09 00.90	+50 00 14.2	18.5									
1507+524B	15 07 46.13	+52 28 08.8	15 09 16.32	+52 16 47.0	19.0									
1507+511	15 07 59.15	+51 09 13.5	15 09 32.21	+50 57 52.4	19.0									
1508+578	15 08 09.11	+57 53 59.8	15 09 24.97	+57 42 38.8	18.5									
1508+579	15 08 20.23	+57 54 21.4	15 09 36.02	+57 43 01.0	19.0		QSO					R		[25]
1508+561	15 08 27.09	+56 07 37.4	15 09 47.95	+55 56 17.5	17.5		BLLac	19.05.93	3500–7000	MMT	150948.4+555606	R		[23,27]
1508+548	15 08 29.54	+54 51 06.7	15 09 53.77	+54 39 47.0	15.71		DA3	20.03.91	3400–7000	ZTA			PG	[6]
1508+585	15 08 40.15	+58 32 42.9	15 09 53.87	+58 21 23.5	18.53	+0.29	QSO	05.04.93	3300–7000	MMT				[2,21,23]
1509+506	15 09 01.14	+50 36 34.7	15 10 35.12	+50 25 17.0	18.5									
1509+536	15 09 59.89	+53 37 18.4	15 11 26.78	+53 26 03.7	16.5		DA	23.03.93	3500–7000	MMT			CBS 306	[23]
1510+517	15 10 02.47	+51 46 19.0	15 11 33.67	+51 35 04.5	17.17	+0.16	QSO	20.03.91	3400–7100	BTA		R		[21,23]
1510+571	15 10 09.18	+57 10 50.6	15 11 26.55	+56 59 36.1	17.5		QSO							[25]
1510+526	15 10 21.92	+52 36 53.7	15 11 51.11	+52 25 40.2	17.64	+0.33	QSO	06.03.97	4000–7000	GHO		R		[22]
1510+566	15 10 33.65	+56 36 16.8	15 11 52.55	+56 25 03.7	16.47	+0.23	DA6						G201-039	

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1510+510	15 10 38.67	+51 00 04.6	15 12 11.42	+50 48 52.1	17.0		G	23.03.93	3500–7000	MMT				[23]
1510+598	15 10 45.39	+59 48 10.9	15 11 54.33	+59 36 58.1	18.5									
1510+586	15 10 57.56	+58 36 07.0	15 12 10.37	+58 24 55.0	17.0		G	19.02.82	3500–5700	BTA				[22]
1512+520	15 12 22.71	+52 04 46.5	15 13 52.63	+51 53 39.6	18.0									
1512+503	15 12 35.81	+50 22 07.8	15 14 09.45	+50 11 01.7	17.0		sdB-O	23.03.93	3500–7000	MMT			CBS 307	[23]
1513+600	15 13 00.15	+60 01 04.5	15 14 07.60	+59 49 59.0	17.5		F	19.05.93	3500–7000	MMT				[23]
1513+507	15 13 27.71	+50 45 11.3	15 15 00.32	+50 34 08.0	18.45	+0.30	QSO					R	CSO 733	[27]
1513+554	15 13 56.92	+55 26 37.6	15 15 18.06	+55 15 35.5	17.91	+0.29	QSO	11.02.97	3800–7000	BTA		R		
1514+590	15 14 35.99	+59 05 20.4	15 15 46.06	+58 54 20.2	17.5		DA	06.04.91	3400–7000	BTA				[22]
1514+503	15 14 43.51	+50 22 18.7	15 16 16.65	+50 11 19.6	17.0		G	23.03.93	3500–7000	MMT			CSO 734	[23]
1515+610A	15 15 12.25	+61 00 10.8	15 16 15.42	+60 49 12.4	19.5		QSO							
1515+610B	15 15 14.89	+61 00 49.6	15 16 18.01	+60 49 51.4	17.5		Unclas	19.02.82	3600–5300	BTA				[18]
1515+608	15 15 21.89	+60 49 01.8	15 16 25.69	+60 38 04.0	18.0		G	13.11.85	3700–5400	BTA				[18]
1516+519	15 16 14.18	+51 55 40.0	15 17 43.50	+51 44 45.7	17.0		sd	06.04.91	3400–7000	BTA			CBS 310	[22]
1516+580	15 16 17.74	+58 01 45.9	15 17 30.68	+57 50 51.4	18.0		Unclas	28.08.87	3500–6500	BTA				[18]
1516+579	15 16 43.68	+57 57 12.5	15 17 56.73	+57 46 19.4	18.0		Unclas	27.09.90	3300–7000	BTA				
1516+494	15 16 54.27	+49 29 53.9	15 18 28.77	+49 19 02.0	17.76	+0.01	DA	14.04.97	4000–7000	GHO			CSO 737	[22]
1517+520	15 17 04.14	+52 05 47.8	15 18 32.87	+51 54 56.3	18.0		QSO				151833.5+515453	R		[27]
1517+585	15 17 06.19	+58 30 14.5	15 18 17.38	+58 19 22.6	18.5		DA							[25]
1517+553	15 17 27.36	+55 22 44.5	15 18 47.71	+55 11 54.0	17.5		HBB	27.06.89	3600–7000	BTA				[22]
1517+502	15 17 33.40	+50 17 51.7	15 19 06.05	+50 07 01.9	17.61	+0.14	DA+dC	23.03.93	3500–7000	MMT			CBS 311	[23]
1517+515A	15 17 53.14	+51 32 03.7	15 19 22.97	+51 21 14.9	18.0									
1517+515B	15 17 55.89	+51 35 02.0	15 19 25.59	+51 24 13.4	18.0		QSO							[27]
1518+590	15 18 27.56	+59 00 32.7	15 19 36.67	+58 49 45.3	19.0									
1518+520	15 18 37.40	+52 03 50.5	15 20 05.83	+51 53 04.2	17.0		G	23.03.93	3500–7000	MMT			CSO 740	[23]
1518+541	15 18 38.21	+54 08 25.9	15 20 01.53	+53 57 39.5	16.0		DA	23.03.93	3500–7000	MMT			CBS 313	[23]
1518+497	15 18 38.30	+49 42 26.8	15 20 11.97	+49 31 40.7	18.60	+0.14	QSO	07.03.92	3400–7100	BTA	152011.0+493130		CSO 741	[21]
1518+558	15 18 57.89	+55 52 02.9	15 20 16.47	+55 41 17.4	16.0		DA	23.03.93	3500–7000	MMT			CBS 314	[23]
1519+500	15 19 09.14	+50 02 24.9	15 20 41.99	+49 51 40.5	16.17		DA2						PG	[6]
1519+512	15 19 30.40	+51 13 09.7	15 21 00.56	+51 02 26.4	18.5									
1520+530	15 20 19.27	+53 05 29.0	15 21 44.81	+52 54 48.3	17.67	+0.52	BALQSO	18.05.93	3500–7000	BTA			Gr.Lens	[28]
1520+525	15 20 19.71	+52 32 43.8	15 21 46.58	+52 22 03.1	15.56		DO	06.02.89	3500–5700	ZTA	152146.6+522215		PG	[6]
1520+598	15 20 48.24	+59 50 59.8	15 21 53.73	+59 40 20.1	17.32	−0.15	QSO	03.09.86	3500–6700	BTA	152153.4+594025			[20,23,30]
1520+545	15 20 50.64	+54 33 32.5	15 22 12.29	+54 22 53.4	17.5		DA	06.04.91	3400–7000	BTA			CSO 745	[22]
1521+589	15 21 19.48	+58 54 31.9	15 22 28.04	+58 43 54.1	19.0		G	14.06.96	4000–7400	BTA				
1521+540	15 21 44.54	+54 04 30.0	15 23 07.37	+53 53 58.3	17.56	+0.36	QSO	13.03.97	4000–7000	BTA			CSO 746	
1522+544	15 22 13.74	+54 25 26.7	15 23 35.39	+54 14 52.3	18.0									
1522+545	15 22 35.48	+54 33 29.4	15 23 56.67	+54 22 56.2	17.0		DA	27.06.89	3600–7000	BTA			CSO 750	[22]
1522+575A	15 22 36.59	+57 33 06.0	15 23 49.15	+57 22 32.6	18.5		G	14.06.96	4000–7400	BTA				
1522+593	15 22 39.94	+59 22 48.0	15 23 46.48	+59 12 14.7	18.5		Unclas	07.09.86	3500–5200	BTA				[18]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1522+551	15 22 48.83	+55 11 22.4	15 24 08.25	+55 00 49.9	17.5		DA	06.04.91	3400–7000	BTA				
1523+590	15 23 06.53	+59 03 25.9	15 24 14.04	+58 52 54.1	18.5		QSO	10.10.88	3600–6900	BTA				[22]
1523+525	15 23 16.66	+52 31 50.0	15 24 42.85	+52 21 19.3	18.5									
1523+526	15 23 36.25	+52 39 40.5	15 25 02.05	+52 29 10.9	18.0									
1524+571	15 24 13.05	+57 08 48.4	15 25 26.40	+56 58 20.5	18.0		Unclas	22.02.82	3500–5700	BTA				
1524+515	15 24 15.94	+51 30 26.3	15 25 44.34	+51 19 59.0	17.94	+0.02	QSO	23.03.93	3500–7000	MMT			CSO 754	[23]
1524+517	15 24 26.15	+51 47 16.2	15 25 53.85	+51 36 49.5	17.32	+0.45	BALQSO	03.03.87	3630–7190	BTA			CSO 755	[20,23]
1524+598	15 24 26.37	+59 49 58.3	15 25 30.76	+59 39 30.9	18.5		QSO	28.09.87	3300–6600	BTA				[18]
1524+491	15 24 27.98	+49 08 02.3	15 26 01.61	+48 57 35.8	18.01	+0.33	BALQSO	23.03.93	3500–7000	MMT			CSO 756	[23]
1524+567	15 24 29.83	+56 44 39.2	15 25 44.32	+56 34 12.3	18.0		NLQSO	23.03.93	3500–7000	BTA	152543.5+563401			[26]
1524+601	15 24 47.64	+60 10 02.7	15 25 50.71	+59 59 36.5	16.5		F	28.04.87	3400–6800	ZTA				
1525+491	15 25 01.37	+49 08 28.2	15 26 34.87	+48 58 03.6	17.0		sd	23.03.93	3500–7000	MMT			CBS 319	[23,27]
1525+600	15 25 10.00	+60 02 31.5	15 26 13.41	+59 52 06.6	19.0		QSO	28.08.87	3500–6800	BTA				[18,23]
1525+580B	15 25 10.06	+58 02 08.8	15 26 20.34	+57 51 44.1	17.18	+0.23	QSO	12.11.85	3320–5080	BTA				[14,18,23]
1525+494	15 25 43.14	+49 28 55.2	15 27 15.76	+49 18 33.0	18.90	+0.57	QSO	19.05.93	3400–6800	BTA			CSO 757	[3,22]
1525+529	15 25 44.71	+52 59 23.5	15 27 09.18	+52 49 01.2	18.0									
1526+572	15 26 18.06	+57 13 02.6	15 27 30.60	+57 02 41.8	18.0									
1526+540	15 26 38.74	+54 02 42.9	15 28 00.27	+53 52 23.6	17.30	+0.32	QSO	06.04.92	3300–7000	BTA			CSO 758	[21,23]
1526+558	15 26 52.99	+55 49 27.5	15 28 09.54	+55 39 08.8	17.0		DA	23.03.93	3400–7000	MMT			CBS 320	[23]
1527+526	15 27 01.01	+52 39 56.1	15 28 25.98	+52 29 38.1	18.0									
1527+522	15 27 17.98	+52 15 35.2	15 28 43.89	+52 05 18.2	16.68	+0.17	QSO	06.04.92	3300–7000	BTA		R	CSO 759	[21,23]
1527+527	15 27 19.31	+52 42 10.9	15 28 44.12	+52 31 54.0	18.5								CSO 760	
1527+598	15 27 44.04	+59 50 49.4	15 28 47.36	+59 40 33.3	17.0		HBB	05.04.92	3400–6800	BTA				[22]
1527+612A	15 27 45.26	+61 12 23.3	15 28 43.44	+61 02 07.1	17.5		HBB	19.05.93	3500–7000	MMT				[23]
1527+612B	15 27 53.92	+61 12 04.6	15 28 52.08	+61 01 48.9	17.5		DA	22.02.82	3500–5700	BTA				[22]
1527+581	15 27 54.99	+58 07 07.7	15 29 04.20	+57 56 52.4	17.61	−0.06	QSO	28.09.87	3400–6550	BTA				[18,23]
1527+530	15 27 58.30	+53 03 01.8	15 29 22.08	+52 52 47.1	17.41	−0.01	QSO	06.04.92	3300–7000	BTA				[2,21,23]
1528+577A	15 28 47.59	+57 42 12.2	15 29 57.90	+57 32 00.0	18.0		DA	12.11.85	3400–5100	BTA				[18]
1528+572	15 28 56.08	+57 16 37.7	15 30 07.70	+57 06 26.0	18.5		QSO	31.08.86	3600–5100	BTA				
1529+590	15 29 07.34	+59 02 54.5	15 30 13.07	+58 52 43.3	18.0		G:	21.03.86	3500–5100	BTA				[18]
1529+519	15 29 34.31	+51 55 16.5	15 31 00.52	+51 45 07.4	17.0		sdOC	23.03.93	3500–7000	MMT			CSO 764	[23]
1529+510	15 29 35.10	+51 01 42.7	15 31 03.42	+50 51 33.7	18.5		DA							[25]
1529+527	15 29 38.07	+52 46 04.9	15 31 02.17	+52 35 56.0	17.51	+0.32	QSO	14.04.97	4000–7000	GHO			CSO 765	[3,22]
1529+539	15 29 41.41	+53 59 10.3	15 31 02.35	+53 49 01.5	17.5		sd	20.09.88	3600–6800	BTA			CBS 323	
1529+551	15 29 55.01	+55 11 47.1	15 31 12.57	+55 01 39.0	17.96	−0.21							CBS 324	
1530+603	15 30 02.98	+60 20 41.8	15 31 03.75	+60 10 33.6	17.5		HBB	19.05.93	3500–7000	MMT				[23]
1530+516	15 30 59.29	+51 40 17.3	15 32 25.78	+51 30 13.2	17.0		NHB	11.03.97	3500–7000	GHO				[22]
1531+603	15 31 15.23	+60 23 58.3	15 32 15.42	+60 13 54.3	19.5									
1531+525	15 31 17.80	+52 34 50.9	15 32 41.99	+52 24 47.8	17.5		sdB	26.03.98	3700–6300	BTA				
1531+572B	15 31 26.25	+57 15 07.0	15 32 37.27	+57 05 04.0	18.0		G	03.09.86	3500–5300	BTA				[18]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1532+522	15 32 05.09	+52 16 50.4	15 33 29.85	+52 06 50.0	13.83	−0.29	sdB	20.03.91	3400–7000	ZTA			PG	[6]
1532+501	15 32 20.77	+50 10 35.6	15 33 50.46	+50 00 36.3	17.5		DA	29.04.00	4000–9000	GHO				
1532+584	15 32 30.98	+58 29 54.4	15 33 37.61	+58 19 55.0	19.0		F:	09.10.88	3500–6700	BTA				[18]
1532+582	15 32 33.50	+58 16 45.3	15 33 40.86	+58 06 46.1	18.5		Unclas	14.11.85	3600–5300	BTA				[18]
1532+583	15 32 40.10	+58 19 35.6	15 33 47.27	+58 09 36.8	17.5		G	14.11.85	3600–5300	BTA				[18]
1532+507	15 32 44.05	+50 44 05.4	15 34 12.38	+50 34 07.4	18.0		QSO							[25]
1532+598	15 32 50.93	+59 50 17.4	15 33 52.73	+59 40 19.0	17.76	+0.37	QSO	23.09.90	3400–6900	BTA				[21]
1532+547	15 32 52.91	+54 43 43.6	15 34 11.04	+54 33 45.8	16.0		DA	26.06.89	3600–7000	BTA				[22]
1533+599	15 33 10.92	+59 58 29.7	15 34 12.11	+59 48 32.5	19.5		CV						DM Dra	
1533+524	15 33 18.91	+52 26 09.7	15 34 43.00	+52 16 13.6	18.5									
1533+588	15 33 52.06	+58 49 18.1	15 34 57.19	+58 39 23.4	19.0		QSO	09.10.88	3500–6700	BTA	RXJ1534.9+5839	R		[18]
1533+575	15 33 52.69	+57 32 38.9	15 35 02.11	+57 22 44.4	18.0		F:	03.09.86	3500–5200	BTA				[18]
1534+601	15 34 01.14	+60 08 39.1	15 35 01.45	+59 58 44.8	19.5									
1534+535	15 34 08.00	+53 31 31.7	15 35 29.10	+53 21 38.4	17.5		QSO					R		[25]
1534+597	15 34 17.21	+59 44 41.0	15 35 18.92	+59 34 47.7	19.5									
1534+568	15 34 27.93	+56 53 59.7	15 35 39.24	+56 44 07.3	17.5		QSO							
1534+571	15 34 42.16	+57 11 26.9	15 35 52.49	+57 01 35.3	17.5		NHB	19.05.93	3500–7000	MMT				[23]
1534+523	15 34 45.59	+52 18 51.5	15 36 09.66	+52 09 00.5	16.5		NHB	23.03.93	3500–7000	MMT				[23]
1534+503	15 34 46.58	+50 23 48.1	15 36 15.26	+50 13 57.3	15.96	+0.25	DA6	20.03.91	3400–7000	ZTA			PG, GR 365	[6]
1534+528	15 34 49.42	+52 51 45.2	15 36 12.09	+52 41 54.4	17.54	+0.10	QSO	23.03.93	3500–7000	MMT	153612.9+524150			[2,21,23]
1534+522	15 34 51.96	+52 16 32.1	15 36 16.11	+52 06 41.5	17.0		NHB	23.03.93	3500–7000	MMT				[23]
1534+588	15 34 55.55	+58 53 50.1	15 36 00.12	+58 43 59.1	17.0		DA:	06.04.86	3500–5200	BTA				[18]
1535+571	15 35 00.51	+57 09 27.1	15 36 10.86	+56 59 36.6	18.0									
1535+609	15 35 06.35	+60 58 06.1	15 36 03.14	+60 48 15.5	17.27	+0.17	QSO	19.05.93	3500–7000	MMT				[23]
1535+558	15 35 14.15	+55 53 26.4	15 36 28.34	+55 43 36.8	18.0									
1535+597A	15 35 44.24	+59 42 21.3	15 36 45.67	+59 32 33.1	19.0		QSO	23.03.93	3500–7000	BTA				
1536+520	15 36 01.41	+52 01 12.9	15 37 25.94	+51 51 26.4	17.0		DBA	05.04.92	3400–6800	BTA				[22]
1536+512	15 36 04.10	+51 17 54.8	15 37 30.38	+51 08 08.5	18.0		QSO							[25]
1536+513	15 36 28.36	+51 20 53.1	15 37 54.44	+51 11 08.2	18.5									
1536+593	15 36 54.99	+59 19 25.7	15 37 57.47	+59 09 41.7	18.5									
1537+595	15 37 04.40	+59 32 17.5	15 38 06.05	+59 22 34.1	19.0		QSO	09.10.88	3500–6700	BTA				[18]
1537+523	15 37 07.57	+52 21 34.7	15 38 31.01	+52 11 52.1	17.5		sdB	26.04.00	4000–9000	GHO				
1537+588	15 37 24.55	+58 52 38.2	15 38 28.48	+58 42 56.0	19.5									
1537+573	15 37 29.29	+57 19 47.5	15 38 38.43	+57 10 05.8	17.0		F	13.06.96	4000–7400	BTA				
1537+572	15 37 42.69	+57 17 55.8	15 38 51.87	+57 08 14.9	18.13	0.00	QSO	29.08.86	3500–6700	BTA				[18,23]
1538+525	15 38 01.39	+52 35 51.1	15 39 24.02	+52 26 11.7	17.5		QSO							[25]
1538+523	15 38 15.44	+52 22 35.4	15 39 38.59	+52 12 56.8	18.0									
1538+588	15 38 30.07	+58 51 07.5	15 39 33.79	+58 41 29.2	18.0		G	21.03.86	3500–5200	BTA				[18]
1538+520	15 38 33.45	+52 05 03.2	15 39 57.27	+51 55 25.7	18.5									
1538+587	15 38 53.40	+58 44 37.3	15 39 57.39	+58 35 00.4	18.5		G	04.09.86	3500–5200	BTA				[18]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1539+603	15 39 08.99	+60 22 26.5	15 40 06.89	+60 12 50.4	18.5									
1539+530	15 39 33.10	+53 02 17.1	15 40 54.25	+52 52 43.1	15.93		DA2	20.03.91	3400–7000	ZTA			PG	[6]
1539+550	15 39 51.18	+55 00 15.8	15 41 06.84	+54 50 42.7	16.0		sdB	26.06.89	3600–7000	BTA				[22]
1540+505	15 40 34.55	+50 35 04.0	15 42 01.60	+50 25 33.8	17.0		DB	05.04.92	3400–6800	BTA				[22]
1540+518	15 40 41.87	+51 48 05.4	15 42 05.94	+51 38 35.6	19.0									
1541+570	15 41 28.09	+57 05 19.0	15 42 36.98	+56 55 51.5	19.5									
1541+495	15 41 49.10	+49 32 04.9	15 43 18.34	+49 22 39.3	17.0		DA	05.04.92	3400–6800	BTA				[22]
1541+519	15 41 57.49	+51 54 03.5	15 43 21.05	+51 44 38.2	19.0		QSO							[25]
1542+524	15 42 29.48	+52 26 08.8	15 43 51.56	+52 16 45.4	17.5		F:	01.05.00	4000–9000	GHO				
1542+541	15 42 41.92	+54 08 26.5	15 43 59.37	+53 59 03.7	17.24	+0.18	QSO	20.09.88	3300–6800	BTA				[3,20]
1542+581	15 42 44.53	+58 10 45.1	15 43 49.45	+58 01 22.1	17.5		Cont	11.04.81	3500–5700	BTA				[22]
1542+517	15 42 51.33	+51 42 33.6	15 44 15.18	+51 33 11.6	17.0		DA	05.04.92	3400–6800	BTA				[22]
1543+593	15 43 19.71	+59 21 47.9	15 44 20.24	+59 12 26.9	16.79	+0.40	QSO	03.10.88	3300–6800	BTA				[21,23]
1543+516	15 43 26.50	+51 41 49.7	15 44 50.26	+51 32 29.8	18.5									
1543+602	15 43 30.75	+60 17 39.9	15 44 27.69	+60 08 19.4	19.0									
1543+603	15 43 35.17	+60 18 13.0	15 44 32.05	+60 08 52.8	16.0		NHB	23.03.93	3500–7000	MMT				[23]
1543+517	15 43 39.24	+51 44 20.3	15 45 02.85	+51 35 01.2	18.0		QSO					R		[25]
1544+509	15 44 05.52	+50 56 23.4	15 45 31.01	+50 47 05.9	18.0		QSO							[25]
1544+600	15 44 12.03	+60 04 22.4	15 45 09.64	+59 55 04.5	14.74		sdB	20.03.91	3400–7000	ZTA			PG	
1544+514	15 44 12.16	+51 28 03.3	15 45 36.33	+51 18 46.2	19.0		sdB							[25]
1544+568	15 44 21.93	+56 49 00.6	15 45 30.97	+56 39 43.6	18.0		sdB							[25]
1544+497	15 44 35.85	+49 46 45.9	15 46 04.00	+49 37 30.3	18.0		DA							[25]
1544+512	15 44 35.85	+51 13 14.2	15 46 00.56	+51 03 58.5	17.5		QSO	07.02.97	4000–7200	BTA			HS1544+5113	[7]
1544+586	15 44 42.75	+58 38 13.3	15 45 45.54	+58 28 57.4	17.5		Unclas	19.02.82	3500–5700	BTA				
1545+519	15 45 12.56	+51 56 05.4	15 46 35.35	+51 46 51.9	17.5		G	19.05.93	3500–7000	MMT				[23]
1545+585	15 45 22.86	+58 30 24.9	15 46 25.93	+58 21 11.4	18.5									
1545+592	15 45 54.98	+59 13 22.3	15 46 55.32	+59 04 10.7	17.5		G	19.05.93	3500–7000	MMT				[22,23]
1546+504	15 46 16.16	+50 26 08.0	15 47 42.44	+50 16 58.5	17.0		G:	23.03.93	3500–7000	MMT				[23]
1546+522	15 46 43.51	+52 15 35.3	15 48 05.16	+52 06 27.3	18.5		Unclas	26.05.00	4000–9000	GHO				
1546+510	15 46 46.68	+51 01 09.0	15 48 11.45	+50 52 01.3	18.0									
1546+511	15 46 47.19	+51 09 53.5	15 48 11.60	+51 00 45.8	18.5									
1547+539	15 47 31.86	+53 59 16.8	15 48 48.67	+53 50 11.6	17.5		sd:	28.04.00	4000–9000	GHO				
1547+523	15 47 56.86	+52 22 41.4	15 49 17.95	+52 13 37.9	19.0									
1548+505	15 48 22.38	+50 31 19.2	15 49 48.05	+50 22 17.4	19.0		QSO							[25]
1549+590	15 49 56.93	+59 05 02.9	15 50 56.72	+58 56 06.1	17.63	+0.21	NLQSO	20.03.96	3500–7000	BTA	155056.8+585614			[3,22,26]
1550+506	15 50 09.29	+50 37 40.6	15 51 34.36	+50 28 45.3	17.5		sdB	27.04.00	4000–9000	GHO				
1550+582	15 50 55.66	+58 15 37.9	15 51 58.18	+58 06 44.8	17.03	+0.30	QSO	23.03.93	3300–6900	BTA	RXJ1551.9+5806	R		[3]
1551+572	15 51 26.68	+57 14 08.2	15 52 32.61	+57 05 17.1	17.32	−0.11	QSO	23.09.90	3500–6900	BTA	155233.6+570526			[3,21]
1551+578	15 51 47.17	+57 48 15.7	15 52 51.08	+57 39 25.8	18.0									
1552+601	15 52 00.95	+60 10 48.6	15 52 55.98	+60 01 59.3	18.5		F	12.02.91	3600–5500	BTA				[22]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1553+607	15 53 29.28	+60 45 10.6	15 54 21.59	+60 36 26.7	18.0									
1553+521	15 53 39.45	+52 11 22.1	15 54 59.88	+52 02 39.7	18.0									
1554+496A	15 54 02.77	+49 40 35.7	15 55 29.41	+49 31 54.9	18.5		QSO							[25]
1554+569	15 54 07.56	+56 55 50.9	15 55 13.87	+56 47 09.8	17.0		DA	23.03.93	3500–7000	MMT				[23]
1554+496B	15 54 11.96	+49 40 56.3	15 55 38.56	+49 32 16.1	17.0		NHB	06.04.92	3400–6800	BTA				[22]
1554+582	15 54 15.80	+58 15 20.6	15 55 17.51	+58 06 39.9	17.5		sd	09.04.91	3400–7000	BTA				[22]
1554+505	15 54 58.16	+50 30 33.5	15 56 22.62	+50 21 56.1	16.01		sd	06.02.89	3500–5700	ZTA			PG	[6]
1554+593	15 54 58.92	+59 21 03.8	15 55 56.40	+59 12 25.6	18.0									
1555+552	15 55 06.22	+55 16 58.6	15 56 17.57	+55 08 21.3	16.62	−0.04	QSO	27.09.90	3400–7100	BTA				[21,23]
1555+604	15 55 08.09	+60 25 57.0	15 56 01.27	+60 17 19.3	18.5									
1555+504	15 55 18.29	+50 24 12.9	15 56 42.95	+50 15 36.8	16.00		sdOC	20.03.91	3400–7000	ZTA			PG	[6]
1555+588	15 55 30.26	+58 53 12.8	15 56 29.36	+58 44 36.6	18.0									
1556+605	15 56 01.24	+60 32 51.1	15 56 53.71	+60 24 16.7	17.0		sdB	06.04.92	3400–6800	BTA				[22]
1556+559	15 56 36.35	+55 54 42.5	15 57 45.41	+55 46 10.8	17.0		sdO	23.03.93	3500–7000	MMT				[23]
1557+512	15 57 06.12	+51 13 05.7	15 58 28.41	+51 04 36.3	18.0									
1557+604	15 57 14.18	+60 27 55.0	15 58 06.67	+60 19 25.1	18.0									
1558+605	15 58 19.24	+60 32 09.7	15 59 11.15	+60 23 43.9	18.0									
1558+510	15 58 34.41	+51 04 16.4	15 59 56.81	+50 55 52.5	17.5		DA	25.04.00	4000–9000	GHO				
1558+591	15 58 36.83	+59 08 56.0	15 59 34.17	+59 00 31.5	18.5		QSO	12.11.85	3320–5150	BTA				[14,20]
1559+603B	15 59 46.12	+60 23 26.1	16 00 38.26	+60 15 05.8	18.0									
1559+533	15 59 56.10	+53 20 10.5	16 01 12.18	+53 11 51.6	14.02	−0.32	sdOA						PG	[6]
1600+594	16 00 21.37	+59 29 04.2	16 01 16.99	+59 20 46.2	18.0		NLQSO	04.05.00	4000–9000	GHO	160118.5+592051	R		[26]
1600+587	16 00 23.68	+58 42 57.5	16 01 22.22	+58 34 39.8	15.0		F	06.03.92	3400–7000	BTA				[22]
1600+493	16 00 49.00	+49 21 28.6	16 02 15.22	+49 13 13.3	18.0		DA							[25]
1600+575	16 00 52.32	+57 35 39.8	16 01 54.81	+57 27 24.0	18.5		DA:	14.09.88	3700–5500	BTA				[22]
1601+581	16 01 41.54	+58 06 25.9	16 02 42.01	+57 58 13.2	14.30		DA5	20.03.91	3400–7000	ZTA			PG	[6]
1601+589	16 01 51.77	+58 54 00.1	16 02 49.27	+58 45 47.9	18.5									
1602+519	16 02 13.42	+51 56 38.4	16 03 32.88	+51 48 28.3	17.5		sd	25.04.00	4000–9000	GHO				
1602+601	16 02 28.82	+60 06 03.8	16 03 21.46	+59 57 53.8	17.5		NHB	19.05.93	3500–7000	MMT				[23]
1602+581	16 02 35.89	+58 09 44.1	16 03 35.95	+58 01 34.8	19.0									
1602+508	16 02 52.99	+50 53 08.3	16 04 15.09	+50 45 00.8	17.5		sd	19.05.93	3500–7000	MMT				[23]
1602+576	16 02 54.10	+57 39 02.4	16 03 55.93	+57 30 54.3	18.0		QSO				RXJ1603.9+573	R	4C+57.27	
1603+589	16 03 12.04	+58 58 00.1	16 04 08.97	+58 49 53.0	19.0									
1603+587	16 03 42.52	+58 45 55.7	16 04 40.09	+58 37 50.6	18.5									
1604+502	16 04 10.65	+50 14 50.0	16 05 34.14	+50 06 47.5	17.5		DA							[25]
1604+504	16 04 11.38	+50 26 52.2	16 05 34.36	+50 18 49.7	15.73		sdB-O	20.03.91	3400–7000	ZTA			PG	[6]
1604+606	16 04 53.70	+60 41 42.7	16 05 43.26	+60 33 41.8	17.0		G	08.07.91	3300–7000	BTA				[22]
1605+594	16 05 15.84	+59 29 21.3	16 06 10.25	+59 21 22.0	18.0									
1605+514	16 05 50.00	+51 26 26.8	16 07 10.15	+51 18 30.5	17.0		DA	23.03.93	3500–7000	MMT				[23]
1606+592	16 06 13.75	+59 12 09.0	16 07 09.06	+59 04 13.5	18.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1606+605	16 06 23.42	+60 34 24.6	16 07 13.13	+60 26 29.5	18.5									
1607+608	16 07 31.64	+60 48 12.2	16 08 20.09	+60 40 21.4	17.5		G	19.05.93	3500–7000	MMT				
1607+567	16 07 43.06	+56 44 52.3	16 08 46.98	+56 37 02.8	18.0									
1607+517	16 07 54.10	+51 44 23.8	16 09 13.09	+51 36 35.5	18.0									
1608+606	16 08 29.53	+60 36 47.6	16 09 18.56	+60 29 00.6	18.5		Unclas	10.04.81	3500–5700	BTA				
1609+587	16 09 14.39	+58 46 29.0	16 10 10.66	+58 38 45.1	18.5									
1609+577	16 09 25.96	+57 44 02.5	16 10 26.06	+57 36 19.5	17.5		Unclas	08.07.91	3300–7000	BTA				
1610+495	16 10 03.73	+49 33 36.8	16 11 27.95	+49 25 57.0	18.0									
1610+528	16 10 05.98	+52 53 46.5	16 11 21.40	+52 46 06.6	12.64	−0.27	sdB-O	06.02.91	3400–6800	BTA			PG	[6]
1610+558	16 10 36.71	+55 48 22.3	16 11 43.18	+55 40 44.1	18.0									
1610+581	16 10 39.55	+58 11 42.2	16 11 37.69	+58 04 03.9	18.0									
1610+586A	16 10 40.08	+58 40 54.0	16 11 36.39	+58 33 15.7	18.5									
1610+519	16 10 42.45	+51 57 22.5	16 12 00.38	+51 49 45.0	13.53	−0.20	sdB	20.03.91	3400–7000	ZTA			PG	[6]
1610+586B	16 10 54.01	+58 40 06.4	16 11 50.32	+58 32 29.0	17.5		F	19.05.93	3500–7000	MMT				[23]
1610+547	16 10 56.11	+54 42 32.7	16 12 06.01	+54 34 55.8	17.5		DA	27.04.00	4000–9000	GHO				
1611+580A	16 11 07.95	+58 02 26.3	16 12 06.56	+57 54 49.8	18.5									
1611+580B	16 11 18.64	+58 01 00.5	16 12 17.30	+57 53 24.7	18.5									
1611+580C	16 11 21.42	+58 02 07.9	16 12 20.00	+57 54 32.3	17.5		G	19.05.93	3500–7000	MMT				[23]
1611+579	16 11 27.16	+57 58 13.8	16 12 25.96	+57 50 38.6	19.0									
1611+573	16 11 30.87	+57 22 26.2	16 12 31.82	+57 14 51.3	17.5		sdB	19.05.93	3500–7000	MMT				[23]
1611+585	16 11 43.59	+58 30 29.6	16 12 40.33	+58 22 55.4	16.79	+0.65	QSO	19.05.93	3500–7000	MMT	161240.2+582256	R		[3,23]
1612+585	16 12 05.53	+58 30 05.0	16 13 02.22	+58 22 32.2	17.75	+0.47								
1612+580	16 12 06.10	+58 03 41.1	16 13 04.43	+57 56 08.4	18.0									
1612+554	16 12 09.64	+55 28 58.2	16 13 16.86	+55 21 26.0	16.5		DA	26.06.89	3600–7000	BTA				[22]
1612+605	16 12 17.61	+60 31 19.5	16 13 06.12	+60 23 47.2	17.5		DA	19.05.93	3500–7000	MMT				[23]
1612+600	16 12 52.93	+60 02 05.5	16 13 43.36	+59 54 35.6	18.5									
1613+533	16 13 09.83	+53 21 33.2	16 14 23.38	+53 14 05.2	17.5		sdB	01.05.00	4000–9000	GHO				
1614+544	16 14 09.97	+54 28 34.5	16 15 19.99	+54 21 10.3	17.0		HBB	23.03.93	3500–7000	MMT				[23]
1614+546	16 14 12.30	+54 39 12.8	16 15 21.76	+54 31 48.7	18.0		QSO	08.05.00	4000–9000	GHO				
1614+551	16 14 25.11	+55 11 43.5	16 15 32.83	+55 04 20.2	17.0		sd:	26.06.89	3600–7000	BTA				[22]
1614+583	16 14 43.96	+58 22 16.5	16 15 40.58	+58 14 54.1	19.0		QSO	26.05.00	4000–9000	GHO		R		
1615+591	16 15 02.85	+59 09 29.9	16 15 56.35	+59 02 08.6	18.5									
1615+606	16 15 11.23	+60 39 12.7	16 15 58.50	+60 31 51.7	18.0									
1615+594	16 15 20.97	+59 25 17.6	16 16 13.35	+59 17 57.4	19.0									
1615+559	16 15 32.89	+55 54 08.0	16 16 38.09	+55 46 49.0	18.0									
1615+597	16 15 51.45	+59 46 12.2	16 16 42.30	+59 38 54.0	17.0		G	10.07.91	3400–7000	BTA				[22]
1616+546	16 16 09.84	+54 39 59.1	16 17 18.91	+54 32 42.7	18.0									
1617+541	16 17 23.14	+54 07 25.3	16 18 33.67	+54 00 13.8	18.0									
1618+592	16 18 09.97	+59 12 36.0	16 19 02.60	+59 05 26.9	18.5		Unclas	04.09.89	3700–5600	BTA				
1618+562	16 18 23.29	+56 13 07.9	16 19 26.89	+56 06 00.1	11.31		sdB	06.02.91	3500–5700	BTA			PG	[6]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1618+530	16 18 28.80	+53 03 20.4	16 19 42.32	+52 56 13.3	16.80	+0.13	QSO	20.09.88	3300–6800	BTA		R		[3,20]
1619+525	16 19 09.20	+52 30 26.5	16 20 24.19	+52 23 22.1	15.77		DA3	20.03.91	3400–7000	ZTA			PG	[6]
1619+522	16 19 22.93	+52 13 12.4	16 20 38.69	+52 06 08.9	13.08	−0.28	sdB						PG	[6]
1619+505	16 19 34.35	+50 34 54.0	16 20 54.52	+50 27 51.4	17.5		QSO	28.04.00	4000–9000	GHO	162055.1+502759			
1619+606	16 19 51.12	+60 40 37.0	16 20 37.24	+60 33 34.4	17.5		DAF	22.02.82	3500–5700	BTA				[22]
1619+571	16 19 56.21	+57 06 28.3	16 20 56.43	+56 59 26.5	18.5		QSO	06.05.00	4000–9000	GHO				
1620+513	16 20 05.86	+51 18 35.8	16 21 24.01	+51 11 35.2	16.00		DA4	20.03.91	3400–7000	ZTA			PG	[6]
1620+600	16 20 14.30	+60 01 18.7	16 21 03.15	+59 54 17.7	17.5		sd	19.05.93	3500–7000	MMT				[23]
1620+502	16 20 16.17	+50 15 20.5	16 21 37.08	+50 08 20.7	17.0		sdB	23.03.93	3500–7000	MMT				[23]
1620+594	16 20 30.69	+59 27 05.7	16 21 21.85	+59 20 05.9	18.5									
1621+564	16 21 36.19	+56 29 38.3	16 22 38.25	+56 22 43.2	17.0		sdB	20.09.88	3300–6800	BTA				[22]
1621+579	16 21 46.09	+57 55 37.4	16 22 42.96	+57 48 42.8	18.5									
1621+558	16 21 47.30	+55 51 12.2	16 22 51.52	+55 44 17.9	17.0		G	06.04.92	3400–6800	BTA				[22]
1622+587	16 22 05.88	+58 47 30.0	16 22 59.36	+58 40 36.6	17.5		DB	14.05.85	3800–5300	BTA				[22]
1622+595	16 22 10.74	+59 33 16.6	16 23 01.13	+59 26 23.4	18.0									
1623+569	16 23 32.15	+56 59 17.4	16 24 32.12	+56 52 29.9	17.0		BLLac	24.03.99	4000–9000	GHO		R		
1624+565	16 24 51.18	+56 34 11.9	16 25 52.39	+56 27 29.7	17.58	+0.14	QSO	06.04.92	3300–7000	BTA				[21,23]
1625+573	16 25 16.94	+57 20 25.8	16 26 15.32	+57 13 45.3	18.5							R		
1625+582	16 25 42.32	+58 15 56.7	16 26 37.15	+58 09 17.7	17.51	+1.14	QSO	06.05.00	4000–9000	GHO		R		[3]
1625+581	16 25 53.33	+58 06 20.3	16 26 48.74	+57 59 42.1	18.5									
1626+554	16 26 51.54	+55 29 05.9	16 27 56.11	+55 22 31.9	16.17		QSO	22.03.93	3500–7000	BTA	162756.2+552239		PG	[3,6]
1627+565	16 27 49.83	+56 35 59.5	16 28 50.41	+56 29 29.2	18.0		QSO	05.05.00	4000–9000	GHO	RXJ1628.7+5629	R		
1628+553	16 28 07.38	+55 21 48.0	16 29 12.14	+55 15 19.1	15.55		sdOC	06.02.89	3500–5700	ZTA			PG	[6]
1628+595	16 28 14.03	+59 30 39.5	16 29 03.39	+59 24 10.5	18.5									
1628+530	16 28 23.73	+53 02 22.2	16 29 35.73	+52 55 54.6	15.60	−0.20	sdB-O	20.03.91	3400–7000	ZTA			PG	[6]
1628+571	16 28 27.94	+57 09 13.9	16 29 26.42	+57 02 46.2	18.5									
1629+601	16 29 08.97	+60 06 10.6	16 29 55.65	+59 59 45.2	18.5		DA:	10.04.81	3500–5700	BTA				[22]
1629+582	16 29 19.85	+58 16 55.4	16 30 13.94	+58 10 31.0	18.0									
1629+590	16 29 38.75	+59 04 28.7	16 30 29.64	+58 58 05.5	17.5		HBB	19.09.90	3300–7000	BTA				[22]
1630+530	16 30 31.97	+53 00 02.9	16 31 43.76	+52 53 44.0	16.72	+0.01	QSO	23.03.93	3500–7000	MMT				[23]
1630+563	16 30 38.96	+56 23 31.5	16 31 39.79	+56 17 12.7	18.0									
1631+552	16 31 04.63	+55 17 15.9	16 32 09.16	+55 10 58.9	18.0									
1631+577	16 31 54.08	+57 45 03.5	16 32 49.75	+57 38 49.6	18.5									
1633+587	16 33 14.16	+58 43 28.1	16 34 05.80	+58 37 19.5	15.95		sdOB	27.04.87	3500–5700	BTA			PG	[6]
1633+507	16 33 18.03	+50 47 31.5	16 34 35.70	+50 41 24.0	17.5		Unclas	26.04.00	4000–9000	GHO				
1634+589	16 34 19.92	+58 54 42.0	16 35 10.61	+58 48 37.8	18.64	−0.40	QSO					R	4C+58.32	[2,3]
1634+582	16 34 25.10	+58 14 58.6	16 35 18.41	+58 08 54.8	18.5		Unclas	08.05.00	4000–9000	GHO				
1634+581	16 34 36.34	+58 11 59.4	16 35 29.82	+58 05 56.4	18.0									
1635+533	16 35 04.05	+53 18 59.3	16 36 14.24	+53 12 58.7	15.66		sdB	20.03.91	3400–7000	ZTA			PG	[6]
1635+557	16 35 17.31	+55 45 16.7	16 36 19.60	+55 39 16.8	18.0									

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1635+608	16 35 53.11	+60 48 01.2	16 36 35.40	+60 42 03.0	16.01		DA3	20.03.91	3400–7000	ZTA			PG	[6]
1636+571	16 36 05.46	+57 10 12.0	16 37 02.59	+57 04 15.2	18.0									
1636+603	16 36 50.24	+60 22 55.0	16 37 34.24	+60 17 00.8	17.5		sdB	19.05.93	3400–7000	MMT				[23]
1637+574	16 37 17.64	+57 26 16.6	16 38 13.58	+57 20 24.7	16.75	+0.25	QSO				163813.1+572028	R	OS+562	[23]
1637+552	16 37 50.23	+55 17 44.2	16 38 53.69	+55 11 54.7	18.5									
1638+593	16 38 05.38	+59 18 19.4	16 38 53.79	+59 12 30.5	17.5		HBB	19.05.93	3400–7000	MMT				[23]
1639+537	16 39 49.71	+53 46 59.4	16 40 57.79	+53 41 18.3	15.37	+0.33	DC7						PG, GR 329	[6]
1641+514	16 41 42.69	+51 24 22.7	16 42 57.59	+51 18 49.6	17.5									
1642+515	16 42 16.23	+51 30 28.6	16 43 30.77	+51 24 57.8	16.5		sdB-O	06 03 92	3400–7000	BTA				[22]
1642+567	16 42 32.81	+56 42 41.2	16 43 30.62	+56 37 10.9	17.5		DA	16.10.90	3300–6800	BTA				[22]
1643+588	16 43 14.81	+58 51 44.8	16 44 04.20	+58 46 17.1	18.5									
1643+582	16 43 38.59	+58 12 48.9	16 44 30.53	+58 07 23.0	18.0		G	19.09.90	3400–7100	BTA				[22]
1643+516	16 43 59.56	+51 36 51.0	16 45 13.59	+51 31 27.3	17.0		sdO+dM	23.03.93	3500–7000	MMT				[23]
1646+607	16 46 03.37	+60 42 25.9	16 46 44.28	+60 37 09.6	16.07		sdOB						PG	[6]
1647+550	16 47 07.53	+55 04 53.2	16 48 10.42	+54 59 42.1	18.0									
1647+591	16 47 37.38	+59 08 47.1	16 48 24.91	+59 03 37.5	12.41	+0.19	DAV4						GR 368	[22]
1648+536	16 48 52.31	+53 36 36.3	16 49 59.77	+53 31 32.6	14.35	−0.20	sdB						PG	[6]
1649+554	16 49 04.30	+55 28 14.5	16 50 05.61	+55 23 11.4	16.5		Unclas	09.03.97	4000–7000	GHO				
1649+522	16 49 28.06	+52 12 37.1	16 50 39.72	+52 07 36.0	16.09		sdB	20.03.91	3400–7000	ZTA			PG	[6]
1652+594	16 52 15.60	+59 25 05.4	16 53 01.28	+59 20 15.1	18.0									
1652+584	16 52 26.38	+58 26 44.1	16 53 16.10	+58 21 54.7	18.0									
1652+517	16 52 59.92	+51 43 47.6	16 54 12.59	+51 39 01.3	15.89	−0.30	sdB						PG	[6]
1653+552	16 53 08.90	+55 17 38.0	16 54 10.30	+55 12 51.9	17.5		QSO	09.04.97	3800–7200	BTA			HS1653+5517	[7]
1653+544B	16 53 49.82	+54 25 11.3	16 54 54.08	+54 20 28.2	15.55		sdB-O	06.02.89	3500–5700	ZTA			PG	[6]
1653+520	16 53 58.58	+52 01 43.3	16 55 10.28	+51 57 01.1	17.0		DA	23.03.93	3500–7000	MMT				[23]
1655+588	16 55 36.83	+58 52 44.9	16 56 24.33	+58 48 08.7	16.5		sdB	26.04.84	3500–5700	BTA				[22]
1655+591	16 55 44.41	+59 09 21.8	16 56 30.72	+59 04 46.1	16.5		sd	17.04.97	4000–7000	GHO				
1655+593	16 55 55.55	+59 20 14.0	16 56 41.06	+59 15 39.1	18.5		QSO	18.09.90	3300–7100	BTA		R		[20]
1655+589	16 55 59.37	+58 56 41.5	16 56 46.54	+58 52 06.9	16.5		HBB	15.04.97	4000–7000	GHO				[22]
1656+600	16 56 07.62	+60 00 16.2	16 56 50.18	+59 55 42.0	15.90		sdB	06.02.87	3500–5700	ZTA			PG	[6]
1656+556	16 56 13.51	+55 40 17.1	16 57 13.23	+55 35 43.9	16.5		sdO:	15.04.96	4000–7000	GHO				
1656+571	16 56 26.51	+57 10 25.3	16 57 20.71	+57 05 52.8	18.59	+0.31	QSO	11.04.81	3500–5700	BTA	RXJ1657.3+5705	R	4C+57.28	[3]
1656+552	16 56 50.55	+55 16 03.5	16 57 51.60	+55 11 33.0	15.37		sdB	20.03.91	3400–7000	ZTA			PG	[6]
1657+584	16 57 52.25	+58 28 00.0	16 58 41.16	+58 23 33.4	17.5		DA	26.09.90	3300–7000	BTA				[22]
1658+575	16 58 53.59	+57 35 54.2	16 59 45.84	+57 31 32.0	18.0		QSO					R	4C+57.29	
1700+518	17 00 13.41	+51 53 36.9	17 01 24.87	+51 49 21.0	15.23		BALQSO					R	PG	[3,6]
1700+591	17 00 55.55	+59 11 46.7	17 01 41.01	+59 07 32.9	18.0									
1703+538	17 03 01.50	+53 50 58.0	17 04 06.63	+53 46 53.7	17.5		BALQSO	09.04.97	4000–9000	BTA			HS1703+5350	
1704+608	17 04 03.55	+60 48 31.4	17 04 41.34	+60 44 30.6	15.78	+0.13	QSO				RXJ1704.6+6044	R	3C351	[2]
1705+536	17 05 09.01	+53 39 25.1	17 06 14.56	+53 35 29.9	12.03		HBB	20.03.91	3400–7000	ZTA			PG	[6]

TABLE 11 (CONTINUED)

SBS design.	R.A. B1950	Dec. B1950	R.A. J2000	Dec. J2000	B m_{pg}	B-V	Spectr. type	Date of observ.	Wave -band	Instru ment	1RXSJ RXJ	F R	Other name	References
1705+504	17 05 52.24	+50 27 37.9	17 07 07.31	+50 23 46.1	16.27		sdB	10.07.91	3400–7000	BTA			PG	[6]
1707+568	17 07 13.44	+56 53 58.9	17 08 07.45	+56 50 12.1	18.5									
1708+602B	17 08 35.92	+60 13 51.8	17 09 15.86	+60 10 10.4	13.31		sdOC						PG	[6]
1709+535	17 09 07.62	+53 30 24.3	17 10 13.29	+53 26 46.0	12.5		DA:	05.04.90	3500–5700	BTA				[22]
1709+578	17 09 25.63	+57 49 39.1	17 10 15.79	+57 46 01.6	18.5		Unclas	14.09.90	3500–7000	BTA				
1710+566	17 10 25.88	+56 39 05.8	17 11 20.51	+56 35 32.7	15.99		sdB						PG	[6]
1711+579	17 11 38.24	+57 58 35.9	17 12 27.58	+57 55 07.8	17.81	+0.51	QSO	14.09.90	3300–7100	BTA			HS1711+5758	[20,23]
1711+564	17 11 42.14	+56 28 35.8	17 12 37.30	+56 25 08.2	16.12		sdB	20.03.91	3400–7000	ZTA			PG	[6]
1712+575	17 12 02.64	+57 34 04.8	17 12 53.57	+57 30 38.5	18.5		G:	19.09.90	3400–7100	BTA				[22]
1712+578	17 12 20.86	+57 53 31.2	17 13 10.47	+57 50 06.1	17.0		sdB	30.05.87	3500–5700	BTA				[22]
1712+593B	17 12 25.42	+59 23 00.8	17 13 08.75	+59 19 35.8	17.5		sdB	14.05.85	3800–5320	BTA				[22]
1712+493	17 12 32.60	+49 19 34.3	17 13 50.26	+49 16 11.1	14.5		PN	11.04.96	3500–7000	GHO				[22]
1714+576	17 14 31.60	+57 39 43.7	17 15 21.93	+57 36 28.0	17.5		QSO							[25]
1714+538	17 14 41.60	+53 51 27.0	17 15 45.67	+53 48 12.4	17.5		QSO	08.04.97	3700–7200	BTA			HS1714+5351	
1715+604	17 15 02.64	+60 28 08.9	17 15 40.77	+60 24 55.0	16.5		NHB	26.04.87	3500–5700	BTA				
1715+536	17 15 16.09	+53 39 46.8	17 16 20.75	+53 36 34.8	15.0		sdB	23.03.93	3500–7000	MMT				[23]
1715+556	17 15 19.36	+55 37 58.5	17 16 17.29	+55 34 46.5	16.5		sdB	23.03.93	3500–7000	MMT				[23]
1715+535	17 15 30.17	+53 31 26.2	17 16 35.26	+53 28 15.2	16.48		QSO	23.03.93	3500–7000	BTA		R	PG	[6]
1716+581	17 16 33.99	+58 09 06.6	17 17 22.15	+58 05 59.6	16.96	+0.05	QSO	16.04.96	4000–7000	GHO				[3,22]
1717+583	17 17 03.13	+58 18 19.3	17 17 50.61	+58 15 14.3	17.38	−0.17	QSO	16.04.96	4000–7000	GHO	RXJ1717.8+5815			[3,22]

References: 1. Brinkmann et al. 1995, A&AS, 109, 147; 2. Chavushyan et al. 1995, PAJ, 21, 894; 3. Chavushyan et al. 2000, Prepr. SAO 372; 4. Engels et al. 1998, A&AS, 128, 507; 5. Jiang et al. 2000, A&A, 362, 263; 6. Green & Schmidt 1986, ApJS, 61, 305; 7. Hagen et al. 1999, A&AS, 134, 483; 8. Markarian et al. 1980a, Astron. Zirk N1141, 1; 9. Markarian et al. 1980b, Astron. Zirk N1142, 1; 10. Markarian et al. 1982, Astron. Zirk N1142, 4; 11. Markarian et al. 1983, Astron. Zirk N1233, 2; 12. Markarian et al. 1984, Astron. Zirk N1346, 4; 13. Markarian et al. 1985, Astron. Zirk N1381, 4; 14. Markarian et al. 1987, Pis'ma v AJ 13, 1-9; 15. Markarian et al. 1983, Astrofizika 19, 29; 16. Stepanian et al. 1990a, Astrofizica 33, 89; 17. Stepanian et al. 1990b, Astrofizica 33, 199; 18. Stepanian et al. 1990c, Astrofizica 33, 351; 19. Stepanian et al. 1991a, Astrofizica 34, 5; 20. Stepanian et al. 1991b, Astrofizica 34, 315; 21. Stepanian et al. 1993, Astrofiz.Issled (Izv.SAO) 36, 5; 22. Stepanian et al. 1999, PASP, 111, 1099; 23. Stepanian et al. 2001, AJ, 122, 3361; 24. Wampler & Ponz 1985, ApJ, 298, 448; 25. http://cas.sdss.org/dr2/en/tools/explore – the Second Data Release of the SLOAN Digital Sky Survey; 26. Stepanian et al. (in preparation); 27. http://cas.sdss.org/dr3/en/tools/explore – the Third Data Release of the SLOAN Digital Sky Survey; 28. Chavushyan et al. 1997, A&A, 318, 67.

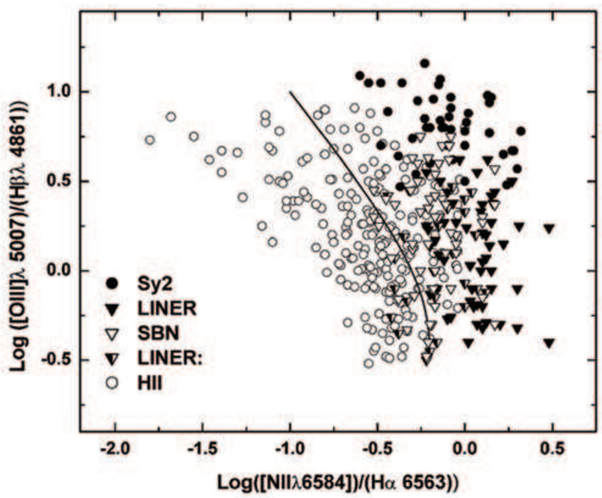

Fig. 2. Emission-line ratio classification diagrams. The solid line marks the boundary which separated "HII region-like" galaxies and AGN, according to Vielleux & Osterbrock (1987). The abbreviation "transition" or "composite object", i.e., Sy2+LINER, Sy2+HII, LINER/Sy2, LINER/SBN, SBN/LINER, SBN/HII, HII/SBN, etc, were not used in the SBS catalogue. This type of objects are marked by ":".

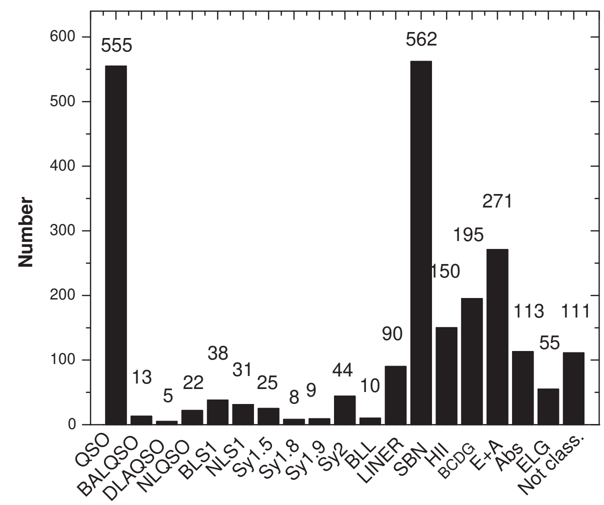

Fig. 3. The distribution of the 2308 extragalactic objects (including 10 BLL), 1702 SBS galaxies and 596 QSOs according to their spectral classification type.

width of the strongest emission lines L_α+N V, C IV, C III], and Mg II. Columns 8 to 11 – the observed full width at half maximum (FWHM) of the emission lines L_α+N V, C IV, C III], and Mg II. Column 12 – the spectral classification type for QSOs: NLQSO– Narrow-line QSO, BALQSO– broad absorption line QSO, DLAQSO – Damped L_α QSO, QSO1.5 – luminous analogs of Sy1.5 galaxies, objects with strong narrow emission lines superposed to a very broad pedestal. Column 13 – other designations. The accuracy of the measurement of the emission line parameters is about $\sim 25\%$.

The list of 10 BLLac type objects detected or suspected among the SBS galaxies and stellar objects is presented in Table 13. All of them are radio sources and seven are X-ray sources. Redshifts are known for five of them.

7. STATISTICS OF THE DATA PRESENTED IN THE SBS CATALOGUES

7.1. *SBS Galaxies. The Magnitude, Redshift, Morphology, Absolute Luminosity, and Spatial Distributions of the SBS UVX and ELG. Diagnostic Diagram*

The statistics concerning the data presented in the SBS galaxy Catalogue are as follows. The Catalogue of galaxies consists of 1863 galaxies including 1075 galaxies with UV-excess and 788 emission-line galaxies selected for having emission lines. Spectroscopic observations are available for 1704 objects. We obtained slit spectra for 1070 galaxies, 834 were spectroscopically observed with the 6 m telescope, 8 with the MMT, 228 with the GHO, and 7 with the SPM. For 634 SBS galaxies, the redshifts were taken from the literature, mainly from the SDSS (519 galaxies) dr2 "release" (http://cas.sdss.org/dr2/, 266 galaxies, March 2004) and dr3 "release" (http://cas.sdss.org/dr3/, 253 objects, September 2004). Spectroscopic data are absent for 159 objects with $B < 18.5$ magnitude; 129 of them are galaxies with $B \leq 17.5$.

Emission-line parameters are measured for ~ 500 SBS galaxies and 270 SBS QSOs. The observed and reddening-corrected relative intensities for 365 SBS galaxies as well as the emission line parameters for 253 SBS QSOs have already been published (Stepanian et al. 1999; Stepanian et al. 2001 and references therein).

Using the classification criteria described above, spectral classification was performed for 2969 of the SBS objects, 1593 galaxies, and 1376 stellar objects. The standard classification diagram commonly used to separate AGN from the SBN or H II galaxies (Veilleux & Osterbrock 1987) coupled with the spectral classification criteria presented above have been used for the SBS galaxy classification. The abbreviation "transition" or "composite object", i.e., Sy2+LINER, Sy2+H II, LINER/Sy2, LINER/SBN, SBN/LINER, SBN/ H II, H II/SBN, etc, were not used in the SBS Catalogue. This type of objects are marked by ":", in the catalogue, for ex-

TABLE 12

THE CATALOGUE OF SBS QSOS. N=596

SBS	B	z	Equivalent width				Full width at half max.				Sp	Other
design.	m_{pg}	em	Lα[a]	CIV	CIII	MgII	Lα	CIV	CIII	MgII	type	name
0747+553	17.84	0.302				300				8900	QSO	
0748+610	17.26	2.492	280	140	22		5400	6000	5000		QSO	
0754+606	19.0	1.771		50	50	45		5300	5000	4000	QSO	
0757+603	19.0	1.776		70	40			3500	3800		QSO	
0758+517	17.5	1.430									QSO	HS0758+5142
0800+608	18.5	0.689				60					QSO	0J+601
0801+581	17.22	0.440				30				3300	QSO	
0804+499	18.49	1.433									QSO	OJ+508
0805+578	19.0	0.438									QSO	4C+57.15
0806+505	17.01	1.205			37	60			9400	5500	QSO	
0806+573	17.44	0.611									QSO	
0810+519	17.69	0.380									QSO	HS0810+5157
0816+598	16.56	0.368				10				2100	QSO	
0817+573	17.46	1.537		36	20			5900	4600		QSO	
0817+602	17.70	1.523		100	95			6100	9500		QSO	
0818+506	17.50	2.121	310	100	90		11400	7800	7700		QSO	
0820+560	18.0	1.417									QSO	4CP+56.16A
0831+557	18.0	0.242									QSO	4C+55.16
0832+606	18.0	1.846	280	80	80		5400	5000	7200		QSO	
0833+585	18.0	2.101									QSO	
0835+580	18.11	1.534			28	42					QSO	3C 205.0
0839+541	16.96	0.216				47			4700		QSO	
0842+584	18.0	0.864			40	30					QSO	
0846+596	16.83	1.710									QSO	HS0846+5942
0846+513	19.5	0.584									QSO	
0850+581	18.0	1.322		155	70	90					QSO	4C+58.17
0852+601	17.02	0.283				100				8600	QSO	
0905+498	17.20	0.421									QSO	
0906+546	17.54	0.625				70					QSO	4C+54.18
0909+531	16.43	1.375		300	70	40		4000	3000	2000	QSO	Grav.lens
0910+586	17.89	1.941	390	95	80		12900	4400	6400		QSO	
0910+507	17.05	0.188									NLQSO	
0916+595	17.97	0.562				45				5600	QSO	
0916+513	16.33	0.550									QSO	NGC2841 UB3
0917+578	18.66	0.901			65	40			6600	3000	QSO	
0919+582	18.0	0.748									QSO	
0919+579	17.03	1.378		85	55	110		6600	6500		QSO	
0920+590	16.88	0.708			20	50			8500	2700	QSO	
0921+587	18.40	1.041			50	120			9300	3500	QSO	
0921+549	16.37	0.476				70				5000	QSO	
0921+582	18.0	0.979									QSO	
0923+526	17.5	0.602									QSO	
0924+606B	16.98	0.297				60				6200	QSO	
0928+557	17.0	0.265									QSO	
0929+521	17.81	2.584	700	150				4800			QSO	
0932+501	17.13	1.920	180	60	60	190					BALQSO	
0935+515A	18.0	0.564				25				2400	QSO	
0935+501	19.5	1.321		140	40			5000	4300		QSO	
0935+552	18.0	1.680									QSO	
0935+515B	19.5	0.251									QSO	
0936+519	17.96	0.608				20				1500	QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha^a$	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
0936+522	18.0	1.063									QSO	
0936+514	17.15	1.936	220	60				8000			QSO	
0937+553	19.5	1.317		50	30			6000	5000		QSO	
0937+561	17.15	1.510									QSO	HS0937+5607
0937+503	18.65	1.878	280	80				5000			QSO	
0937+600	17.08	0.966			20	15			5900	2400	QSO	
0937+521	18.0	1.105			80	60			6700	4500	QSO	
0938+559	19.5	0.110									QSO	
0938+496	19.5	1.201			80	60			6000	3000	QSO	
0938+506	19.5	2.097	180	55							QSO	
0938+548	19.0	2.300									QSO	
0939+520	19.5	1.570									QSO	
0940+566	19.0	1.767									QSO	
0940+603	17.46	1.350									QSO	HS0940+6019
0941+583	17.51	0.707				55				8400	QSO	
0941+540	19.0	1.474									QSO	
0941+502	19.0	0.394				80				4000	QSO	
0941+522	18.5	0.565									QSO	OK+568
0942+563	18.5	1.368		140	80			4000	3500		BALQSO	
0942+527A	18.0	0.449									NLQSO	
0942+501	17.40	0.753				70				3800	QSO	HS0942+5008
0943+527	19.5	1.583		110	60			5000	4000		QSO	
0943+512	18.5	0.505				45				2900	QSO	
0943+522	18.0	1.248									QSO	
0943+498	19.5	1.810		80	60			7500	5000		QSO	
0944+540	16.84	0.492				90				2900	QSO	
0945+549	18.0	1.369		150	75			10000	7000		QSO	
0946+501A	19.0	0.526				100				9100	QSO	
0946+499	19.0	1.484									QSO	
0946+496	18.5	1.342		60	50			4000	7700		QSO	
0947+507	18.5	2.130	300	60	95		16000	6300	6400		QSO	
0948+518	19.5	1.377									QSO	
0948+515A	19.0	0.524				45				4200	QSO	
0949+510	18.0	0.423:		40	15	55		6500	2500	8400	QSO	
0949+521	18.5	0.557				10				2800	QSO	
0949+522	18.0	0.410				20				4000	QSO	
0949+507B	19.0	0.408				45				4000	QSO	
0949+527	18.0	1.880	190	55	40			5500	4700		QSO	
0950+565	19.5	2.089	240	70	40		14000	6000	5000		QSO	
0951+503	18.5	1.814									QSO	
0952+515	19.0	1.184			80	80			10000	3000	QSO	
0952+526	18.5	1.414									QSO	
0952+506	19.5	1.455									QSO	
0953+495	19.0	1.664									QSO	
0953+566	18.5	0.892									QSO	
0953+555	18.0	1.405		50	45			3500	4700		QSO	
0953+521	17.62	0.674				30				2000	QSO	
0953+540	18.0	0.605				45				3300	QSO	
0953+549	17.74	2.582	380	130	55		4100	7500			QSO1.5	
0954+556	18.0	0.902									QSO	4C+55.17
0954+495	18.5	1.684		160	80			3500	6300		QSO	
0954+509	18.0	0.741				30				5900	QSO	
0954+504	19.0	0.882			60	50			4000	3000	QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width Lα[a]	CIV	CIII	MgII	Full width at half max. Lα	CIV	CIII	MgII	Sp type	Other name
0954+502	19.0	1.316		100	40			4000	5800		QSO	
0954+503	19.5	1.589		160	45			7000	4000		QSO	
0955+560	18.0	1.021			45	40			5000	4500	QSO	
0955+514	17.21	0.392				70				3000	QSO	
0956+505	19.5	2.136									QSO	
0957+599	16.45	0.752				20				2000	QSO	
0957+555	19.5	1.592									QSO	
0957+537B	17.79	1.348		90	25			4000	7000		QSO	
0957+588	17.50	1.905	300	55	40			8100	7500		QSO	
0957+557	17.50	2.100	280	90	90	60	9000	5000	5000		QSO	
0957+561	17.00	1.405			60	60					QSO	Grav.lens
0958+551	16.25	1.732	330	80	60	140		4800			QSO	Mkn 132
0958+519	19.0	1.657									QSO	
0958+523	18.5	1.612									QSO	
0959+497	18.0	0.400									QSO	HS0959+4944
0959+580	17.65	0.723				30				3000	QSO	
0959+512	18.46	2.054	400	150	100		4900	5500	5300		QSO	
1004+503	17.44	0.213									NLQSO	RBS 829
1007+573	17.54	1.956	380	130	70			8000	5500		QSO	
1009+567	17.5	2.270									QSO	
1010+535	16.13	1.495		30	30			5600	7900		QSO	
1011+524B	18.25	1.544		95	70			5300	5300		QSO	
1012+586	18.0	1.041									QSO	
1013+596	17.34	0.848				50				3000	QSO	
1014+566	18.45	1.234			40	70			5000	4000	QSO	
1016+510	18.03	1.314									QSO	
1018+604	18.5	0.277									QSO	
1018+517	17.39	2.135	160	50	45			5000	3600		QSO	
1020+553B	18.39	1.267		85	70	80		9800	8400	4900	QSO	
1022+583	18.0	1.472									QSO	
1024+561	18.77	1.206			75	45			7400	3300	QSO	
1027+555	17.5	0.435									NLQSO	RBS 874
1027+534	17.5	1.197									QSO	
1031+611	17.74	0.228				55				6000	QSO	
1031+558	19.72	0.926				150				6700	QSO	
1033+571	17.39	1.258			90	60			7200	3300	QSO	
1033+556	18.55	0.898									QSO	
1034+583	18.5	1.517									QSO	
1036+490	16.02	0.429				20				3300	QSO	
1037+603	17.05	0.296				25				2700	NLQSO	
1038+528	17.15	0.677									QSO	OL+564
1039+581	18.11	1.472									QSO	
1040+567	17.48	1.951	180	50	30			5000	2000		QSO	
1040+490	17.4	0.482									QSO	HS1040+4904
1042+523	17.05	0.283									NLQSO	RBS 900
1043+531	17.5	0.510									QSO	RBS 901
1044+594	18.0	1.088									QSO	
1045+604	19.04	1.722									QSO	4C+60.15
1046+501	17.5	1.600									QSO	HS1046+5007
1047+550	17.46	2.168	540	140	80		10000	5000	5600		QSO	
1047+557B	17.17	0.331				25				2400	NLQSO	RBS 908
1049+594	18.5	1.551									QSO	
1051+528	19.0	2.382									QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha^{a}$	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
1052+518	18.30	1.386		85	75			5000	7000		QSO	
1054+552	17.93	1.985	250	100	110		5800	5000	6300		QSO	
1055+607	18.5	1.904									QSO	
1055+584	18.04	2.239									QSO	
1058+561	18.84	0.935			65	60			5400	5000	QSO	
1059+531	17.76	1.211									QSO	
1059+599	17.86	1.825	290	100	50			3600	3900		QSO	
1102+583	18.5	0.613									QSO	
1102+536	18.34	1.728		85	60			5500	6000		QSO	
1103+595	17.5	1.053									QSO	
1103+583B	18.5	2.071									QSO	
1104+510	19.0	2.130									QSO	
1105+601	18.0	0.426									NLQSO	
1106+555	17.5	0.984				20				2000	QSO	
1106+574	18.5	1.891									QSO	
1107+557	17.5	0.402									QSO	
1108+526	18.5	2.418									QSO	
1108+511	18.16	0.565				15				1200	QSO	
1108+560	16.38	0.765				25				3300	QSO	
1108+581	17.5	0.470									QSO	HS1108+5806
1110+595	18.5	1.420									QSO	
1112+515	16.96	0.665				60				3500	QSO	
1112+536	17.70	2.800	400	150			8200	6500			QSO	
1112+529	18.5	0.715									QSO	
1116+603	17.54	2.636	550	100			7000	6000			QSO	
1116+610	18.5	2.026	300	120			10300	6000			QSO	
1116+523	17.30	0.358				60				3700	QSO	
1117+534	17.14	1.921									QSO	
1117+503	18.5	1.537									QSO	
1118+609	17.34	1.349		65	30			6000	4500		QSO	
1118+496	17.5	1.387									QSO	
1119+612	18.5	1.988	750	150	160			5000	6000		QSO	
1119+587	17.5	1.602									QSO	
1119+582	17.5	0.900									QSO	HS1119+5812
1119+601B	18.0	0.354									QSO	
1121+612	18.5	0.912			100	65			7000	3900	QSO	
1121+595	19.0	1.024			70	30			5400	3000	QSO	
1122+495	18.0	2.156									QSO	
1122+518	18.0	1.197									QSO	
1123+594A	16.69	0.858				30				4000	QSO	
1125+526	18.0	1.865									QSO	
1125+584	17.44	1.394		100	100			5000	6000		QSO	
1126+581	19.0	1.160			95	40			6000	3000	QSO	
1126+516	17.0	0.234									NLQSO	RBS 989
1128+574	17.95	2.231									QSO	
1128+579	18.5	1.259									QSO	
1128+520	18.5	2.184									QSO	
1130+496	17.5	0.742									QSO	
1131+510	17.5	0.752									QSO	
1133+555	17.95	0.573				80				2000	QSO	
1134+563	18.29	1.936	500	150	80		5000	4600	5000		QSO	
1136+575	18.5	0.450				45				3900	BALQSO	
1136+542	17.5	1.161									QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha$[a]	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
1138+584	18.25	1.699		55	40			4300	6100		QSO	
1139+593	18.0	0.383				25				2300	QSO	
1139+534	17.85	2.120	300	120	80				8000		BALQSO	
1145+502	18.0	0.906									QSO	
1146+593B	19.0	0.899									QSO	
1146+608	18.0	0.399									QSO	
1146+596	18.0	1.947									QSO	
1147+538	16.90	0.833				80				5500	QSO	
1148+549	16.12	0.969			70				8500		QSO	PG LB 2126
1149+578	19.0	1.969									QSO	
1149+499	17.5	1.096									QSO	
1150+497	16.67	0.334									QSO	4C+49.22
1151+570	18.69	1.892	310	25	50			6400	7000		QSO	
1151+548	17.42	0.441				25				2700	QSO	
1152+523	16.57	0.156									NLQSO	
1156+533	18.08	0.482									QSO	MS
1158+587	19.0	0.670									QSO	
1158+574	18.0	0.262									QSO	
1158+538	18.66	1.175			50	35			6600	2500	QSO	
1158+580	19.0	1.498									QSO	
1159+604	17.5	1.217									QSO	HS1159+6029
1200+559	18.26	1.410		90	75	60		8500	5600	2900	QSO	
1201+517	17.24	0.803									QSO	
1201+524	16.20	0.178									QSO	RBS 1063
1201+590	18.5	1.883									QSO	
1202+492	18.30	0.446				80				3900	QSO	
1202+596	18.5	2.047									QSO	
1202+518	17.5	0.504									QSO	
1204+597	17.46	1.369									QSO	
1205+529	17.23	0.435				75				3900	QSO	
1206+584	18.5	0.961									QSO	
1207+544	18.0	1.449		50	45			6000	5800		QSO	
1208+549	18.5	0.535									NLQSO	
1208+594	19.0	1.964									QSO	
1208+554	19.58	1.684		120	90			5000	5800		QSO	
1208+495	17.5	0.999									QSO	
1209+558	18.0	1.409		80	50			6000	5000		QSO	
1210+570	18.5	1.568		80	40			6000	4000		QSO	
1212+554	18.0	0.313									QSO	
1213+538	18.0	1.065			50	90					QSO	4C 53.24
1213+567	19.0	2.156	350	180			2500	4000			QSO1.5	
1213+498	18.0	0.739									QSO	
1215+521	17.33	2.225	280	100			4000	4000			QSO	
1215+497	17.64	0.730				140				3100	QSO	
1215+500	17.5	0.744									QSO	
1215+552	19.5	1.708									QSO	
1216+505	16.84	1.464		30	25			3000	3200		QSO	HS1216+5032
1217+499	17.13	2.667	200	60			11100	5500			QSO	
1217+544	18.5	1.656		80	60			6000	5800		QSO	
1217+566	19.5	1.362		90	50			5800	7000		QSO	
1217+523	17.5	1.124									QSO	
1219+589	18.5	1.960									QSO	
1219+513	18.5	0.211									QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha^a$	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
1219+542	19.0	2.193	450	100	40		7000	6000	3500		QSO	
1220+567	19.0	1.440									QSO	
1220+559	18.0	0.905				110				8000	QSO	
1221+545A	18.5	2.106									QSO	
1221+590	19.0	2.317									QSO	
1221+503	17.49	1.064				60				7900	QSO	
1222+546	18.5	0.464				50				1800	QSO	
1223+565	19.0	1.289			80				5000		QSO	
1224+561B	19.5	2.835	500				10000				QSO	
1226+514	17.5	0.669									QSO	
1226+601	19.0	0.683									QSO	
1227+522	18.5	1.990									QSO	
1227+553	16.5	0.667									QSO	
1228+593	18.0	0.328									NLQSO	
1228+557	18.0	0.573				60				3500	QSO	
1229+557	19.5	1.700									QSO	
1229+569	19.5	1.975									QSO	
1229+597	18.0	1.592									QSO	
1229+571	18.0	0.664				30				2300	QSO	
1229+502B	17.0	0.264									NLQSO	RBS1127
1230+565	19.0	1.056									QSO	
1230+559	18.0	1.988	400	80			8000	3500			QSO	
1231+511	18.0	1.274									QSO	
1232+519	18.0	1.869									QSO	
1232+555	18.5	1.954	450	170			10000	5000			QSO	
1233+594	17.25	2.824	320	90			7000	6400			QSO	
1234+607	18.06	0.421				50				5400	QSO	
1234+530	17.04	1.295									QSO	
1234+519	18.5	1.336									QSO	
1234+523	18.5	1.961									QSO	
1235+591	18.5	1.855									QSO	
1235+537	18.0	0.347									QSO	RBS 1137
1236+513	17.5	1.913									QSO	
1236+495	18.0	2.210									QSO	HS1236+4932
1237+562	18.20	0.787				60				4100	QSO	
1238+519	18.0	0.818									QSO	
1239+498	17.76	0.460									QSO	HS1239+4950
1240+546	18.28	2.318	350	80				3000			QSO	
1242+501	18.5	1.086									QSO	
1242+493	18.5	1.977									QSO	HS1242+4920
1242+494	18.5	1.389									QSO	HS1242+4925
1247+527	16.58	0.161									QSO	RBS 1163
1249+514	18.5	0.770									QSO	
1249+503	17.88	2.378	400	100				7200			QSO	
1250+568	17.76	0.320				110				6600	QSO	3C 277.1
1251+572	17.83	1.273:									QSO	
1251+513	17.59	0.755:									QSO	
1257+494	18.0	0.355									QSO	
1258+585	18.41	1.417		120	50			7000	6000		QSO	
1258+518	18.5	0.481									NLQSO	
1259+593	15.71	0.472				40				3000	QSO	PG
1302+516	18.0	1.686									QS01.5	
1302+564	17.63	0.300				30				3000	QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha$[a]	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
1303+555	17.5	0.730									QSO	
1303+532	16.33	0.864			35	40			7400	4000	QSO	
1303+557	18.0	1.601									QSO	
1303+583	16.85	0.444				20				2000	QSO	
1304+599	18.5	1.963									QSO	
1305+538	17.46	0.803				40				7000	QSO	
1305+517	18.0	0.900									QSO	
1305+606	17.5	0.252									QSO	
1306+544	17.5	0.954									QSO	
1307+563A	18.17	2.150	200	120			7000	6000			QSO	
1307+562	18.0	1.616		75	30				9700	4000	QSO	
1308+512	17.74	3.150	500								DLAQSO	
1309+515	18.0	0.544									QSO	
1310+535	18.0	1.251									QSO	
1311+546	17.5	0.298									QSO	
1311+540	17.75	1.913	450	180	90		3500	3000	3000		QSO1.5	
1311+537	18.5	1.882									QSO	
1312+495	20.51	0.624				180				6500	QSO	
1313+516	17.5	0.414									QSO	
1313+594	17.5	0.667									QSO	
1315+543	18.5	1.075									QSO	
1315+605	17.90	1.981									QSO	
1315+577	17.96	2.205	400	80				4900			QSO	
1315+603	17.5	0.565									QSO	
1316+591	17.5	0.636									QSO	
1316+577B	18.5	1.618									QSO	
1316+494	18.5	0.454									NLQSO	
1317+525	17.5	1.270									QSO	
1317+520	17.19	1.060			60	155					QSO	4C+52.27
1318+605B	17.5	0.309									QSO	
1319+562	18.0	2.006									QSO	
1320+501	18.0	2.339									QSO	
1321+603	17.98	1.502		100	80	75		7900	6400	4600	QSO	
1322+569	17.5	1.252									QSO	
1323+566	17.93	1.828	330	100	30			4900	4300		QSO	
1326+551	17.5	2.096									QSO	
1326+529	16.47	1.341		60	20			4400	3600		QSO	
1327+594	18.0	0.786									QSO	
1327+543	16.77	0.950			100	90		10100	3500		QSO	
1328+584	17.5	1.494									QSO	
1328+574	17.5	1.280									QSO	
1330+519	17.5	0.324									NLQSO	
1330+546	18.0	2.025									QSO	
1332+564	18.5	2.264									QSO	
1332+552	18.89	1.249									QSO	4C+55.27
1333+602	18.5	1.335									QSO	
1333+543	18.5	1.215									QSO	
1334+542	18.0	0.481									QSO	
1335+600	18.0	0.656									QSO	
1335+593	17.40	1.093		55	170			5000	6500		QSO	
1335+605	18.5	1.643									QSO	
1337+578	18.5	1.604									QSO	
1338+551	18.76	1.637		180	45			3900	7400		QSO	

TABLE 12 (CONTINUED)

SBS	B	z	Equivalent width				Full width at half max.				Sp	Other
design.	m_{pg}	em	Lα[a]	CIV	CIII	MgII	Lα	CIV	CIII	MgII	type	name
1339+608	18.0	2.066									QSO	
1339+605	18.0	1.297									QSO	
1340+605	17.72	2.395	550	150			3500	3000			QSO1.5	
1340+606	18.51	0.961									QSO	3C 288.1
1341+576	18.13	3.000	450								QSO	
1342+560	17.33	0.941			30	30			5900	2500	QSO	
1345+592	16.43	0.771									QSO	
1345+584	19.17	2.039									QSO	4C+58.27
1346+586	16.83	0.646				100				6500	QSO	
1346+503	17.80	0.293									QSO	
1347+550	18.0	0.749									QSO	
1347+539B	17.89	0.976			40	95					QSO	4C+53.28
1348+583	18.0	1.674									QSO	
1348+575	17.48	2.897	400	100				4800			DLAQSO	
1350+538	17.73	2.303	200	80			5200	3000			QSO	
1351+549	18.0	0.558				30				2500	QSO	
1352+564	18.14	1.016			40	45			3200	3000	QSO	
1353+602	18.0	2.080									QSO	
1354+552	18.5	1.843									QSO	
1356+581	17.32	1.371		130	50	60					QSO	4C+58.29
1357+543	17.99	2.064		90	70			4400	3600		QSO	
1357+562A	18.93	1.533		130	90			2700	5500		BALQSO	
1357+577	18.0	1.524									QSO	
1358+558	17.07	0.835			40	25			3000	1500	QSO	
1359+521A	19.0	2.111									QSO	
1359+511	18.5	1.386									QSO	
1400+564	17.77	0.519				60				2500	QSO	
1400+541	17.95	0.646				45				3500	QSO	
1401+520	19.0	2.190									QSO	
1401+510	18.5	1.831									QSO	
1402+549	18.58	2.367	350	130			6000	5000			QSO	
1402+560	19.0	1.376									QSO	
1403+527	19.0	0.438									QSO	
1404+594	18.00	1.834	165	75	80			5100	8300		QSO	
1404+593	18.0	1.230									QSO	
1406+516A	18.5	0.960									QSO	
1406+510	18.18	1.137			65	45			8100	3800	QSO	
1406+564	19.5	2.008									QSO	
1406+509	18.5	0.412									NLQSO	
1406+492	17.98	2.151	500	120				5500			QSO	CSO 609
1406+548	18.0	0.292									NLQSO	
1407+559	18.5	1.640		60	50			6600	4300		QSO	
1407+556	16.50	0.660				45				3500	QSO	CSO 611
1407+586	18.0	3.120									QSO	
1407+509	18.0	1.974									QSO	
1408+567	17.56	2.562	480	50			7000	6000			BALQSO	
1408+544A	18.32	2.345	300	100				5200			QSO	
1408+544B	17.82	1.395			60	55			6500	4200	QSO	
1408+550	18.5	2.485									QSO	
1410+551	19.0	1.523									QSO	
1411+557	18.5	1.748									QSO	
1411+533	19.0	0.456									QSO	
1412+490	16.79	0.918				35				3700	QSO	CSO 617

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width Lα[a]	CIV	CIII	MgII	Full width at half max. Lα	CIV	CIII	MgII	Sp type	Other name
1413+556	18.5	0.671				40				3500	QSO	
1413+538	17.98	1.223		75	45	30		3100	3800	2500	QSO	CSO 619
1414+507	19.0	1.925									QSO	
1414+531	19.5	1.377									QSO	
1414+525	18.0	1.285									QSO	
1415+524	18.0	2.153									QSO	
1415+541	17.88	0.724				50				3200	QSO	CSO 625
1417+510	18.55	1.945									QSO	CSO 630
1417+596	17.76	2.311	500	140				9300			QSO	
1417+514	18.40	1.305		70	40			6000	5000		QSO	CSO 632
1418+547	17.71	2.261	250	80			5000	6000			QSO	
1419+538	16.89	1.862	300	65	55			3600	4000		QSO	CSO 638
1420+506	18.0	0.632									QSO	
1421+511	16.64	0.274				150				5300	QSO	CSO 643
1423+500	18.29	2.220	225								BALQSO	CSO 646
1424+543	18.0	3.248									QSO	
1424+502A	18.00	2.232	220	100							QSO	
1424+502B	18.09	2.322	310	95				7400			QSO	CSO 647
1424+569	17.5	1.408									QSO	
1425+496	18.01	1.444		140	75	25		8500	5700	2500	QSO	CSO 648
1425+606	16.83	3.165	350	100			15000	4000			DLAQSO	
1425+607B	18.0	0.620									QSO	
1426+506	16.63	1.016			35	40			4900	2400	QSO	CSO 654
1426+591	18.0	0.779									QSO	
1428+503	19.19	1.045				40				3900	QSO	
1428+498	17.12	0.202									QSO	CSO 661
1430+503	18.0	0.671									QSO	
1433+542	16.98	2.626	400	130			4300	4500			DLAQSO	CSO 669
1435+500A	17.68	1.550		100	45			6100			BALQSO	CSO 673
1435+509	17.97	0.785									QSO	
1436+496	18.34	0.635									QSO	CSO 676
1437+508	18.40	1.993	300	130	70			5700	6300		QSO	CSO 677
1437+567	17.5	1.045									QSO	
1438+586	18.11	0.425				130				5600	QSO	
1439+522	16.52	0.317				30				3600	QSO	CSO 680
1439+580	18.0	1.227									QSO	
1440+532	18.62	1.255		160	95	100			5100	5500	QSO	CSO 683
1440+492	17.54	1.737		100	70				5700		QSO	CSO 684
1443+497	18.57	0.404									QSO	CSO 685
1445+522	18.48	2.051	200	60	60		3000	8300	6200		QSO1.5	CSO 690
1445+583B	19.0	1.307									QSO	
1445+544	18.0	1.219									QSO	
1446+510	18.0	0.305									NLQSO	
1446+504	18.0	0.945									QSO	
1446+502	18.0	0.492									QSO	
1447+580	18.0	1.995									QSO	
1447+552B	18.04	0.366									QSO	
1448+530	18.0	0.668									QSO	
1448+584	17.57	0.315									QSO	
1449+588	16.0	0.210									QSO	Mkn 830
1449+545	18.57	0.907				50				3500	QSO	
1450+579	18.0	0.651									QSO	
1450+594	17.5	0.300									QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width Lα[a]	CIV	CIII	MgII	Full width at half max. Lα	CIV	CIII	MgII	Sp type	Other name
1452+595	18.0	0.303									QSO	
1452+516	18.5	1.083									QSO	
1453+506	19.04	2.506:									QSO	
1453+529	18.5	0.357									QSO	
1453+518	18.0	1.626									QSO	
1453+591	18.0	2.175									QSO	
1454+525	18.0	2.347									QSO	
1455+603	17.5	0.286									QSO	
1456+527	18.0	0.638									QSO	
1456+533	18.0	1.972									QSO	
1456+531	18.0	1.553									QSO	
1456+540	18.36	2.300	250	110			5500	4600			QSO	
1457+531	17.5	1.735									QSO	
1457+575	18.0	1.717									QSO	
1457+553B	17.5	1.510									QSO	
1458+517	19.0	0.438									QSO	
1458+535	17.02	0.340				45				2100	QSO	
1458+567	18.5	0.885									QSO	
1459+554	17.31	0.404				70				2700	QSO	CSO 712
1459+549	18.0	0.784									QSO	
1500+530	18.0	1.153									QSO	
1500+557C	17.57	1.156			30	70			5100	4800	QSO	CBS 299
1500+568	17.5	0.345									NLQSO	
1501+506	16.67	0.537									QSO	
1501+605	18.5	0.992									QSO	
1501+580	18.0	1.719									QSO	
1502+547	17.20	1.165									QSO	
1502+602	18.0	1.022				65				7000	QSO	3C 311
1503+543	17.00	0.305				80				5900	QSO	CSO 720
1503+570	17.45	0.360				20				4200	QSO	
1503+585	18.0	1.265									QSO	
1504+515	18.0	2.791									QSO	
1504+543	18.11	1.911	400	140	100			3600	4800		QSO	CSO 722
1504+596	18.0	2.142									QSO	
1505+577	18.5	0.560									QSO	
1505+596	18.5	1.553									QSO	
1506+520	18.5	0.283									QSO	
1506+501	18.5	0.547									QSO	
1506+583	18.0	0.700									QSO	
1508+579	19.0	1.700									QSO	
1508+585	18.53	1.766		90	65			6300	4600		QSO	
1510+517	17.17	1.637			70	50					QSO	
1510+571	17.5	1.031									QSO	
1510+526	17.64	1.134									QSO	
1513+507	18.45	1.760									QSO	
1513+554	17.91	0.510			85						QSO	
1515+610A	19.5	2.002									QSO	
1517+520	18.0	0.371									QSO	
1517+515B	18.0	1.108									QSO	
1518+497	18.60	0.476				110			4800		QSO	CSO 741
1520+530	17.67	1.850									BALQSO	Grav.lens
1520+598	17.32	0.290				50			5300		QSO	
1521+540	17.56	1.841									QSO	

TABLE 12 (CONTINUED)

SBS	B	z	Equivalent width				Full width at half max.				Sp	Other
design.	m_{pg}	em	$L\alpha$[a]	CIV	CIII	MgII	$L\alpha$	CIV	CIII	MgII	type	name
1523+590	18.5	1.069									QSO	
1524+515	17.94	1.450		190	70			4900	4900		QSO	CSO 754
1524+517	17.32	2.870	400	200				6300			BALQSO	CSO 755
1524+598	18.5	1.527		80	40			5300	4500		QSO	
1524+491	18.01	1.740			100				7200		BALQSO	CSO 756
1524+567	18.0	0.502									NLQSO	
1525+600	19.0	1.919	650	120	90		6000	4300	4000		QSO	
1525+580B	17.18	1.909	200	60			9800	6000			QSO	
1525+494	18.90	1.600									QSO	CSO 757
1526+540	17.30	1.384		120	30			5700	3500		QSO	CSO 758
1527+522	16.68	1.226			60	40			5000	5000	QSO	CSO 759
1527+581	17.61	1.428		50	25			4000	4500		QSO	
1527+530	17.41	0.633				85				5300	QSO	
1528+572	18.5	1.532									QSO	
1529+527	17.51	1.360:									QSO	CSO 765
1532+507	18.0	2.118									QSO	
1532+598	17.76	0.690				30				2300	QSO	
1533+588	19.0	1.895	350	120	60		8000	5000	4500		QSO	
1534+535	17.5	0.290									QSO	
1534+568	17.5	0.207									QSO	
1534+528	17.54	0.560				75				3100	QSO	
1535+609	17.27	0.596				50				3100	QSO	
1535+597A	19.0	1.968									QSO	
1536+512	18.0	2.256									QSO	
1537+595	19.0	2.125	450	180	100		8000	3500	4500		QSO	
1537+572	18.13	1.924		80				4000			QSO	
1538+525	17.5	1.377									QSO	
1541+519	19.0	2.177									QSO	
1542+541	17.24	2.361	450	200	55		6500	6300			QSO	
1543+593	16.79	0.810				20				3200	QSO	
1543+517	18.0	1.927									QSO	
1544+509	18.0	1.128									QSO	
1544+512	17.5	1.330									QSO	HS1544+5113
1548+505	19.0	2.523									QSO	
1549+590	17.63	0.348									NLQSO	
1550+582	17.03	1.324									QSO	
1551+572	17.32	0.366				15				2800	QSO	
1554+496A	18.5	1.831									QSO	
1555+552	16.62	0.388				20				2700	QSO	
1558+591	18.5	1.604		170	100			3600	5000		QSO	
1600+594	18.0	0.633									NLQSO	
1602+576	18.0	2.850									QSO	4C+57.27
1611+585	16.79	0.958			70	45			6000	2900	QSO	
1614+546	18.0	0.474									QSO	
1614+583	19.0	0.433									QSO	
1618+530	16.80	2.347	400	80			5000	4000			QSO	
1619+505	17.5	0.264									QSO	
1619+571	18.5	1.216									QSO	
1624+565	17.58	0.307				50				5100	QSO	
1625+582	17.51	0.750									QSO	
1626+554	16.17	0.133									QSO	PG
1627+565	18.0	0.400									QSO	
1630+530	16.72	0.352				80				3500	QSO	

TABLE 12 (CONTINUED)

SBS design.	B m_{pg}	z em	Equivalent width $L\alpha$[a]	CIV	CIII	MgII	Full width at half max. $L\alpha$	CIV	CIII	MgII	Sp type	Other name
1634+589	18.64	0.985			40	50					QSO	4C+58.32
1637+574	16.75	0.745									QSO	OS+562
1653+552	17.5	1.050									QSO	HS1653+5517
1655+593	18.5	0.503				45				4500	QSO	
1656+571	18.59	1.290		165	45						QSO	
1658+575	18.0	2.173		110	70			5300	6700		QSO	
1700+518	15.23	0.288				45				4400	BALQSO	PG
1703+538	17.5	2.367									BALQSO	HS1703+5350
1704+608	15.78	0.371				35					QSO	3C 351.0
1711+579	17.81	3.000	540	105			3000	3400			QSO1.5	
1714+576	17.5	2.027									QSO	HS1714+5351
1714+538	17.5	1.711									QSO	
1715+535	16.48	1.920	150	50	40			7500	7000		QSO	PG
1716+581	16.96	0.580:									QSO	
1717+583	17.38	0.311									QSO	

[a] $L\alpha$ means $L\alpha$+NV.

TABLE 13

THE SBS BLLAC SAMPLE. N=10

SBS design.	B m_{pg}	z em.	F R	1RXSJ name	Other— name	SBS design.	B m_{pg}	z em.	F R	1RXSJ name	Other name
0749+540	18.5		R	RXJ0753+5353	4C+54.15	1418+546	16.65	0.152	R	141946.4+542324	OQ 530
0802+596	17.5		R	080625.5+593105		1437+527	17.0		R		
0812+578	18.0		R	081624.6+573910		1508+561	17.5	0.3062	R	150948.4+555606	
1246+586	15.48	0.8174	R	124818.9+582031		1623+569	17.0	0.0967	R		
1316+503	17.20		R			1646+499	17.0	0.0475	R[a]	164735.4+495001	

[a] MNRAS 281, 425, 1996.

TABLE 14

DISTRIBUTION OF SBS GALAXIES ACCORDING TO THEIR SPECTROSCOPIC CLASSIFICATION TYPE

NLS1	BLS1	Sy1.5	Sy1.8	Sy1.9	Sy2	LNR	SBN	HII	ELG	E+A	Abs	BCDG	BLL:	Not Class.
31	38	25	8	9	44	90	562	150	55	271	133	195	1	111

Not classified means that the redshift was measured but the spectral type has not yet been obtained. 159 object is not yet observed spectroscopically. * SBN included, that is SBN+SB.

ample Sy2:, LINER:, SBN:, etc. In general this also means an uncertain determination of the object type. The diagnostic diagram [O III]λ5007]/Hβ versus [NII]λ6584/Hα for $\sim$ 500 SBS galaxies is shown in Figure 2.

The results of spectral classification for the 1591 SBS galaxies, 596 QSOs, and 10 BLL are summarized in Figure 3 and for the SBS stars in Figure 4 (for SBS galaxies and point sources they are also separately given in Tables 14 and 15). The distribution of SBS galaxies according to their objective-prism classification type and their UV continuum intensity is given in Table 16. The corresponding distribution is shown in Figure 5.

Morphologies of objects, whose data are taken mainly from the NED, and SDSS databases are known for 448 objects, 416 of which are spirals, 13 ellipticals, 13 irregulars and 9 peculiars. Unclassified objects are mainly compact, starlike objects. There are a few hundred of starlike objects, as well as nearly 200 binary systems, 22 objects showing cometlike structure, 18 exhibiting hot spots, etc. The subsam-

TABLE 15

THE DISTRIBUTION OF SBS STELLAR OBJECTS ACCORDING TO THEIR SPECTRAL CLASSIFICATION TYPE

Extragal.	Number	WD	Number	sd	Number	Other	Number
BALQSO	13	DA	254	sd	58	G	87
DLAQSO	5	DAB	5	sdB	108	F	46
QSOs	555	DAF	13	sdB-O	12	HBB	26
NLQSO	22	DAO	6	sdO	10	NHB	30
BLLac	9	DB	17	sdOA	5	Cont.	21
		DBA	6	sdOB	10	DC	5
		DBQ	1	sdOC	9	CV	15
		DO	3	sdOD	1	Comp.	16
		DQ8	1			PN	2
		DAmag	1			Pec+Em*	4
						(Unclas)	(52)
Total	604		307		213		252

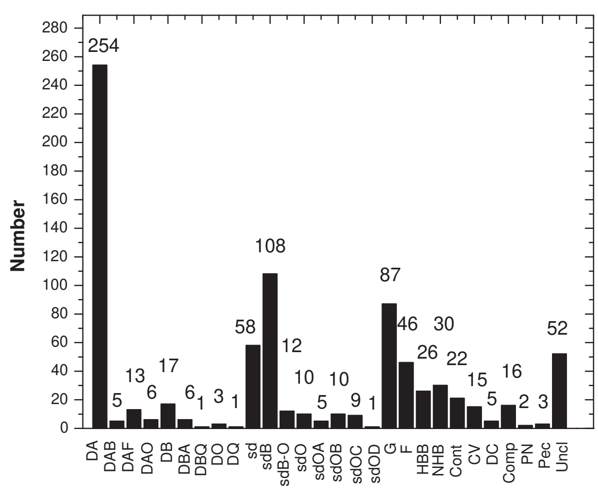

Fig. 4. The distribution of the 772 SBS stars according to their spectral type.

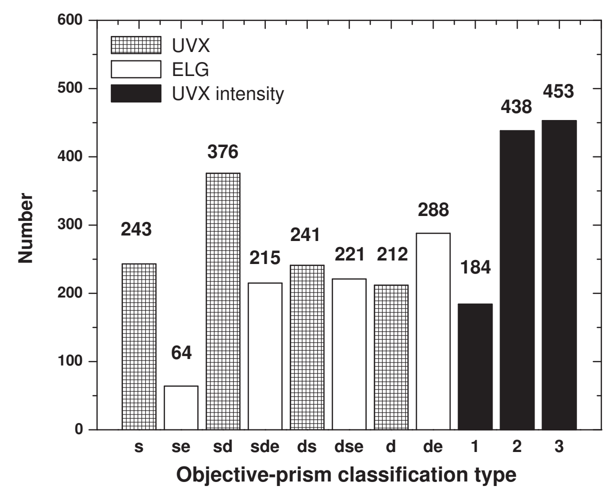

Fig. 5. The distribution of the SBS galaxies by their objective-prism classification types and their UV continuum intensity (shaded). UVX stands for UV-excess and ELG for emission line galaxies. See Section 2.2.3 for definition of intensity 1, 2 and 3.

ple comprising ∼ 100 SBS double galaxy systems was recently investigated by Petrosian et al. (2002; 2003). Binary systems, hot spots and cometlike objects are mainly blue compact dwarf galaxies. Many of them show, on objective prism spectra, very strong emission lines and practically no continuum. The distribution of the SBS galaxies according to their morphology is shown in Figure 6. The differential and cumulative magnitude and redshift distributions of SBS UV-excess and emission-line galaxies are shown in Figures 7, 8, and 9. The absolute magnitude distribution of SBS galaxies is given in Figure 10. The spatial distribution (wedge diagram) of the 1562 SBS galaxies with $z \leq 0.1$ is presented in Figure 11.

7.2. *SBS Stellar Objects. The Magnitude and Type Distributions of SBS Point Sources. The Redshift Distribution of SBS QSOs*

The statistics concerning the data presented in the Catalogue of SBS stellar objects are as follows. The catalogue consists of 1700 stellar objects. Spectroscopic observations are available for 1428 objects. We have obtained slit spectra for 1075 objects: 771 stellar objects were observed with the 6 m telescope, 135 with the MMT, 78 with the 2.6 m ZTA, and 91

TABLE 16

DISTRIBUTION OF SBS GALAXIES ACCORDING TO THEIR OBJECTIVE-PRISM CLASSIFICATION TYPE

(UV-excess)							ELG			
s	sd	ds	d	1	2	3	se	sde	dse	de
243	376	241	215	184	438	453	64	215	221	288

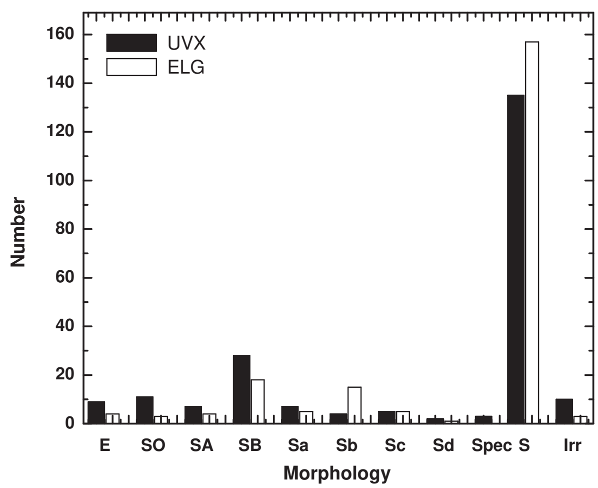

Fig. 6. The distribution of the SBS UVX (shaded) and ELG objects according to their morphology.

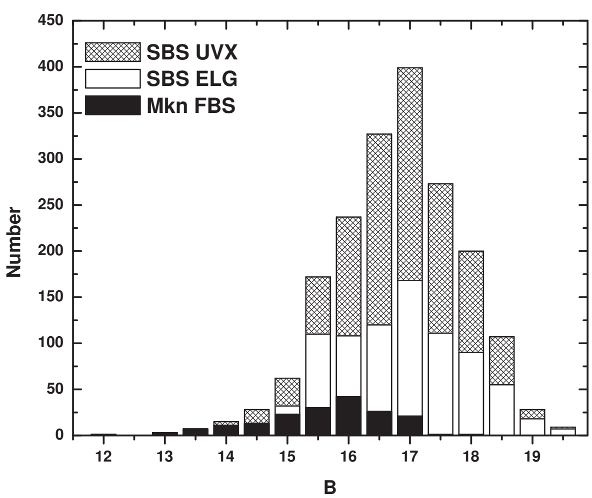

Fig. 7. The differential magnitude distribution of Mkn (FBS, shaded), SBS UVX (hatched) and SBS ELG (unshaded). UVX stands for UV-excess.

with the 2.1 m GHO. Spectral types of 91 known stellar objects, mainly galactic stars, are taken from the PG Catalogue (Green et al. 1986) and NED. Spectra for 261 stellar objects are taken from the SDSS dr2 and dr3 "release" (132 and 129 objects, respectively). There is no spectroscopic information for 272 SBS of the stellar objects.

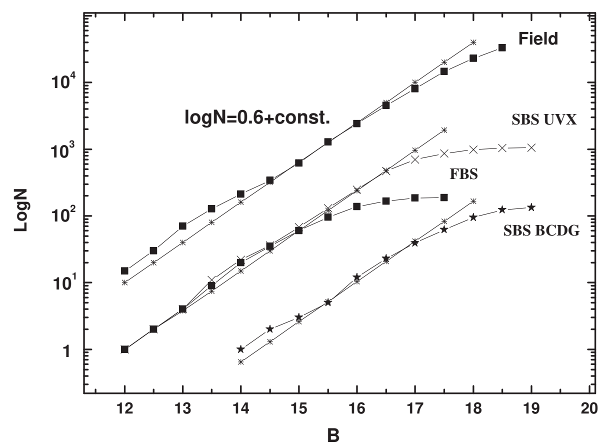

Fig. 8. The cumulative magnitude distribution of the SBS UVX (UV-excess), BCDG, Mkn (FBS) and Field galaxies. The field galaxy sample was compiled from the SBS original plates and comprises around $\sim 35,000$ galaxies with $B \sim 18.5$ mag. The line of slope logN=0.6+constant (consistent with an uniform distribution in Euclidean space) indicates the incompleteness of the sample at limiting magnitudes fainter than $B \sim 15.5$ for FBS galaxies, and $B \sim 17.0$ for SBS UVX and blue compact dwarf galaxies.

Spectral classification was performed for 604 extragalactic objects and 772 galactic stars. 52 objects were not classified because of inconclusive spectral information. Among the galactic stars, the DA white dwarfs and the subdwarfs of sdB class (including sd) clearly dominate.

The distributions of SBS QSOs and stars according to their spectroscopic type are shown in Figs. 3 and 4. The differential magnitude distributions of SBS stellar point sources and QSOs objects are shown in Figure 12. The redshift distribution of SBS QSOs is shown in Figure 13.

There are 596 QSOs and 9 BLL detected among the observed stellar objects in the SBS. The percentage of bright QSOs among SBS UVX objects with a limiting $B < 16.5$ amounts to $\sim 6\%$. This dou-

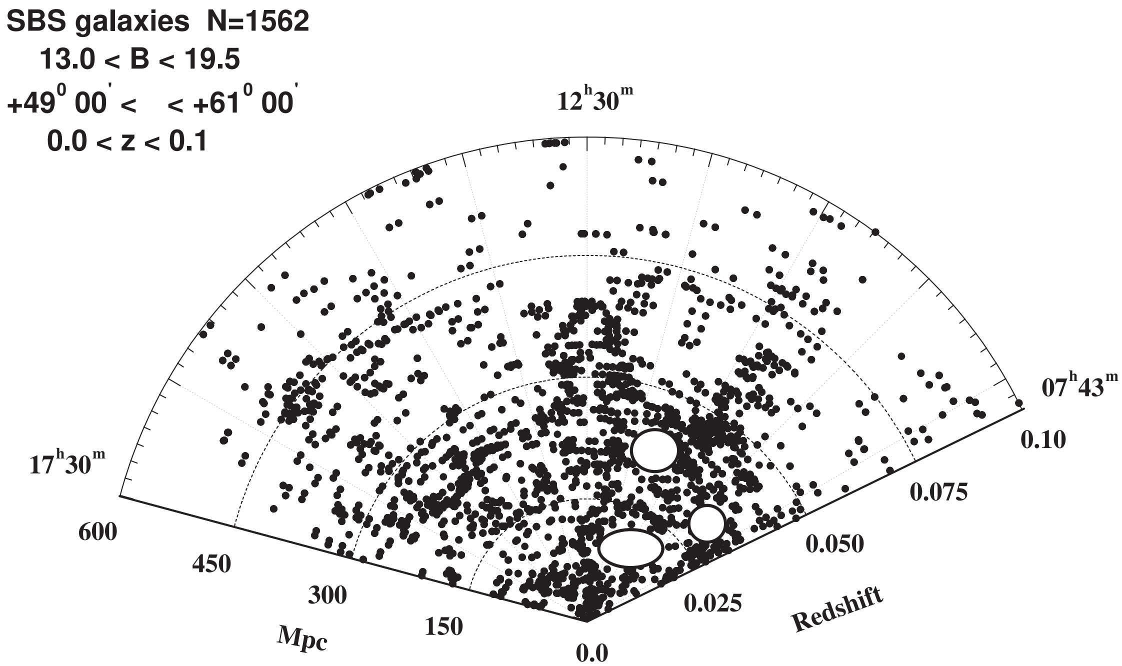

Fig. 11. The spatial distribution (in a wedge diagram) of the 1562 SBS galaxies. Galaxies with redshifts greater than $z > 0.1$ are not shown.

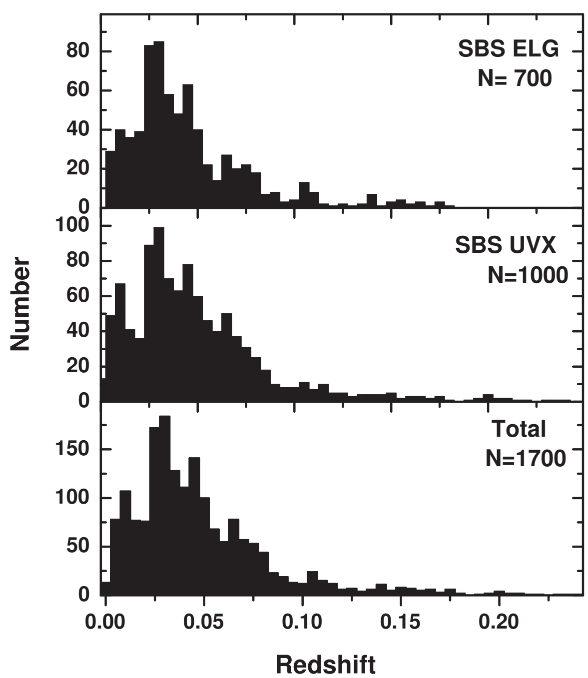

Fig. 9. The redshift distribution of SBS ELG, UVX and the total sample. The total number of available redshifts at the time of writing is 1700. Galaxies with redshifts greater than $z > 0.25$ are not shown.

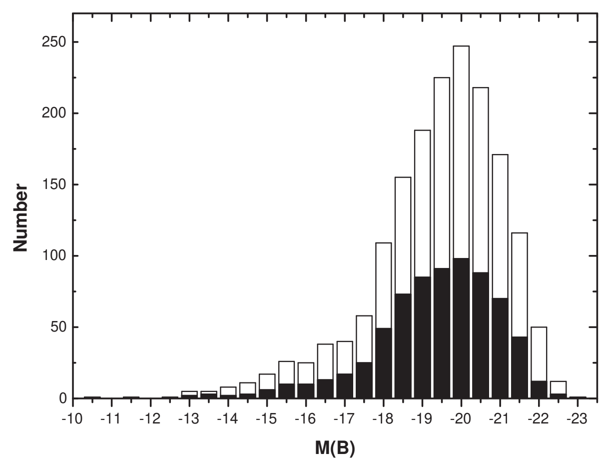

Fig. 10. The distribution of absolute magnitudes of the SBS UVX (blackened) and ELG (shaded) objects.

bles ($\sim$ 13.5%) when using a limiting magnitude of $B \sim 17.0$. Similar results were obtained by Véron & Hawkins (1995) where about 5% of all UV-excess starlike objects with $B \leq 16.0$ mag turned out to be QSOs.

219 stellar objects were identified with X-ray sources, 133 of SBS QSOs are identified with FIRST radio sources. Their identification are presented in the Catalogue of SBS stellar objects using a 1RXSJ designation; some of them are RXJ sources. X-ray

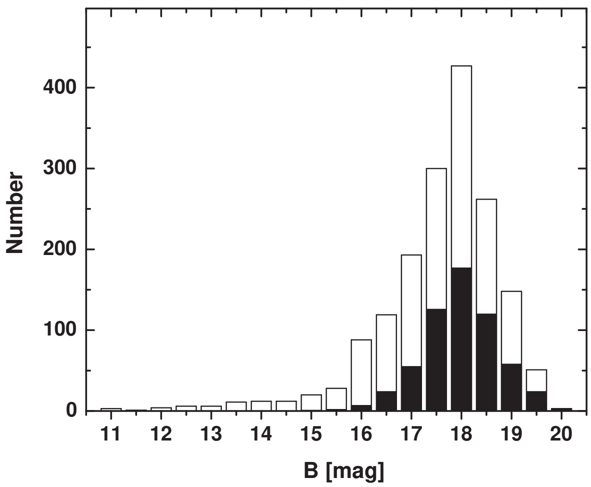

Fig. 12. The differential magnitude distribution of the SBS stellar point sources objects (blackened) and QSOs (whitened).

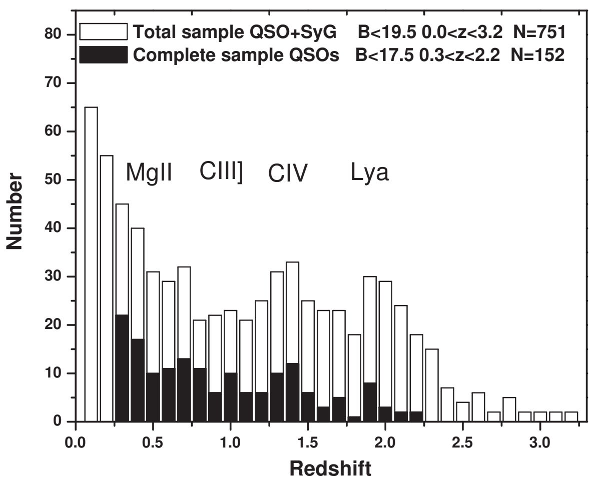

Fig. 13. The redshift distribution of SBS QSOs and Sy galaxies. Total sample $B \leq 19.5$ mag with $0.0 < z < 3.2$, N=751 and complete sample $B \leq 17.5$ mag, with $0.3 < z < 2.2$, N=152. The markers labelled Mg II, C III], C IV and Lyα indicate the redshift limits beyond which the corresponding emission line moved into the optical window of the IIIaJ emulsion.

fluxes and luminosities will be presented in the second paper of the SBS survey.

13 objects (∼2%) are found as BALQSOs. This agrees well with other estimates of the frequency of BALQSOs reported in other QSO surveys: Weymann, Garswell, & Smith (1981) found 1–10%; Hazard et al. (1984) found 3-10% and Boyle et al. (1990) found 4.1%. Note that this fraction is likely to be a lower limit. One of them SBS 1520+530 is found as gravitationally lensed BALQSO (Chavushyan et al. 1997).

Eleven very luminous QSOs with $-29.5 > M_B > -31.5$ have been found: SBS 0748+610, SBS 1217+499, SBS 1112+536, SBS 1233+594, SBS 1308+512, SBS 1348+575, SBS 1407+586, SBS 1425+606, SBS 1433+542, SBS 1524+517 and SBS 1618+530. Two of them, SBS 1425+606 and SBS 1524+517, were investigated in more details by Stepanian et al. (1996) and Glenn, Schmidt, & Foltz (1994).

Several other QSOs found in the survey merit further observation on the basis of their absorption line spectra. 35 SBS QSOs exhibit a rich absorption line spectrum. Some of them were investigated by Levshakov, Varshalovich, & Nazarov (1986) (SBS 0953+549, SBS 1116+603, SBS 1138+584), (SBS 0747+611), Glenn et al. (1994) (SBS 1524+517=CSO 755), and Telfer et al. (1998) (SBS 1524+541). Five absorption-line systems were identified in SBS 1116+603 and two absorption-line systems in SBS 0953+549 (9 lines at $z = 2.210$ and 7 lines at $z = 1.986$). 15 high-redshift QSOs show a rich Lyα forest shortward of the Lyα emission line; among these there are five DLAQSOs. The basic data are presented in Table 17. The magnitudes, redshifts, luminosities, the observed damped absorption line wavelength, and the corresponding absorption line redshift as well as the concentration of the neutral hydrogen along the line of sight calculated using the expression $W_0 = 7.3[\mathrm{N(H\,I)}/10^{20}\ \mathrm{cm}^{-2}]^{1/2}$ Å (Wolfe 1993) for SBS DLA QSOs are listed.

A one-Å resolution spectrum of the DLA QSO SBS 1425+606 shortward of the Lyα forest confirms the existence of a moderately strong Damped Lyα absorption system at $z = 2.83$ (Stepanian et al. 1996). DLA QSO SBS 1425+606 exhibits a *ROSAT* flux of 0.9×10^{-13} erg cm^2 s^{-1} (Reimers et al. 1995), comparable to the flux of one of the brightest QSOs HS 1946+7658, though SBS 1425+606 is radio quiet. Perhaps SBS 1425+606 is the first radio quiet QSO among the brightest X-ray QSOs with a redshift greater than $z > 3$.

Among the ∼ 1000 objects classified as stars on objective-prism spectra, the corresponding slit spectra have been obtained for 772 of them. 307 are classified as various types of white dwarfs (WD), 213 classified as subdwarfs (sd) and 250 as other types of peculiar stars. Two objects were found to be planetary nebula. 52 objects are not classified.

A sample of very rare objects was discovered: for instance, SBS 1517+503 is a very rare type

TABLE 17

SBS DLAQSOS

SBS design.	B	z em	M B	λ abs	z abs	$N(HI) \times 10^{20}$ cm^{-2}
SBS 1309+512	17.74	3.150	−30.23	3793	2.119	3.2
SBS 1349+575	17.58	2.897	−30.12	3756	2.089	5.0
SBS 1417+596	17.86	2.311	−29.13	3948	2.247	5.0
SBS 1425+606	16.83	3.164	−31.16	4652	2.826	2.5
SBS 1433+542	17.08	2.626	−30.31	4069	2.346	7.9

The object SBS 1232+555 is suspected to be a DLAQSO.

TABLE 18

INTEGRAL DISTRIBUTION OF DA WD WITHIN THE COMPLETE SAMPLES OF PG, ECBO AND SBS

Survey	≤ 12.0	≤ 12.5	≤ 13.0	≤ 13.5	≤ 14.0	≤ 14.5	≤ 15.0	≤ 15.5	≤ 16.0	≤ 16.5	Surf.dens.
PG	1	3	4	5	8	9	11	15	31	46	0.046
ECBO	1	1	3	3	3	6	14	26	43	54	0.054
SBS	1	4	5	8	12	13	19	26	57	95	0.095

dwarf carbon star with DA white dwarf companion, the second known so far (Liebert et al. 1994); SBS 1349+545 is a magnetic white dwarf with an equivalent polar field strength among the strongest found in white dwarfs, that is, 760 MGauss. Two new unusual planetary nebulae were found: SBS 1150+599 (PGN 135.9+55.9), the most oxygen-poor Galactic halo planetary nebula (Tovmassian, Stasinska, & Chavushyan 2001), and SBS 1712+493 (Stepanian et al. 1999). The DA WDs of the SBS survey are likely to form a complete sample because hot WDs have average blue colors $U-B = -0.7{\pm}0.2$. The integral distributions of DA WD from the complete samples of the PG, ECBO and SBS are given in Table 18. PG objects are selected from the 1000 square degrees area of the SBS survey. The ECBO data are normalized to 1000 square degrees. The surface density of DA WDs is estimated to be ~ 0.1 per square degree for $B \leq 16.5$ mag and 0.14 per square degree for $B \leq 17.0$ mag, respectively.

It is interesting to note that for the sum of the integral surface densities of DA white dwarfs and hot subdwarfs brighter than $B < 16.0$, one finds that the SBS has 0.10/sq. degree, while the PG survey has 0.090/sq. degree. Both surveys are therefore likely to have a high degree of completeness in the selection of stars with strong UV-excess. A moderate spectral reclassification in each would likely bring the surface densities by spectral type into excellent agreement.

The distributions of galactic stars from statistically complete samples from the SBS, PG (Palomar-Green color survey, Green et al. 1986), ECBO (Edinburgh-Cape Blue Object UV-excess stellar objects survey, Stobie et al. 1997), CASE (the CASE University Low-Dispersion objective prism survey, Sanduleak & Pesch 1987, and Wagner et al. 1988) and KUV (Kiso Ultraviolet excess stars survey, Kondo et al. 1984) are given in Table 19.

As seen from Table 19 there are two classes of objects: DA WD and sdB, which dominate amongst objects isolated by color and according to objective-prism criteria. In UV-excess surveys such as ECBO and PG, the stellar spectroscopic identifications are dominated by subdwarfs. The vast majority (63%) of stellar objects selected in the SBS are WD (36%) and hot subdwarfs (27%). Objective-prism surveys (SBS, CASE) predominantly isolate WD over subdwarfs. In the UV excess color surveys (PG, ECBO), the stellar spectroscopic identifications are dominated by subdwarfs. In general, independently of the applied techniques (objective prism or color), $\sim 70\%$ of the candidate objects are in fact WD and subdwarfs. The percentage of WD and subdwarfs in the PG and ECBO color surveys is the same (55–70%) but the proportion of WD (15–27%) and subdwarfs (42%) is reversed. The only exception is the KUV color survey, where a significant portion of objects (34%) is found to be NHB (normal horizontal branch

TABLE 19

THE INTEGRAL DISTRIBUTION OF OBJECTS ACCORDING TO TYPE WITHIN THE STATISTICALLY COMPLETE SAMPLES OF SBS, PG, ECBO, CASE AND KUV

Type	$B \leq 16.4$								$B \leq 17.0$				$B \leq 17.47$	
of	PG		ECBO		CASE		SBS		SBS		CASE		KUV	
objects	N	%	N	%	N	%	N	%	N	%	N	%	N	%
QSO	93	5.4	80	7.0	15	5.2	4	5.6	64	12.9	14	11.3	85	10.9
DA(DAB+etc.)	361	21.0	161	14.0	99	34.4	21	29.6	150	30.3	41	33.1	130	16.6
DB	49	2.8	···	···	2	0.7	1	1.4	11	2.2	8	6.5	16	2.0
DO	17	1.0	···	···	2	0.7	···	···	2	0.4	···	···	···	···
DQ+DBQ+DZ	···	···	···	···	···	···	1	1.4	2	0.4	2	1.6	···	···
DC/DF+Cont.	21	1.2	···	···	7	2.4	···	···	15	3.0	···	···	57	7.3
sdB(sd+etc.)	684	39.9	482	41.0	90	31.3	20	28.2	130	26.2	26	21.0	120	15.4
sdO	229	13.4	···	···	4	1.4	8	11.3	8	1.6	9	7.2	29	3.7
CV+em	57	3.3	20	2.0	8	2.8	4	5.6	11	2.2	5	4.0	71	9.1
Binary/Comp.	24	1.4	···	···	5	1.7	1	1.4	10	2.0	1	0.8	···	···
HBB	99	5.7	99	8.0	18	6.3	6	8.5	23	4.6	8	6.5	···	···
NHB	···	···	···	···	15	5.2	···	···	18	3.6	···	···	269	34.4
F/G	···	···	178	15.0	21	7.3	3	4.2	45	9.2	7	5.6	···	···
B stars	···	···	96	8.0	···	···	···	···	···	···	···	···	···	···
PNN	9	0.5	···	···	1	0.3	···	···	1	0.2	···	···	···	···
dMe+Mira	5	0.3	···	···	···	···	···	···	···	···	···	···	···	···
AGN	23	1.3	···	···	···	···	1	1.4	···	···	2	1.6	···	···
Galaxies	35	2.0	9	1.0	···	···	···	···	···	···	···	···	···	···
Other/Pec/Q:	6	0.3	56	5.0	3	1.0	1	1.4	6	1.2	1	0.8	4	0.5
Total	1715	100%	1181	100%	335	100%	71	100%	496	100%	124	100%	781	100%

Note. – AGNs and ELG from the SBS survey are excluded
Referencies: (PG) Green et al. (1986) - 10 714 sq.degree. V(complete)=16.12; (KUV) Wegner & Dupulis (1993) - 1400 sq.degree. V(complete)=17.47; (ECBO) O'Donoghue et al. (1993) - 2000 sg.degree. B(complete)=16.4; (CASE) Wagner et al. (1988)

stars). This is 3–5 times more than in the other surveys, even if we were to lump together the HBB and NHB.

8. THE MULTIWAVELENGTH CATALOGUE OF SBS OBJECTS IDENTIFIED WITH IRAS, FIRST, AND RASS SOURCES

We repeated the identification process of all SBS objects as possible *ROSAT*, IRAS or FIRST sources and corrected their spectral classification types. The basic data pertaining to these objects are included in the General Catalogue and the multiwavelength data are presented below.

8.1. *SBS Galaxies Identified with IRAS Sources*

8.1.1. *The Catalogue of the SBS Galaxies Identified with IRAS Sources*

541 SBS galaxies have been identified with IRAS sources. Redshifts are measured for 492 (91%) sources. In Table 20 we show the following data for SBS-IRAS sources. The columns list: Column 1 – SBS designation. Columns 2, 4, 6, 8 – IRAS fluxes at 12, 25, 60, and 100 μm in Jy. Columns 3, 5, 7, 9 – the detection quality, where 1- stands for an upper limit, 2- a medium, 3- a high quality detection. Columns 10, 11, 12 – the FIR colors, i.e., the logarithms of the FIR flux ratios f(12/25), f(25/60), f(60/100) in the case of upper limit, medium and high quality detections. Column 13 – $\log F(\mathrm{FIR})$, where $F(\mathrm{FIR}) = 1.26 \times 10^{-14}[2.58F(60\ \mathrm{Jy}) + F(100\ \mathrm{Jy})]$ with FIR fluxes in $W\ m^{-2}$, extracted from Bicay et al. (1995). Column 14 – $\log[L(\mathrm{FIR})/L_{\odot}] = 27.051 + 2\log[z(1+z/2)] + \log F(\mathrm{FIR})$. Column 15 – $\log L(\mathrm{FIR})$. Column 16 – spectral class. Column 17 – morphology. Column 18 – alternative name. Column 19 – IRAS name. In all calculations we assumed $q_0 = 0$, $H_0 = 50$ km s^{-1} Mpc^{-3}. The luminosities are in units = erg s^{-1}. 19 objects previously identified as IRAS sources are excluded because of wrong identification. They are listed in Table 21. 77 objects (14%) are found to be Luminous Infrared Galaxies (LIGs) log $[L(\mathrm{FIR})/L_{\odot}] > 11.00$, and seven objects (1.3%) to be Ultraluminous Infrared Galaxies

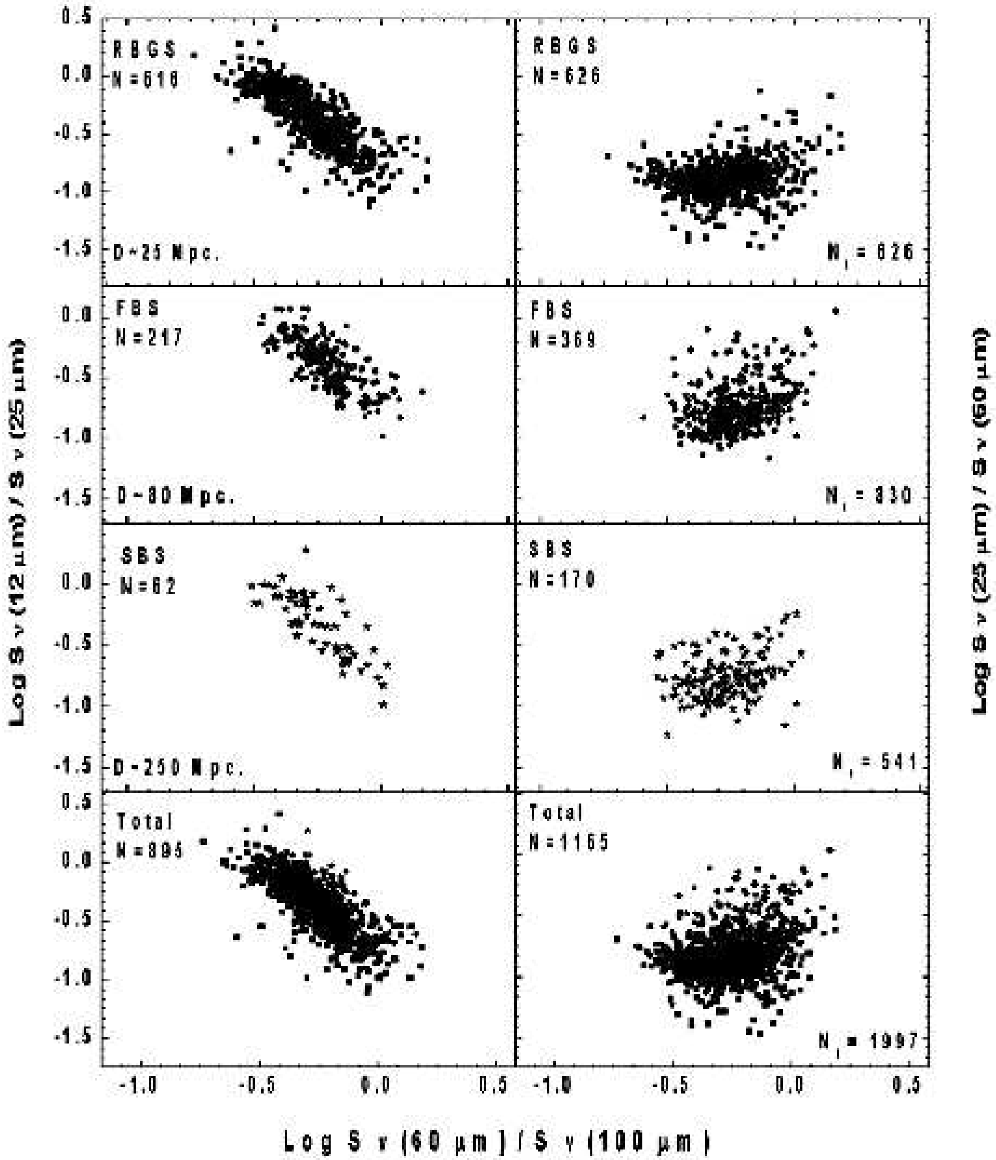

Fig. 14. The *IRAS* color-color diagrams given by $\log[S_\nu(60\mu)/S_\nu(100\mu)]$ vs $\log[S_\nu(25\mu)/S_\nu(60\mu)]$ and $\log[S_\nu(12\mu)/S_\nu(25\mu)]$ characterizing SBS galaxies. For comparison, the corresponding diagrams are also shown for FBS and RBGS samples (Revised Bright Galaxy Sample - Sanders et al. 2003). Numbers at the right, N_t, indicate the total number of objects in each sample while numbers at the left, N, indicate the logarithm of the color ratios for high and moderate quality detections.

(ULIGs), log $[L(\mathrm{FIR})/L_\odot] > 12.00$.

Amongst the 64 galaxies classified as SBS LIG galaxies, 14 objects are AGN (2 Sy1, 3 Sy1.5, 1 NLS1, 6 Sy2, 1 Sy1.8, 2 Sy1.9) and 17 LINERs. 33 objects are not AGN, 23 are SBN, 10 are a different type of galaxies. 13 objects were not classified. The proportion of AGN among LIG galaxies is 31%; together with LINERs they amount to 48%. The dominant population among LIGs is SBN(36%), LINERS(27%) and Sy2(9%) galaxies. Seven objects are ULIGs: SBS 1116+538(SBN), the well known Mkn 231 (SBS 1254+571, Sy1), SBS 1342+561 (Sy2), SBS 1346+585 (SBN), SBS 1439+535 (LINER), SBS 1517+522 (Sy2), and SBS 1648+547 (LINER:).

Figure 14 shows the IRAS color-color diagrams $\log[S_\nu(60\mu)/S_\nu(100\mu)]$ versus $\log[S_\nu(25\mu)/S_\nu(60\mu)]$ and $\log[S_\nu(12\mu)/S_\nu(25\mu)]$. For comparison, similar diagrams are shown for the FBS and RBGS (Revised Bright Galaxy Sample, Sanders et al. 2003) samples. It is seen that by going deeper (from $\sim$ 25 Mpc for

TABLE 20

SBS GALAXIES IDENTIFIED WITH *IRAS* SOURCES: N=541. *FIR* COLORS, FLUXES AND LUMINOSITIES

SBS design.	Fluxes f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	log(*FIR*) 12/25	25/60	60/100	logF *FIR*	log L/L_o	logL *FIR*	Sp class	Morph.	Other name	*IRAS* name
0743+591A	0.138	1	0.127	2	1.084	3	3.574	2	···	−0.931	−0.518	−13.10	10.98	44.56	E+A	Sb		07431+5908
0743+610	0.140	3	0.221	3	0.813	3	1.948	2	−0.198	−0.566	−0.379	−13.29	10.71	44.29	BLS1	SBbc	Mkn 10*	07431+6103
0744+543	0.084	1	0.143	1	0.435	3	0.878	2	···	···	−0.305	−13.60	10.85	44.43	SBN		Mkn 83	F07442+5420
0745+590	0.116	1	0.204	1	0.667	3	1.063	2	···	···	−0.191	−13.45	10.46	44.04	HII		KUG	F07450+5902
0745+557	0.077	1	0.159	2	0.886	3	1.250	2	···	−0.746	−0.149	−13.35	10.17	43.75	SBN	S:		F07452+5543
0746+501	0.129	1	0.136	1	0.526	3	1.358	2	···	···	−0.412	−13.47	10.33	43.91	···			F07463+5010
0748+499	0.079	1	0.114	1	0.212	3	0.924	1	···	···	···	−13.73:	10.10	43.68	Sy1.9	SO		F07480+4956
0750+584	0.100	1	0.087	2	0.381	3	0.821	2	···	−0.639	−0.334	−13.64	10.06	43.64	SBN	S:	Mkn1411	F07503+5824
0750+559	0.081	1	0.099	1	0.300	3	1.067	1	···	···	···	−13.64:	10.24:	43.82:	LINER:	S:		F07506+5557
0751+539	0.109	2	0.135	1	1.227	3	2.983	2	···	···	−0.386	−13.11	11.04	44.62	ELG			F07509+5358
0751+558	0.078	2	0.140	2	1.299	3	2.570	2	−0.256	−0.967	−0.296	−13.13	10.57	44.15	E+A	Spec	Mkn 84	F07511+5550
0751+534	0.094	1	0.147	1	1.251	3	3.234	2	···	···	−0.412	−13.09	11.09	44.67	HII	SBb		F07514+5327
0751+604	0.127	1	0.093	1	0.408	3	1.051	1	···	···	···	−13.55:	8.92:	42.50:	BCDG	SBb	Mkn 13	F07519+6026
0752+608	0.054	1	0.101	1	0.195	3	0.611	2	···	···	−0.496	−13.85	···	···	···			F07520+6050:
0753+610B	0.094	1	0.096	1	0.294	3	0.732	2	···	···	−0.396	−13.73	10.01	43.59	ELG			F07538+6104
0754+568	0.103	1	0.096	1	0.266	3	0.960	1	···	···	···	−13.68:	9.95:	43.53:	···		NGC2472	F07547+5650
0755+536	0.117	1	0.100	1	0.808	3	1.011	2	···	···	−0.097	−13.41	10.75	44.33	E+A			F07553+5341
0755+587	0.136	1	0.147	1	1.234	3	2.204	2	···	···	−0.252	−13.16	10.44	44.02	ELG	Sb		F07557+5845
0755+557	0.093	1	0.101	2	0.376	3	0.927	2	···	−0.571	−0.392	−13.62	10.48	44.06	ELG			F07558+5542
0755+509	0.111	1	0.359	3	0.708	3	0.786	2	···	−0.295	−0.045	−13.48	11.07	44.65	Sy2			F07559+5058
0755+588	0.103	1	0.088	1	0.259	3	0.947	1	···	···	···	−13.69	9.85	43.43	LINER:		KUG	F07559+5850
0755+604	0.100	2	0.105	2	1.062	3	2.801	2	−0.022	−1.005	−0.421	−13.16	10.47	44.05	ELG	Scd		F07559+6025
0756+561	0.056	1	0.099	1	0.282	3	0.859	2	···	···	−0.484	−13.70	···	···	···			F07559+5607:
0756+553	0.086	2	0.287	3	1.938	3	2.582	2	−0.523	−0.829	−0.125	−13.02	11.15	44.73	ELG			F07566+5521
0756+578	0.073	1	0.123	2	0.443	3	0.685	2	···	−0.556	−0.189	−13.64	10.31	43.89	···			07566+5752
0800+603	0.092	1	0.142	1	0.675	3	1.733	2	···	···	···	−13.78:	9.99:	43.57:	ELG			F08003+6019
0802+511	0.075	1	0.055	1	0.219	3	0.746	1	···	···	···	−13.78:	9.99:	43.57:	···	SAc		F08026+5106
0803+565	0.079	1	0.115	1	0.345	3	0.905	2	···	···	−0.419	−13.65	10.27	43.85	ELG	S:		F08035+5634
0805+503	0.095	1	0.088	1	0.227	3	0.751	1	···	···	···	−13.77:	9.72:	43.30	SBN:			F08052+5019
0805+577	0.103	1	0.089	1	0.261	3	0.924	1	···	···	···	−13.70:	10.23:	43.81:	LINER		HS	F08054+5742
0805+607	0.048	1	0.043	1	0.204	3	0.761	1	···	···	···	−13.79:	10.38:	43.96:	LINER:			F08054+6045
0805+603	0.051	1	0.101	1	0.356	3	0.813	1	···	···	···	−13.66:	10.00:	43.58:	LINER:			F08059+6020
0806+579A	0.097	1	0.095	1	0.322	3	1.349	1	···	···	···	−13.56:	10.34:	43.92:	ELG	S:		F08060+5759
0807+568	0.069	1	0.109	1	0.330	3	1.058	1	···	···	···	−13.62:	···	···	···			F08069+5647
0807+571	0.123	1	0.097	2	0.374	3	1.291	2	···	−0.586	−0.538	−13.55	10.43	44.01	ELG	S		F08070+5710
0807+581	0.150	1	0.218	3	1.363	3	2.557	2	···	−0.796	−0.273	−13.22	10.76	44.34	Sy2			F08077+5806
0807+588	0.072	1	0.085	1	0.264	3	0.835	2	···	···	−0.500	−13.72	10.19	43.77	ELG			F08078+5851
0808+587	0.071	1	0.086	1	0.285	3	0.812	1	···	···	···	−13.71:	10.24:	43.82:	Sy2	E:	VIIZw217	F08082+5842
0808+536	0.114	1	0.102	1	0.541	3	1.130	2	···	···	−0.320	−13.50	10.82	44.40	···			F08085+5337
0808+580B	0.126	1	0.130	1	0.415	3	1.476	1	···	···	···	−13.64:	10.30:	43.88:	Sy2	SO:		F08088+5804
0809+610	0.075	1	0.059	1	0.215	3	1.184	1	···	···	···	−13.66:	10.49:	44.07	ELG			F08094+6104
0809+582	0.110	1	0.117	1	0.313	3	1.266	1	···	···	···	−13.58:	10.37:	43.95:	ELG	Sbc		F08097+5814
0810+583A	0.083	1	0.135	1	0.426	3	0.711	2	···	···	−0.222	−13.64	10.24	43.82	SBN			F08101+5821
0811+508	0.083	1	0.128	2	0.761	3	1.280	2	···	−0.774	−0.226	−13.39	10.79	44.37	SBN			F08111+5048
0811+607A	0.092	1	0.142	1	0.675	3	1.733	2	···	···	−0.409	−13.36	10.50	44.08	ELG		KUG	F08116+6047
0811+607B	0.092	1	0.142	1	0.675	3	1.733	2	···	···	···	−13.78:	9.99:	43.57:	ELG			F08116+6047
0811+584	0.119	1	0.138	2	1.092	3	2.376	2	···	−0.898	−0.338	−13.18	10.71	44.29	LINER:	S		F08119+5829
0814+579A	0.061	1	0.107	1	0.438	3	0.848	2	···	···	−0.287	−13.60	10.35	43.93	LINER:	S		F08141+5754
0818+544	0.089	1	0.103	1	0.235	3	0.438	1	···	···	···	−13.88:	11.08:	44.66:	Sy1.8		MS	F08187+5428
0824+558	0.095	2	0.115	2	1.194	3	2.615	2	−0.084	−1.017	−0.340	−13.14	10.91	44.49	E+A	S:	Mkn 88	F08242+5552

TABLE 20 (CONTINUED)

SBS design.	Fluxes f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	log(*FIR*) 12/25	25/60	60/100	logF *FIR*	log L/L_o	logL *FIR*	Sp class	Morph.	Other name	*IRAS* name
0824+583	0.078	1	0.118	1	0.710	3	2.257	2	···	···	−0.502	−13.29	10.29	43.87	ELG			F08249+5822
0825+522	0.059	1	0.099	1	0.263	3	0.669	1	···	···	···	−13.77:	8.70:	42.28:	HII	SO:	Mkn 89	F08259+5214
0826+558	0.090	1	0.103	1	0.265	3	0.735	2	···	···	−0.443	−13.75	10.48	44.06	E+A			F08260+5551
0826+528	0.098	1	0.156	2	0.954	3	2.158	2	···	−0.786	−0.355	−13.24	10.14	43.72	SBN	Spec	Mkn 90	F08262+5251
0828+525	0.110	1	0.139	1	0.602	3	1.082	2	···	···	−0.257	−13.48	10.55	44.13	SBN			F08280+5231
0828+527	0.196	3	0.696	3	4.892	3	7.330	2	−0.550	−0.847	−0.176	−12.60	10.93	44.51	SB	S:	Mkn 91	F08287+5246
0829+577	0.072	1	0.111	1	0.431	3	1.573	2	···	···	−0.562	−13.47	10.44	44.02	···	Sa		F08299+5742
0831+529A	0.096	1	0.128	1	0.301	3	0.906	1	···	···	···	−13.67:	10.72:	44.30:	E+A	Sb	NGC2600	F08310+5253
0831+529B	0.061	1	0.100	1	0.288	3	1.011	2	···	···	−0.545	−13.66	10.71	44.29	E+A		NGC2606	F08318+5258
0837+581	0.083	1	0.062	1	0.309	3	0.633	1	···	···	···	−13.74:	9.81:	43.39:	SBN			F08369+5808
0840+541	0.116	1	0.092	1	0.200	3	0.611	2	···	···	−0.485	−13.85	9.97	43.55	E+A			F08409+5407
0843+514	0.093	1	0.107	1	0.248	3	0.696	1	···	···	···	−13.77:	10.20:	43.78:	SBN			F08437+5125
0843+582	0.080	1	0.095	1	0.213	3	0.535	1	···	···	···	−13.86:	10.45:	44.04:	···			F08439+5817
0844+549	0.113	1	0.105	1	0.211	3	0.533	2	···	···	−0.402	−13.87	10.10	43.68	E+A	S		F08444+5453
0845+510A	0.086	1	0.123	1	0.201	3	0.822	1	···	···	···	−13.77:	10.19:	43.77:	···			F08456+5105
0846+538	0.114	1	0.149	2	0.493	3	0.793	2	···	−0.520	−0.206	−13.59	10.61	44.19	SBN			F08465+5351
0846+557	0.064	1	0.074	1	0.182	3	0.678	1	···	···	···	−13.84:	10.53:	44.11:	SB	S		F08468+5543
0849+496	0.130	1	0.127	2	1.027	3	2.017	2	···	−0.908	−0.293	−13.23	9.90	43.48	LINER			F08494+4938
0851+579	0.107	1	0.137	2	0.648	3	1.354	3	···	−0.675	−0.320	−13.42	9.91	43.49	···			F08510+5751
0851+547	···	···	···	···	0.410	3	1.045	2	···	···	−0.406	−13.58	10.77	44.35	E+A	S		F08511+5445
0855+520	0.083	1	0.135	2	0.763	3	1.413	2	···	−0.752	−0.268	−13.37	9.85	43.43	LINER			F08550+5204
0855+575	0.100	1	0.100	1	0.242	3	0.471	2	···	···	−0.289	−13.86	10.40	43.98	SBN			F08556+5732
0856+602	0.084	1	0.164	3	1.186	3	2.199	2	···	−0.859	−0.268	−13.18	11.07	44.65	···			F08561+6016
0858+603	0.144	3	0.252	3	2.157	3	2.970	2	−0.242	−0.932	−0.139	−12.97	10.18	43.76	E+A	S:	Mkn 18	F08580+6020
0859+521	0.084	1	0.096	1	0.338	3	0.768	2	···	···	−0.356	−13.68	10.32	43.90	SBN			F08598+5210
0901+521	0.090	1	0.241	3	1.306	3	1.607	2	···	−0.734	−0.090	−13.20	11.47	45.05	SBN			F09009+5208
0901+518	0.127	1	0.138	2	0.896	3	2.360	2	···	−0.812	−0.421	−13.23	10.25	43.83	E+A	S	Mkn 101	F09010+5148
0903+558	0.097	1	0.114	1	0.379	3	0.994	2	···	···	−0.419	−13.61	10.61	44.19	HII			F09032+5551
0903+499A	0.099	2	0.123	1	0.473	3	1.148	2	···	···	−0.385	−13.53	10.59	44.17	SBN	S		F09034+4958
0903+562	0.199	1	0.082	1	0.553	3	1.142	2	···	···	−0.315	−13.49	10.89	44.47	SB			F09034+5612
0905+499A	0.075	1	0.115	1	0.315	3	1.199	2	···	···	−0.581	−13.60	10.57	44.15	E+A			F09053+4957
0906+502A	0.174	1	0.187	2	1.594	3	3.137	2	···	−0.931	−0.294	−13.04	11.08	44.66	···			F09067+5015
0906+502B	0.174	1	0.187	2	1.594	3	3.137	2	···	−0.931	−0.294	−13.04	11.08	44.66	SB	Sc		F09067+5015
0910+503	0.094	1	0.095	1	0.349	3	0.737	2	···	···	−0.325	−13.68	10.45	44.03	SB			F09103+5022
0912+521	0.104	1	0.201	2	1.264	3	1.667	2	···	−0.799	−0.120	−13.21	11.40	44.98	···			F09121+5206
0912+599	0.090	1	0.082	2	0.539	3	0.827	1	···	−0.817	···	−13.55	9.81	43.39	HII		Mkn 19	F09129+5958
0913+537	0.131	1	0.087	1	0.522	3	1.500	2	···	···	−0.450	−13.45	11.14	44.72	LINER			F09131+5343
0913+536	0.101	1	0.181	1	0.249	3	0.730	1	···	···	···	−13.76:	8.99:	42.57:	HII		Mkn104	F09132+5339
0913+502	0.107	1	0.104	1	0.634	3	1.754	2	···	···	−0.442	−13.37	10.74	44.32	ELG		VV360	F09135+5015
0915+515A	0.134	1	0.120	1	0.706	3	1.877	2	···	···	−0.425	−13.33	9.99	43.57	SB			F09154+5134
0916+510	0.061	1	0.074	1	0.223	3	0.757	1	···	···	···	−13.78	10.15	43.72	SBN	S		F09162+5104
0919+509	0.039	1	0.143	1	0.219	3	1.038	2	···	···	−0.676	−13.69	10.23	43.81	SBN			F09191+5058
0922+553	0.064	1	0.083	1	0.192	3	1.128	1	···	···	···	−13.69:	11.02:	44.60:	SBN	S	KUG	F09223+5520
0922+526	0.075	1	0.122	1	0.543	3	1.403	2	···	···	−0.412	−13.45	···	···	···			F09222+5237
0924+554N	0.092	2	0.129	1	0.820	3	1.087	2	···	···	−0.754	−13.36	11.56	45.14	LINER		KUG	F09248+5524
0925+585	0.053	1	0.113	1	0.399	3	0.756	2	···	···	−0.278	−13.65	10.84	44.42	LINER:	S		F09254+5833
0926+606A	0.076	1	0.088	1	0.269	3	0.530	1	···	···	···	−13.81:	9.56:	43.14:	BCDG	S:		F09263+6039
0926+560	0.083	2	0.166	3	1.492	3	3.175	2	−0.302	−0.954	−0.328	−13.05	10.82	44.40	SBN	SBb	Mkn 114	F09266+5604
0927+494	0.066	1	0.103	2	0.635	3	0.969	2	···	−0.789	−0.184	−13.48	10.41	43.99	SBN	Pec	Mkn 115	F09274+4928
0927+493	0.140	2	0.449	3	1.662	3	2.295	2	−0.506	−0.568	−0.140	−13.08	11.11	44.69	LINER			F09277+4917
0928+577A	0.099	2	0.124	2	0.952	3	2.497	2	−0.098	−0.885	−0.419	−13.21	10.81	44.39	E+A	S	NGC2895	F09287+5742
0929+537	0.087	1	0.118	1	0.222	3	0.661	2	···	···	−0.474	−13.81	10.79	44.37	SBN		KUG	F09292+5347
0930+502	0.094	1	0.114	2	0.417	3	0.563	2	···	−0.562	−0.130	−13.69	10.55	44.13	Abs		Mkn 117	F09306+5015

TABLE 20 (CONTINUED)

SBS	Fluxes								log(*FIR*)			logF	log	logL	Sp	Morph.	Other	*IRAS*
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	*FIR*	L/L_o	*FIR*	class		name	name
0931+525	0.134	1	0.096	1	0.605	3	1.259	2	···	···	−0.318	−13.45	10.94	44.52	SBN			F09314+5235
0937+568	0.110	1	0.084	2	0.425	3	1.061	2	···	−0.704	−0.397	−13.57	10.77	44.35	SBN	S	KUG	F09372+5653
0938+545	0.074	1	0.076	1	0.283	3	0.868	2	···	···	−0.487	−13.70	10.77	44.35	E+A			F09384+5430
0938+611	0.087	1	0.097	1	0.230	3	0.660	1	···	···	···	−13.80:	10.11:	43.69:	SB		Mkn1421	F09389+6106
0940+505	0.185	1	0.126	1	0.691	3	1.723	2	···	···	−0.396	−13.35	10.43	44.01	ELG		KUG	F09402+5030
0943+545	0.074	1	0.064	1	0.202	3	0.681	1	···	···	···	−13.82:	10.53:	44.11:	E+A	S	KUG	F09436+5433
0943+521A	0.106	1	0.137	2	0.414	3	1.146	2	···	−0.480	−0.442	−13.55	11.18	44.76	SBN		KUG	F09437+5210
0944+542	0.145	1	0.141	2	0.982	3	2.420	2	···	−0.844	−0.392	−13.21	10.65	44.23	SBN	S	Mkn1425	F09445+5414
0944+579	0.085	1	0.068	1	0.334	3	0.875	1	···	···	···	−13.66:	10.36:	43.94:	SBN			F09446+5758
0944+582	0.098	1	0.109	2	0.483	3	1.297	2	···	−0.648	−0.429	−13.49	10.47	44.04	E+A	SBbc	Mkn 21	F09449+5812
0945+594	0.116	1	0.150	2	0.881	3	1.382	2	···	−0.769	−0.196	−13.34	9.51	43.09	SBN	S:		F09451+5929
0945+507	0.119	2	0.266	3	0.683	3	0.780	2	−0.351	−0.409	−0.058	−13.49	11.06	44.64	NLS1	SBb	Mkn 124	F09453+5043
0946+495	0.056	1	0.201	3	0.563	3	0.704	2	···	−0.447	−0.097	−13.57	10.84	44.42	SBN			F09465+4930
0949+524	0.105	1	0.118	1	0.553	3	1.557	2	···	···	−0.450	−13.42	10.82	44.40	E+A	S	Mkn 126	F09492+5227
0950+541	0.070	1	0.109	1	0.212	3	0.445	1	···	···	···	−13.90:	10.49:	44.07:	Sy2			F09500+5409
0950+539	0.076	1	0.119	1	0.503	3	1.164	2	···	···	−0.364	−13.51	10.83	44.41	HII		KUG	F09509+5353
0951+514	0.079	1	0.123	1	0.430	3	0.797	2	···	···	−0.268	−13.62	10.58	44.16	SBN		Mkn 127	F09510+5128
0953+602	0.089	1	0.080	1	0.566	3	0.693	2	···	···	−0.088	−13.57	10.52	44.10	SBN	SO:	Mkn 23	F09534+6012
0955+512	0.082	1	0.117	1	0.209	3	0.577	1	···	···	···	−13.85	10.03	43.61	E+A	SBbc	UGC05356	F09558+5113
0956+524A	0.103	1	0.154	1	0.608	3	1.743	2	···	···	−0.548	−13.32	10.97	44.55	E+A	S:	IZw 23	F09560+5229
0957+540	0.071	1	0.088	1	0.361	3	0.574	2	···	···	−0.201	−13.72	11.16	44.74	LINER			F09574+5401
0957+600	0.122	1	0.063	1	0.330	3	1.049	2	···	···	−0.502	−13.62	···	···	···			F09575+6003
0959+521	0.040	1	0.082	1	0.211	3	0.735	1	···	···	···	−13.79:	10.63:	44.21:	E+A			F09592+5208
0959+579	0.091	1	0.091	1	0.373	3	0.706	2	···	···	−0.277	−13.68	···	···	···		KUG	F09596+5758
1000+596	0.094	1	0.251	3	1.248	3	1.592	2	···	−0.696	−0.106	−13.22	9.86	43.44	HII	E	Mkn 25	F10003+5940
1001+536	0.095	1	0.123	2	0.433	3	0.831	2	···	−0.546	−0.283	−13.61	10.48	44.06	···	SBb		10011+5340
1001+584	0.092	1	0.095	1	0.216	3	0.534	1	···	···	···	−13.86	···	···	···			F10016+5824
1002+524	0.114	1	0.118	1	0.519	3	1.404	2	···	···	−0.432	−13.46	10.84	44.42	···			F10028+5224
1003+573	0.110	1	0.135	1	0.515	3	0.777	2	···	···	−0.179	−13.58	···	···	···	E		F10038+5722
1005+589A	0.072	1	0.082	2	0.485	3	1.095	2	···	−0.772	−0.354	−13.53	10.51	44.09	HII			F10052+5858
1006+603	0.071	1	0.086	1	0.265	3	1.387	1	···	···	···	−13.58:	11.38:	44.96:	ELG			F10066+6022
1008+591	0.084	1	0.057	1	0.293	3	0.887	2	···	···	−0.481	−13.68	10.36	43.94	ELG	Sc	Mkn 26	F10084+5907
1010+503	0.062	1	0.099	1	0.522	3	1.038	2	···	···	−0.299	−13.52	11.00	44.58	LINER	S		F10109+5022
1015+599	0.050	1	0.140	1	1.608	3	2.289	2	···	···	−0.153	−13.09	11.27	44.85	SBN			F10151+5955
1016+493	0.100	1	0.134	1	0.239	3	0.977	1	···	···	···	−13.70:	10.84:	44.42:	LINER	S:		F10162+4922
1016+576B	0.097	1	0.096	1	0.535	3	1.250	2	···	···	−0.369	−13.48	10.41	43.99	SBN	SBab	Mkn 31	F10163+5740
1020+526	0.195	3	0.419	3	4.372	3	7.640	2	−0.332	−1.018	−0.242	−12.62	11.46	45.04	LINER	Sdm:		F10203+5235
1020+610	0.074	1	0.127	2	0.661	3	1.122	2	···	−0.717	−0.230	−13.45	10.30	43.88	SBN	S	Mkn1431	F10203+6100
1020+594	0.129	1	0.073	1	0.262	3	0.726	2	···	···	−0.443	−13.75	10.07	43.65	E+A			F10204+5925
1022+573	0.071	1	0.144	1	0.454	3	0.937	2	···	···	−0.315	−13.58	10.34	43.92	LINER			F10223+5723
1024+522	0.050	1	0.106	1	0.317	3	0.732	2	···	···	−0.363	−13.71	10.68	44.26	E+A			F10239+5213
1025+493	0.020	1	0.121	1	0.245	3	0.534	2	···	···	−0.338	−13.83	10.51	44.09	Sy2	S:		F10256+4919
1027+528	0.108	1	0.099	2	0.894	3	1.815	2	···	−0.956	−0.308	−13.29	11.12	44.70	···	S:		F10271+5249
1028+585	0.086	1	0.154	1	0.554	3	1.192	2	···	···	−0.333	−13.48	11.53	45.11	LINER			F10285+5834
1029+546	0.206	3	0.946	3	4.677	3	5.317	2	−0.662	−0.694	−0.056	−12.66	9.73	43.31	HII	Im	Mkn 33	F10293+5439
1030+573	0.069	1	0.071	1	0.296	3	0.525	2	···	···	−0.249	−13.79	8.94	42.52	SBN	S	KUG	F10302+5718
1030+526	0.104	2	0.090	2	0.877	3	1.786	2	−0.062	−0.988	−0.309	−13.29	11.40	44.98	SBN	SBc	Mkn1433	F10306+5237
1030+602	0.068	2	0.464	3	0.809	3	0.796	2	−0.832	−0.242	0.007	−13.44	11.06	44.64	Sy2	S	Mkn 34	F10308+6017
1033+604	0.054	1	0.172	1	0.186	3	0.788	1	···	···	···	−13.80	···	···	···			F10330+6025
1033+574	0.064	1	0.113	1	0.369	3	0.497	2	···	···	−0.267	−13.82	10.60	44.18	SBN			F10333+5728
1037+498	0.051	1	0.098	1	0.194	3	0.833	1	···	···	···	−13.77:	10.56:	44.14:	Sy2	S:		F10369+4949
1038+580	0.190	1	0.296	3	0.688	3	0.886	2	···	−0.366	−0.110	−13.43	11.31	44.89	Sy1.9:			F10381+5800
1040+560	0.093	1	0.064	1	0.325	3	0.938	2	···	···	−0.460	−13.65	10.25	43.83	SBN			F10408+5601

TABLE 20 (CONTINUED)

SBS			Fluxes						log(FIR)			logF	log	logL	Sp	Morph.	Other	$IRAS$
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	FIR	L/L_o	FIR	class		name	name
1041+517	0.052	1	0.050	1	0.174	3	0.838	1	···	···	···	−13.79:	10.02:	43.60:	E+A	S		F10418+5145
1042+562	0.211	3	0.942	3	4.949	3	6.746	2	−0.649	−0.721	−0.135	−12.61	9.50	43.08	HII	Irr	Mkn 35	F10422+5613
1045+503	0.122	1	0.189	2	0.762	3	1.006	2	···	−0.606	−0.121	−13.43	10.36	43.94	LINER	SBab	Mkn 152	F10458+5018
1046+526	0.077	1	0.094	1	0.280	3	0.480	1	···	···	···	−13.82:	9.04:	42.62:	SBN	Scp	Mkn 153	F10460+5235
1047+593	0.088	1	0.067	1	0.180	3	0.534	2	···	···	−0.471	−13.90	10.20	43.78	SBN		Mkn1441	F10475+5921
1047+504	0.091	1	0.092	2	0.602	3	1.152	2	···	−0.817	−0.282	−13.47	10.87	44.45	SBN		Mkn 154	F10478+5026
1048+511	0.105	1	0.074	1	0.254	3	0.740	1	···	···	···	−13.75	10.09	43.67	E+A			F10483+5111
1048+556	0.083	1	0.184	2	0.815	3	1.334	2	···	−0.646	−0.214	−13.36	9.66	43.24	···	SAb	NGC3398	F10484+5539
1048+599	0.088	1	0.072	1	0.215	3	0.545	2	···	···	−0.403	−13.86	10.94	44.52	SBN		Mkn1442	F10485+5956
1050+505A	0.104	1	0.072	1	0.356	3	0.702	2	···	···	−0.295	−13.69	8.76	42.34	BCDG	Pec.	Mkn 156	F10502+5032
1051+508	0.122	1	0.105	1	0.283	3	0.681	1	···	···	···	−13.75:	10.10:	43.68:	SBN			F10515+5050
1051+562	0.080	1	0.057	1	0.219	3	0.818	1	···	···	···	−13.76:	10.64:	44.22:	E+A	S		F10516+5613
1052+499	0.055	1	0.081	1	0.571	3	1.121	2	···	···	−0.293	−13.49	8.96	42.54	Abs	Pec.	Mkn 157	F10521+4959
1052+581	0.065	1	0.080	1	0.234	3	0.863	1	···	···	···	−13.73:	10.06:	43.64:	SBN	S		F10523+5810
1057+511A	0.301	1	0.815	1	3.477	3	4.844	2	···	···	−0.144	−12.76	10.29	43.87	LINER	S		F10570+5110
1102+599A	0.087	1	0.101	2	0.700	3	1.832	2	···	−0.488	−0.399	−13.31	10.82	44.40	LINER	S		F11020+5956
1103+506	0.096	1	0.140	2	0.375	3	0.515	1	···	−0.428	−0.138	−13.73:	10.54:	44.12:	Sy2			F11034+5039
1106+585	0.065	1	0.046	1	0.185	3	0.511	1	···	···	···	−13.91:	10.50:	44.08:	SBN			F11062+5834
1109+581	0.074	1	0.077	1	0.224	3	0.726	1	···	···	···	−13.78:	10.70:	44.28:	SBN			F11099+5806
1110+567	0.100	1	0.185	3	1.707	3	2.570	2	···	−0.965	−0.178	−13.06	11.08	44.66	LINER:			F11104+5645
1110+556	0.194	3	0.103	2	0.720	3	1.429	2	0.275	−0.845	−0.298	−13.38	10.82	44.40	LINER:	S		F11107+5541
1111+505	0.105	1	0.096	1	0.873	3	2.560	2	···	···	−0.467	−13.22	11.20	44.78	SB			F11120+5036
1112+547	0.083	1	0.071	1	0.312	3	0.894	2	···	···	−0.457	−13.67	11.06	44.64	SBN	S		F11122+5444
1112+588	0.074	1	0.043	1	0.216	3	0.693	1	···	···	···	−13.80:	10.67:	44.25:	E+A	S		F11123+5848
1113+598a	0.068	1	0.184	3	0.924	3	1.840	2	···	−0.701	−0.299	−13.27	11.64	45.22	LINER		VIIZw384	F11139+5948
1113+598b	0.068	1	0.184	3	0.924	3	1.840	2	···	−0.701	−0.299	−13.27	11.64	45.22	LINER		VIIZw384	F11139+5948
1114+510	0.070	1	0.090	1	0.235	3	0.614	1	···	···	···	−13.81:	10.61:	44.19:	E+A	S		F11146+5101
1115+540B	0.124	1	0.113	1	0.555	3	1.142	2	···	···	−0.313	−13.49	10.70	44.28	SBN	SBb	Mkn 39	F11154+5401
1115+608	0.125	1	0.078	1	0.239	3	0.738	1	···	···	···	−13.77:	10.67:	44.25:	SBN	S		F11154+6048
1115+554	0.115	1	0.071	1	0.294	3	0.721	2	···	···	−0.390	−13.73	10.35	43.93	E+A			F11158+5526
1115+588	0.079	1	0.110	1	0.268	3	0.962	3	···	···	−0.555	−13.68	10.32	43.90	E+A	S:		F11159+5853
1116+609	0.039	1	0.066	1	0.222	3	0.628	2	···	···	−0.452	−13.82	10.36	43.94	ELG			F11164+6055
1116+538	0.098	2	0.154	2	1.270	3	2.221	2	−0.196	−0.916	−0.243	−13.16	12.00	45.58	SBN			F11167+5351
1118+500	0.082	1	0.093	1	0.206	3	0.559	2	···	···	−0.434	−13.86	10.57	44.15	E+A	S		F11184+5005
1122+528	0.077	1	0.091	1	0.361	3	0.950	2	···	···	−0.420	−13.63	10.26	43.84	SBN			F11228+5249
1123+550	0.123	1	0.213	3	1.829	3	3.310	2	···	−0.934	−0.258	−13.00	11.43	45.01	SBN	S		F11236+5503
1123+594B	0.179	3	0.578	3	3.171	3	4.794	2	−0.508	−0.739	−0.180	−12.79	9.49	43.07	SBN		Mkn 169	F11239+5925
1124+599	0.116	1	0.084	2	0.778	3	1.843	2	···	−0.967	−0.375	−13.28	10.25	43.83	E+A	S:		F11244+5954
1125+562	0.093	1	0.101	1	0.265	3	0.677	1	···	···	···	−13.77:	9.84:	43.42:	SBN			F11252+5613
1125+588	3.805	3	3.190	3	103.70	3	107.40	2	−0.765	−0.650	−0.015	−11.33	9.72	43.30	HII		Mkn 171	11257+5850
1125+581	0.071	1	0.175	1	0.485	3	0.870	2	···	···	−0.254	−13.57	10.90	44.48	Sy1	SBc		F11258+5806
1126+540	0.134	1	0.072	1	0.531	3	1.076	2	···	···	−0.307	−13.51	10.44	44.02	SBN			F11264+5400
1127+498	0.096	1	0.109	1	0.299	3	0.623	2	···	···	−0.319	−13.76	11.30	44.88	Sy1.5	S	Mkn1447	F11277+4951
1128+546	0.170	3	0.093	1	0.749	3	1.731	2	···	···	−0.364	−13.34	10.27	43.85	SBN	S:		F11280+5440
1129+541	0.061	1	0.062	1	0.377	3	1.095	2	···	···	−0.463	−13.58	9.43	43.01	SBN	S:	KUG	F11295+5410
1129+532	0.170	3	0.242	3	0.694	3	1.508	2	−0.153	−0.457	−0.337	−13.38	10.51	44.09	Sy2	SA	Mkn 176	F11299+5313
1132+579	0.112	3	0.160	3	1.319	3	3.999	2	−0.155	−0.916	−0.482	−13.03	10.98	44.56	SBN	S:		F11326+5755
1132+558	0.102	1	0.091	1	0.389	3	1.210	2	···	···	−0.493	−13.56	10.11	43.69	SBN		KUG	F11329+5548
1133+572	0.133	2	0.501	3	1.672	3	2.147	2	−0.576	−0.523	−0.109	−13.09	11.39	44.97	Sy2	S		F11330+5713
1133+584	0.103	1	0.073	1	0.288	3	0.761	2	···	···	−0.422	−13.72	8.69	42.27	ELG	Scd:		F11337+5827
1133+551	0.072	1	0.135	2	0.578	3	1.237	2	···	−0.630	−0.331	−13.46	10.18	43.76	SBN	Sa:	Mkn 41	F11339+5507
1135+581	0.058	1	0.101	1	0.279	3	0.575	1	···	···	···	−13.79:	8.35:	41.93:	BCDG		Mkn1450	F11358+5809

TABLE 20 (CONTINUED)

SBS design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	log(*FIR*) 12/25	25/60	60/100	logF *FIR*	log L/L_o	logL *FIR*	Sp class	Morph.	Other name	*IRAS* name
1139+572	0.068	1	0.115	1	0.300	3	0.941	2	···	···	−0.496	−13.66	11.12	44.70	E+A			F11392+5718:
1140+529	0.082	1	0.084	2	0.538	3	1.382	1	···	−0.806	···	−13.46:	10.15:	43.73:	SBN	SBb	NGC3829	F11407+5259
1141+553	0.050	1	0.071	1	0.321	3	1.653	1	···	···	···	−13.51:	10.25:	43.83:	E+A	Sbc	Mkn1452	F11411+5519
1142+558	0.066	1	0.085	2	0.406	3	0.724	2	···	−0.681	−0.252	−13.65	10.87	44.45	LINER:		Mkn 1455	F11427+5548
1143+504	0.092	1	0.146	2	1.094	3	2.517	2	···	−0.875	−0.362	−13.17	8.48	42.06	HII	SO:	Mkn 186	F11433+5028
1144+605	0.083	1	0.084	2	0.417	3	1.831	1	···	−0.696	···	−13.44:	9.85:	43.43:	ELG	S:	NGC3835A	F11446+6034
1144+527B	0.117	1	0.194	3	0.873	3	1.343	2	···	−0.653	−0.187	−13.34	11.11	44.69	Sy2		Mkn1457	F11447+5243
1144+562	0.362	3	0.451	3	4.576	3	11.520	2	−0.096	−1.006	−0.401	−12.53	10.33	43.91	E+A	SABc	Mkn 188	F11449+5614
1144+579	0.093	2	0.199	3	1.561	3	3.316	2	−0.330	−0.895	−0.327	−13.03	11.01	44.59	···	Sb		F11449+5755
1145+547	0.069	1	0.073	1	0.273	3	0.724	2	···	···	−0.424	−13.75	10.34	43.92	E+A	S		F11450+5447:
1145+601	0.065	1	0.063	1	0.231	3	1.490	1	···	···	···	−13.55:	8.97:	42.55:	BCDG			F11450+6009
1145+558	0.081	1	0.151	1	0.398	3	0.799	2	···	···	−0.303	−13.64	8.83	42.41	E+A	S		F11456+5553
1146+593A	0.083	2	0.054	1	0.333	3	0.943	1	···	···	···	−13.64:	10.75:	44.33:	ELG	S		F11459+5920
1146+604	0.093	1	0.113	2	0.620	3	1.036	2	···	−0.739	−0.223	−13.48	9.79	43.37	E+A			F11461+6028
1147+564	0.076	1	0.082	1	0.334	3	0.717	1	···	···	···	−13.70:	10.77:	44.35:	SBN	E		F11471+5625
1148+553	0.117	1	0.108	2	0.828	3	2.030	1	···	−0.883	···	−13.28:	10.39:	43.97:	LINER	SAOp	Mkn 430	F11484+5521
1149+505	0.057	1	0.093	1	0.364	3	0.983	2	···	···	−0.431	−13.62	10.16	43.74	E+A			F11494+5033
1149+522	0.104	1	0.119	1	0.366	3	0.889	2	···	···	−0.385	−13.66	10.12	43.70	SBN		KUG	F11495+5216
1150+545	0.154	1	0.110	2	0.789	3	1.672	2	···	−0.856	−0.326	−13.33	···	···	···			F11500+5429
1153+575	0.084	2	0.076	2	0.533	3	1.497	1	+0.043	−0.846	···	−13.44	10.31	43.89	SBN	S:		F11537+5734
1154+534	0.053	1	0.078	1	0.373	3	0.904	2	···	···	−0.384	−13.63	8.63	42.21	HII	S	KUG	F11541+5326
1155+530	0.064	1	0.119	1	0.574	3	1.187	2	···	···	−0.316	−14.47	···	···	···			F11553+5300
1156+510	0.078	1	0.116	1	0.198	3	0.676	1	···	···	···	−13.83:	···	···	···			F11564+5105
1158+548	0.102	1	0.112	1	0.441	3	0.741	1	···	···	···	−13.63:	11.29:	44.87:	E+A	S		F11582+5452
1201+513A	0.118	1	0.080	1	0.317	3	0.922	1	···	···	···	−13.66:	10.26:	43.85:	SB			F12009+5121
1204+568	0.095	1	0.109	2	0.614	3	1.302	2	···	−0.751	−0.326	−13.44	10.60	44.18	ELG			F12042+5649
1204+591A	0.075	1	0.102	2	0.758	3	1.388	2	···	−0.871	−0.263	−13.38	10.68	44.26	LINER:			F12045+5906:
1204+579	0.086	1	0.105	2	0.711	3	1.265	2	···	−0.831	−0.250	−13.41	10.66	44.24	LINER:	S		F12048+5754
1211+548	0.834	3	4.312	3	21.380	3	25.880	2	−0.713	−0.695	−0.083	−11.99	10.87	44.45	HII	IBm	Mkn 201	F12116+5448
1211+532B	0.120	1	0.103	1	0.249	3	0.999	1	···	···	···	−13.68:	···	···	···			F12118+5313
1212+581	0.074	1	0.088	1	0.358	3	0.997	2	···	···	−0.445	−13.62	10.87	44.45	SBN	S:		F12127+5808
1213+597	0.076	1	0.064	1	0.349	3	0.692	2	···	···	−0.298	−13.70	9.71	43.29	SBN		Mkn1468	F12135+5947
1214+564	0.118	1	0.105	2	0.524	3	0.999	2	···	−0.698	−0.280	−13.53	10.98	44.56	SBN			F12146+5625
1216+516	0.071	1	0.090	1	0.348	3	1.144	2	···	···	−0.517	−13.59	10.86	44.44	Sy2	S		F12161+5141
1218+525	0.088	1	0.079	1	0.246	3	0.710	2	···	···	−0.460	−13.77	10.22	43.80	E+A			F12181+5232
1218+521	0.084	1	0.085	1	0.261	3	0.691	2	···	···	−0.423	−13.76	10.09	44.27	SBN	S		F12186+5210
1219+534B	0.084	1	0.071	1	0.260	3	0.860	1	···	···	···	−13.72:	10.45:	44.03:	HII		Mkn1472	F12191+5327
1222+527	0.077	1	0.108	1	0.515	3	1.308	2	···	···	−0.405	−13.48	10.86	44.44	E+A			F12226+5243
1222+614	0.067	1	0.081	1	0.291	3	0.539	1	−0.082	−0.555	−0.268	−13.79:	9.19:	42.77:	BCDG			F12227+6126
1222+547	0.099	2	0.214	3	1.957	3	4.434	2	−0.335	−0.961	−0.355	−12.92	9.94	43.52	SBN	Sa	Mkn 207	F12227+5446
1223+503A	0.137	1	0.109	2	0.906	3	2.058	2	···	−0.920	−0.356	−13.26	10.58	44.16	HII			F12231+5018
1223+503B	0.058	1	0.054	1	0.324	3	0.805	1	···	···	···	−13.68:	10.13:	43.71:	E+A	S		F12233+5022
1224+561A	0.070	1	0.085	1	0.396	3	1.026	2	···	···	−0.413	−13.59	10.89	44.47	Sy2	S		F12240+5606
1224+563	0.097	1	0.074	2	0.454	3	1.256	2	···	−0.788	−0.442	−13.51	9.92	43.50	SBN			F12243+5620
1225+568	0.048	1	0.102	1	0.234	3	0.814	2	···	···	−0.541	−13.75	···	···	···			F12251+5650
1225+537	0.092	1	0.137	1	0.533	3	1.087	2	···	···	−0.310	−13.51	10.54	44.12	SBN			F12252+5346
1225+540	0.075	1	0.074	1	0.289	3	0.810	2	···	···	−0.448	−13.71	10.49	44.07	LINER:	S		F12254+5400
1227+568B	0.057	1	0.067	1	0.253	3	0.663	1	···	···	···	−13.78	10.75	44.33	SBN			F12273+5651
1228+513	0.093	1	0.168	3	1.267	3	1.978	2	···		−0.193	−13.18	11.19	44.77	SBN			F12282+5124
1228+582	0.071	1	0.072	2	0.411	3	1.075	1	···	−0.757	−0.418	−13.57:	10.92:	44.50:	SBN			F12282+5814
1229+582A	0.279	3	0.613	3	3.936	3	6.006	2	−0.343	−0.807	−0.184	−12.69	10.36	43.94	SBN	SBa	Mkn 213	F12290+5814
1229+567	0.064	1	0.092	1	0.310	3	0.976	2	···	···	−0.498	−13.65	9.80	43.38	SBN	S	NGC4511	F12298+5644

TABLE 20 (CONTINUED)

SBS			Fluxes						log(*FIR*)			logF	log	logL	Sp	Morph.	Other	*IRAS*
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	*FIR*	L/L_o	*FIR*	class		name	name
1231+509	0.084	1	0.128	1	0.929	3	3.116	1	···	···	···	−13.16:	10.89:	44.47:	SBN			F12311+5054
1239+601	0.103	1	0.105	1	0.185	3	0.738	1	···	···	···	−13.82:	10.50:	44.08:	E+A			F12398+6007
1241+551A	0.149	2	0.200	3	1.847	3	2.664	2	−0.128	−0.965	−0.159	−13.04	10.46	44.04	SBN	Pec	Mkn 220	F12415+5510
1241+551B	0.149	2	0.200	3	1.847	3	2.664	2	−0.128	−0.965	−0.159	−13.03	10.46	44.04	HII	S:	Mkn 221	F12415+5510
1242+564	0.088	2	0.091	2	0.546	3	1.778	2	−0.015	−0.778	−0.513	−13.40	10.60	44.18	E+A	SBbc		F12422+5625
1242+549	0.117	1	0.094	1	0.323	3	1.593	1	···	···	···	−13.52:	9.97:	43.55:	SBN	S:		F12423+5500
1242+607	0.094	1	0.069	2	0.350	3	0.687	2	···	−0.705	−0.293	−13.70	11.77	45.35	SBN			F12425+6042
1245+542	0.052	1	0.122	1	0.391	3	1.122	2	···	···	−0.458	−13.57	9.61	43.19	···			F12458+5417
1249+608	0.090	1	0.139	1	0.224	3	0.777	2	···	···	−0.540	−13.77	10.53	44.11	E+A		Mkn 1476	F12498+6048
1250+603	0.144	1	0.134	2	1.759	3	2.933	2	···	−1.118	−0.222	−13.03	11.32	44.90	SBN	S		F12503+6020
1252+591	0.050	1	0.058	1	0.207	3	0.850	1	···	···	···	−13.76:	9.15:	42.73:	SBN			F12522+5909
1254+571	0.872	3	8.662	3	31.990	3	30.290	2	−0.665	−0.567	0.024	−11.85	12.44	46.02	BLS1	SApec	Mkn 231	12540+5708
1255+593	0.090	1	0.079	1	0.237	3	0.442	1	···	···	···	−13.88:	9.88:	43.46:	SBN		Mkn 232	F12551+5920
1255+547	0.075	1	0.135	1	0.447	3	0.854	2	···	···	−0.281	−13.60	10.39	43.97	SBN			F12559+5444
1256+594	0.099	1	0.058	1	0.233	3	0.597	1	···	···	···	−13.82:	10.15:	43.73:	LINER	S:	Mkn 233	F12563+5923
1259+505	0.136	1	0.097	1	0.240	3	0.753	1	···	···	···	−13.76:	···	···	···			F12599+5033
1301+609	0.050	1	0.082	1	0.314	3	0.682	2	···	···	−0.337	−13.73	···	···	···			F13019+6056
1303+538C	0.135	1	0.093	1	0.465	3	1.207	2	···	···	−0.414	−13.52	10.31	43.89	SBN	S		F13039+5352
1304+594	0.102	1	0.105	2	0.535	3	1.189	2	···	−0.707	−0.347	−13.49	10.57	44.15	ELG	S		F13040+5929
1304+568	0.125	1	0.080	2	0.312	3	0.950	1	···	−0.591	···	−13.66:	11.23:	44.81:	Sy1.9	S		F13049+5647
1305+535	0.091	2	0.118	1	0.609	3	1.981	1	−0.113	···	···	−13.35:	10.67:	44.25:	E+A	S		F13055+5332
1306+550	0.151	1	0.088	1	0.401	3	1.692	1	···	···	···	−13.46:	10.04:	43.62:	SBN	S:		F13064+5506
1306+511	0.072	1	0.153	1	0.339	3	0.833	2	···	···	−0.390	−13.67	10.44	44.02	SBN	S:		F13068+5107
1307+542	0.083	1	0.068	1	0.343	3	0.752	2	···	···	−0.341	−13.69	9.19	42.77	SBN	S:	IZw 52	F13070+5412
1309+534A	0.108	1	0.089	1	0.222	3	0.949	2	···	···	−0.631	−13.72	10.32	43.90	SBN	S		F13092+5328
1311+516	0.107	1	0.193	3	1.099	3	2.015	2	···	−0.755	−0.263	−13.23	10.84	44.42	LINER			F13115+5139
1312+522	0.079	1	0.066	1	0.197	3	0.901	1	···	···	···	−13.75:	···	···	···			F13120+5215
1312+550	0.094	1	0.258	3	1.457	3	2.374	2	···	−0.752	−0.212	−13.11	10.97	44.55	SBN		Mkn 247	F13125+5504
1318+520	0.138	1	0.105	1	0.318	3	0.788	1	···	···	···	−13.69:	9.83:	43.41:	SBN			F13181+5201
1318+566	0.092	1	0.099	1	0.389	3	1.149	2	···	···	−0.470	−13.57	10.17	43.75	SBN	S:	Mkn 253	F13184+5641
1319+593	0.077	1	0.089	1	0.271	3	0.785	1	···	···	···	−13.73:	10.61:	44.19:	SBN		Mkn 65	F13192+5921
1320+550	0.066	1	0.091	1	0.480	3	1.093	2	···	···	−0.357	−13.53	9.66	43.24	SBN	S:		F13205+5504
1320+519	0.088	2	0.115	2	1.131	3	2.242	2	−0.116	−0.994	−0.297	−13.19	10.83	44.41	SBN	S	Mkn 254	F13207+5159
1320+532	0.107	1	0.073	1	0.228	3	0.618	1	···	···	···	−13.82:	10.22:	43.80:	SBN	S:	Mkn 255	F13210+5313
1323+598	0.085	2	0.175	3	0.911	3	2.065	2	−0.314	−0.716	−0.355	−13.26	10.67	44.25	ELG		Mkn1478	F13235+5952
1323+575	0.105	1	0.106	2	0.539	3	0.801	2	···	−0.706	−0.172	−13.56	10.15	43.73	HII		Mkn 66	F13239+5731
1324+520	0.107	1	0.066	1	0.487	3	1.184	2	···	···	−0.386	−13.51	···	···	···			F13245+5202
1324+599	0.108	1	0.190	3	1.105	3	2.130	2	···	−0.765	−0.285	−13.20	10.77	44.35	SBN	S		F13246+5958
1325+557	0.049	1	0.093	1	0.340	3	1.225	2	···	···	−0.557	−13.58	9.87	43.45	E+A	SBb	Mkn 257	F13252+5544
1325+597	0.088	2	0.135	2	0.883	3	1.734	2	−0.186	−0.816	−0.293	−13.30	10.13	43.71	SBN			F13254+5945
1326+537	0.104	1	0.069	1	0.314	3	0.807	1	···	···	···	−13.69:	10.19:	43.77:	SBN		Mkn 258	F13268+5342
1327+559A	0.062	1	0.079	1	0.216	3	0.538	2	···	···	−0.396	−13.86	10.47	44.05	Sy2	S:		F13275+5558
1329+594	0.073	1	0.061	1	0.203	3	0.485	2	···	···	−0.378	−13.90	10.43	44.01	Sy2			F13299+5926
1331+585	0.053	1	0.083	1	0.187	3	0.717	2	···	···	−0.584	−13.82	10.04	43.62	SBN			F13316+5834
1332+521	0.085	1	0.113	1	0.765	3	2.457	1	···	···	···	−13.25:	11.43:	45.01:	Abs	SBc	Mkn 264	F13321+5208
1338+570	0.072	1	0.051	1	0.203	3	0.582	2	···	···	−0.457	−13.86	10.91	44.49	Abs			F13384+5704
1339+611	0.058	1	0.083	1	0.209	3	0.426	1	−0.156	−0.401	−0.309	−13.92:	10.19:	43.77:	SBN			F13393+6108:
1339+564A	0.081	1	0.096	1	0.476	3	1.407	2	···	···	−0.471	−13.48	···	···	···			F13395+5625
1339+559	0.189	3	0.189	3	1.525	3	4.473	2	−0.001	−0.906	−0.467	−12.98	10.90	44.48	Sy2	SAb:	Mkn 271	F13397+5555
1341+490	0.083	1	0.099	1	0.461	3	1.041	2	···	···	−0.354	−13.55	11.07	44.65	SBN		HS	F13410+4904
1342+600A	0.108	1	0.065	1	0.156	3	0.677	1	···	···	···	−13.87	11.21	44.80	SBN			F13422+6003
1342+562A	0.069	1	0.094	2	0.255	3	0.606	1	···	−0.433	···	−13.80	11.00	44.58	LINER			F13426+5616

TABLE 20 (CONTINUED)

SBS			Fluxes							log(*FIR*)		logF	log	logL	Sp	Morph.	Other	*IRAS*
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	*FIR*	L/L_o	*FIR*	class		name	name
1342+562B	0.069	1	0.094	2	0.255	3	0.606	1	···	−0.433	···	−13.79	11.01	44.59	HII			F13426+5616
1342+561	0.235	3	2.282	3	21.740	3	21.380	2	−0.987	−0.979	0.007	−12.01	12.22	45.80	Sy2		Mkn 273	F13428+5608
1343+512	0.079	1	0.157	1	0.353	3	1.189	2	···	···	−0.527	−13.58	···	···	···			F13430+5116
1344+559	0.099	1	0.075	1	0.183	3	0.548	2	···	···	−0.476	−13.89	10.39	43.97	E+A	Sbc		F13442+5558
1346+550	0.086	1	0.087	1	0.226	3	0.951	2	···	···	−0.624	−13.81	10.06	43.64	E+A	S:		F13463+5503
1346+585	0.052	1	0.072	1	1.267	3	1.734	2	···	···	−0.136	−13.20	12.31	45.89	SBN			F13469+5833
1347+536	0.139	1	0.089	1	0.427	3	1.723	2	···	···	−0.606	−13.45	10.52	44.10	SBN			F13472+5337
1351+577	0.061	1	0.078	2	0.652	3	1.279	2	···	−0.922	−0.293	−13.43	10.45	44.03	SBN			F13519+5746
1354+586	0.068	1	0.193	3	1.123	3	2.562	2	···		−0.358	−13.16	11.13	44.71	···			F13543+5846
1355+506	0.096	1	0.072	1	0.262	3	0.530	2	···	···	−0.306	−13.82	8.82	42.40	···	Sa		F13553+5040
1356+593	0.051	1	0.062	1	0.207	3	0.580	2	···	···	−0.447	−13.85	10.65	44.23	SBN	S:		F13567+5923
1357+586B	0.078	1	0.077	1	0.149	3	0.629	1	···	···	···	−13.89:	···	···	···			F13574+5835
1357+562B	0.058	1	0.185	3	0.819	3	1.347	2	···	−0.646	−0.216	−13.36	10.78	44.36	SBN			F13577+5617
1357+592	0.049	1	0.081	1	0.241	3	0.614	2	···	···	−0.406	−13.81	10.99	44.57	SBN			F13578+5914
1359+595	0.561	3	1.628	3	10.410	3	19.470	2	−0.462	−0.806	−0.272	−12.23	10.86	44.44	SBN	SBb	Mkn 799	F13591+5934
1400+520	0.082	2	0.110	1	0.538	3	1.088	2	−0.128	···	−0.306	−13.51	10.77	44.35	SBN			F14003+5203
1404+571	0.084	1	0.080	1	0.247	3	0.497	2	···	···	−0.304	−13.85	10.44	44.02	SB			F14049+5710
1405+567	0.081	1	0.074	1	0.251	3	0.889	2	···	···	−0.549	−13.71	10.58	44.16	E+A	Sbc		F14054+5646
1406+490B	0.089	1	0.068	1	0.396	3	1.008	2	···	···	−0.406	−13.59	10.89	44.47	HII:		IZw 81	F14063+4906
1407+535	0.053	1	0.044	1	0.193	3	0.536	2	···	···	−0.444	−13.89	10.41	43.99	E+A		KUG	F14071+5330
1407+540	0.051	1	0.068	1	0.215	3	0.606	2	···	···	−0.450	−13.84	8.86	42.44	BCDG:		CG 362	F14071+5403
1408+558	0.100	1	0.075	1	0.160	3	0.809	1	···	···	−0.704	−13.81:	10.09:	43.67:	SBN		CG 366	F14080+5550
1409+552	0.070	1	0.071	1	0.330	3	1.038	2	···	···	−0.498	−13.62	10.67	44.25	···			F14098+5521
1410+541	0.061	1	0.043	1	0.186	3	0.637	1	···	···	···	−13.85:	8.79:	42.37:	BCDG	S	KUG	F14101+5410
1411+556A	0.074	1	0.056	1	0.197	3	0.473	2	···	···	−0.380	−13.91	10.40	43.98	···		CG 377	F14111+5539
1412+583	0.056	1	0.065	2	0.449	3	0.792	2	···	−0.839	−0.246	−13.61	10.66	44.24	SBN	S:		F14123+5822
1413+509	0.057	1	0.094	1	0.546	3	0.790	2	···	···	−0.160	−13.56	10.91	44.49	···			F14138+5056
1414+542	0.094	1	0.080	1	0.159	3	0.514	2	···	···	−0.510	−13.93	10.36	43.94	LINER	S		F14140+5416
1414+607	0.062	1	0.061	1	0.191	3	0.529	2	···	···	−0.442	−13.89	9.85	43.43	SBN			F14143+6042
1415+578	0.059	2	0.067	2	0.780	3	1.782	2	−0.055	−1.066	−0.359	−13.32	9.76	43.34	SB	Sbc	IC996	F14158+5751
1415+579	0.072	2	0.071	2	0.633	3	1.771	2	−0.006	−0.950	−0.447	−13.37	10.90	44.48	SBN	S:	N5561	F14158+5858
1417+564	0.068	1	0.110	1	0.160	3	0.520	2	···	···	−0.512	−13.93	10.73	44.31	LINER:	S	KUG	F14176+5627
1417+494	0.154	3	0.839	3	5.623	3	8.003	2	−0.735	−0.826	−0.153	−12.55	11.34	44.92	LINER:	Sa	Mkn1490	F14179+4927
1418+514	0.078	1	0.103	1	0.179	3	0.584	2	···	···	−0.514	−13.88	···	···	···		CG 408	F14187+5126
1421+601	0.069	1	0.064	1	0.202	3	0.748	2	···	···	−0.569	−13.80	10.19	43.77	E+A		Mkn 810	F14211+6009
1422+538	0.076	1	0.095	1	0.340	3	0.987	2	···	···	−0.463	−13.63	10.40	43.98	SBN			F14228+5351
1422+573	0.065	1	0.049	1	0.175	3	0.480	2	···	···	−0.439	−13.93	9.20	42.78	SBN		Mkn 812	F14229+5721
1423+600E	0.074	1	0.058	1	0.283	3	0.539	2	···	···	−0.280	−13.80	10.41	43.99	SBN			F14235+6000
1423+600W	0.074	1	0.058	1	0.283	3	0.539	2	···	···	−0.280	−13.80	10.41	43.99	E+A			F14235+6000
1425+541	0.061	1	0.077	1	0.368	3	0.654	2	···	···	−0.250	−13.70	10.54	44.12	SBN	S	CG 431	F14250+5411
1425+607A	0.050	1	0.042	1	0.150	3	0.298	2	···	···	−0.298	−14.06	···	···	···			F14251+6047
1426+509	0.058	1	0.104	1	0.223	3	0.604	2	···	···	−0.433	−13.83	···	···	···		CG 439	F14262+5057
1426+573	0.089	2	0.187	3	0.481	3	0.886	2	−0.322	−0.410	−0.265	−13.57	10.76	44.34	Sy2	S		F14267+5723
1427+528	0.063	1	0.099	1	0.333	3	0.838	2	···	···	−0.401	−13.67	10.36	43.94	SBN		CG 448	F14276+5253
1428+575	0.064	1	0.075	1	0.225	3	0.574	2	···	···	−0.407	−13.84	10.92	44.50	E+A		VIIZw552	F14281+5729
1428+529	0.078	1	0.119	2	0.746	3	1.458	2	···	−0.797	−0.291	−13.37	10.96	44.54	Sy1.9:			F14288+5255
1429+554A	0.067	1	0.070	1	0.335	3	0.759	2	···	···	−0.355	−13.69	9.83	43.41	SBN		CG 458	F14292+5527
1430+570	0.092	1	0.047	1	0.263	3	0.606	2	···	···	−0.363	−13.79	10.54	44.12	SBN		Mkn 473	F14308+5704
1430+589	0.059	1	0.046	1	0.134	3	0.438	2	···	···	−0.514	−14.01	10.24	43.82	SBN			F14309+5855
1431+522	0.081	1	0.093	1	0.245	3	0.933	2	···	···	−0.581	−13.71	···	···	···	S	KUG	F14314+5213
1432+567	0.085	1	0.072	1	0.429	3	1.075	2	···	···	−0.399	−13.56	10.48	44.06	LINER	S		F14323+5643
1432+514	0.087	1	0.090	1	0.221	3	0.796	2	···	···	−0.557	−13.76	10.37	43.95	SBN	S	CG 475	F14327+5128

TABLE 20 (CONTINUED)

SBS design.	Fluxes f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	log(*FIR*) 12/25	25/60	60/100	logF *FIR*	log L/L_o	logL *FIR*	Sp class	Morph.	Other name	*IRAS* name
1433+554N	0.045	1	0.057	1	0.227	3	0.521	2	···	···	−0.361	−13.86	10.95	44.53	LINER:	SBbc	CG 481	F14334+5526
1434+590	0.336	3	1.175	3	2.118	3	2.268	2	−0.544	−0.256	−0.030	−13.01	11.07	44.65	Sy1.5	SBc	Mkn 817	F14349+5900
1437+544	0.071	1	0.078	2	0.717	3	1.581	2	···	−0.963	−0.343	−13.36	10.64	44.22	SBN	E	CG 494	F14370+5429
1437+515	0.171	3	0.077	1	0.189	3	0.595	1	···	···	···	−13.87	8.90	42.48	···			F14370+5132
1438+527	0.074	1	0.074	1	0.242	3	0.703	1	···	···	···	−13.78:	10.62:	44.20:	···	S	KUG	F14380+5247
1438+557	0.046	1	0.064	1	0.288	3	0.698	2	···	···	−0.384	−13.74	11.12	44.70	SBN		KUG	F14384+5543
1439+537	0.126	3	0.509	3	1.313	3	1.852	2	−0.606	−0.411	−0.149	−13.18	11.05	44.63	Sy2		Mkn 477	F14390+5343
1439+535	0.072	1	0.346	3	1.954	3	2.395	2	···	−0.752	−0.088	−13.14	12.00	45.58	LINER			F14394+5332
1439+499	0.046	1	0.044	1	0.184	3	0.563	1	···	···	···	−13.88:	10.35:	43.93:	LINER	S	KUG	F14395+4955
1441+548	0.062	1	0.056	1	0.161	3	0.522	2	···	···	−0.511	−13.93	10.71	44.29	SBN		CG 519	F14415+5450
1441+496	0.076	1	0.055	1	0.286	3	1.010	2	···	···	−0.548	−13.66	10.33	43.91	LINER	S:	CG 520	F14418+4936
1442+590	0.072	1	0.102	3	0.659	3	1.661	2	···	−0.810	−0.401	−13.52	10.73	44.31	SBN	S		F14420+5906
1442+506	0.052	1	0.066	1	0.322	3	0.728	2	···	···	−0.354	−13.71	11.10	44.68	SBN		CG 524	F14424+5040
1443+548	0.048	1	0.063	1	0.153	3	0.428	2	···	···	−0.447	−13.98	10.39	43.97	SBN		CG 526	F14430+5450
1443+499	0.064	1	0.069	1	0.208	3	0.771	2	···	···	−0.569	−13.78	9.24	42.82	SBN		CG 528	F14432+4955
1443+584	0.048	1	0.045	1	0.176	3	0.479	2	···	···	−0.435	−13.93	···	···	···			F14432+5824
1444+517	0.084	1	0.417	1	3.082	3	4.000	2	···	···	−0.113	−12.82	11.22	44.80	LINER	S:	CG 533	F14441+5147
1444+492	0.082	1	0.086	2	0.339	3	0.619	1	···	−0.596	···	−13.73:	10.48:	44.06:	SBN		CG 916	F14449+4912
1445+491	0.090	1	0.065	1	0.198	3	0.897	1	···	···	···	−13.75:	9.02	42.60	BCDG		CG 544	F14456+4906
1447+552A	0.071	1	0.060	1	0.144	3	0.386	2	···	···	−0.428	−14.02	10.23	43.81	SBN		CG 551	F14474+5517
1448+509A	0.078	1	0.068	1	0.226	3	0.637	1	···	···	···	−13.81:	9.50:	43.08:	Abs		Mkn 825	F14480+5055
1448+606	0.046	1	0.064	1	0.178	3	0.502	2	···	···	−0.450	−13.92	8.89	42.47	BCDG	SBcd		F14485+6036
1448+593	0.078	1	0.052	1	0.228	3	0.399	2	···	···	−0.243	−13.91	10.85	44.43	SBN			F14487+5920
1449+519	0.094	3	0.112	2	1.001	3	2.057	2	−0.076	−0.951	−0.313	−13.23	10.65	44.23	SBN		KUG	F14490+5154
1450+527	0.077	1	0.073	1	0.214	3	0.749	1	···	···	···	−13.79:	10.91:	44.49:	SBN	S:	KUG	F14502+5247
1450+609	0.062	1	0.061	1	0.184	3	0.632	2	···	···	−0.536	−13.86	10.58	44.16	E+A	S:		F14507+6057
1451+493A	0.061	1	0.071	1	0.186	3	0.510	2	···	···	−0.438	−13.90	10.82	44.40	···	Scd	FGC1824	F14515+4924
1451+603	0.067	2	0.059	2	0.500	3	1.236	2	0.054	−0.928	−0.393	−13.50	10.74	44.32	SBN	S:	Mkn 1493	F14516+6020
1451+583B	0.048	1	0.070	1	0.169	3	0.506	1	···	···	···	−13.93:	11.28:	44.86:	LINER			F14518+5822
1451+493B	0.069	1	0.054	1	0.210	3	0.856	1	···	···	···	−13.75:	10.30:	43.88:	···	S	KUG	F14519+4920
1454+513	0.147	1	0.071	1	0.241	3	0.830	1	···	···	···	−13.74:	···	···	···		KUG	F14545+5121
1455+533	0.088	1	0.080	1	0.223	3	0.575	2	···	···	−0.411	−13.84	10.16	43.74	SBN	S	CG 589	F14556+5321
1459+559	0.041	1	0.040	1	0.204	3	0.497	2	···	···	−0.387	−13.89	10.32	43.90	SBN		CG 607	F14595+5557
1500+506B	0.085	1	0.069	1	0.357	3	1.333	2	···	···	−0.572	−13.55	10.36	43.94	HII		KUG	F15004+5037
1502+496	0.106	1	0.073	1	0.433	3	1.542	2	···	···	−0.552	−13.47	10.43	44.01	E+A	S	KUG	F15027+4935
1503+521	0.101	1	0.056	1	0.323	3	0.644	2	···	···	−0.300	−13.73	10.46	44.04	SBN	S	KUG	F15030+5207
1503+574	0.045	1	0.058	1	0.137	3	0.803	1	···	···	···	−13.84:	10.17:	43.75:	···	Scd		F15039+5730
1504+514	0.078	1	0.060	1	0.170	3	0.509	1	···	···	···	−13.92:	9.37:	42.95:	SB		CG 625	F15043+5126
1504+565	0.049	1	0.072	1	0.281	3	0.746	2	···	···	−0.424	−13.73	10.32	43.90	SBN	Irr:	Mkn 843	F15044+5634
1504+536	0.047	1	0.066	1	0.158	3	0.669	2	···	···	−0.627	−13.87	10.27	43.85	···	S	KUG	F15046+5336
1505+607	0.056	1	0.072	1	0.250	3	1.391	2	···	···	−0.745	···	···	···	···			F15053+6047
1505+563	0.043	1	0.043	1	0.161	3	0.422	1	···	···	···	−13.98:	10.65	44.23	SBN			F15057+5620
1506+516	0.056	1	0.051	1	0.184	3	0.831	2	···	···	−0.655	−13.78	10.63	44.21	BLS1	Sab	Mkn 845	F15061+5138
1506+553	0.045	1	0.064	1	0.256	3	0.864	2	···	···	−0.528	−13.72	9.44	43.02	HII	S	CG 638	F15064+5522
1506+566	0.037	1	0.078	1	0.229	3	0.703	1	···	···	···	−13.79:	10.21:	43.79:	SBN		KUG	F15068+5636
1507+524	0.065	1	0.068	1	0.508	3	1.105	2	···	···	−0.337	−13.52	9.36	42.94	···	S	CG 640	F15070+5229
1507+526A	0.054	1	0.062	1	0.273	3	0.543	2	···	···	−0.299	−13.80	9.40	42.98	SBN		Mkn 846	F15071+5238
1509+583	0.084	1	0.074	1	0.295	3	0.825	2	···	···	−0.447	−13.70	10.37	43.95	ELG			F15090+5821
1509+555	0.104	1	0.119	3	0.678	3	2.344	2	···	−0.756	−0.539	−13.29	9.89	43.47	···	S:		F15093+5532
1510+538	0.040	1	0.072	1	0.258	3	0.618	2	···	···	−0.379	−13.79	11.03	44.61	SBN	S	CG 658	F15105+5349
1510+507	0.052	1	0.062	1	0.469	3	0.840	2	···	···	−0.253	−13.59	10.62	44.20	SBN	S		F15107+5044
1511+515C	0.058	1	0.064	2	0.659	3	1.836	2	···	−1.013	−0.445	−13.35	10.84	44.42	SBN	S	CG 662	F15113+5134

TABLE 20 (CONTINUED)

SBS	Fluxes								log(*FIR*)			logF	log	logL	Sp	Morph.	Other	*IRAS*
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	*FIR*	L/L_o	*FIR*	class		name	name
1512+586	0.085	1	0.044	1	0.297	3	0.941	2	···	···	−0.501	−13.67	9.29	42.87	SBN	S:	Mkn 847	F15122+5841
1514+546	0.058	1	0.063	1	0.158	3	0.769	2	···	···	−0.687	−13.83	10.44	44.02	···	Sb	IC1111	F15146+5439
1514+536	0.074	1	0.059	1	0.149	3	0.454	2	···	···	−0.484	−13.98	10.55	44.13	E+A		CG 673	F15147+5341
1514+601	0.047	1	0.128	3	0.683	3	0.967	2	···	−0.727	−0.151	−13.46	10.93	44.51	SBN			F15149+6010
1515+605	0.057	1	0.050	1	0.133	3	0.461	1	···	···	···	−13.99:	10.84:	44.42:	LINER	S:		F15152+6034
1515+492	0.061	1	0.054	1	0.165	3	0.536	1	···	···	···	−13.92:	10.26:	43.84:	SBN		CG 674	F15152+4916
1517+582	0.080	1	0.049	1	0.156	3	0.432	1	···	···	···	−13.98:	10.04:	43.62:	LINER:			F15171+5817
1517+566	0.064	2	0.082	1	0.634	3	1.281	2	···	···	−0.305	−13.43	11.31	44.89	SBN		VIIZw593	F15174+5640
1517+522	0.079	2	0.279	3	0.780	3	1.341	2	−0.548	−0.446	−0.235	−13.37	12.03	45.61	Sy2			F15176+5216
1518+593	0.069	1	0.111	3	0.132	3	0.401	1	···	···	···	−14.03:	10.84:	44.42:	BLS1	Sa:	VIIZw594	F15182+5919
1519+496	0.040	1	0.056	1	0.150	3	0.525	2	···	···	−0.544	−13.94	9.45	43.03	BCDG		CG 690	F15193+4941
1519+508AB	0.056	1	0.072	2	0.445	3	1.058	2	···	−0.79	−0.376	−13.56	11.02	44.60	BLS1		CG 693	F15195+5050:*
1520+503	0.096	1	0.085	2	0.506	3	0.947	2	···	···	−0.198	−13.51	11.30	44.88	···		CG 698	F15205+5021
1523+504	0.072	1	0.085	1	0.459	3	1.204	2	···	···	−0.419	−13.52	10.70	44.28	E+A	S		F15233+5029
1524+545	0.042	1	0.060	1	0.191	3	0.550	1	···	···	···	−13.88:	10.40:	43.98:	Sy2		CG 714	F15245+5432
1525+511	0.075	1	0.075	1	0.165	3	0.728	1	···	···	···	−13.84:	10.61	44.19	SBN		CG 723	F15250+5111
1526+495	0.064	1	0.040	1	0.179	3	0.596	1	···	···	···	−13.88:	10.94:	44.52:	···		CG 726	F15262+4935
1526+518	0.075	1	0.057	1	0.234	3	0.994	2	···	···	−0.628	−13.70	10.79	44.37	E+A			F15265+5150
1526+557	0.099	1	0.082	2	0.779	3	1.428	2	···	···	−0.263	−13.36	9.85	43.43	SBN	Sa	Mkn 482	F15267+5543
1526+532	0.054	1	0.081	1	0.173	3	0.678	1	···	···	···	−13.85:	10.67:	44.25:	SBN		CG 731	F15269+5314
1527+532	0.080	1	0.088	1	0.249	3	0.715	1	···	···	···	−13.77:	11.08:	44.66:	SBN			F15276+5315:
1527+564	0.072	1	0.139	3	0.139	2	0.538	1	···	···	···	−13.95:	11.13:	44.71:	Sy1.5			F15279+5626
1528+491A	0.049	1	0.072	1	0.238	3	0.812	1	···	···	···	−13.75:	11.05:	44.63:	SBN		CG 739	F15285+4906
1529+548	0.049	1	0.090	1	0.409	3	0.715	2	···	···	−0.243	−13.65	10.61	44.19	HII		Mkn 484	F15296+5451
1530+519	0.072	2	0.074	1	0.535	3	1.167	2	···	···	−0.339	−13.49	10.19	43.77	SBN		Mkn 485	F15303+5156
1531+572A	0.074	1	0.063	1	0.145	3	0.389	1	···	···	···	−14.02:	10.27:	43.85:	HII			F15311+5715
1531+580	0.064	2	0.225	3	0.991	3	1.454	2	−0.545	−0.645	−0.166	−13.30	10.96	44.54	SBN		Mkn 289	F15313+5802
1531+544	0.060	1	0.067	2	0.187	3	0.576	2	···	···	−0.489	−13.87	10.13	43.71	SBN	S		F15318+5423
1533+574A	0.064	1	0.068	2	0.257	3	0.405	2	−0.026	−0.577	−0.198	−13.87	9.31	42.89	BCDG		VIIZw611	F15330+5726
1533+574B	0.064	1	0.068	2	0.257	3	0.405	2	−0.026	−0.577	−0.198	−13.87	9.39	42.97	BCDG		VIIZw611	F15330+5726
1533+585	0.062	1	0.062	1	0.282	3	0.536	2	···	···	−0.279	−13.80	11.22	44.80	SBN			F15331+5832
1534+497	0.073	1	0.106	1	0.452	3	1.031	2	···	···	−0.358	−13.56	10.68	44.26	SBN		Mkn 859	F15345+4944
1534+580	0.107	1	0.144	1	0.171	3	0.581	1	···	···	···	−13.82:	10.20:	43.78:	Sy1.5	E1	Mkn 290	F15347+5802
1534+537	0.084	1	0.058	1	0.207	3	0.601	2	···	···	−0.463	−13.84	10.56	44.14	E+A			F15348+5341
1535+568	0.054	1	0.041	1	0.177	3	0.510	1	···	···	···	−13.91:	10.90:	44.48:	E+A		VIIZw614	F15354+5651
1535+554	0.064	1	0.096	2	0.304	3	0.642	1	···	−0.500	···	−13.75:	8.20:	41.78:	BCDG		Mkn 487	F15358+5525
1536+588	0.045	1	0.097	1	0.202	3	0.672	1	···	···	···	−13.82:	10.96:	44.54:	HII			F15368+5851
1537+577	0.062	1	0.070	1	0.201	3	0.600	2	···	···	−0.475	−13.85	10.98	44.56	NLS1	Sc		F15369+5745
1537+532	0.054	1	0.106	1	0.450	3	0.675	2	···	···	−0.176	−13.64	10.87	44.45	LINER			F15371+5315
1538+531	0.056	1	0.095	1	0.242	3	0.604	1	···	···	···	−13.81:	11.14:	44.72:	LINER			F15381+5309
1538+565	0.064	1	0.041	1	0.166	3	0.407	1	···	···	···	−13.98:	10.39:	43.97:	SBN			F15387+5631
1538+574AB	0.074	1	0.082	1	0.436	3	0.803	2	···	···	−0.265	−13.61	11.29	44.87	LINER			F15389+5724
1539+597	0.072	1	0.070	1	0.272	3	0.529	2	···	···	−0.289	−13.81	9.23	42.81	E+A			F15393+5945
1540+502	0.081	1	0.075	1	0.370	3	0.940	2	···	···	−0.405	−13.62	10.94	44.52	LINER			F15406+5013
1546+558	0.080	1	0.072	1	0.472	3	1.259	2	···	···	−0.426	−13.51	10.78	44.36	···	S		F15468+5552
1547+513	0.069	1	0.102	3	0.840	3	1.315	2	···	−0.916	−0.195	−13.36	11.12	44.70	SBN			F15479+5120
1549+557	0.080	1	0.109	2	0.780	3	1.809	2	···	−0.810	−0.365	−13.32	10.95	44.53	SBN	S:		F15495+5545
1550+583	0.053	1	0.059	1	0.240	3	0.560	1	···	···	···	−13.83:	···	···	···			F15506+5821
1552+571	0.055	1	0.052	1	0.150	3	0.762	1	···	···	···	−13.84:	···	···	···			F15526+5708
1552+524B	0.060	1	0.052	1	0.178	3	0.550	2	···	···	−0.490	−13.90	10.52	44.10	SBN			F15528+5228
1553+573	0.068	1	0.084	2	0.506	3	1.236	2	···	−0.780	−0.388	−13.59	···	···	···	E		F15537+5718
1554+496	0.049	1	0.065	2	0.551	3	1.339	2	···	−0.928	−0.386	−13.46	10.15	43.73	···	Sa		F15542+4940

TABLE 20 (CONTINUED)

SBS	Fluxes								log(*FIR*)			logF	log	logL	Sp	Morph.	Other	*IRAS*
design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	12/25	25/60	60/100	*FIR*	L/L_o	*FIR*	class		name	name
1556+583	0.076	1	0.104	3	0.596	3	0.941	2	···	−0.758	−0.198	−13.51	10.65	44.23	SBN:		Mkn 865	F15569+5818
1559+585	0.051	1	0.066	1	0.445	3	1.250	2	···	···	−0.449	−13.52	9.78	43.36	SB	E		F15591+5831
1602+523	0.055	1	0.066	1	0.269	3	0.749	2	···	···	−0.445	−13.74	10.65	44.23	SB			F16021+5223
1607+493	0.046	1	0.072	1	0.219	3	0.443	1	···	···	···	−13.90:	10.48:	44.06:	HII			F16072+4918
1608+493A	0.065	1	0.053	1	0.174	3	0.528	2	···	···	−0.482	−13.91	10.77	44.35	Abs	Sbc		F16084+4918
1608+493B	0.086	1	0.115	3	0.891	3	1.418	2	···	−0.889	−0.202	−13.33	11.30	44.88	···			F16087+4922
1609+499	0.075	1	0.071	1	0.317	3	1.065	2	···	···	−0.526	−13.62	10.70	44.28	E+A			F16096+4955
1610+589	0.066	2	0.155	3	0.516	3	0.966	1	−0.371	−0.522	···	−13.54:	10.54:	44.12:	Sy1.5			F16104+5858
1610+525	0.262	3	1.113	3	6.661	3	8.935	2	−0.628	−0.777	−0.128	−12.48	11.53	45.11	SBN		Mkn496ab	F16104+5235
1610+586	0.090	1	0.040	1	0.185	3	0.821	1	···	···	···	−13.79:	10.59:	44.17:	LINER			F16107+5841
1610+607	0.039	1	0.052	2	0.395	3	0.758	2	···	−0.881	−0.283	−13.65	9.73	43.31	SB	SBc	Mkn 874	F16109+6042
1611+580D	0.060	1	0.043	1	0.227	3	0.848	1	···	···	···	−13.74:	10.66:	44.24:	SB		Mkn 875	F16112+5802
1613+560	0.084	1	0.055	2	0.389	3	1.155	2	···	−0.850	−0.473	−13.57	10.95	44.53	···			F16138+5600
1614+600A	0.079	1	0.096	1	0.285	3	0.886	2	···	···	−0.493	−13.69	···	···	···			F16146+6004
1615+511	0.075	1	0.207	3	1.609	3	2.749	2	···	−0.891	−0.233	−13.06	11.25	44.83	LINER			F16150+5110
1615+521	0.044	1	0.074	2	0.375	3	0.737	2	···	−0.705	−0.294	−13.67	10.44	44.02	SBN	S:	Mkn 497	F16154+5208
1616+503	0.093	1	0.129	3	0.441	3	0.830	2	···	−0.534	−0.275	−13.61	10.70	44.28	Sy2:			F16162+5021
1616+594A	0.059	2	0.155	3	1.206	3	2.598	2	−0.419	−0.891	−0.333	−13.14	10.24	43.82	SB	Spec		F16164+5926
1617+604	0.060	2	0.067	1	0.378	3	1.124	2	···	···	−0.473	−13.58	···	···	···			F16177+6026
1618+500	0.075	1	0.066	1	0.195	3	0.670	2	···	···	−0.540	−13.83	10.44	44.02	···			F16189+5003
1619+560	0.073	1	0.053	1	0.199	3	1.063	1	···	···	···	−13.70	10.36	43.94	HII			F16199+5604
1620+504	0.153	3	0.310	3	1.566	3	3.434	2	−0.307	−0.703	−0.341	−13.03	11.55	45.13	···			F16209+5029
1622+526	0.073	1	0.083	2	0.479	3	1.412	2	···	−0.761	−0.469	−13.48	11.09	44.67	Abs		Mkn 698	F16221+5238
1622+540	0.070	2	0.156	3	0.919	3	1.511	2	−0.348	−0.770	−0.216	−13.31	10.79	44.37	ELG			F16221+5401
1623+532	0.054	1	0.103	2	0.678	3	1.105	2	···	−0.818	−0.212	−13.44	···	···	···			F16234+5314
1623+580	0.069	1	0.055	1	0.263	3	0.780	2	···	···	−0.472	−13.74	10.95	44.53	E+A	S		F16238+5802
1625+496	0.073	1	0.099	1	0.362	3	0.852	2	···	···	−0.371	−13.65	10.02	43.60	Abs		Mkn1497	F16256+4938
1626+596	0.049	1	0.045	2	0.207	3	0.521	1	···	−0.663	···	−13.88:	···	···	···			F16263+5941
1626+518	0.102	2	0.312	3	0.340	3	0.613	1	−0.484	−0.037	···	−13.73:	10.84:	44.42:	Sy1.9		Mkn1498	F16268+5152
1628+603	0.071	1	0.056	2	0.204	3	0.691	2	···	−0.561	−0.530	−13.81	···	···	···			F16280+6021
1629+501	0.051	1	0.060	2	0.295	3	0.649	2	···	−0.692	−0.342	−13.75	9.92	43.50	···			F16298+5008
1630+580	0.062	1	0.053	2	0.259	3	0.653	2	···	−0.689	−0.402	−13.78	···	···	···			F16305+5802
1631+521B	0.064	1	0.066	1	0.184	3	1.471	1	···	···	···	−13.61:	···	···	···			F16313+5206
1632+598	0.061	1	0.074	1	0.189	3	0.604	2	···	···	−0.505	−13.86	···	···	···			F16321+5948
1634+523	0.040	1	0.046	1	0.256	3	0.617	2	···	···	−0.382	−13.79	9.23	42.81	BCDG		Mkn1499	F16340+5219
1636+582	0.069	1	0.213	3	2.013	3	3.829	2	···	−0.975	−0.279	−12.94	11.57	45.15	···	SBc		F16362+5816
1636+579	0.051	1	0.061	1	0.152	3	0.398	2	···	···	−0.418	−14.00	···	···	···			F16362+5756
1636+550	0.083	1	0.047	1	0.176	3	0.739	1	···	···	···	−13.82	···	···	···	S		F16366+5504
1640+591	0.070	2	0.318	3	2.359	3	3.370	2	−0.657	−0.870	−0.155	−12.92	11.11	44.69	···			F16404+5910
1640+516	0.078	1	0.089	2	0.467	3	0.920	1	···	−0.720	···	−13.57:	10.48:	44.06:	SBN		Mkn1500	F16408+5136
1641+548	0.095	1	0.106	3	0.865	3	1.370	2	···	−0.912	−0.200	−13.34	···	···	···			F16409+5446
1641+508	0.066	1	0.062	1	0.162	3	0.699	1	···	···	···	−13.85:	10.14:	43.72:	HII		HS	F16415+5053
1642+571	0.054	1	0.051	1	0.150	3	0.530	1	···	···	···	−13.94:	···	···	···			F16427+5708
1646+592	0.092	3	0.120	3	1.400	3	3.208	2	−0.115	−1.067	−0.360	−13.07	10.52	44.10	E+A	S		F16460+5910
1646+536	0.066	2	0.146	3	1.591	3	2.426	2	−0.345	−1.037	−0.183	−13.08	10.88	44.46	Sy2:	S		F16460+5338
1646+523	0.064	2	0.142	3	0.535	3	1.095	1	−0.346	−0.576	···	−13.51	10.53	44.11	···	S		F16461+5219
1646+568	0.064	2	0.087	1	0.387	3	0.975	2	···	···	−0.401	−13.60	11.02	44.60	···			F16465+5650
1646+526	0.055	1	0.065	1	0.317	3	1.018	2	···	···	−0.507	−13.64	···	···	···			F16467+5237
1648+547	0.074	1	0.201	3	2.881	3	3.074	2	···	−1.156	−0.039	−12.88	12.26	45.84	LINER:			F16487+5447
1650+598	0.072	1	0.048	2	0.479	3	1.045	2	···	−0.999	−0.339	−13.54	9.45	43.03	ELG	SBcd		F16501+5948
1650+535	0.088	1	0.087	2	0.410	3	2.559	1	···	−0.673	···	−13.34:	10.61:	44.19:	SBN:			F16505+5330
1651+559	0.069	1	0.136	3	0.426	3	1.031	2	···	−0.496	−0.384	−13.57	10.43	44.01	Sy2	Sab		F16513+5559

TABLE 20 (CONTINUED)

SBS design.	f(12)	Q	f(25)	Q	f(60)	Q	f(100)	Q	log(*FIR*) 12/25	25/60	60/100	logF *FIR*	log L/L_o	logL *FIR*	Sp class	Morph.	Other name	*IRAS* name
1652+519	0.073	1	0.112	3	0.504	3	1.084	2	···	−0.653	−0.333	−13.52	11.00	44.58	···			F16529+5156
1653+505	0.140	3	0.230	3	1.512	3	3.330	2	−0.216	−0.818	−0.343	−13.04	9.98	43.56	E+A		IZw 168	F16530+5033
1655+550	0.055	1	0.111	3	0.240	3	1.643	1	···	−0.335	···	−13.55:	···	···	···			F16553+5503
1656+524	0.091	1	0.106	1	0.484	3	1.839	1	···	···	···	−13.41:	10.75:	44.33:	···	Sb		F16565+5228
1657+505	0.044	1	0.055	1	0.150	3	0.579	1	···	···	···	−13.92:	9.16:	42.74:	HII		HS	F16573+5034
1657+575	0.067	1	0.120	3	0.633	3	0.695	2	···	−0.721	−0.040	−13.53	10.94	44.52	SBN		Mkn 891	F16576+5735
1657+590A	0.305	3	0.433	3	7.430	3	23.580	2	−0.152	−1.235	−0.502	−12.27	11.32	44.90	LINER	Sbp	NGC6286	F16577+5900
1657+598	0.101	1	0.090	3	0.605	3	1.711	2	···	−0.828	−0.451	−13.38	10.67	44.25	LINER	SBb		F16578+5949
1657+571	0.081	1	0.059	2	0.386	3	0.798	2	···	−0.816	−0.315	−13.65	9.46	43.04	HII		NGC6262	F16578+5710
1659+551	0.058	1	0.047	1	0.262	3	0.800	2	···	···	−0.485	−13.73	10.25	43.83	···			F16596+5510
1700+603	0.080	1	0.043	1	0.151	3	0.616	1	···	···	···	−13.90:	9.38:	42.96:	SBN			F17005+6019
1704+527	0.058	1	0.051	1	0.221	3	1.352	1	···	···	···	−13.62:	10.52:	44.10:	···	Sbc		F17039+5246
1704+583	0.059	1	0.052	1	0.167	3	0.809	1	···	···	···	−13.81:	11.09:	44.67:	LINER			F17041+5820
1706+607	0.149	3	0.455	3	3.012	3	4.990	2	−0.485	−0.821	−0.219	−12.79	10.34	43.92	Abs	SBab	NGC6306	F17069+6047
1708+602A	0.046	1	0.110	3	0.502	3	0.966	2	···	−0.659	−0.284	−13.55	···	···	···			F17082+6015
1709+570	0.085	1	0.070	1	0.469	3	1.033	2	···	···	−0.343	−13.55	10.92	44.50	SBN			F17089+5702
1710+553	0.052	1	0.053	1	0.204	3	0.903	2	···	···	−0.646	−13.74	···	···	···			F17101+5520
1712+593B	0.060	1	0.056	1	0.222	3	0.573	1	···	···	···	−13.94	8.40	41.98	E+A	SBm		F17124+5922
1712+577	0.044	1	0.046	2	0.153	3	0.594	1	···	−0.522	···	−13.91:	···	···	···			F17124+5743
1713+580	0.050	1	0.051	2	0.165	3	0.491	2	···	−0.510	−0.474	−13.94	11.08	44.66	BLS1			F17133+5802
1715+579	0.048	1	0.048	1	0.174	3	0.653	1	···	···	···	−13.86:	10.07:	43.65:	SBN			F17157+5755

TABLE 21

REJECTED *IRAS* SOURCES. N=19

SBS design.	*IRAS* design.	Other name	SBS design.	*IRAS* design.	Other name
0743+550	IRASZ07431+5503	Mkn1410	1140+537	IRASZ11408+5346	Mkn 1451
0808+558	IRASZ08089+5549	Mkn 85	1152+579	IRASZ11529+5755	Mkn 193
0810+581	IRASZ08106+5810		1201+608	IRASZ12010+6048	Mkn 45
0847+612	IRASZ08474+6112	Mkn 99	1213+511	IRASZ12136+5105	Mkn 1469
0919+515	IRASZ09193+5133	MS	1332+518	IRASZ13325+5152	Mkn 1479
0957+558	IRASZ09575+5551	Mkn 131	1358+576	IRASZ13581+5740	Mkn 1486
1022+519	IRASZ10223+5155	Mkn 142	1534+600	IRASZ15346+6001	
1114+516	IRASZ11147+5140	Mkn 1444	1652+574	IRASZ16521+5725	Mkn 889
1130+495	IRASZ11308+4930	Mkn 178	1705+607	IRASZ17056+6046	Mkn 892
1132+503	IRASZ11320+5022	Mkn 1448			

RBGS, then $\sim$ 80 Mpc for FBS and up to $\sim$ 250 Mpc for SBS) the number of objects only becomes smaller. The correlation between $\log[S_\nu(60\mu)/S_\nu(100\mu)]$ and $\log[S_\nu(12\mu)/S_\nu(25\mu)]$ extends to distances up to $\sim$ 250 Mpc.

8.2. *SBS Objects Identified with FIRST Radio Sources*

There are 532 SBS objects identified with FIRST radio sources, 398 SBS galaxies and 134 stellar objects.

8.2.1. *The Catalogue of the SBS Galaxies Identified with FIRST radio Sources*

The optical versus FIRST multiwavelength catalogue of 398 SBS galaxies identified with FIRST radio sources is given in Table 22, as well as the distance separation from the SBS optical objects along with the peak and integral intensities for of all of these objects. Redshifts are known for 375 (94%) objects. Radio luminosities at 1415 MHz are given by the expression $\log S_{1415} = 40.78 + 2\log[z(1+z/2)] + \log S(\mathrm{mJy})$ in units erg s^{-1}, assuming H = 50 km

TABLE 22

SBS GALAXIES IDENTIFIED WITH *FIRST* RADIO SOURCES. N=398

SBS design.	d ”	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
0743+591A	1.5	2.28	6.10	38.17	39.39	E+A	Sb	
0744+543	0.7	1.89	1.89	38.44	38.44	SBN		Mkn 83
0745+557	0.4	4.18	4.86	37.87	37.94	SBN	S:	
0745+590	2.1	1.42	2.35	37.82	38.04	HII		KUG
0746+501	2.5	1.14	2.47	37.59	37.93			
0748+499	1.7	1.50	2.42	37.75	37.96	Sy1.9	SO	
0750+559	2.1	1.09	2.58	37.64	38.02	LINER:	S:	
0750+584	1.1	1.71	1.92	37.64	37.69	ELG	S:	Mkn 1411
0751+558	0.8	3.21	8.51	37.91	38.34	E+A	Spec	Mkn 84
0753+560	0.9	2.04	2.25	38.43	38.47	Sy1.9:		
0753+610B	9.0	1.05	2.89	37.49	37.93	ELG		
0755+536	0.9	2.42	2.12	38.27	38.22	E+A		
0755+557	1.0	1.79	1.48	38.08	38.00	ELG		
0755+587	1.2	4.64	8.74	38.05	38.32	ELG	Sb	
0755+509	1.4	45.55	47.60	39.94	39.95	Sy2		
0756+553	0.6	7.99	8.28	38.79	38.81	ELG		
0800+603	0.7	2.28	4.32	38.12	38.40	ELG		
0805+603	0.7	1.17	1.13	37.44	37.43	LINER:		
0807+539	1.7	1.47	1.29	···	···			
0807+581	0.9	11.39	12.52	38.74	38.78	Sy2		
0808+536	1.5	1.11	1.83	38.09	38.31			
0808+558	27.2	2.31	2.30	37.26	37.26	ELG	Epec	Mkn 85
0808+580A	3.0	1.11	2.28	37.68	37.99	ELG	Sc	KUG
0808+580B	0.1	5.29	5.64	38.39	38.41	Sy2	SO:	
0808+587	1.2	4.28	4.66	38.29	38.33	Sy2	E:	VIIZw217
0809+549	0.5	1.09	1.80	37.84	38.06	HII		
0809+560	4.2	2.92	13.67	···	···			
0810+583A	1.2	1.45	1.41	37.77	37.76	SBN		
0811+508	1.6	1.72	2.26	38.15	38.27	SBN		
0811+584	1.2	6.68	7.53	38.39	38.45	LINER:	S	
0811+607A	2.6	1.42	5.52	37.74	38.33	ELG		KUG
0813+512	0.4	2.62	5.87	···	···			
0816+581	1.1	1.10	1.18	37.65	37.68	LINER:		
0818+544	0.2	3.01	3.09	39.16	39.18	Sy1.8:		MS
0824+558	2.1	2.85	6.22	38.23	38.57	E+A	S:	Mkn 88
0828+525	0.5	2.60	4.95	38.17	38.45	SBN		
0828+527	1.9	10.43	12.57	38.28	38.36	SB	S:	Mkn 91
0831+529B	1.5	2.70	7.54	38.53	38.97	E+A		NGC2606
0843+514	2.3	1.11	1.12	37.74	37.74	SBN		
0846+538	1.1	2.46	2.08	38.32	38.26	SBN		
0848+526	1.0	1.79	3.74	38.67	38.99	SBN		
0849+496	3.5	1.14	6.48	36.92	37.67	LINER		
0851+579	15.9	1.66	1.71	37.28	37.29			
0855+520	2.7	2.68	2.76	37.38	39.39	LINER		

TABLE 22 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
0856+602	0.5	4.67	4.77	38.65	38.66			
0858+603	2.4	19.87	26.30	38.18	38.30	E+A	S:	Mkn 18
0901+521	0.5	3.58	5.99	38.94	39.16	SBN		
0901+518	2.2	1.20	10.09	37.26	38.19	E+A	S	Mkn 101
0903+499A	1.8	1.29	5.37	37.96	38.58	SBN	S	
0903+558	0.8	1.77	3.54	38.19	38.49	HII		
0903+562	0.7	2.05	3.43	38.42	38.64	SB		
0905+499A	1.0	1.23	1.68	37.99	38.12	E+A		
0906+502B	1.1	3.37	3.77	38.38	38.42	SBN	S	
0910+503	1.6	1.16	3.19	37.93	38.37	SB		
0912+599	0.5	1.32	2.01	37.21	37.39	HII		Mkn 19
0913+537	0.3	3.75	7.70	38.90	39.21	LINER		
0913+502	1.0	1.41	3.48	37.99	38.38	ELG		VV360
0915+515A	3.3	1.24	5.52	37.14	37.79	SB		
0915+556	1.7	1.98	2.50	38.48	38.58	HII		HS
0921+525	0.7	5.16	8.19	38.60	38.80	Sy1.5		Mkn110
0922+553	1.1	1.09	2.41	38.48	38.82	SBN	S	KUG
0922+526	6.3	1.26	6.75	...	...			
0924+554N	0.8	3.07	4.82	39.13	39.33	LINER		KUG
0925+585	2.2	2.44	2.16	38.60	38.54	LINER:	S	
0926+560	1.8	5.48	7.73	38.34	38.49	SBN	SBb	Mkn 114
0927+494	1.0	1.56	1.81	37.80	37.87	SBN	Pec	Mkn 115
0927+493	0.8	7.70	8.65	38.73	38.79	LINER		
0928+577A	0.8	1.69	6.72	37.95	38.55	E+A	S	NGC2895
0929+540	0.9	0.95	1.15	38.28	38.37	NLS1		KUG
0930+502	1.8	7.17	7.56	38.81	38.83	Abs		Mkn 117
0931+525	5.3	2.74	3.62	38.56	38.68	SBN		
0938+545	1.1	1.34	1.49	38.32	38.37	E+A		
0938+611	2.0	1.15	1.01	37.68	37.62	SB		Mkn1421
0940+511	8.4	1.19	2.03	38.04	38.27	HII		
0943+521A	0.4	2.88	3.69	38.92	39.03	SBN		KUG
0944+542	1.1	1.48	4.95	37.75	38.27	SBN	S:	Mkn1425
0945+594	0.6	2.06	3.47	36.83	37.06	SBN	S:	
0945+507	0.7	5.39	5.83	39.04	39.07	NLS1	SBb	Mkn 124
0946+495	0.4	2.08	2.75	38.46	38.58	SBN		
0948+546	0.7	1.08	1.56	39.59	39.75	SBN		
0949+502	1.1	1.05	1.44	38.12	38.26	SBN		
0949+524	3.3	1.19	5.79	38.06	38.75	E+A	S	Mkn 126
0950+539	1.9	1.64	7.32	38.28	38.94	HII		KUG
0951+514	1.5	1.88	3.67	38.19	38.48	SBN		Mkn 127
0951+504	0.5	1.20	2.05	38.33	38.56	Sy2		
0953+602	0.8	3.49	4.38	38.31	38.40	SBN	SO:	Mkn 23
0956+524A	1.4	2.08	7.10	38.34	38.87	E+A	S:	IZw 23
0957+540	0.9	3.28	3.17	39.73	39.71	LINER		
1000+596	1.0	2.39	2.58	37.04	37.07	HII	E	Mkn 25
1001+536	1.0	1.03	4.37	37.86	38.49		S	

TABLE 22 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1002+539	0.1	1.86	2.61	38.36	38.51	SBN		Mkn 135
1003+583B	0.4	1.74	1.70	38.88	38.87	Sy2:		
1003+573	1.1	1.78	1.94	...	...		E	
1006+603	1.7	1.85	2.91	38.95	39.15	ELG		
1010+503	1.3	1.42	1.27	38.41	38.35	LINER	S	
1015+599	0.3	4.69	4.90	38.76	38.78	SBN		
1016+592	0.5	3.72	4.62	38.62	38.72	Sy2		
1016+576B	0.8	2.17	2.92	37.95	38.08	SBN	SBab	Mkn 31
1020+526	2.8	22.90	47.02	39.17	39.48	LINER	Sdm:	
1022+573	0.4	1.95	3.93	37.94	38.24	LINER		
1022+519	1.0	1.08	10.60	38.14	39.13	NLS1	S:	Mkn 142
1025+493	0.6	1.13	1.17	38.12	38.14	Sy2		
1027+528	4.3	2.82	6.81	38.59	38.97		S:	
1028+585	0.4	4.01	2.92	39.34	39.20	LINER		
1029+546	2.5	7.13	9.56	36.98	37.10	HII	Im	Mkn 33
1030+526	1.6	3.17	6.01	38.42	38.70	SBN	SBc	Mkn1433
1030+602	1.3	17.01	19.29	39.44	39.49	Sy2	S	Mkn 34
1033+574	0.1	1.13	1.07	38.20	38.17	SBN		
1033+550	1.3	1.53	2.28	37.08	37.25	E+A		Mkn1435
1033+541	1.7	1.06	2.30	38.17	38.50	SBN		
1035+543	0.2	2.83	3.08	39.30	39.34	SBN		
1037+498	0.7	4.34	4.54	38.74	38.76	Sy2		
1038+580	0.5	6.82	6.79	39.30	39.30	Sy2		
1040+560	1.7	1.17	3.71	37.69	38.19	SBN		
1042+562	5.6	5.28	9.74	36.51	36.78	HII	Irr	Mkn 35
1045+503	0.5	1.86	2.00	37.78	37.82	LINER	SBab	Mkn 152
1047+598	1.0	1.50	1.73	38.86	38.92	Sy1.9		
1047+504	0.5	1.80	6.78	38.32	38.90	SBN		Mkn 154
1051+508	0.7	1.66	2.44	37.80	37.97	SBN		
1052+499	1.8	1.10	2.68	36.15	36.53	Abs	Pec.	Mkn 157
1057+511A	0.7	8.31	9.26	37.66	37.71	LINER	S	
1102+599A	1.1	4.83	5.96	38.54	38.63	LINER	S	
1102+599B	1.0	1.94	3.40	38.13	38.37	SB		
1103+506	1.5	4.43	4.58	38.64	38.66	Sy2		
1105+502	3.4	2.02	2.83	38.83	38.98	SBN		
1106+500B	2.7	1.12	10.99	38.22	39.21	HII		
1109+581	1.5	1.53	2.07	38.39	38.52	SBN		
1110+556	1.8	3.33	4.23	38.45	38.56	LINER:	S	
1110+567	0.9	9.18	12.69	38.83	38.97	LINER:		
1111+505	6.2	4.65	6.58	38.81	38.96	SB		
1112+547	0.9	1.16	0.69	38.52	38.68	SBN	S	
1113+560	4.2	1.24	2.25	37.96	38.22	SBN		
1113+598a	2.6	13.29	15.81	39.76	39.84	LINER		VIIZw384
1116+518	2.3	1.00	1.33	38.85	38.97	BLS1		RBS 967
1118+541	0.5	2.98	2.60	39.34	39.28	NLS1		RBS 971
1119+583	2.3	1.15	3.90	38.29	38.82	E+A		

TABLE 22 (CONTINUED)

SBS design.	d ”	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1121+491B	0.7	4.51	4.43	39.54	39.53	Abs		
1122+528	0.3	3.31	5.02	38.14	38.32	SBN		
1122+546B	0.2	1.15	1.53	37.48	37.61	BLS1		Mkn40
1123+550	0.9	6.71	13.45	38.97	39.28	SBN	S	
1123+594B	3.3	5.56	8.31	36.73	36.90	BCDG		Mkn 169
1125+588	12.5	169.31	282.27	39.04	39.27	HII		Mkn 171
1125+581	1.3	1.66	1.44	38.44	38.39	Sy1.8:	SBc	
1126+540	1.9	1.92	3.47	37.95	38.21	SBN		
1127+575	2.3	2.95	3.17	38.40	38.43	LINER		
1127+498	1.7	1.33	1.88	38.91	39.06	Sy1.5	S	Mkn1447
1128+546	2.6	2.18	5.05	37.69	38.05	SBN	S:	
1128+564A	0.6	1.29	1.22	38.33	38.31	LINER:		Mkn 174
1129+541	27.9	1.86	4.30	37.00	37.37	SBN	S:	KUG
1129+532	13.7	1.26	2.76	37.77	38.11	Sy2	SA	Mkn 176
1132+579	1.5	2.68	13.47	38.17	38.88	SBN	S:	
1132+558	1.1	1.65	4.18	37.63	38.03	SBN		KUG
1133+572	1.7	10.55	11.63	39.24	39.28	Sy2	S	
1133+597	6.0	1.62	1.44	36.94	36.88	BCDG		
1133+512	0.7	7.58	7.77	39.07	39.08	Abs		
1133+551	1.1	1.11	1.88	37.42	37.64	SBN	Sa:	Mkn 41
1134+550	18.7	13.73	13.81	39.44	39.45	ELG		
1135+557	5.6	1.26	10.80	38.45	39.38	E+A		
1136+559A	1.3	25.56	54.61	39.79	40.12			
1136+559B	5.9	3.22	9.95	38.91	39.40		S	
1136+559C	9.6	8.43	9.51	39.30	39.35			
1137+552A	0.3	9.95	9.95	39.58	39.58	LINER		
1137+552B	0.6	1.08	1.70	38.16	38.36	E+A		Mkn 184
1139+572	1.3	1.64	3.29	38.72	39.03	ELG		
1139+517	1.3	1.13	2.12	38.17	38.44	E+A		
1140+537	1.2	1.30	2.28	37.80	38.04	SBN		Mkn1451
1142+507	1.3	1.08	1.15	39.72	39.74	Sy1.5		
1142+558	1.7	1.99	3.53	38.55	38.79	HII		Mkn 1455
1144+527B	0.5	10.57	10.56	39.20	39.20	Sy2		Mkn1457
1144+562	3.1	1.57	21.50	36.78	37.92	E+A	SABc	Mkn 188
1144+579	1.4	1.78	9.81	38.02	38.76		Sb	
1146+604	0.7	1.64	2.37	37.15	37.30	E+A		
1148+553	2.5	8.53	8.99	38.30	38.32	LINER	SAOp	Mkn 430
1150+545	2.7	2.88	3.61	···	···			
1150+583	0.7	8.11	8.51	39.35	39.37	Sy2		
1156+510	1.1	1.08	0.68	···	···			
1157+565A	1.0	4.22	6.06	39.05	39.21			VIIZw432
	6.6	4.76	6.55	···	···			
	7.7	5.72	7.85	···	···			
1158+548	7.8	2.20	3.23	38.99	39.16	E+A	S	
1200+566	10.2	48.39	88.70	39.00	39.26	SBN		
1200+608	0.4	165.35	171.35	40.66	40.67	LINER		

TABLE 22 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1201+584	0.8	1.08	1.16	39.05	39.08	SBN		
1204+568	1.8	1.40	1.23	37.92	37.86	ELG		
1204+591B	0.4	1.98	1.91	38.08	38.07	LINER:		
1204+603	0.5	1.27	1.59	38.51	38.60	LINER	S	
1204+579	0.9	2.22	2.37	38.13	38.15	LINER:	S	
1206+599	0.7	3.41	2.99	38.85	38.79	E+A		
1210+593	0.8	1.42	1.82	38.97	39.07	SBN		
1211+548	4.5	64.21	97.63	38.44	38.62	HII	IBm	Mkn 201
1211+532B	0.8	1.44	1.80	...	...			
1212+581	0.4	1.53	4.51	38.40	38.87	SBN	S:	
1213+549A	0.6	2.12	2.35	39.52	39.57	NLS1		
1213+511	1.5	6.52	7.94	38.60	38.68	Sy1.5	SBb:	Mkn1469
1214+564	1.2	1.98	4.21	38.53	38.86	SBN		
1217+560	1.3	1.47	1.69	39.06	39.12	Sy1.5		
1217+559A	1.4	1.09	1.51	37.80	37.94	SBN		
1218+521	3.1	1.06	3.25	38.20	38.69	SBN	S	
1218+551B	1.3	1.10	3.05	37.96	38.40	Sy2	S	
1220+544	0.1	291.75	387.19	41.70	41.82	Sy1.5		4C54.27
1221+603	0.6	4.73	5.65	38.75	38.83	Abs		Mkn1473
1222+527	5.3	1.62	3.91	38.28	38.66	E+A		
1222+614	3.5	1.12	1.36	35.75	35.84	BCDG		
1222+547	2.5	2.03	12.52	36.94	37.73	SBN	Sa	Mkn 207
	8.7	1.01	8.39	...	...			
1223+503A	1.6	3.35	8.42	38.10	38.49	HII:		
1224+561A	2.7	3.25	4.72	38.74	38.90	Sy2	S	
1224+563	5.7	1.08	2.33	37.19	37.53	SBN		
1225+537	1.1	1.04	5.07	37.80	38.48	SBN		
1225+540	2.1	1.70	2.32	38.16	38.30	LINER:	S	
1226+539	1.1	1.06	2.36	38.34	38.69	SBN		
1228+582	0.2	2.64	3.29	38.62	38.74	SBN		
1229+582A	3.0	6.74	15.81	37.64	38.02	SBN	SBa	Mkn 213
1230+520	1.6	1.06	3.15	37.86	38.33	SBN		Mkn 216
1231+509	0.8	3.41	4.44	38.31	38.43	SBN		
1231+556	0.8	1.80	3.54	38.67	38.96	LINER	S	
1240+554A	0.5	1.05	1.44	38.45	38.59	SBN	S	
1241+551A	1.6	5.12	13.22	37.93	38.34	SBN	Pec	Mkn 220
1242+607	1.2	2.32	2.67	39.56	39.62	SBN		
1249+608	0.9	1.20	1.95	38.11	38.32	E+A		Mkn 1476
1250+603	0.9	5.07	8.09	38.78	38.99	SBN	S	
1254+571	4.3	235.28	242.48	40.18	40.43	BLS1	SApec	Mkn 231
1255+547	2.1	1.06	1.83	37.74	37.98	SBN		
1256+594	0.4	2.43	2.99	38.06	38.15	LINER	S:	Mkn 233
1258+548A	0.7	2.65	3.43	39.32	39.43	Abs		
1258+551	1.1	2.19	2.47	39.03	39.08	LINER:		
1300+520A	1.8	1.23	1.69	38.37	38.51	E+A	SABc	
1301+540	1.2	1.10	1.23	37.82	37.87	Sy1.5		

TABLE 22 (CONTINUED)

SBS design.	d ”	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1301+609	1.4	1.13	1.32	···	···			
1302+572	1.1	1.31	1.62	38.45	38.55	SBN		
1303+538C	0.4	2.00	2.38	37.87	37.94	SBN	S	
1304+594	1.3	2.89	5.59	38.28	38.56	ELG	S	
1304+568	9.6	1.09	1.38	38.66	38.76	Sy1.9	S	
1305+542	1.2	1.48	1.85	37.92	38.02	HII		
1305+547	0.8	1.44	5.00	37.98	38.53	HII	S	
1306+511	1.5	1.18	4.19	37.91	38.46	SBN	S:	
1311+516	0.3	3.09	2.96	38.29	38.27	LINER		
1312+550	0.3	3.35	3.52	38.34	38.36	SBN		Mkn 247
1315+604	0.8	2.00	1.81	39.41	39.37	Sy1.8		
1317+528	0.5	3.05	2.72	39.23	39.18	BLS1		RBS1249
1320+519	0.4	3.61	9.07	38.31	38.71	SBN	S	Mkn 254
1320+551	0.4	8.38	8.87	39.36	39.38	Sy1.8		RBS1256
1323+598	1.4	1.65	5.16	37.86	38.36	ELG		Mkn1478
1323+575	3.8	1.17	2.75	37.54	37.91	HII		Mkn 66
1324+599	0.3	5.63	6.04	38.46	38.49	SBN	S	
1325+597	0.2	2.68	5.42	37.59	37.89	SBN		
1329+594	0.7	1.44	1.23	38.22	38.15	Sy2		
1332+521	0.7	3.23	6.46	38.91	39.21	Abs	SBc	Mkn 264
1337+541	0.6	3.39	2.83	40.37	40.29	BLS1		
1339+564A	5.5	2.06	6.08	···	···			
1339+559	7.9	3.12	2.19	38.09	37.94	Sy2	SAb:	Mkn 271
1341+490	0.4	3.07	3.55	39.22	39.29	SBN		HS
1342+562A	2.6	1.96	1.62	38.80	38.72	LINER		
1342+561	3.3	120.05	132.02	40.04	40.09	Sy2		Mkn 273
1343+537	1.1	70.58	79.60	40.93	40.90	BLS1		RBS 1310
1344+527	1.0	1.06	1.22	37.77	37.83	Sy2		
1346+585	1.0	3.09	3.02	39.73	39.72	SBN		
1347+536	0.6	1.50	2.26	37.89	38.07	SBN		
1351+577	0.6	2.87	3.15	38.08	38.12	SBN		
1353+564	0.5	6.14	6.29	39.79	39.80	NLS1		
1354+586	2.1	5.93	8.67	38.80	38.96			
1356+593	1.3	1.25	0.95	38.32	38.20	SBN	S	
1357+586A	1.1	1.80	1.43	38.62	38.52	Abs		
1357+562B	1.4	2.18	2.94	38.20	38.33	SBN		
1358+576	1.3	1.09	1.56	37.89	38.04	HII		Mkn1486
1359+595	2.5	17.90	32.25	38.03	38.30	SBN	SBb	Mkn 799
1400+520	1.2	1.06	3.85	38.04	38.60	SBN		
1401+490A	0.9	2.16	2.26	39.00	39.03			
1404+571	1.3	1.15	1.70	38.09	38.26	SB		
1406+490B	0.2	2.76	4.57	38.67	38.89	HII:		IZw 81
1410+530	0.7	218.37	321.59	40.91	41.08	E+A		
	7.4	28.73	409.31	···	···			
1412+583	1.5	1.65	2.29	38.22	38.35	SBN	S:	
1415+498	9.8	1.58	1.47	37.17	37.14	BCDG		CG 390

TABLE 22 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1415+579	0.1	2.40	6.44	38.37	38.80	SBN	S:	N5561
1417+521	7.6	2.81	2.91	38.17	38.18	E+A	S	
1417+494	0.4	19.68	20.87	38.90	38.93	LINER:	Sa	Mkn1490
1418+514	2.9	1.06	2.62	...	...			CG 408
1422+538	0.7	1.39	3.67	37.91	38.33	SBN		
1422+601	0.6	2.51	2.51	39.50	39.50	BLS1		
1426+509	0.3	1.15	1.44	...	...			CG 439
1426+573	1.4	1.14	4.80	38.12	38.74	Sy2	S	
1427+528	2.1	1.22	1.61	37.85	37.97	SBN		CG 448
1428+575	2.1	1.11	2.00	38.50	38.76	E+A		VIIZw552
1428+529	0.5	4.19	4.51	38.69	38.72	Sy1.9:	SB	
1430+596	18.8	1.91	3.35	36.75	37.00	BCDG		
1430+589	0.3	1.12	3.00	38.03	38.45	SBN		
1432+567	0.7	2.16	4.38	38.11	38.42	LINER	S	
1433+500	1.9	3.64	3.00	39.85	39.77	BLS1		CSO 670
1434+590	1.5	8.05	9.21	38.70	38.75	Sy1.5	SBc	Mkn 817
1437+544	1.6	1.72	4.56	37.96	38.39	SBN	E	CG 494
1438+557	1.2	1.34	2.11	38.72	38.92	SBN		KUG
1439+537	0.9	57.59	59.21	39.72	39.73	Sy2		Mkn 477
1439+535	1.3	37.98	39.55	40.44	40.46	LINER		
1441+496	2.5	1.33	2.88	37.87	38.20	LINER	S:	CG 520
1442+590	0.7	2.35	5.14	38.35	38.69	SBN	S	
1442+506	0.6	1.45	1.31	38.70	38.66	SBN		CG 524
1444+517	0.5	11.15	11.86	38.82	38.85	LINER	S:	CG 533
1447+552A	0.2	1.03	2.34	37.98	38.34	SBN		CG 551
1448+593	0.6	1.04	1.92	38.51	38.78	SBN		
1449+519	0.8	3.96	8.31	38.22	38.54	SBN		KUG
1449+537	1.0	3.25	2.60	40.73	40.64	BLS1		
1451+603	1.1	1.31	2.81	38.07	38.39	SBN	S:	Mkn 1493
1451+583B	0.8	2.02	2.47	39.24	39.33	LINER		
	5.2	1.18	1.27	...	...			
1503+521	1.1	2.06	3.00	38.23	38.39	SBN	S	KUG
1504+565	2.6	1.04	1.50	37.77	37.93	SBN	Irr:	Mkn 843
1505+563	0.5	1.04	1.54	38.38	38.55	SBN		
1506+516	0.2	2.02	3.04	38.43	38.61	BLS1	Sab	Mkn 845
1506+566	1.7	1.00	3.53	37.73	38.28	SBN		KUG
1507+526A	0.5	1.16	2.15	36.94	37.21	SBN		Mkn 846
1509+555	2.7	1.45	4.62	37.06	37.57		S:	
1510+538	0.7	1.17	1.31	38.62	38.67	SBN	S:	CG 658
1510+507	4.8	1.85	3.54	38.21	38.48	SBN	S	
1511+515C	1.1	1.28	4.25	38.02	38.54	SBN	S	CG 662
1512+535	1.7	5.87	5.45	38.70	38.67	LINER		NGC5902S
1514+601	0.7	5.27	5.13	38.82	38.81	SBN		
1515+579	0.2	2.18	2.10	38.67	38.65	Sy2		
1517+566	0.2	2.96	3.16	38.95	38.97	SBN		VIIZw593
1517+522	1.9	7.81	8.86	40.02	40.07	Sy2		

TABLE 22 (CONTINUED)

SBS design.	d ”	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1519+507	1.7	1.49	2.37	38.75	38.95	HII		
1519+508A	3.4	1.90	12.09	38.58	39.30	HII		CG 692
1520+503	2.2	3.43	6.29	39.08	39.35			CG 698
1523+504	1.2	2.41	4.50	38.33	38.60	E+A	S	
1524+604	0.6	1.55	1.28	38.80	38.72	Sy1.8		VIIZw603
1524+545	6.0	1.82	0.97	38.28	39.06	Sy2		CG 714
1525+511	2.3	1.13	2.43	38.23	38.57	SBN		CG 723
1526+585B	6.7	16.03	19.96	38.98	39.08	HII		
1526+557	0.3	1.64	2.62	37.09	37.30	SBN	Sa	Mkn 482
1526+532	2.5	1.03	2.05	38.27	38.57	SBN		CG 731
1527+532	1.3	1.15	1.02	38.66	38.61	SBN		
1527+564	2.0	4.56	4.50	39.47	39.47	Sy1.5		RBS 1503
1528+491A	1.1	1.19	3.67	38.61	39.10	SBN		CG 739
1528+577B	1.0	2.57	2.63	38.99	39.00	SBN		
1529+548	1.1	2.03	3.97	38.29	38.58	HII		Mkn 484
1531+580	1.0	5.00	7.19	38.68	38.84	SBN		Mkn 289
1533+574B	2.9	1.04	1.40	37.00	37.13	BCDG		VIIZw611
1533+585	0.7	1.40	1.39	38.90	38.90	SBN		
1534+497	1.7	2.41	5.02	38.34	38.66	SBN		Mkn 859
1534+580	0.8	5.11	5.32	38.45	38.46	Sy1.5	E1	Mkn 290
1535+547	0.4	1.25	1.23	38.09	38.08	NLS1	SBb	Mkn 486
1536+498	2.1	1.63	1.43	40.00	39.94	NLS1		
1537+532	3.5	8.09	8.96	39.15	39.20	LINER		
1538+531	1.7	1.79	3.07	38.93	39.17	LINER		
1538+565	2.6	1.16	1.26	38.17	38.21	SBN		
1538+574B	0.8	1.12	1.76	38.68	38.87	SBN		
1540+502	3.8	2.00	2.10	38.59	38.61	LINER		
1546+558	1.2	1.18	6.51	38.09	38.83			
1547+513	3.3	2.74	4.72	38.64	38.89	SBN		
1549+557	0.4	2.44	6.92	38.38	38.84	SBN	S:	
1549+595B	0.6	9.71	9.99	38.19	39.60	Sy1.8		
1552+571	1.5	1.07	1.98	···	···			
1553+573	1.3	1.80	4.04	···	···		E	
1556+583	0.5	2.12	4.65	38.19	38.54	SBN:		Mkn 865
1558+595	1.1	173.84	185.98	40.61	40.63		E	
1600+540A	0.3	13.79	29.39	39.58	39.91	Abs		
1608+493B	0.6	3.83	3.68	38.91	38.89			
1609+490	1.1	2.87	2.42	38.57	38.49	Sy2		HS
1610+525	0.6	21.64	46.51	39.06	39.39	SBN		Mkn496ab
1610+589	0.1	2.95	3.25	38.28	38.32	Sy1.5		RBS 1565
1611+580D	0.8	1.33	1.54	38.26	38.32	SB		Mkn 875
1615+511	0.7	6.68	8.58	38.87	38.98	LINER		
1615+521	1.3	1.68	2.66	38.06	38.25	SBN	S:	Mkn 497
1616+503	1.1	4.60	6.75	38.71	38.87	Sy2:		
1616+594B	1.3	1.51	2.00	37.30	37.42			
1617+604	2.7	1.02	2.44	···	···			

TABLE 22 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	logS Peak	Integ.	Sp type	Morph.	Other name
1620+545	0.9	2.83	3.43	38.68	38.76	Sy1.9:		
1620+504	0.7	13.33	15.66	39.44	39.50			
1622+526	1.3	1.13	2.00	38.34	38.59	Abs		Mkn 698
1622+540	0.5	2.48	4.99	38.25	38.55	ELG		
1623+532	3.8	3.88	5.05	···	···			
1624+514	0.4	20.08	19.88	40.66	40.65	Sy1.5		
1625+496	4.3	4.53	6.06	38.81	38.93	Abs		Mkn1497
1626+596	0.4	1.37	1.65	···	···			
1626+518	0.6	42.98	46.03	39.91	39.94	Sy1.9		Mkn1498
1632+505	19.3	1.17	2.94	38.15	38.55			
1632+598	12.0	1.44	1.80	···	···			
1634+523	1.5	1.18	1.51	36.82	36.92	BCDG		Mkn1499
1636+579	0.7	1.41	1.93	···	···			
1636+582	5.1	6.47	7.56	39.05	39.12		SBc	
1640+591	0.8	7.92	7.61	38.66	38.64			
1640+516	0.8	1.92	4.63	38.03	38.41	SBN		Mkn1500
1641+548	2.2	2.53	3.04	···	···			
1646+592	6.0	1.75	7.68	37.64	38.21	E+A	S	
1646+536	0.1	8.27	12.87	38.61	38.80	Sy2:	S	
1646+523	1.4	2.10	1.70	38.09	38.00		S	
1646+499	1.6	103.62	108.14	40.10	40.12	BLLac		
1646+568	1.0	1.09	4.70	38.38	39.01			
	6.9	2.05	7.69	···	···			
1648+547	1.1	10.35	12.83	39.88	39.98	LINER		
1650+535	0.6	3.33	4.51	38.23	38.36	SBN:		
1651+559	1.7	3.32	3.19	38.24	38.23	Sy2	Sab	
1652+519	3.5	1.21	1.64	38.32	38.99			
1653+505	0.5	3.17	8.53	37.26	38.62	E+A	SO	IZw 168
1655+550	8.2	1.01	1.36	···	···			
1656+524	2.8	1.36	2.71	38.02	38.32		Sb	
1657+575	1.0	2.60	2.48	38.63	38.57	SBN		Mkn 891
1657+590B	2.5	5.69	8.35	38.08	38.25	HII	SO	NGC6285
1657+590A	0.1	57.90	127.63	39.08	39.43	LINER	Sbp	NGC6286
1657+598	1.0	3.77	4.11	37.98	38.01	LINER	SBb	
1659+596	0.2	1.12	0.72	···	···		S:	
1706+607	2.7	2.71	4.53	37.28	37.51	Abs	SBab	NGC6306
1708+602A	0.8	1.77	1.60	···	···			
1709+570	0.6	2.58	3.23	38.63	38.73	SBN		

s^{-1}, Mpc^{-3} and $q_0 = 0$ (Stepanian et al. 2003).

A few objects show multiple nuclear radio-sources. The object SBS 1157+565A is associated with a triple radio source with angular separations for the optical objects of 1″0, 6″6, 7″7, respectively. Four objects are double radio sources with radio component separations of (6″0, 6″9), (1″1, 5″2), (0″7, 7″4), (2″5, 8″7), respectively.

8.2.2. *The Catalogue of the SBS Stellar Objects Identified with FIRST Radio Sources*

The SBS optical versus FIRST radio multiwavelength catalogue for the 134 SBS stellar point sources positively identified with the FIRST radio survey is presented in Table 23. Redshifts are known for 124

(93%) objects, for which the radio luminosities are listed. The columns are the same as in Table 22.

8.3. *SBS Objects Identified with RASS Sources*

350 objects (219 stellar objects and 131 galaxies) were identified with X-ray sources. 336 of these are extragalactic objects: 182 QSOs, 16 NLQSOs, 5 BLLacs, 2 BALQSOs, and 131 galaxies. Among the remaining 14 objects, 13 are galactic stars, seven DA WD, five CV, one DO and one is a planetary nebula. The identification of stellar objects can be found in the catalogue of such objects, while the identification for the Sy galaxies is presented in subsection 5.1: Seyfert galaxies. *ROSAT* fluxes, luminosities and other data will be presented in the second paper of the SBS survey.

On the basis of the data given in §8, the bivariate, three-variate and four-variate Catalogues of SBS-*ROSAT*-FIRST-IRAS sources can be compiled. Such catalogues are especially suitable for the study of the optical-X-ray-FIR-radio correlations, as well as for the derivation of the bivariate - multivariate luminosity function of different types of extragalactic objects.

9. BRIEF ANALYSIS OF THE DATA PRESENTED IN THE GENERAL CATALOGUE. THE PROPERTIES OF THE SURVEY AND SOME IMPORTANT RESULTS

In this section we summarize the basic characteristics of the data compiled in the General Catalogue of SBS objects.

9.1. *Completeness of the SBS Survey*

One of the main goals of a spectral survey is the creation of a representative sample of objects of well-defined properties. Therefore, it is important to first reveal, study, and, whenever possible, to take into consideration a number of selection effects. The compilation of a *complete* sample of objects is a difficult problem for any survey. We propose the following definition of completeness: a "complete" sample of objects means that we have selected the majority of all objects in a well defined sample down to a certain flux limit. We use the following definitions:

(i) The internal completeness of the sample: each single parameter survey may reach its internal completeness limit. (ii) The external completeness of the sample: the completeness of the survey, which can be obtained following comparison with other similar surveys. (iii) The multiwavelength completeness of the sample: the completeness of the survey that could be obtained in a multiwavelength survey. (iv) The true completeness of the survey: the theoretical limit of completeness of the survey.

Ideally a survey aiming at a complete sample of objects is achieved when all objects brighter than a specified bolometric magnitude inside a certain volume of space are positively detected. The compilation of such type of survey may in practice be impossible nor it is totally clear how it might be accomplished. For example, if some QSOs are surrounded by dust and radiate in the far-infrared or/and if the emission from high redshifted QSOs was absorbed by intergalactic clouds, then such objects would be missed from any survey. Therefore, even when searching for all objects within selected fields and with a well defined but limited waveband, such a survey will be incomplete. Theoretically, it may be possible to construct a complete sample of objects if they are defined in a bolometric sense by combining surveys taken across the entire spectrum from radio to gamma rays. However, this is beyond the scope of the current work. In practice, we can only attempt to minimize the number of missed objects. In other words, the completeness of the survey resides in the efectivity of detection of observational properties of the selected objects. The final aim is to find the complete sample of objects having well-defined observational properties. Therefore, the increase of the total observational waveband or of the number of observational properties of the selected objects leads to a more effective way to compile a complete sample of objects than the well defined but "single" waveband approach.

There exist standard tests to estimate the completeness of a survey. One of them is the well known logN-logS, and another is the $\langle V/V_{max}\rangle$ test (Schmidt 1968). Both of them are based on the assumption of an underlying uniform distribution of objects in Euclidian space. As was shown by Terebij (1980) in the case of an homogeneous distribution of objects in Euclidian space, the V/V_{max} test is equivalent to the logN-logS test; the main difference being the graphical presentation of the data in the case of logN-B. Note that these tests may be inadequate if the large structures within our local Universe do not sufficiently average out. Given the now well known inhomogeneities in the distribution of galaxies in superclusters and the existence of voids, even for the local Universe a survey such as the SBS that would not cover a sufficiently wide region of the sky could by chance be only sampling a statistical under-or over-dense region of space.

The deviation of the logN-B slope from that of the logN = 0.6+constant value reveals the incom-

TABLE 23

SBS STELLAR OBJECTS IDENTIFIED WITH *FIRST* RADIO SOURCES. N=134

SBS	d	Fluxes		log(S)		Sp	1RXSJ	Other
design.	”	Peak	Integ.	Peak	Integ.	type	name	name
0747+553	1.1	2.78	2.48	40.31	40.26	QSO	075122.1+551156	
0749+540	0.2	678.31	712.14	···	···	BLLac	RXJ0753.0+5352	4C+54.15
0757+603	0.9	1.15	1.15	41.89	41.89	QSO		
0800+608	3.2	130.04	400.90	42.83	43.32	QSO	RXJ0804.4+6040	OJ+601
0802+596	1.1	64.49	66.61	···	···	BLLac	080625.5+593105	
0804+499	5.8	901.70	930.31	44.52	44.53	QSO		OJ+508
0805+578	6.7	93.14	492.84	42.48	43.20	QSO		4C+57.15
0806+505	0.4	19.08	20.29	42.63	42.66	QSO	RXJ0809.9+5025	
0806+573	0.7	322.68	358.18	43.09	43.14	QSO	081100.8+571415	
0812+578	0.2	115.28	126.46	···	···	BLLac	081624.6+573910	
0816+598	0.5	5.18	5.05	40.77	40.76	QSO		
0818+506	1.0	53.11	53.94	43.23	43.24	QSO		
0820+560	0.1	1363.46	1404.55	44.68	44.70	QSO	RXJ0824.7+5552	OJ+535
0831+557	0.2	7998.29	8254.60	43.55	43.56	QSO	083454.3+553417	4C+55.16
0833+585	1.1	651.31	687.74	44.86	44.89	QSO	RXJ0837.3+5824	
0835+580	5.2	37.94	88.41	43.23	43.59	QSO		3C 205
0846+513	1.5	344.09	350.53	44.43	44.44	QSO		
0846+596	0.8	11.56	13.07	42.85	42.90	QSO		HS0846+5942
0850+581	0.7	720.99	938.72	44.32	44.44	QSO	RXJ0854.6+5757	4C+58.17
0852+601	0.6	25.04	26.28	41.20	41.22	QSO		
0906+546	7.0	26.04	125.47	42.02	42.71	QSO	091029.1+542723	4C+54.18
0909+531	1.7	1.09	3.45	41.55	42.05	QSO	091302.0+525942	Gr.lens
0916+595	1.3	1.27	0.98	40.60	40.49	QSO		
0919+579	0.4	1.78	2.29	41.76	41.87	QSO		
0924+606B	5.7	9.82	93.11	40.84	41.81	QSO	RXJ0928.5+6025	
0928+557	0.5	5.22	5.23	40.45	40.45	QSO	RXJ0932.0+5534	
0941+522	2.2	628.01	648.48	43.30	43.31	QSO		OK+568
0943+512	1.0	1.09	0.86	40.42	40.32	QSO		
0944+540	0.7	19.94	20.19	41.65	41.66	QSO		
0949+510	1.2	104.85	110.36	42.22	42.24	QSO		
0953+566	1.7	2.35	2.26	41.37	41.36	QSO		
0953+521	1.2	1.27	1.31	40.79	40.81	QSO		
0954+556	1.0	2804.17	3056.17	44.46	44.50	QSO	095737.3+552306	4C+55.17
0957+537B	0.2	38.49	44.38	43.07	43.13	QSO		
0957+561	0.6	283.96	482.76	43.99	44.22	QSO	100121.5+555351	Gr.Lens
1013+596	1.4	164.66	323.53	43.16	43.45	QSO		
1016+510	0.5	1.87	2.91	41.73	41.92	QSO		
1027+555	0.7	11.40	32.72	41.28	41.74	NLQSO	103024.5+551630	RBS 874
1027+534	0.2	10.69	10.68	42.37	42.37	QSO	RXJ1030.7+5310	
1033+571	0.7	71.35	72.67	43.26	43.26	QSO		
1038+528	0.8	414.78	447.95	43.31	43.35	QSO	104147.5+523330	OL+564
1045+604	0.3	1011.54	1034.49	44.80	44.81	QSO		4C+60.15
1051+528	1.4	1.44	0.96	42.37	42.20	QSO		
1102+536	0.4	39.23	40.20	43.39	43.40	QSO		

TABLE 23 (CONTINUED)

SBS	d	Fluxes		log(S)		Sp	1RXSJ	Other
design.	”	Peak	Integ.	Peak	Integ.	type	name	name
1107+557	1.9	8.23	8.00	41.06	41.05	QSO		
1116+603	0.2	186.43	191.98	44.62	44.62	QSO		
1121+595	0.3	1.23	0.94	41.25	41.13	QSO		
1126+516	1.4	1.10	1.26	39.66	39.72	NLQSO	112942.3+512055	RBS 989
1131+510	1.1	1.03	1.24	40.82	40.90	QSO		
1148+549	0.9	4.30	4.54	41.73	41.75	QSO	115120.0+543742	PG, LB 2126
1149+499	0.0	41.11	47.08	42.85	42.91	QSO	RXJ1152.5+4939	
1150+497	0.5	548.11	1459.19	42.70	43.13	QSO	115324.4+493108	4C+49.22
1152+523	0.9	1.82	2.05	39.49	39.54	NLQSO		
1156+573	0.6	9.09	9.54	...	...	...		
1158+580	0.7	7.69	7.78	41.63	41.63	QSO:		
1201+524	0.5	1.38	0.68	39.49	39.19	QSO1.5	120347.5+520748	
1202+492	2.1	190.41	238.90	42.53	42.63	QSO	120435.1+485648	
1205+529	0.0	12.93	12.78	41.34	41.33	QSO	120823.8+524022	
1213+538	0.7	1233.23	1377.88	44.30	44.35	QSO		4C+53.24
1215+521	0.5	78.51	80.67	44.02	44.03	QSO		
1216+505	2.4	3.92	3.92	42.18	42.18	QSO		HS1216+5032
1217+499	1.6	1.98	2.24	42.66	42.72	QSO		
1217+544	0.4	35.83	43.32	43.30	43.38	QSO		
1221+503	0.9	44.44	46.22	42.85	42.87	QSO		
1235+537	0.8	42.04	43.24	41.62	41.63	QSO	123808.3+532603	RBS 1137
1238+519	3.7	23.03	24.51	42.27	42.29	QSO	124117.7+514131	
1239+498	0.5	6.01	6.41	41.06	41.09	QSO	124139.1+493406	HS1239+4950
1246+586	0.4	203.70	208.45	43.21	43.22	BLLac	124818.9+582031	PG, RBS1158
1250+568	1.9	2258.50	2442.12	43.28	43.31	QSO	125228.7+563446	3C277.1
1303+557	0.3	136.22	143.83	43.83	43.85	QSO	RXJ1306.0+5529	
1305+538	0.4	1.47	1.36	41.05	41.02	QSO		
1307+562	1.3	278.90	279.27	44.16	44.16	QSO	RXJ1309.0+5957	
1317+520	0.2	297.21	334.36	43.67	43.72	QSO	131946.5+514812	4C+52.27
1330+546	0.9	1.46	1.10	...	...	...		
1332+552	0.5	9.88	9.61	42.39	42.38	QSO		4C+55.27
1335+600	0.9	1.15	1.52	40.72	40.84	QSO		
1338+551	1.4	1.02	1.48	41.74	41.90	QSO		
1340+605	1.5	2.09	1.82	42.54	42.48	QSO1.5		
1340+606	0.9	801.41	1548.93	43.99	44.28	QSO		3CR288.1
1341+576	0.9	46.31	48.19	44.20	44.21	QSO		
1345+584	1.9	450.56	547.55	44.66	44.75	QSO		4C+58.27
1347+539B	1.1	960.41	1048.37	44.09	44.12	QSO	RXJ1349.5+5341	4C+53.28
1356+581	0.5	10.40	12.04	42.53	42.59	QSO	RXJ1358.2+5752	4C+58.29
1357+577	0.7	63.22	64.68	43.44	43.45	QSO		
1359+511	0.3	6.99	6.82	42.36	42.35	QSO		
1406+564	1.6	282.30	293.11	44.44	44.46	QSO		
1410+551	0.9	10.61	11.94	42.66	42.71	QSO		
1411+533	1.5	53.04	100.21	42.00	42.28	QSO		
1418+546	1.4	573.09	583.67	41.97	41.97	BLLac	141946.4+542324	OQ 530
1421+511	1.7	117.99	139.13	41.84	41.91	QSO	142313.4+505537	CSO 643

TABLE 23 (CONTINUED)

SBS design.	d "	Fluxes Peak	Integ.	log(S) Peak	Integ.	Sp type	1RXSJ name	Other name
1425+607B	0.9	1.43	1.62	40.75	40.81	QSO		
1435+509	6.5	32.55	49.55	42.37	42.55	QSO	RXJ1437.4+5045	
1437+567	0.7	20.99	21.48	42.51	42.52	QSO		
1437+527	2.8	3.41	3.24	···	···	BLLac		
1438+586	1.0	19.29	41.68	41.49	41.82	QSO	RXJ1439.7+5827	
1445+522	6.6	17.59	26.59	43.26	43.44	QSO1.5		CSO 690
1452+516	0.5	109.35	125.26	43.26	43.32	QSO	RXJ1454.4+5124	
1456+527	0.6	2.95	2.07	41.10	40.95	QSO		
1457+531	0.6	1.76	1.98	42.05	42.10	QSO		
1458+567	4.4	117.77	164.45	43.06	43.21	QSO		
1502+602	1.2	1494.92	1552.94	44.33	44.35	QSO		3C 311
1502+547	2.8	4.29	4.63	41.94	41.98	QSO		
1503+570	5.6	15.13	31.19	41.22	41.53	QSO	RXJ1504.8+5649	
1504+515	0.8	3.78	4.40	43.01	43.07	QSO		CSO 721
1508+579	0.7	1.41	1.46	41.92	41.94	QSO		
1508+561	0.2	33.44	34.37	41.29	41.38	BLLac	150948.4+555606	
1510+517	7.0	2.67	2.69	42.15	42.16	QSO		
1510+526	0.4	58.14	58.44	43.04	43.05	QSO		
1513+507	0.8	2.82	2.86	42.27	42.28	QSO		CSO 733
1513+554	2.0	2.29	2.20	40.75	40.73	QSO		
1517+520	0.2	5.91	5.97	40.84	40.84	QSO	151833.5+515453	
1527+522	6.2	1.81	2.01	41.63	41.68	QSO		CSO 759
1533+588	0.5	110.43	114.84	43.96	43.97	QSO	RXJ1534.9+5839	
1534+535	0.3	9.01	9.43	40.78	40.80	QSO		
1543+517	0.4	567.18	576.32	44.69	44.70	QSO		
1550+582	0.5	192.85	200.87	43.75	43.77	QSO	RXJ1551.9+5806	
1600+594	0.5	1.70	1.20	40.85	40.70	NLQSO	160118.5+592051	
1602+576	0.5	332.92	342.12	44.98	44.99	QSO	RXJ1603.9+573	4C+57.27
1611+585	1.2	1.42	1.48	41.24	41.25	QSO	161240.2+582256	
1614+583	2.9	53.55	78.01	41.95	42.12	QSO		
1618+530	0.7	179.07	184.76	44.45	44.46	QSO		
1623+569	1.8	306.48	314.30	···	···	BLLac		
1625+573	1.5	11.37	11.30	···	···	···		
1625+582	0.9	134.84	174.59	42.94	43.05	QSO		
1627+565	0.1	45.14	46.33	41.80	41.81	QSO	RXJ1628.7+5629	
1634+589	0.7	506.21	759.56	43.82	44.00	QSO		4C+58.32
1637+574	1.5	1005.87	1091.69	43.80	43.84	QSO	163813.1+572028	OS+562
1655+593	0.0	13.83	14.12	41.52	41.53	QSO		
1656+571	1.1	813.53	972.15	44.34	44.42	QSO	RXJ1657.3+5705	4C+57.28
1658+575	1.1	306.22	502.05	44.58	44.79	QSO		4C+57.29
1700+518	0.7	19.20	21.50	41.10	41.15	BALQSO		PG
1704+608				···	···	QSO	RXJ1704.6+6044	3C351
1715+535	2.7	1.62	1.90	42.14	42.21	QSO		PG
1204+560	2.6	2.93	11.77	···	···	DA		

pleteness of the survey. A mean value of $V/V_{max} = 0.5$ is expected when inhomogeneities are averaged out over a large sky area. A value of less than 0.5 indicates either an incompleteness of the survey or that the survey has been sampling an under-dense region.

As a rule, the internal completeness of the survey can be estimated using the distribution of $\langle V/V_{max}\rangle$ or of logN-B. Empirically, the external completeness of the survey can be tested by comparing with other similar surveys. That is, by asking how effective is the new survey in finding the previously known objects already detected within the same sky area.

9.1.1. *The Surface Density and the Completeness of the SBS Galaxy Survey*

The Markarian galaxy survey is generally considered complete down to $m_{pg} = 15.2$ mag. The FBS population amounts to ~ 0.1 object per square degree with $m_{pg} \leq 17.0$ mag. The deeper SBS survey, is complete down to $B \sim 17.0$ mag and results in an average of 1.88 galaxies per square degree down to $B \sim 19.0$ mag. Thus, formally the surface density of SBS UVX galaxies is about 19 times higher than with the FBS. A more accurate assessment of the surface density of SBS UVX and emission-line galaxies without UV continuum is dependent on the limiting magnitude, as shown in Table 24. Obviously, going to fainter magnitudes yields a greater surface density.

The logN-logS test in the case of SBS UVX galaxies is shown in Fig. 8. The deviation of the slope of logN-B for SBS galaxies from the logN = 0.6 + constant indicates an incompleteness of the survey around $B \sim 17.0$ where the cumulative magnitude distribution becomes less than that of a uniform distribution. In other words, the completeness of SBS UV-excess galaxy sample is 95% for galaxies brighter than $B \leq 16.5$, 85% for galaxies brighter than $B \leq 17.0$, and 70% for galaxies brighter than $B \leq 17.5$.

A similar estimate might be obtained by the use of the $\langle V/V_{max}\rangle$ test. Results of the test for limiting magnitudes ranging from 14.5 to 18.0 are listed in Table 25. Column 1 gives the limiting magnitude B or m_{pg} (m_{pg} for objects fainter than 16.5 mag), Column 2 the value of $\langle V/V_{max}\rangle$. For comparison the value of $\langle V/V_{max}\rangle$ is also presented for the total SBS galaxy sample. Similarly with the logN-B test, it suggests that for B fainter than ~ 17.0 the survey becomes incomplete. So, the internal completeness of the SBS UV-excess galaxy sample can be estimated to be 85% complete for galaxies brighter than $B \leq 17.0$ mag.

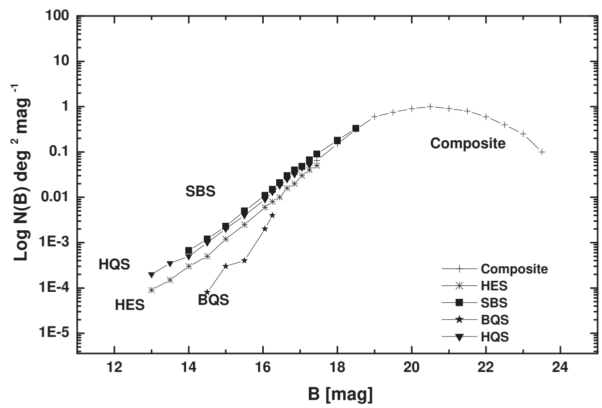

Fig. 15. The logN-B relation for SBS QSOs (shaded squares). For comparison the results of other major bright QSO surveys are shown, BQS, HES andHQS. Composite means the averaged data presented in the literature.

9.1.2. *The Surface Density and the Completeness of the SBS QSO Sample*

The differential surface density (n/deg^2 per mag) of SBS QSOs (AGN with QSO luminosities are included) takes on values of: 0.005, 0.021, 0.042, and 0.13 for objects in the magnitude range $15.5 < B \leq 16.0$, $16.0 < B \leq 16.5$, $16.5 < B \leq 17.0$, and $17.0 < B \leq 17.5$, respectively.

The cumulative surface density (n/deg^2) of SBS QSOs including AGN with QSO luminosities is as follows: 0.01, 0.03, 0.07, 0.20 for objects with $B \leq 16.0$, $B \leq 16.5$, $B \leq 17.0$, and $B \leq 17.5$, respectively.

The QSO cumulative number magnitude relation, n(m), derived from the SBS survey is presented in Fig. 15. The upper solid line represents the SBS QSOs. For comparison similar relations are shown for other major QSO surveys, BQS (Schmidt & Green 1983), HES (Wisotzki 2000) and HQS (Kohler et al. 1997).

The results of the $\langle V/V_{max}\rangle$ test for SBS QSOs for limiting magnitudes ranging from 15.5 to 18.5 and redshift $0.3 < z < 2.2$ are listed in the last two columns of Table 25. The $\langle V/V_{max}\rangle$ begins to drop, although by less than 0.5, at the limiting magnitude of $B \sim 17.5$. Our estimate is that the internal completeness of the SBS as a single optical survey for QSO detection is nearly $\sim 85\%$ for objects brighter than $B \leq 17.5$ mag, in the redshift range $0.3 < z < 2.2$, that is, in the range where the optically selected samples are methodologically complete.

To estimate the external completeness of SBS QSO sample we have compared our data with the

TABLE 24

THE SURFACE DENSITY OF SBS UVX AND ELG GALAXIES

SBS	Total number	Surface density $B \leq 15.0$	$B \leq 15.5$	$B \leq 16.0$	$B \leq 16.5$	$B \leq 17.0$	$B \leq 17.5$	$B \leq 19.0$
UVX	1075	0.07	0.13	0.26	0.48	0.72	0.90	1.08
ELG	788	0.04	0.15	0.25	0.38	0.54	0.63	0.80
Total	1863	0.11	0.28	0.51	0.84	1.26	1.53	1.88

TABLE 25

THE $\langle V/V_{MAX}\rangle$ TEST FOR SBS GALAXIES AND QSOS

B	Total sample UVX+ELG		SBS UVX		SBS QSOs	
m_{pg}	Number	$\langle V/V_{max}\rangle$	Number	$\langle V/V_{max}\rangle$	Number[a]	$\langle V/V_{max}\rangle$
14.5	51	0.62	36	0.66	...	...
15.0	109	0.57	66	0.64	...	...
15.5	276	0.53	130	0.62	...	...
16.0	498	0.52	253	0.56	...	...
16.5	836	0.50	479	0.52	35	0.62
17.0	1251	0.46	721	0.49	76	0.55
17.5	1518	0.37	890	0.43	207	0.49
18.0	1716	0.25	1009	0.37	391	0.44
18.5	1823	0.20	1061	0.26	505	0.33

[a]Only QSO within the redshift range $0.3 < z < 2.2$ were considered.

data presented in the literature. It turns out that $\sim$ 90% of all known bright AGNs and QSOs with $B \leq 17.5$ within the SBS surveyed region were detected with SBS. Many of SBS QSOs were identified with soft X-ray (*ROSAT*), near infrared (2MASS), far-infrared (IRAS), optical (SDSS) or radio (FIRST) sources (using for example NED). A comparison with the results of known surveys within the SBS surveyed area (Paper II of the SBS survey) leads us to the conclusion that the external completeness of the SBS QSO survey is nearly $\sim$ 85% for objects brighter than $B \leq 17.5$ mag, within the redshift range $0.3 < z < 2.2$.

Additional support for the high level of completeness of the SBS QSO sample comes from the multi-wavelength AGN survey undertaken in recent years that overlaps the SBS sky area. All objects, bright and faint sources, from the RASS (*ROSAT* ALL Sky Survey), the IRAS and the FIRST radio sources were cross-correlated with each other and with the APM survey and with the objects of a dozen of well known catalogues. The bright optical counterparts of objects with $B \leq 17.5$ were extracted for later spectroscopic investigation. The preliminary results from such spectroscopic investigation (Stepanian & Chavushyan 2003) shows that a dozen of bright AGN have been missed by the SBS optical survey. They comprise around $\sim 10-12\%$ of the total SBS optically complete sample of AGN/QSO with $B \leq 17.5$. There are two types of AGNs which were missed by SBS. First there are objects which are surrounded by other objects of similar brightness and show an overlapping of their images. Even the rotating objective prism of the Byurakan 1 m Schmidt telescope would avoid this selection effect. Such objects, on the other hand, are easily recognized by FIRST and RASS surveys. We estimate the overlapping effect to be 6–7% for AGN brighter than $B \leq 17.0$ mag and 8–10% for objects with $B \leq 17.5$ mag. The second type of AGN missed by SBS are objects which have a very complicated structure of emission lines. They show multicomponent Hα without any Hβ or other emission lines in the blue part of their spectra. This type of objects comprises $\sim$ 2% of the total sample.

9.1.3. *The Detection Limit (EW) of the SBS Survey*

The equivalent widths (EW) of the strongest emission-lines (Hα, Hβ, [O III]λ5007/4959, Mg II λ2798, C III]λ1909, C IVλ1549, and $L_\alpha\lambda$1216) that

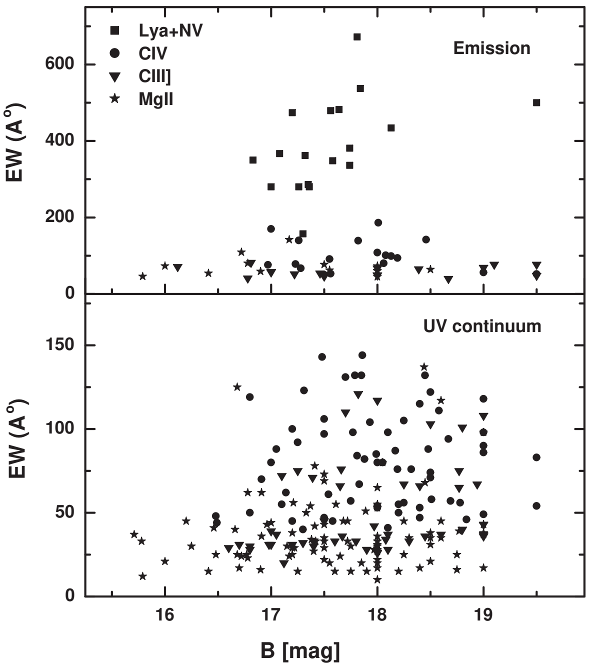

Fig. 16. The dependence of the observed equivalent widths of the emission lines Ly$\alpha\lambda$1216+NV, C IV λ1549, C III] λ1909 and Mg II on the selection criteria (UVX-continua and line emission) and on the brightness of the objects derived from objective prism original plates in combination with the 1.5 degree prism (using the Byurakan 1-m Schmidt telescope)

are easily detectable on the objective-prism spectra as well as the EW of the same lines for objects selected according to the UV-excess selection criterion have been carefully analyzed. The observed equivalent width detection limit for the emission lines $L_\alpha\lambda1216$ + N V, C IVλ1549, C III]λ1909, and Mg II using the Byurakan 1 m Schmidt telescope objective prism observations depends on the selection criterion (UVX-continuum or line emission) and on the brightness of the objects, as shown in Figure 16. The EW distribution shows that the detection limit of the SBS survey is ≥ 50 Å for objects selected exclusively by the presence of emission lines, and reaches up to 15–20 Å if the UV-excess selection criterion is used.

9.2. *Some Important Results*

9.2.1. *Classification of SBS Galaxies and AGN*

For the classification of the SBS galaxies and Seyfert galaxies we used the well known optical classification criteria and the standard classification diagram presented by Veilleux & Osterbrock (1987). We were not able to classify many SBS AGNs by using the above mentioned classification criterion nor by using the standard classification scheme, in which the line width and the line ratio are both used. Although the majority of SBS Sy galaxies might be classified by using the classical definition of Sy galaxies, nearly 20% of SBS Sy galaxies do not appear to follow the classical definition of AGNs. They show very strong and broad > 3000 km s^{-1} or relatively broad (> 1000 km s^{-1}) Hα emission lines, without any Hβ or [O III]λ5007/4959. The other AGNs show broad (1000–4000 km s^{-1}) but weak low-contrast Hα or Hβ emission lines, their narrow components having FWHM less than 200 km s^{-1}. Some examples of such non-classical Sy galaxies were reported during the last decade amongst the optically identified objects by *ROSAT*, IRAS, and FIRST. They might perhaps turn out to be hidden AGNs.

The situation is rather similar for other types of objects as well, in particular for the "transition" objects. As was previously mentioned, the emission line parameters were determined for ~ 500 SBS galaxies. The data for 362 SBS galaxies have been published in a series of papers (Stepanian et al. 1985–2000). As shown in Fig. 2, the standard classification diagram of Veilleux & Osterbrock (1987) is completely filled by non-classical Sy galaxies and by "transition" objects, that is objects with spectral characteristics intermediate between Sy galaxies and LINERs, or between LINERs or and starburst galaxies, etc., all of which are marked in the SBS Catalogue as Sy2:, LINER:, SBN:, SB:.

One of the current tendencies in AGN research is to incorporate into the classification process of the newly discovered Sy galaxies the data already available from the X-ray, infrared and radio regions for instance, their X-ray, their IR, and their radio fluxes and luminosities, the steepness of their X-ray spectra, the detection or not of Fe II lines, the different correlations known to exist between them, etc. The other tendency is to deblend the blended lines in the optical and determine the strengths of the broad, intermediate or narrow components, and to incorporate them to the classification. The multiwavelength data presented in the SBS Catalogue may contribute to such a re-classification.

We were able to reclassify only the sample of bright $B < 17.0$ SBS AGN, and QSOs for which the high-resolution and high $S/N > 30$ optical spectroscopic observations were obtained. The importance of an homogeneous *reclassification* of AGNs is particularly relevant for the numerous authors who look for differences amongst the many different types of Sy galaxies. Incorrectness in Sy type classification, however, has resulted in differences in the determination of the *general* properties of different types of AGN.

TABLE 26

OPTICAL, *ROSAT* AND RADIO FLUXES AND LUMINOSITIES FOR SBS NLS1

SBS Design.	log L(B)	*ROSAT* cts/s	fx	log f(2keV)	log Lx	Radio S(R)	log L(R)	log f_{2keV}/f_{opt}	α_{ox}
0919+515	44.56	0.418	5.21	−29.24	44.76	···	···	−2.98	−1.07
0924+495	44.40	(0.01)	(0.12)	(−30.88)	(42.9)	···	···	(−4.74)	< −1.73
0929+540	43.87	0.067	0.96	−30.07	43.15	0.95	38.28	−3.84	−1.38
0933+511	43.94	0.054	0.65	−30.15	42.96	···	···	−4.21	−1.54
0945+507	43.85	0.028[a]	0.35	−30.42	42.80	5.39	39.02	−4.49	−1.64
0956+509	44.60	0.104	0.96	−29.98	43.98	···	···	−3.70	−1.35
1021+561	44.49	0.117	1.09	−29.92	44.34	···	···	−3.37	−1.22
1022+519	44.08	1.750	20.10	−28.66	44.35	1.08	38.14	−3.00	−1.08
1045+544	44.45	(0.01)	(0.12)	(−30.88)	(42.9)	···	···	···	···
1055+605	44.56	0.389	3.22	−29.45	44.55	···	···	−3.23	−1.17
1118+541	44.56	0.265	2.74	−29.52	44.15	2.98	39.33	−3.62	−1.32
1121+606	44.57	0.176	1.54	−29.77	44.45	···	···	−3.34	−1.21
1136+595	44.40	(0.01)	(0.12)	(−30.88)	(42.9)	···	···	(−4.74)	< −1.73
1208+550	44.02	(0.01)	(0.12)	(−30.88)	(42.9)	···	···	···	···
1213+549A	44.70	0.090	1.19	−29.88	44.12	2.12	39.52	−3.78	−1.37
1215+589	43.48	0.213	2.65	−29.54	42.71	···	···	−3.92	−1.43
1221+585	42.38	0.037[a]	0.46	−30.30	41.64	···	···	−3.96	−1.44
1258+569	43.97	0.066	0.82	−30.05	43.29	···	···	−3.91	−1.42
1303+509	43.53	0.205	2.35	−29.59	43.51	···	···	−3.24	−1.18
1353+564	44.46	0.546	6.19	−29.17	44.66	6.14	39.79	−3.03	−1.10
1359+536	44.17	0.035[a]	0.44	−30.32	43.83	···	···	−3.58	−1.30
1404+582	44.31	0.104	1.30	−29.85	43.99	···	···	−3.50	−1.28
1406+540	44.17	0.027[a]	0.34	−30.43	43.71	···	···	−3.69	−1.34
1412+538	44.53	0.066	0.75	−30.08	44.01	···	···	−3.74	−1.36
1415+566	44.62	0.222	2.83	−29.51	44.50	···	···	−3.33	−1.21
1435+550	44.66	(0.01)	(0.12)	(−30.88)	(43.6)	···	···	···	···
1509+522	44.70	(0.01)	(0.12)	(−30.88)	(43.4)	···	···	(−4.49)	< −1.64
1535+547	44.17	(0.01)	(0.12)	(−30.88)	(41.9)	1.25	38.09	(−5.48)	< −2.01
1536+498	44.70	0.387	5.25	−29.24	45.36	1.63	40.00	−2.58	−0.93
1538+508	44.72	0.320	4.43	−29.31	44.97	···	···	−2.97	−1.08
1656+578	44.31	0.053	0.91	−30.00	44.27	···	···	−3.26	−1.18

[a]RASS faint source catalogue (Voges et al. 2000). Data in brackets are upper limit estimates, f_x in units 10^{-12} ergs s^{-1} cm^{-2}.

9.2.2. *The SBS NLS1 Galaxies*

The sample of SBS NLS1 galaxies has been presented in Table 9. For these SBS NLS1 galaxies, the optical, *ROSAT* and FIRST radio fluxes and luminosities, the f_x/f_{opt} and α_0/x, ratios, are given in Table 26. The spectral energy distribution of SBS NLS1 is presented in Figure 17. Optical luminosities are given by the expression $\log L_B = 53.03 - 0.4B + 2\log[z(1 + z/2)]$. X-ray luminosities are given by the expression $\log Lx = 57.63 + 2\log[z(1 + z/2)] + \log f_x$. The log of the ratio of the monochromatic soft X-ray flux at 2 keV and the optical $B = 4400$ Å flux is given by $\log(f_x/f_{opt}) = \log[f(2\,\mathrm{keV})/f(4400\,\text{Å})] = 0.4B + 1.52 + \log f_x$ while $a_{ox} = 0.372\log[\mathrm{f}(2\,\mathrm{keV})/\mathrm{f}(3000\,\text{Å})]$ (for more details see Stepanian et al. 2003)

As was shown by Stepanian et al. (2003), the analysis of the data as was presented in the literature allowed us to conclude that only the tip of the iceberg has been studied so far. The emerging picture in which NLS1 generally display a large soft X-ray excess, a steep hard X-ray spectrum, strong

TABLE 27

THE SBS NLQSO SAMPLE. N=22

SBS Design.	z em	B	M B	Identification				Ref.
				1RXSJ	o/x	radio	o/r	
0910+507	.188	17.05	−23.3	091416.4+503408	22	···	···	[2]
0942+527A	.449	18.0	−24.3	094600.0+522945	2	···	···	[2]
1004+503	.213	17.44	−23.2	100743.6+500753	13	···	···	[2]
1027+555	.435	17.5	−24.7	103024.5+551630	9[a]	*FIRST*	< 1	[1,2,4]
1037+603	.296	17.05	−24.3	104040.9+600242	9	···	···	
1042+523	.283	17.05	−24.1	104541.2+520242	8[a]	···	···	[1,2]
1047+557B	.331	17.17	−24.4	105055.2+552731	8	···	···	[1,2]
1105+601	.426	18.0	−24.2	110842.1+595010	5	···	···	[2]
1126+516	.234	17.5	−23.3	112942.3+512055	6[a]	*FIRST*	< 1	[1,2,4]
1152+523	.156	16.57	−23.3	115508.1+520134	7	*FIRST*	< 1	[3,4]
1208+549	.535	18.5	−24.4	Non *ROSAT*	···	···	···	
1229+502B	.264	17.17	−23.9	123220.6+495731	11[a]	···	···	[1,2]
1258+518	.481	18.5	−24.2	Non *ROSAT*	···	···	···	
1316+494	.454	18.5	−23.9	131840.5+491418	11	···	···	[3]
1330+519	.324	17.5	−24.1	133222.5+514413	14	···	···	[2]
1406+509	.412	18.5	−23.6	140825.3+503958	16	···	···	[3]
1406+548	.292	18.0	−23.3	140825.0+543834	16	···	···	[2]
1446+510	.305	18.0	−23.4	144751.4+505320	10	···	···	[3]
1500+568	.345	17.5	−24.2	150154.8+563742	9	···	···	[3]
1524+567	.502	18.0	−24.6	152543.5+563401	13	···	···	[2,5]
1549+590	.348	17.63	−24.1	155056.8+585614	8	···	···	[2,5]
1600+594	.633	18.0	−25.1	160118.5+592051	13	*FIRST*	< 1	[3]

[a]For four objects: SBS 1027+555, SBS 1042+523, SBS 1126+516, SBS 1229+502B, the distance separations of 9″, 9″, 5″ and 10″, respectively, were given by Schwope et al. (2000). They are marked with an “a”.

References: [1] Schwope et al. (2000); [2] Voges et al. (1999); [3] Voges et al. (2000); [4] Becker et al. (1995); [5] Bade et al. (1995).

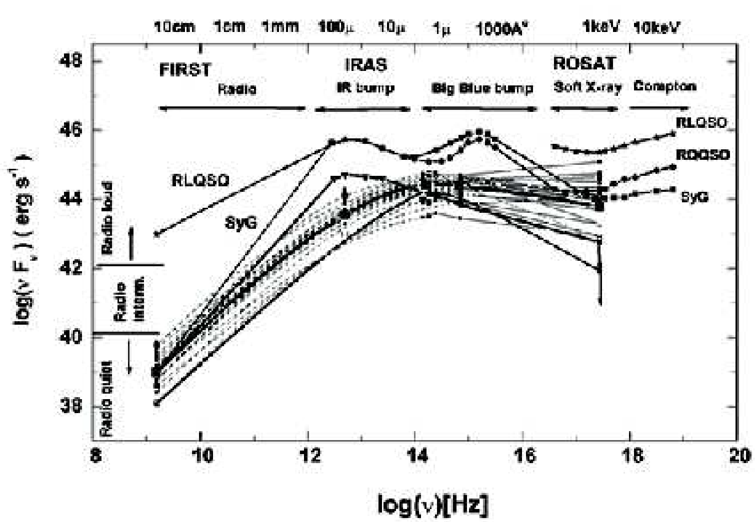

Fig. 17. The individual and mean spectral energy distribution of SBS NLS1 (thick solid line).

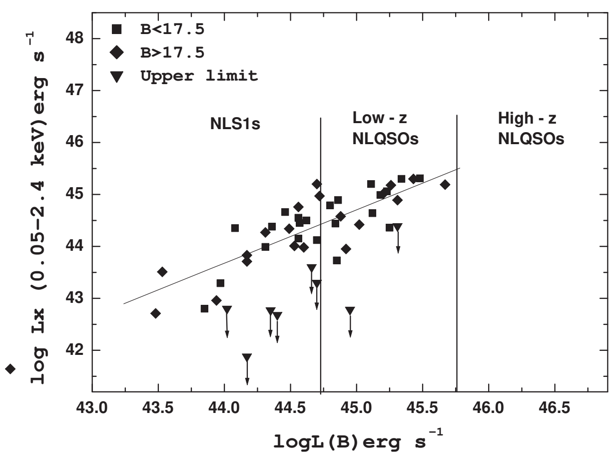

Fig. 18. The diagram of optical versus X-ray luminosity of the SBS NLS1s and SBS NLQSOs. The vertical line on the left divides NLQSOs from NLS1s. M(B)= -23.0 mag corresponds to the optical luminosity $\log L(B) = 44.70$ erg s^{-1}.

Fe II emission, and strong FIR emission is solely based on the investigation of the a few dozen of strongest (the brightest) X-ray sources, the LIG and ULIGs, and the optically bright galaxies. The huge number of NLS1s (> 2000 objects) for which data have now been presented in the literature (SDSS dr1, dr2, and dr3 release) have not been investigated yet!

The multiwavelength investigation of SBS NLS1s by Stepanian et al. (2003) shows that the dominant properties of SBS NLS1s vary a lot, contrarily to what was established before. 25% of the objects with $B < 17.0$, which comprise the complete sample of SBS NLS1, are neither soft X-ray nor medium-hard X-ray sources. Soft X-ray luminous sources of the SBS sample of NLS1s do not tend to be luminous in the infrared. Most of them (92%) are not detected in the IRAS survey. They are not ULIG ($\log L(\mathrm{FIR})/L\odot > 12.0$) and the major part of them are not LIGs ($\log L(\mathrm{FIR})/L\odot > 11.0$). They are instead predominantly weak infrared sources. The comparison of luminosities in the FIR, optical and soft X-ray continuum band leads to the conclusion that the SED of SBS NLS1 differs significantly from those studied before. The majority of the SBS NLS1s, which were not detected by IRAS, have a SED that does is not peak in the FIR. Their SED suggests that they also may possess a Big Blue Bump (Fig. 17). The absence of an IR bump in the majority of the SBS NLS1s and the weakness of X-ray radiation in 25% of them (if these were intrinsic properties) possibly argues against the presence of a BLR in these NLS1s. These results explain why the proportion of NLS1s among BLS1s changes from 4% to 50% depending on the samples selected by *ROSAT*, IRAS or other surveys. Most of the SBS NLS1s as well as the SBS AGNs, are strong optical emitters but are not strong FIR or X-ray emitters. These data allow us to set the upper limit of completeness of the soft X-ray (*ROSAT*) and FIR (IRAS) surveys in the detection of AGNs as well as the current limit of completeness of the SBS survey within the same volume of the sky. We have estimated the completeness of *ROSAT* and IRAS survey in detecting AGNs to be less than 40% for the *ROSAT* survey and less than 30% for the IRAS survey (Paper II of the SBS survey).

9.2.3. *The SBS NLQSOs Sample*

The sample of SBS NLQSOs discovered among SBS stellar objects as identified with *ROSAT*, IRAS, 2MASS, and radio sources was studied by (Cruz-González et al. 2003, private communication). The properties of Narrow-Line QSOs (NLQSOs), objects with spectral characteristics typical of NLS1s but with quasar luminosities, has now been investigated. It was shown that there exists a soft transition in all measured properties between SBS NLS1s and NLQSOs (Figure 18). The SBS NLQSO sample presented in Table 27 consists of 22 objects with $B < 18.5$ and $z < 0.633$. Multiwavelength data are given in Table 28. 19 objects are identified with *ROSAT* sources and 4 with radio sources. None of the SBS NLQSOs were found to be IRAS sources.

Numerous surveys and databases have provided, in an indirect way, clues for establishing the existence of NLQSOs. Engels & Keil (2000) analyzed the optical spectra of 473 X-ray and 235 optically selected AGNs among the Hamburg database of optical spectra, with the aim of studying their emission line properties. No narrow-line quasars were discovered, i.e., AGNs with quasar luminosities and $\mathrm{FWHM}(H_\beta) < 2000$ km s^{-1}, as neither were type 2 QSOs (the luminous analog of Sy2 type galaxies). Analysis of the data presented in the literature allows us to conclude that a huge amount of NLQSOs (> 2000 objects) with recently published data deserve further investigation. We are sure that among SBS QSOs, as well as in the other QSO databases, numerous low and high-redshifted NLQSOs will be found that might be used as a critical test for cosmogonical and cosmological scenarios of QSO evolution.

TABLE 28

OPTICAL, *ROSAT* AND RADIO FLUXES AND LUMINOSITIES FOR THE SBS NLQSO

SBS Design.	log L(B)	*ROSAT* cts/s	fx	log f(2keV)	log Lx	Radio S(R)	log L(R)	log f_{2keV}/f_{opt}	α_{ox}
0910+507	44.84	0.113	1.514	−29.78	44.44	···	···	−3.62	−1.32
0942+527A	45.31	0.051	0.599	−30.18	44.89	···	···	−3.64	−1.32
1004+503	44.80	0.280	2.617	−29.54	44.79	···	···	−3.22	−1.17
1027+555	45.48	0.205	1.705	−29.73	45.31	11.40	41.28	−3.39	−1.23
1042+523	45.23	0.222	2.584	−29.55	45.06	···	···	−3.39	−1.23
1047+557B	45.34	0.374	3.159	−29.46	45.30	···	···	−3.25	−1.18
1105+601	45.26	0.160	1.313	−29.84	45.18	···	···	−3.30	−1.20
1126+516	44.86	0.226	2.652	−29.54	44.89	1.10	39.66	−3.20	−1.16
1152+523	44.85	0.036[a]	0.45	−30.31	43.73	1.82	39.49	−4.34	−1.58
1208+549	45.31	(0.01)	(0.12)	(−30.88)	(44.39)	···	···	···	···
1229+502B	45.11	0.340	4.182	−29.34	45.20	···	···	−3.13	−1.13
1258+518	44.95	(0.01)	(0.12)	(−30.88)	(43.78)	···	···	···	···
1316+494	45.12	0.026[a]	0.33	−30.44	44.64	···	···	−3.70	−1.35
1330+519	45.18	0.146	1.604	−29.75	44.99	···	···	−3.41	−1.24
1406+509	45.02	0.016[a]	0.25	−30.56	44.42	···	···	−3.82	−1.39
1406+548	44.88	0.070	0.795	−30.06	44.58	···	···	−3.52	−1.28
1446+510	44.92	0.014[a]	0.27	−30.73	43.95	···	···	−3.99	−1.53
1500+568	45.25	0.027[a]	0.33	−30.44	44.36	···	···	−4.10	−1.50
1524+567	45.43	0.091	1.186	−29.89	45.30	···	···	−3.35	−1.22
1549+590	45.20	0.095	1.440	−29.80	45.01	···	···	−3.41	−1.24
1600+594	45.67	0.042[a]	0.53	−30.14	45.19	1.70	40.85	−3.70	−1.31

[a]RASS faint source catalogue (Voges et al. 2000). Data in brackets are the upper limit estimate.

9.2.4. *The Relative Proportion of NLS1/BLS1 and Sy2/BLS1*

The high resolution and high signal to noise spectra help us to obtain an accurate spectral classification of SBS Sy galaxies and to estimate the relative proportion of different types of Sy galaxies. As was mentioned by Stepanian et al. (2003) and based on the data presented in the SBS Catalogue, the proportion of SBS NLS1s among SBS BLS1s in a magnitude limited sample is no less than 40%. Until now the proportion of NLS1 among BLS1s has been a subject of debate. The proportion of NLS1 varies from 4% to 50% of the total number of BLS1 when considering different samples of AGNs (de Grijp et al. 1992). A fraction of about 10% was derived from the medium hard (0.8–3.5 keV) X-ray selected sample of 65 AGN of Stephens (1989). About half of the AGN in the soft X-ray selected samples of Grupe et al. (1999) and Edelson et al. (1999) are NLS1s. A fraction of 20–30%, irrespective of the selection method, was found by Engels & Keil (2000). Our results are closer to the results obtained by Grupe et al., Edelson et al., and Engels et al. (based on the soft X-ray *ROSAT* sample) than to those of Stephens, and Grijp et al. that were based on medium hard X-ray selected or IR selected samples.

The relative proportion of Sy2 to BLS1 (Sy2/BLS1) is a matter of discussion in numerous papers starting with Osterbrock (1977), who shows that the relative proportion of Sy(1.8+1.9+2)/Sy1+1.5)=3.6±1.0; Huchra & Burg (1992) show that the proportion of Sy2/Sy1 $=2.3 \pm 0.7$ (both results are based on the data of the CfA survey). Salzer, MacAlpine, & Boroson (1989) show that the fraction of Sy2/Sy1 = 5.6 from the University of Michigan (UM) survey. It is beyond the scope of this paper to further analyze these interesting results.

Our data show that many previously classified Sy galaxies possess an incorrect spectral classification due to insufficient spectral resolution (the mean resolution used was $\sim 5-10$ Å). The homogenously observed and re-classified complete sample of SBS Sy galaxies shows that, besides of "pure" Sy1 galaxies and "pure" Sy2 galaxies formally satisfying the

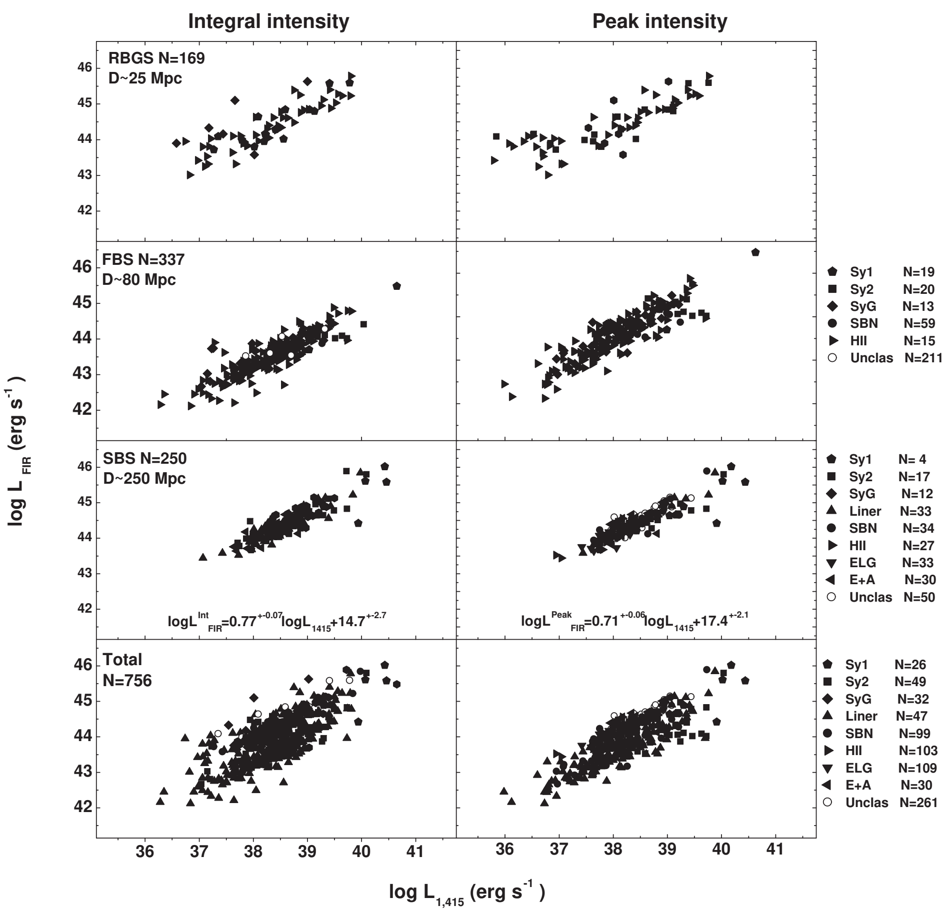

Fig. 19. The *FIR*-radio correlation for SBS galaxies. A similar correlation is shown for RBGS (Revised Bright Galaxy Sample, Sanders et al. 2003) and for Mkn galaxies. The *FIR*-Radio correlation are separately shown for the Peak (right half) and for the Integral intensity (left half) radio luminosities. Common objects are excluded from the total sample.

classical definitions, there are numerous objects that do not belong to these classes and cannot therefore be used to estimate the proportion of Sy2/BLS1s or even Sy(1.8+1.9+2)/Sy(1+1.5). As was mentioned above, 25% of objects in the complete sample of SBS Sy galaxies do not belong to any known classes of Sy galaxies. We include them among the Sy galaxy subsamples for the purpose of our investigation. Our detailed spectrophotometric investigation of these objects will be presented in Paper II of the SBS survey. Here we shall only mention that in the complete sample of SBS Sy galaxies the relative proportion of "pure" Sy2/BLS1 is ≥ 2.

9.2.5. FIR-*Radio Luminosity Correlation for SBS Galaxies and AGN*

The results of the cross-correlation of SBS objects with IRAS and FIRST survey as well as the IRAS and FIRST fluxes and luminosities were all presented in sections 8.1 and 8.2. It turns out that 541 of these objects are SBS-IRAS galaxies and 534 SBS-FIRST objects. 291 SBS objects are identified as simultaneous IRAS and FIRST sources. 31 of the remainder are Seyfert galaxies. We use these data to analyze the FIR-radio correlation for both the peak and the integral radio luminosities at 1415 MHz of SBS galaxies and AGN.

The FIR-Radio correlation of different types of SBS galaxies is shown in Figure 19. In Figure 20 we separately introduce the FIR-Radio correlation amongst SBS Seyfert galaxies. For comparison purposes and as control samples, we show a similar correlation from the RBGS (Revised Bright Galaxy Sample, Sanders et al. 2003), sample and for Markarian galaxies. The FIR-Radio correlation for all objects is separately shown for the peak intensity (which perhaps is associated with the nuclear region of the galaxy) and for the integral intensity (which is perhaps related to the main body of the galaxy).

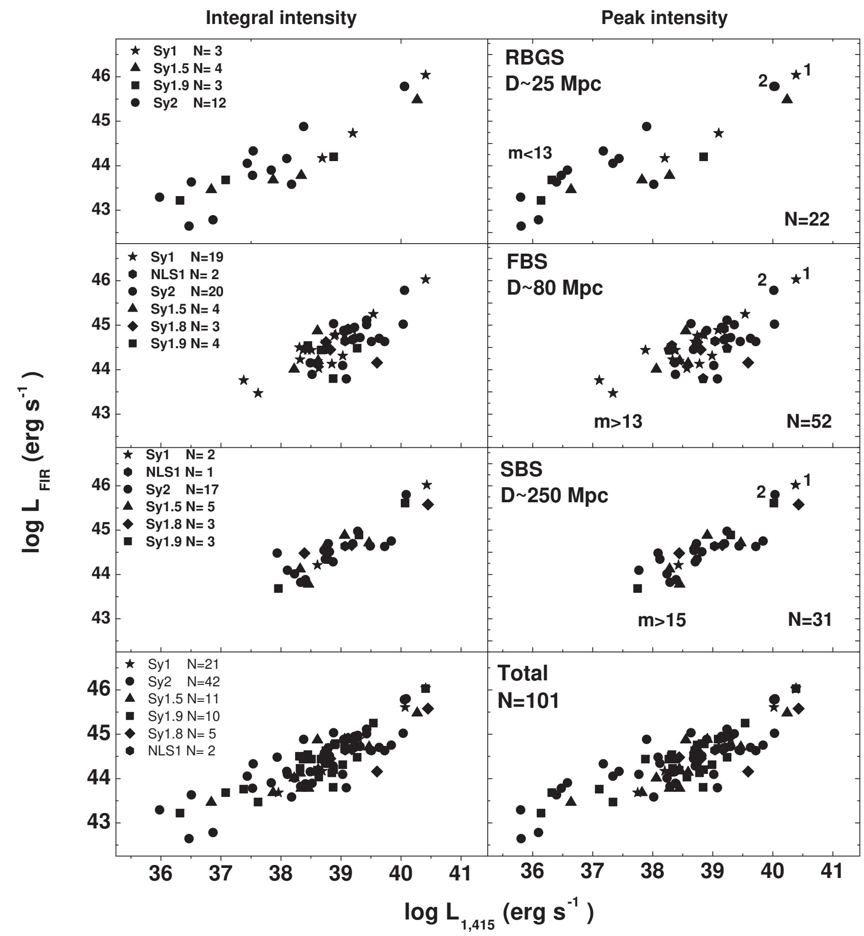

Fig. 20. The *FIR*-radio correlation for SBS Seyfert galaxies. For comparison the similar correlation shown for RBGS (Revised Bright Galaxy Sample, Sanders et al. 2003) sample and for Mkn galaxies as a control samples. The *FIR*-Radio correlation are shown separately for the Peak intensity radio luminosities (right half) and Integral intensity radio luminosities (left half). In total sample common objects are excluded.

To construct the FIR-Radio correlation for Markarian galaxies we have cross correlated the FBS survey (which covered $\sim 17,000$ deg^2), with the FIRST survey. The latter is complete within the FBS sky area surveyed. 789 Markarian galaxies were identified as FIRST radio sources within the overlapping FIRST/FBS sky area. 44 additional sources were taken from Bicay et al. (1995) although they lie outside of the area covered by the FIRST survey measured fluxes at 1415 MHz. 119 Markarian galaxies which have fainter radio sources than those observed by Bicay et al. (1995) were identified for the first time. 670 out of 833 FIRST-FBS radio sources were identified with IRAS sources. 337 of them have measured redshifts. The redshifts coupled with other data are then used in the FIR-radio correlation analysis of Markarian galaxies. 52 of them are Mkn Sy galaxies.

The RBGS sample of the brightest FIR galaxies was similarly correlated with the FIRST radio survey. 169 sources were identified and later used to investigate the FIR-radio properties of different types of galaxies of the RBGS sample. 22 of them are Sy galaxies.

In total we have used the sample of 753 FIRST-IRAS galaxies (169 from RBGS-FIRST, 337 from FBS-IRAS-FIRST, and 247 from the SBS-IRAS-FIRST samples) including the subsamples of 101 Sy galaxies in order to investigate the FIR-radio correlation amongst different types of galaxies. Note that all three samples are well-defined, complete, samples of galaxies.

Very strong correlations were found for all types of galaxies, in particular for SBS galaxies with a mean value of $\log L^I_{\rm FIR} = 0.77 \pm 0.07 \log_{1415} + 14.7 \pm 2.1$ with a correlation coefficient of 0.91 and

TABLE 29

THE LUMINOSITY FUNCTION OF SBS UVX, ELG AND UVX+ELG SAMPLES

	UCM		UM		KUG		CASE		SBS					
									UVX		ELG		UVX+ELG	
M_B	$\log F_{M_B}$	N	$\log F_{M_B}$	N	$\log F_{M_B}$	N	$\log F_{M_B}$	N	$\log F_{M_B}$	N	$\log F_{M_B}$	N	$\log F_{M_B}$	N
−23.0	...	...	...	...	...	...	...	...	−6.93	5	...	...	−6.93	5
−22.0	−4.46	8	−6.03	1	−5.66	5	−5.59	1	−5.61	58	−5.65	41	−5.35	99
−21.0	−3.13	32	−4.60	8	−4.58	15	−4.30	5	−4.68	160	−4.75	125	−4.38	285
−20.0	−2.78	51	−3.85	17	−3.69	29	−3.28	21	−3.94	171	−4.09	140	−3.65	311
−19.0	−2.80	40	−2.77	23	−3.08	30	−2.57	27	−3.51	130	−3.63	121	−3.20	251
−18.0	−2.74	14	−2.94	24	−3.12	7	−2.37	10	−3.21	61	−3.29	35	−2.95	96
−17.0	−2.43	7	−2.88	15	−2.74	4	−1.92	9	−2.80	37	−2.99	18	−2.55	55
−16.0	−3.43	1	−1.76	21	−2.06	5	−1.79	4	−2.50	28	−2.81	10	−2.27	38
−15.0	−3.29	1	−2.15	7	−1.65	3	−1.15	2	−2.08	21	−2.41	6	−1.84	27
−14.0	...	...	−2.67	4	...	...	−1.06	1	−1.56	10	−2.20	2	−1.55	12
−13.0	...	...	−2.43	2	...	...	...	...	−1.40	4	...	...	−1.40	4
−12.0	...	...	...	...	...	...	...	...	−0.98	3	...	...	−0.98	3
Total		154		122		98		80		688		498		1186

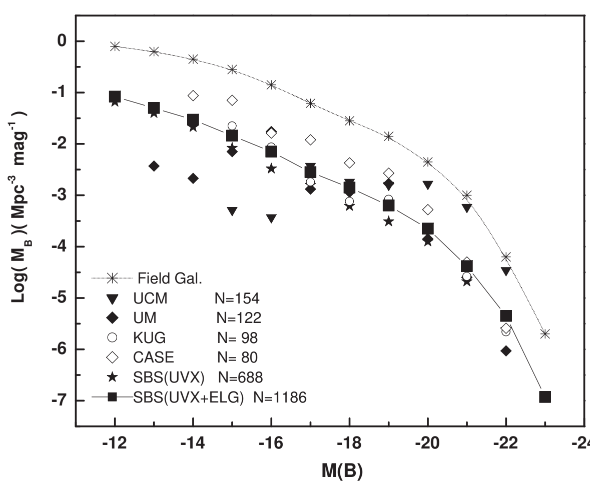

Fig. 21. The luminosity function (LF) of SBS UVX and UVX+ELG galaxies. The luminosity function of UCM, UM, KUG and CASE surveys are shown for comparison (Gallego et al. 1997). The LF of field galaxies in the SBS sky area is based on data compiled from an objective-prism search, giving $\sim 35,000$ galaxies with $B \leq 18.5$ mag. The SBS complete sample with $B \leq 17.0$ is shown in this plot.

$\log L^P_{\rm FIR} = 0.71 \pm 0.05\ \log_{1415} +17.4 \pm 2.1$, with a correlation coefficient of 0.91, close to that found by Bicay et al. (1995).

The FIR-radio correlation was analyzed separately for 101 Seyfert galaxies from the above mentioned three complete samples: RBGS (22 objects), FBS (52 objects) and SBS (31 objects, excluding objects in common). For these three samples considered separately the data are not enough to establish a statistically significant correlation between FIR and radio luminosities for Sy galaxies. The total sample, which summarizes all three complete samples together, shows a strong correlation between FIR and radio luminosities for AGN, with $\log L_{\rm FIR} = 0.72 \pm 0.09 \log_{1415} +16 \pm 1.5$, and a correlation coefficient of $r = 0.91$. This statistically significant and complete sample of 101 AGN shows the well established correlation between FIR and radio luminosities.

The RBGS sample is a complete sample out to a distance of about 25 Mpc. It represents the FIR properties of AGN within the very local Universe, which includes AGN with luminosities as faint as $\log L(\rm FIR) < 43.5$ and $\log L(1415) < 37.5$. The FBS sample, complete up to distances of 80 Mpc, is able to describe the AGN properties of the local Universe but it does not contain objects as faint as those included in the RBGS sample. The SBS sample is complete to a distance of about 250 Mpc and it obviously does not contain faint objects in the luminosity range $\log L(\rm FIR) < 44.0$ and $\log L(1415) < 38.0$. All three samples when lumped together make it possible to extend the distance scale up to ~ 250 Mpc, to enlarge the luminosity intervals and to render the sample statistically significant. The conclusion is that the FIR-radio correlation is more general than thought before and that it exists for all types of galaxies and AGN in the local and the medium- redshifted Universe. The correlation is practically the same for the peak and for the integral radio luminosities. This result means that the processes generating the IR and radio emission are closely related physically in all types of galaxies and AGN.

9.3. *The Luminosity Function of SBS Galaxies, AGN, and QSOs*

The fraction of UVX galaxies or emission-line galaxies as well as the fraction of AGN among all galaxies in the local and low-redshifted Universe has been a matter of investigation in numerous surveys. What fraction of the local galaxy population currently hosts an active nucleus? What is the fraction of AGN and UV-excess galaxies on a more distant scale (about 500 Mpc) or more? Is their nature, power or morphology changed? What is the connection between the distant Sy galaxies and the nearby QSOs?. These and other similar questions might be answered if statistically representative, complete, samples of AGNs and QSOs are constructed for the low-redshifted Universe. We hope that studies of the complete samples of SBS, AGNs, and QSOs, one of the largest, most homogeneous and deepest amongst comparable samples, may answer some of these questions.

9.3.1. *The Luminosity Function of SBS Galaxies*

It is well established (a result initially derived from the investigation of Markarian galaxies and later confirmed by a number of other surveys), that the relative numbers of AGN and UVX galaxies among field galaxies in the local Universe amount to about 1% and 10%, respectively. The luminosity function of faint SBS UVX galaxies based on a small sample of 86 objects was investigated by Stepanian (1984). It was found that UVX galaxies comprise nearly 8% of field galaxies while Sy galaxies comprise 10–13% of UV-excess galaxies. Using much larger complete samples of ~ 700 SBS UVX galaxies, we found that in a volume of about 500 Mpc, the SBS UVX galaxies amount to $\sim 12\%$ of field galaxies and that at least 15% of them are Seyfert galaxies. Therefore 1.8% of field galaxies are Sy galaxies. This value is nearly twice that of 1% derived for the local Universe (≤ 100 Mpc). Taking into account the 90 LINERs discovered in SBS within the same volume, the total percentage value of AGNs is at least 3% of field galaxies within the volume of ~ 500 Mpc that the SBS sky area covers. The proportion of emission line galaxies without UV excess is a little less ($\sim 9\%$) than the proportion of UV excess galaxies. Together, they bring the number of emission

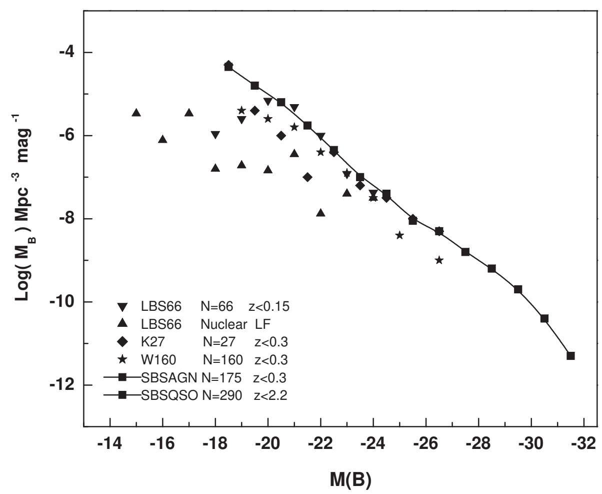

Fig. 22. The luminosity function of SBS AGN and QSOs. The luminosity function (LF) of the complete samples for low-redshifted AGN, Kohler et al.(1997) (K27, 27 objects, $z < 0.3$), Wisotzki 2000 (W160, 160 objects with $z < 0.3$) and the total and nuclear LF for 66 objects with $z < 0.15$ by Londish et al. (2000) (LBS66) are shown for comparison. The SBS complete sample with $B \leq 17$ is in the plot. Note that AGN lie at $M(B) > -23$ while QSOs lie brighter than $M(B) \leq -23$. The gap between ANG and QSOs is filled and the LF now connects smoothly.

line galaxies to no less than 20% of field galaxies. The luminosity functions (hereafter LF) of the SBS UVX ELG and of the total sample (UVX+ELG) are shown in Table 29 and in Figure 21. The complete SBS sample with $B \leq 17.0$ is shown in this plot. It is now possible to construct more correct LF for the SBS galaxies with the use of the magnitudes, measured by SDSS survey in five colors, for more than half a thousand of SBS galaxies crossed with SDSS (paper two of the SBS survey). The LF of some other surveys such as UM (University of Michigan), UCM (University Complutense de Madrid), KUG (KISO ultraviolet galaxies) and CASE are also shown for comparison.

9.3.2. *The Luminosity Function of SBS, AGN, and QSOs*

The complete sample of the SBS, AGNs allows us to derive the luminosity function of AGN in the $z < 0.1$, $z < 0.15$ and $z < 0.3$ Universe. The QSO optical luminosity function and its evolution with redshift has been studied extensively for over three decades now (Schmidt 1968; Boyle et al. 1988; Hewett et al. 1995; La Franca & Cristiani 1997). In contrast, the local ($z < 0.15$) QSO LF is rather poorly determined. This is due to a number of factors having to do with the compilation of a suitable sample of local active galactic nuclei from which to derive the LF. A low-redshift AGN LF has been recently constructed by Kohler et al. (1997), in which 27 AGN with $z < 0.3$ from the Hamburg/ESO objective prism survey were used. Wisotzki (2000) used the HES sample 160 QSOs containing with $z < 0.3$ to construct the Local Universe LF of AGNs. The third sample used to derive the Local Universe LF is that presented by Londish, Boyle, & Schade (2000) based on HST observations of 66 AGN selected in X-ray with $z < 0.15$. It was found that the form of the low-redshift AGN LF is very different from the double power law LF seen at higher redshifts. If these results is correct, they represent a significant challenge for any theoretical model which seeks to connect the evolution of QSOs at high redshift with the local AGN population.

The luminosity function of SBS AGN/QSOs with $z < 0.3$ and that of QSOs with $0.3 < z < 2.2$ is shown in Figure 22. For all of them we have used the CCD B band total magnitudes to construct the LF. The nuclear LF for low-redshifted SBS AGN has not yet been constructed.

One can see in Fig. 22 that the LF of SBS QSOs is natural continuation of the LF of SBS AGN. The previous gap between Sy galaxies and QSOs is now filled. Nevertheless, it is necessary to point out that the redshift range $0.1 < z < 0.3$ is less complete from a methodological point of view than the redshift range $0.3 < z < 2.2$.

9.4. *Blue Compact Galaxies of the SBS Survey*

Blue compact galaxies BCG in the SBS sample consist of nearly 20% (345 objects) of the total sample of SBS galaxies. More than half of them (195) are blue compact dwarf galaxies (BCDG). A few hundred of objects classified as SB or SBN formally might be also called BCGs. These samples of more than half a thousand objects constitute the largest homogenous known sample of BCGs selected in the Northern hemisphere. BCGs have luminosities in the range $-12 > M(B) > -21.5$. Those BCGs which are less luminous than $M_B \sim -17.5$ are commonly referred to as blue compact dwarfs. The fraction of dwarf UVX and ELG is similar to the fraction of star-forming UVX and ELG in the total sample of SBS galaxies. This means that the distribution of the SBS galaxies uncovered either via the UVX or EL technique does not depend on the galaxy luminosity but operates in the same way as for dwarfs, as well as for the total star-forming sample. The ELG sample complements the UVX sample for star-forming galaxies but not for AGN.

9.5. *Blue Compact Dwarfs and Metal-Deficient Galaxies of the SBS Survey*

BCDGs have become very important for the theory of galaxy evolution due to their high star formation activity and possibly young age. The first burst of star formation might be occurring in some of these galaxies. During the last decade, special attention has been paid to the low-luminosity subsample of the SBS galaxies. This is mostly due to a number of interesting galaxies within the SBS BCDG subsample, such as SBS 0335–052, which are nearly as metal-poor as IZw 18 (Kunth & Ostlin 2000). Yet 23 years after the several paper of Sargent & Searle (1972), only one extremely metal-poor star-forming galaxy, (SBS 0335–052) comparable to IZw 18 has been found (Izotov et al. 1990). The entry of SBS 0335–052 upon the stage of metal poor BCDGs changed the scene significantly. In some sense SBS 0335–052 is more extreme than IZw 18 in that it is more luminous [$M(B) = -16.7$ mag] and thus lies further off the well known metallicity-luminosity relation.

Out of nearly 120 previously selected SBS BCGs, the oxygen abundance 12+log(O/H) was measured for 86 of them and published in a series of papers. The discovery of five metal-poor SBS galaxies was reported in Izotov et al. (1991). The results of the study of a sample of 86 SBS BCDGs were presented by Izotov et al. (1993) and those concerning a group of about 30 SBS BCDGs were presented by Isotov & Tuan (1999). Nearly half of the objects turn out to be metal-poor BCDG. Out of the 54 metal-poor objects, with $7.2 < 12 + \log(O/H) < 8.3$, or $Z\odot/50 < Z < Z\odot/6$ included in the Table 1 by Izotov & Tuan (1999), 45 (90%) are taken from FBS and SBS. According to Kunth & Ostlin (2000), this sample is the largest homogeneous high quality survey rich in information about metal-poor BCGs.

According to Izotov & Tuan (1999) and Kunth & Ostlin (2000), nine BCG more metal-poor than 1/20 of Solar do exist. These are: SBS 0335-052, IZw 18 (Mkn 116=SBS 0930+554), UGC 4483, SBS 0940+544N, SBS 1159+545, CG 389, SBS 1116+517 (A1116+51), Tololo 65 and Tololo 1214–277. The list of *all* known known BCDGs with oxygen abundances $\sim 1/20$ Solar and below was presented by Kunth & Ostlin (2000). In total there are a dozen very metal-poor galaxies with $Z < Z_\odot/20$. Interestingly, more than 55% of all known extremely metal-poor galaxies with $12+\log(O/H) < 7.49$ mentioned in that list were discovered in the SBS survey.

Before the SBS survey, only a few metal poor ob-

TABLE 30

METAL-POOR BCDGS WITH $12 + \log(O/H) < 8.30$ FROM THE SBS SURVEY. N=51

SBS design.	z em	B	M B	12+ log(O/H)	Other name	Morphology	Ref.
0335-052E	.0135	18.0	−16.7	7.29	···	starlike; Pair	[1, 6, 7]
0745+587	.0201	17.5	−17.5	8.30	···		[3]
0749+568	.0183	18.0	−16.8	7.85	···	starlike	[5, 6]
0749+582	.0320	19.0	−17.0	8.13	···	starlike	[5, 6]
0756+611	.0212	17.5	−17.5	8.30	···		[3]
0907+593	.0303	19.0	−16.8	7.97	···	no continuum	[5, 6]
0917+527	.0079	17.0	−15.9	7.86	Mkn 1416	Pair	[5, 6]
0926+606A	.0136	17.0	−17.0	7.91	···	close-binary	[5, 6]
0926+606B	.0143	18.0	−16.1	8.27	···	close-binary	[3]
0930+554	.0014	17.6	−11.5	7.18	IZw 18	close-binary	[6, 7]
0940+544N	.0059	19.5	−12.7	7.43	···	no continuum	[6, 7]
0943+543	.0057	17.5	−14.6	8.07	···		[3]
0943+561	.0299	19.0	−16.7	7.74	···		[6, 7]
0943+563B[a]	.0257	18.0	−17.4	8.28	···	Pair:	[3]
0946+558	.0050	15.6	−16.2	8.00	Mkn 22	Pair	[6]
1001+555	.0040	17.0	−14.3	8.27	···	cometlike	[3]
1011+600	.0076	17.5	−15.2	8.28	···	Pair	[3]
1011+601	.0081	17.5	−15.4	8.28	···	Pair	[3]
1017+542	.0305	18.5	−17.2	8.30	···	no continuum	[3]
1030+583	.0077	16.5	−16.3	7.79	Mkn1434		[5, 6]
1037+494	.0054	18.0	−14.0	7.93	···	jet on E	[3]
1102+606	.0046	17.0	−14.5	7.64	···		[3]
1114+587	.0055	17.0	−14.9	8.26	···		[3]
1116+517	.0021	16.4	−13.5	7.60	Arp dwarf	close-binary	[7]
1116+583B	.0350	19.5	−16.5	7.68	···	no continuum	[2,5,7]
1118+578B	.0057	16.5	−15.6	8.26	···		[3]
1118+587	.0286	18.5	−17.1	8.26	···	cometlike	[3]
1122+610	.0337	18.5	−17.5	8.30	···	starlike	[3]
1128+573	.0054	18.5	−13.5	7.75	···	no continuum	[5,6]
1135+581	.0035	15.5	−15.5	7.98	Mkn1450		[6]
1149+596B	.0116	18.0	−15.6	8.26	···		[3]
1159+545	.0125	18.0	−15.8	7.49	···	no continuum	[2,6,7]
1205+557	.0066	17.0	−15.4	7.75	···		[4,5]
1211+540	.0035	18.0	−13.0	7.64	···	no continuum	[2,6,7]
1212+563	.0477	19.5	−17.2	8.26	···	no continuum	[3]
1221+545B	.0189	18.0	−16.7	8.28	···		[3]
1222+588	.0161	17.0	−16.8	8.30	···		[3]
1222+614	.0029	17.0	−13.6	7.95	···		[5,6]
1249+493	.0258	18.0	−17.3	7.72	···	no continuum	[2,6,7]
1307+563B	.0176	18.0	−16.5	7.82	···	starlike	[3]
1319+579A	.0074	18.5	−14.1	8.11	SWNGC5113	Pair	[5,6]
1319+579B	.0082	18.5	−14.4	8.09	NENGC5113	Pair	[5,6]
1331+493N	.0024	14.9	−15.3	7.77	···	hot spots	[6]
1331+493S	.0024	14.9	−15.3	7.87	···	hot spots	[6]

TABLE 30 (CONTINUED)

SBS design.	z em	B	M B	12+ log(O/H)	Other name	Morphology	Ref.
1415+437[b]	.0020	15.5	−14.8	7.59	···		[6]
1420+544	.0217	18.5	−16.5	7.75	CG 413	no continuum	[4,6]
1430+521	.0262	18.0.	−17.4	7.91	CG 468	starlike	[3]
1533+574A	.0126	16.6	−17.4	7.88	VIIZw611	close-binary	[5,6]
1533+574B	.0126	16.6	−17.4	8.11	VIIZw611	close-binary	[5,6]
1533+602B	.0099:	19.0	−14.3	8.10	···		[5]
1535+554	.0022	15.2	−15.4	8.06	Mkn 487		[6]
0813+521	.0243	17.0	−18.4	8.29	···		[3]
0915+556	.0493	17.08	−19.7	7.80	···		
0948+532	.0463	18.0	−18.7	8.00	···		[6]
1132+503	.0262	17.0	−18.4	8.07	Mkn 1448		[3]
1152+579	.0172	16.5	−18.0	7.81	Mkn 193		[6]
1305+547	.0328	16.0	−19.9	8.28	···		[3]
1358+576	.0338	17.0	−19.0	7.88	Mkn 1486		[4,5,6]
1524+589	.0602	18.0	−19.2	8.28	···		[3]
1524+575B	.0408	18.0	−18.4	8.27	···		[3]
1526+585	.0308	18.0	−17.8	8.29	···		[3]

References: 1. Izotov et al. 1990; 2. Izotov et al. 1991; 3. Guseva et al. 1993 (private communication), 4. Stepanian 1994; 5. Izotov et al. 1997; 6. Izotov & Tuan 1999; 7. Kunth & Ostlin 2000.

[a]Satellite of Mkn 123; No continuum means that these objects show on objective-prism spectra, only emission lines without strong continuum.

[b]Out of the SBS main contiguous area.

jects were known, not enough to allow the accurate measurement of the primordial element abundances. For a long time the known number of such metal-deficient objects was very small. For more than 23 years, IZw 18 stood by itself at $Z = Z_\odot/50$, with a large gap in the BCDG metallicity distribution between $Z_\odot/15$ and $Z_\odot/50$. A large number of BCDGs with low metallicity ($Z \leq Z_\odot/10$) that were discovered amongst the SBS objects have metallicities close to that of IZw 18 and fill the above mentioned metallicity gap. All of these objects were used for the new determinations of the primordial element abundance in the Universe (Izotov & Tuan 1999). The results obtained by Izotov and Tuan are based on the investigation of around 35% of the total sample of SBS BCGs. The rest of them, more than ~ 220 objects, ~ 100 BCDG, and ~ 120 BCG (65% of the total sample), have not yet been investigated. The detailed study of the total sample of SBS BCGs may significantly improve our knowledge about the evolutionary state of this type of objects.

In Table 30 we present the results of measurements for 51 metal-deficient SBS BCDGs with 12+log$(O/H) < 8.3$. Most of them were included in Table 1 of Izotov & Tuan (1999). The extremely metal-poor SBS galaxies were also included in Table 3 of Kunth & Ostlin (2000).

As can be seen from Table 30, a fraction of SBS BCDGs are close-binary systems of galaxies within a common envelope or consist of resolved pairs of galaxies. However, there are significant numbers of isolated systems as well. Therefore, while mergers might be sufficient to turn on BCDGs, it remains uncertain whether this is such a common process.

We include in Table 30 the data for 10 SBS BCGs with $-18.4 > M(B) > -19.9$, to demonstrate that amongst the luminous BCGs there are objects with subsolar oxygen abundances. In contrast with the metallicity-luminosity relation, metallicity appears to correlate with galaxy luminosity in the local Universe, in the sense that more metal-rich galaxies are on average more luminous. It is possible that a careful determination of the metal abundances of a few hundred additional luminous SBS BCGs may lead to the discovery of more luminous metal-poor galaxies. Incidentally, Kunth & Ostlin (2000) mentioned that some luminous BCGs may be quite metal-poor.

The main interest in studying metal poor objects is that they constitute an excellent laboratory to test cosmological models of light element abundances in the Universe and to verify models of galaxy formation or models of chemical evolution of matter and of massive stars. The current wisdom is that most of the element production in the Universe, apart from the early "Big-Bang" nucleosynthesis, occurs in stellar interiors. Part of the products of stellar nucleosynthesis are spread out when stars die, or are expelled from evolved stars in the form of stellar winds, while another part remains locked up in stellar remnants.

9.6. *The Space Density of BCG and BCDG*

The space density as well as the luminosity function of blue compact dwarf galaxies is poorly known. The frequency of occurrence of starbursts is similarly not well known. To address these problems, statistical studies over large samples of objects are required. We use the sample of 345 SBS BCGs and 562 SBN to derive their luminosity function. The cumulative magnitude distribution of SBS BCDGs is shown in Fig. 8. The LF of SBS BCGs shows that they comprise nearly $\sim 4\%$ of field galaxies and 22% of all SBS galaxies. Similarly the BCDGs consist of $\sim 2\%$ of field galaxies and 10% of the SBS galaxies. The extremely metal-poor galaxies (with $Z_\odot < 7.65$, 1/20 $Z_\odot$) represent 10% of the investigated SBS BCDGs. Assuming that the same proportion exists amongst the SBS BCDGs not yet investigated, the abundance of metal-poor galaxies among field galaxies can be estimated as $\sim 0.2\%$. Of course, all of these estimates are lower limits.

The SBS subsamples of BCDGs, SBN, and H II galaxies give us the opportunity to measure more accurately than at any time before the space densities of local starbursting galaxies and to infer a more accurate estimate of the local star-forming rate (SFR), which, when combined with high-redshift studies, will lead to a more precise understanding of the evolution of the SFR as a function of cosmic epoch. The detailed study of these objects, their luminosity function, spatial distribution, chemical abundances, etc., will be presented in Paper II of the SBS survey.

9.7. *Brief Comparison with other Surveys*

Despite the fact that a more detailed analysis of the completeness of different subsamples of SBS galaxies and their comparison with other surveys will be presented in Paper II, a very brief comparison with some other surveys is presented below. A comparison of the surveys reflects not only their methodological differences but also their efficiency at detecting the defining observational properties of the selected objects. In the case at hand here, it is the efficiency of detecting populations of emission-line objects that are at different stages of activity and spread all over the Universe at different redshifts.

9.7.1. *UV Excess and Emission-Line Galaxy Surveys*

Several studies have been carried out to compare the different populations of galaxies discovered using different survey techniques. It has been claimed that color-selected surveys sample a different galaxy population from the one selected by emission-line surveys (Comte 1998). An opposite opinion, that UVX and ELG surveys yield practically the same result, has been advanced by Coziol et al. (1993). According to Coziol et al., most of the objects found are narrow emission-line galaxies (SBN or H II) while Sy galaxies and other AGNs would constitute less than 10% of the samples. In general most surveys using UVX and EL techniques are obviously designed to discover active and star-forming galaxies. Therefore, it is not surprising that they all resulted in the detection of some fraction of AGN and emission line galaxies amongst field galaxies. The relevant question is, how effective is a survey in detecting AGN and emission line objects? What is the fraction of AGN and emission-line galaxies in surveys using the UVX and emission-line criteria?

We find that in the SBS survey the percentage of AGNs among the UVX galaxies is no less than 15%, the highest value so far amongst current similar surveys. Most surveys like that of Markarian result in an AGN proportion around 10% with an UVX fraction amongst field galaxies around 10%. Similar results were obtained in other surveys that use the UVX technique. The number of AGN is at most 10% in optical searches (Huchra 1977; Wasilewski 1983) or amongst IRAS galaxies (Allen et al. 1991). As in the case of Markarian galaxies, Tololo galaxies represent the blue extension of the general field galaxy sample, nearly 10% of which are Sy galaxies (Bohuski, Fairall, & Weedman 1978). 10% of all galaxies in the absolute magnitude range $-16.5 \geq$ M(B)≥ -22.5 of CASE galaxies are also Sy galaxies (Weistrop & Downes 1991).

Color based surveys such as the Kiso survey (Takase & Miyauchi-Isobe 1984), [one of the largest surveys that resulted in the selection of more than 8000 galaxies] with a density 30 times larger than the Markarian survey, detected $\sim$ 5% of AGN (Comte 1998). The UCM survey (Gallego et al. 1996) in which the ELG search was done by looking for Hα+N IIλ6584/48 on objective-prism spectra

TABLE 31

THE MAJOR OPTICAL AGN/QSO SURVEYS

Name of survey	Area deg^2	Magnitude range	Number AGN/QSOs	B compl.	$N_{AGN/QSOs}$ compl.	Authors
FBS	170000	13.0-17.0	218	15.50	180	Markarian et al.1981
BQS	10714	14.0-16.4	114	16.12	93	Schmidt and Green 1983
HES	3700	13.0-17.0	415	17.00:	250	Visozki Astro-ph/0004162
SBS	991	15.0-19.5	751	17.50	290	Stepanian 1994
HBQS	555	15.0-18.8	327	18.50	75[a]	LaFranca & Cristiani 1997
LBQS	453	16.5-19.5	1031	18.41	73[a]	Hewett et al. 1995
EQS	330	15.5-16.5	12	16.50	8	Goldshmidt et al. 1992
MBQS	109	15.6-17.6	32	17.60	26	Mitchell et al. 1984

[a]The number of objects corresponding to the magnitude limit $B \leq 17.5$.

has resulted in 5% detection of AGN. The MCM survey (Coziol et al. 1997) resulted in an even smaller fraction, $\sim$ 3%. The surveys based on others methods, like anomalous surface brightness, etc., found a function close to 3% of AGN (Comte et al. 1994). Randomly selected samples of field galaxies resulted in an AGN detection rate of about $\sim$ 3% (Stepanian 1994). According to recent investigations (Ho et al. 2000; Tresse et al. 1999), 86% of nearby field galaxies are Hα emitters with a rest-frame equivalent width $EW(H\alpha) \geq 0.2$ Å while nearly 60% of field galaxies are Hα emitters with a rest- frame equivalent width of $EW(H\alpha) \geq 2$ Å. Note that for the latter survey, $z \leq 0.05$ and $15 \leq$ bj ≤ 17.15. Only 28% of these are ELG with $EW(H\alpha) \geq 15$ Å. Therefore each survey, characterized by a certain limit of detection, resulted in the discovery of different subsamples (or fractions) of star-forming emission-line galaxies amongst the field galaxies.

The SBS survey has been defined using two indicators of activity, as observed on objective-prism spectra: the presence of UV excess in the continuum and/or the presence of emission lines (EL). In the SBS survey we find that no less than 20% of field galaxies are relatively strong emission line galaxies for a detection limit ≥ 20 Å. This results is in excellent agreement with the above mentioned data. Objective-prism surveys are quite efficient at probing the faint end of the luminosity function as long as the metal deficiency is moderate and as long as the starburst is sufficiently strong.

The differences between surveys arise mainly from a few methodological causes. Many selection techniques in the case of local AGN suffer from morphological biases. While surveys aiming at star-like objects are clearly biased against finding spatially resolved AGN, galaxy-based surveys are equally biased against finding objects with a dominant nuclear component. In the case of the low-luminosity AGN with $M(B) > -23.0$ that constitute the vast majority of the low redshift population, the integrated light from the host galaxy may in fact dominate the nuclear luminosity.

It is well known that objective-prism surveys are not very sensitive to the properties of the host galaxy, i.e., they are relatively free from morphological bias. An important difference of the SBS from other similar surveys is that it selects all types of extragalactic peculiar objects, without discriminating between stellar and non stellar ones. This is especially important for the faint transition objects that can still show a weak galaxy around the nuclei in near objects (entering in the QSO class by its luminosity) and only the nuclear region for distant objects (entering in the Sy class). Optical QSO surveys on the other hand discriminate against objects with an extended morphology. ELG surveys isolate mainly extended objects and reject star-like ones. Both of them tend to miss compact objects in which the active nucleus outshines the surrounding host galaxy.

The SBS differs from others by its methodology: the SBS is the only survey which uses simultaneously the space of three colors, (the UV-blue, green-yellow, and red parts of the spectra within the objective-prism search), which resulted in a much wider redshift and multicolor space than in the case of a single parameter survey. Besides the UV-excess, SBS selects galaxies by the presence of emission lines in the UV-blue (IIIaJ+ 1.°5 prism), green (IIIaJ+GG495+3° prism) and red (IIIaJ+RG2+4°

prism) spectral domains, range which yields a less biased sample of ELG. These techniques allow selecting ELGs with $z \leq 0.04$ in the red region (wavelength cutoff of $\lambda 6900$ Å on IIIaF plates) and ELG with the redshift range $0.04 < z \leq 0.1$ in the green region (Hβ + [O III]$\lambda 5007/4959$ emission lines shifted to the wavelength cutoff of the IIIaJ plates). Finally, we have used a dozen very-high quality plates inside each field, which makes the object detection more reliable. Due to the depth of SBS, many star-like object classified on objective-prism spectra as QSOs turn out to be Sy galaxies.

The other important difference between the SBS and similar surveys is the following: for the purpose of AGN selection we used the criterion that "the spectral energy distribution of the object must differ from that of stars and other known non-AGN objects". It is very difficult to describe the SEDs of these objects mathematically, i.e., to create an algorithm for their automatic detection. In addition, as a rule, these objects show a star-like spectrum and a surface density only slightly different or the same as that of stars. These objects are not necessarily blue or very blue. The majority of the very rare or unusual objects detected in the SBS: (stars, PN, BCDGs, Sy galaxies or QSOs) are of such types. The requirement of a specific SED distribution coupled with a semistellar surface brightness help us to isolate faint star-like AGN on objective-prism spectra. This is easy to explain: the occurrence of AGN-like nuclear activity and the appearance of a large number of massive hot stars are both leading to the production of excess UV radiation and line emission. Emission lines can be of small equivalent width in AGNs due to the presence of a strong continuum and such objects would otherwise be very difficult to detect. Due to the cosmological redshift (1+z) for both low and high-redshifted objects, the contrast of the emission lines becomes similarly lower. Obviously, the UVX method in comparison with the EL method is a better tool to discover galaxies with AGN activity. That is why the number of AGN is relatively small among surveys which used only EL as a method of detection.

The situation is similar with star-forming galaxies. When compared to objective-prism surveys, the KISO survey does not pick out the same fraction of the active population that consists of starbursting galaxies. The surface density of C type KUG galaxies is 0.25/deg down to $m_b = 16.5$ mag, which is half the surface density of SBS UVX galaxies, i.e., 0.47 with B=16.5 mag. For the C, P, I, galaxy types with KISO the surface density becomes 0.5/deg down to $m_b = 16.5$, which is 1.5 times less than the surface density of SBS UVX+ELG, i.e., 0.84 down to B = 16.5 mag. The KUG population is basically a population of low-ionized active starbursting galaxies (Comte 1998). The KISO survey is able to pick out objects in which the starburst strength is faint or moderate. The UCM survey techniques, on the other hand, have a better efficiency to detect low ionization or high excitation emission-line galaxies (Zamorano et al. 1996).

The rate of detection of metal-poor galaxies among the SBS BCGs is very high. As was mentioned by Comte et al. (1994), searching for extremely metal poor objects located in the nearby Universe cannot be addressed by either a pure emission line search nor by a pure color search with a limiting magnitude $B \sim 17.5$ and a completeness limited to an apparent magnitude of 16 to 16.5. Such goals require an observational strategy that employs both UVX and EL selection techniques, each of which are going much deeper here than in previous work. The objective-prism search needs to be more sensitive to small emission equivalent widths, and the color survey deeper toward faint apparent magnitudes. The first evidence of the potential success of the above mentioned strategy is illustrated by the SBS survey, which has already found a number of extremely metal-poor objects (Comte et al. 1994).

During the definition period of the observational methods and selection criteria for SBS, we found that in most cases we were not able to resolve the [O III]$\lambda 5007 + 4959$ blend from Hβ as was required to make a definite object classification. The need of a higher resolution lead us to use the 3° prism with GG495 filter in order to resolve these emission lines on objective-prism spectra. This helped us to solve two problems: first, to separate high-redshifted QSOs from low-redshift galaxies; and second, we were able to isolate Hβ from [O III]$\lambda 5007/4959$ in spectra of low- redshifted galaxies and therefore to estimate their relative strengths. The availability of the green part of the spectrum in the higher-resolution mode turned out to be extremely effective for selecting compact starlike object. For most starlike cases or for semistarlike objects such as blue compact dwarf galaxies, we find that they do not show a strong continuum but only emission lines. As for the test objects from the Orion Nebula (Herbig-Haro objects) the most metal-pure BCDGs show only emission knots without continuum. It is impossible to isolate this kind of objects using only the blue part of the spectra (IIIaJ emulsion), because these appear only as defects (i.e., single knots and nothing else). The use of both the red and UV part of the spectra with equal resolution helps us to confirm the existence of suspected emission lines in the green region owing to the presence in the red part of the corresponding emission-line [Hα at the same redshift (towards redshifts $z < 0.04$, or for $z \sim 0.1$ if the IV–N+RG9 were available)]. Many of the SBS ELGs have been identified first in the red spectral region (strong Hα+[N II]) and later confirmed in the green (showing a relatively weak Hβ). The UV region can subsequently be used to confirm the presence of [O II]λ3727 emission. This methodology was tested by the use of a big collection of spectroscopic observations of selected test objects obtained with the 6 m telescope.

As seen from Fig. 16, the equivalent width limit of detection on SBS objective-prism plates strongly depends on the selection criteria. If we use as only selection criterion the presence of emission lines, we are then able to detect emission lines with equivalent widths of about 50 Å in the blue region of the spectra. The use of UVX continua (UV excess SED) as an additional selection criterion extends the detection limit to an equivalent width of about 15–20 Å. This resulted in the identification of about 20% of emission-line galaxies among field galaxies, in accordance with the result of Tresse et al. (1999).

A dual-selection method is better able to detect galaxies at a lower level of activity than single parameter surveys. The combination of the UVX and EL methods in the SBS survey allows the discovery of objects with a broader range of star formation histories (broader range of observed and derived parameters) and a wider variety of activity within a broader range of redshifts. UVX techniques cover a larger space in redshifts than does the EL technique. UVX compact galaxies have mostly stellar or semistellar spectra and are generally the strongest UV-excess emitters.

9.7.2. *Optical QSO Surveys*

Among the more than 50 well known optical QSOs surveys only a dozen were undertaken aiming at bright QSOs. They consist of the well known BQS (Bright Quasar Survey – Schmidt & Green 1983), MBQS (Middle Bright Quasar Survey – Mitchell, Warnock, & Usher 1984), LBQS (Large Bright Quasar Survey – Hewett et al. 1995), EQS (Edinburgh Quasar Survey – Goldshmidt et al. 1992) and, more recently the two new surveys HBQS (Homogenous Bright Quasar survey – Cristiani et al. 1995) and HES (Hamburg/ESO Quasar survey – Wisotski et al. 1996). BQS and EQS are contiguous surveys, MBQS and LBQS are not contiguous and consist of a few dozen of fields. BQS, MBQS, and HBQS are color surveys while LBQS, EQS, and HQS are objective-prism surveys.

The total SBS QSO/AGN optical sample contains 751 objects in the magnitude range $13.5 < B < 19.5$ and redshift range $0.0 < z < 3.2$. Of these, 155 are Sy galaxies, the other 596 QSOs. No objects with redshift $z > 3.3$ were discovered. It is well known that optical UVX surveys have used the UV and blue part of the optical window (3500-5400 Å) for AGN/QSO detection, in which the selection effect is minimized in the redshift range $0.3 < z < 2.2$ due to the presence of the strongly shifted emission lines in the Kodak IIIaJ emulsion window 3500–5450 Å. Therefore, methodologically the SBS survey (like other similar QSO surveys) can be expected to be complete in the redshift range $0.3 < z < 2.2$, and the highest redshift that might be detectable in the Kodak IIIaJ emulsion window is $z \sim 3.4$, after which L_α emission-line moves out of the emulsion cutoff. A comparison of SBS total and complete samples of relatively bright QSO/AGNs with the other complete optical samples of QSO/AGNs is shown in Table 31. The results of major bright optical QSO/AGN surveys are summarized in that table. According to Table 31, one of the most representative sample of 290 bright $B \leq 17.5$ AGN/QSOs is to be found in the SBS survey.

During the last years, a few new powerful optical surveys have been undertaken. One of the largest single homogenous QSO surveys has been carried out with the 2dF (Two degree Field) instrument at the Anglo-Australian Telescope. This survey is aimed at finding about 25,000 QSOs in two strips of the Northern and Southern sky of total area of about 740 deg^2. The data for more than 23,000 QSOs in the magnitude range $18.25 < bj < 20.85$ have recently been released. The SDSS (Sloan Digital Sky Survey, York et al. 2000) had planned to produce 10^6 galaxies and 10^5 QSOs in the Northern and Southern Galactic poles, over a sky area of 10,000 deg^2. The SDSS survey already produced a catalogue of 141 million objects on a sky area of 5282 deg^2, of which 528,640 are spectroscopically classified objects, 374,767 of which being galaxies and $\sim$ 51000 QSOs on a sky area of 4188 deg^2. Public release of SDSS dr2 data occurred in the middle of March 2004 (http://cas.sdss.org/dr2/), and the SDSS dr3 release (http://cas.sdss.org/dr3/) at the end of September 2004. This new generation of digital sky surveys will produce representative complete samples of different types of objects, which might be used as control samples for comparison with other surveys (with SBS as well) and also as powerful tools for various cosmological applications.

10. SUMMARY

The Markarian survey, also known as the First Byurakan survey (FBS), was the first survey designed to find extragalactic objects with UV-excess. During the last 30 years, Markarian galaxies have been investigated in detail by the whole astronomical community. Markarian Sy galaxies were investigated in greater detail by D. Osterbrock and his collaborators (1977–1984). Star burst nuclei on the other hand were investigated by Balzano (1983) while multiple nuclei objects were studied by Mazzarella & Boroson (1993). Thus, the Markarian survey provided the principal base from which the main AGN types were discovered within the local Universe. The investigation of fainter objects, in particular QSOs, required the extension of the survey to fainter magnitudes. This problem was successfully solved with the SBS. The latter actually started in 1974, before all major AGN and QSO surveys. However, due to numerous difficulties it was only completed in 1991. In 1976, R. Green published a program to find bright quasars, the well known bright quasar survey (BQS), which is the first systematic QSOs survey based on the selection of objects by their blue color. The SBS survey, which is a continuation of the Markarian's survey, is the first survey in which a galactic survey is combined with a quasar survey. The general purpose of the SBS was to search for peculiar faint extragalactic objects with UV-excess. A total area of 991 square degrees of the Northern sky was covered by a set of 64 fields obtained from the Byurakan 1 m Schmidt telescope. This area is confined to a continuous strip defined by $7^{\mathrm{h}}40^{\mathrm{m}} < \alpha < 17^{\mathrm{h}}15^{\mathrm{m}}$ right ascension and $+49°00' < \delta < +61°00'$ in declination. Each field was covered by a set of ~ 10 plates with the use of three objective prisms in combination with different Schott filters. The mean dispersion available was ~ 1000 Å in the waveband 3500–7000 Å. The limiting magnitude on the best plates reached $B \sim 19.5$ mag. Limiting magnitudes vary from field to field, ranging from 18.5 to 19.5. The methods used in the observations, in the sample selection and in the definition of the classification criteria of the survey have been described here in detail.

As a rule, the aim of any survey is the creation of well-defined representative samples of objects. Each survey implies three separate types of work; first, obtaining the observational material; second, selecting objects and compiling a list of candidates; and third, creating a representative sample of objects to follow on. The third stage is so difficult that many surveys are satisfied with the investigation of a few interesting subsamples of selected objects (AGN, SBN, etc.), without succeeding in creating a fully complete samples to follow on. In this paper we present all the above three steps, which took a long time, over 25 years in fact!

We were able to investigate around 80–100 (sometimes 150–200) objects per year that consisted of good spectrophotometric data. In all the observations we always had to establish a compromise between the quality of the information obtained and a realistic assessment of our limitations.

This paper presents the General Catalogue of extragalactic and peculiar Galactic objects discovered by the SBS. The paper consists of three main parts. The first part presents the review of the SBS survey and of the Catalogue of SBS galaxies and stellar point sources. Separately presented are the Catalogue of SBS Sy galaxies and QSOs. A brief statistical analysis of the data presented in the SBS Catalogues is also given. The second part presents the multiwavelength Catalogue of SBS objects, the Catalogue of SBS objects identified with IRAS and FIRST sources, and provides their fluxes and luminosities. The third part briefly summarizes the data presented in the catalogues and glances over some important results obtained so far.

The General Catalogue consists of 3563 objects presented in two parts: a Catalogue of galaxies (1863 objects) and a Catalogue of stellar objects (1700 objects). The Catalogue of SBS galaxies consists of 1075 galaxies with UV excess continuum and 788 galaxies without UV excess continuum. The Catalogue of SBS stellar objects consists of QSOs and of different types of peculiar stars. The multiwavelength catalogue presents IRAS, FIR, and FIRST radio data for 1080 objects. While compiling the present Catalogue, some errors found in earlier published lists were corrected.

The Catalogue contains the following initial data for all the objects: the precise coordinates with an accuracy ± 1 arcsec, the magnitudes, the angular sizes for galaxies, the redshifts, luminosities for galaxies, the survey type of objects, the data extracted from spectroscopic observations, the spectral range, the spectral classification type, the identification with IRAS, FIRST, and *ROSAT* sources, some cross-references, alternative names of the objects, and other complementary data. The major part of the data is presented for the first time in this publication.

The Catalogue of SBS Sy galaxies contains the

TABLE 32

THE SAMPLE OF VERY RARE GALACTIC AND EXTRAGALACTIC OBJECTS DISCOVERED BY THE SBS SURVEY

SBS designation	Description
SBS 0035-052	one of the most metal poor BCDG, the second known so far. More than 55% of all known extremely metal-poor galaxies with $12+\log(O/H)<7.49$ have been discovered by the SBS survey.
SBS 1425+606	one of the most luminous QSO in the Universe, at $z=3.165$ with $B=15.83$, $M(B)=-31.5$. The first radio quiet QSO with redshift greater than $z>3$ amongst the brightest X-ray QSOs.
SBS 1520+530	a new Gravitational Lens
SBS 0909+531	two binary systems of QSOs
SBS 1216+505	
SBS 1150+599	PGN 135.9+55.9 is the most metal poor Galactic halo planetary nebula
SBS 1349+545	a rare magnetic white dwarf with an equivalent polar field strength amongst the strongest found in white dwarfs, at 760 MGauss
SBS 1517+503	one of the very rare type of dwarf carbon stars having DA white dwarf companion, the second known now so far.

data of 155 Sy galaxies listed separately by their subtype, as well as with their identification with IRAS, FIRST, and *ROSAT* sources. The Catalogue of SBS QSOs collects the data of 596 QSOs including the measurement of the full widths at half maximum (FWHM) and equivalent widths (EW) of the strongest emission lines for 270 objects. The list of 10 BLL is given as well.

More than 80% of the objects included in the SBS Catalogues carry a corresponding a set of high quality spectrophotometric observations obtained over the last 26 years. Spectroscopic data are available for 3132 (88%) objects, including 1428 stellar objects and 1704 galaxies; 2145 spectra come from our own observations, and 987 were taken from the literature. Slit spectra for all stellar objects brighter than $B \leq 17.5$ and for 92% of all galaxies with $B \leq 17.5$ have been obtained. High resolution (1.6 A/pixel) and high signal to noise ($S/N > 30$) spectroscopic observations were obtained for all bright SBS AGN and QSOs and an accurate spectral classification was carried out for all of them. CCD blue and visual magnitudes were obtained for nearly 250 objects, mostly confirmed bright SBS QSOs, Sy galaxies and BCDG. Up to the beginning of 2004, redshifts were measured for ~ 2100 extragalactic objects. Spectral classification was done for ~ 2969 objects. Emission-line parameters were measured for ~ 500 SBS galaxies and 270 QSOs. The nature of 3239 objects is established: 2467 are extragalactic objects and 772 are Galactic stars. Extragalactic objects consist of about 3/4 of the total sample, and Galactic objects the remainder $\sim 1/4$.

The list of objects outside the main contiguous area of the SBS survey contains 392 objects: 180 objects selected in the Southern hemisphere SBS test area (108 galaxies and 72 stellar objects), and 159 objects within the strip centered on the declination of +47 degrees (one of the non-completed strips of the SBS survey) [137 stellar objects and 23 galaxies]. We also present a separate list of 39 objects consisting of red stars and carbon C2 stars, and a list of variable stars detected during the SBS survey (13 objects). In total, the SBS survey contains data on 3955 objects.

New deep and complete samples of faint Markarian galaxies, Sy galaxies and bright QSOs with a complete set of spectrophotometric data have been generated by the SBS survey.

The Markarian galaxy survey is generally considered to be complete down to m_{pg}=15.2 mag and the Mkn galaxy population amounts to 0.1 objects per square degree down to $m_{pg} = 17.0$. The deeper SBS survey is complete down to $B \sim 17.0$ mag and has revealed 1.88 galaxies per square degree down to $B \sim 19.0$. The surface density of all SBS extragalactic objects is ~ 2.6 deg^{-2}.

The magnitude and redshift distributions of SBS UVX, ELG, and Mkn galaxies in the SBS area show a few prominent features. Both SBS UVX objects and ELGs extend the redshift distribution of Markarian galaxies (which are complete up redshift 0.035 and down to a magnitude $m_{pg} = 15.2$). Beyond a redshift $z \sim 0.08$ and magnitude $B \sim 17.0$, the SBS sample becomes incomplete, showing a redshift tail up to $z \sim 0.43$ and magnitude $B \sim 19.5$. There is a deficiency of UV excess galaxies over the redshift range 0.020–0.025 due to a void seen in the spatial distribution of SBS galaxies (Fig. 11.). Both SBS samples of galaxies, UVX and ELGs, show similar redshift distributions. SBS and FBS galaxies show a sharp peak near $z = 0.03$ that is related to the Local Supercluster.

Below we present a list of scientific conclusions drawn from the catalogue presented here.

1. The results of the first combined survey for AGN and QSOs are presented. The Catalogue presents large, homogeneous and new deep samples of bright QSOs, AGNs and faint UVX galaxies from the Northern sky that were selected in a reasonably uniform fashion accompanied by complete sets of spectrophotometric data. The volume of reliable investigation of AGN and faint Mkn UVX galaxies extends out to a distance of about ~ 500 Mpc, that is, more than 50 times deeper than in the FBS.

2. So far, the classification of 761 AGNs has been established as follows; 596 QSOs, 10 BLL, 155 Sy galaxies (of which 38 are BLS1, 31 NLS1, 25 Sy1.5, 8 Sy1.8, 9 Sy1.9, and 44 Sy2s). We also classified 90 LINERs, 562 SBN+SB, 195 BCDG, and 150 H II galaxies and other emission line galaxies. All these objects were discovered within the main 991 deg^2 area of the SBS survey.

3. The magnitude, redshift, luminosity and spatial distributions of SBS objects show the following: the peak in magnitude distribution of SBS stellar objects occurs around $B = 18.0$, that is, one magnitude fainter than that for SBS galaxies. The SBS survey extends the magnitude and redshift distribution of Markarian galaxies towards values of magnitude $B \sim 17.0$ and redshift $z \sim 0.08$, after which the SBS sample becomes incomplete. At redshifts greater than $z \sim 0.15$, the SBS QSO sample extends the redshift distribution of SBS galaxies out to $z \sim 3.2$.

4. The SBS sample of galaxies is found to be complete at a level of 85% for galaxies brighter than $B \leq 17.0$, and at 70% for galaxies brighter than $B \leq 17.5$. The completeness of the SBS QSO sample is estimated to be $\sim 85\%$ for objects brighter than $B \leq 17.5$. In redshift space the SBS survey is complete in two redshift domains regions: $z < 0.08$ for SBS galaxies and $0.3 < z < 2.2$ for SBS QSOs. There are 512 QSOs with $0.3 < z \leq 2.2$ and 51 with $2.2 < z < 3.3$.

5. The equivalent width detection limit of the SBS survey is about ~ 50 Å for objects selected exclusively by the presence of emission lines, and reaches 15–20 Å when the UV-excess detection criterion is used.

The Seyfert Galaxies

6. The complete sample of the SBS AGN might be used as a second layer to the complete sample of AGN originally compiled in the Markarian survey in order to compare AGN properties in the very local ($z < 0.03$) and local (or low-redshifted $z < 0.15$) Universe. SBS AGN may also be useful as a low-redshift counterpart to compare with the galaxies and AGN population at higher redshifts.

7. We confirm the results obtained in the local Universe and extend them to a distance of about 0.5 Gpc: the relative number of Sy2s is at least twice the number of BLS1s. This ratio includes only the numbers of "pure" BLS1s and "pure" Sy2s. The proportion of SBS NLS1s among SBS BLS1s is no less than 40%.

8. A non-classical group of Seyfert galaxies is newly defined. The majority of the SBS Sy galaxies may be classified by the use of classical definitions. However, nearly 20% of SBS Sy galaxies do not follow the classical definition for AGNs. They show very strong and broad (FWHM> 3000 km s^{-1}) or relatively broad (FWHM> 1000 km s^{-1}) Hα emission line, without any sign of the presence of Hβ or [O III]λ5007/4959. These objects might be heavily absorbed AGN. The other group shows low-contrast very weak broad (FWHM$\sim$1000-4000 km s^{-1}) Hα and/or Hβ emission lines with a FWHM of the narrow component (less than 200 km s^{-1}).

SBS QSOs and Peculiar Stellar Objects

9. The SBS contributes significantly to the number of known bright AGN/QSOs. 290 AGN/QSOs with $B \leq 17.5$ were discovered. About 13% of star-like SBS objects with $B \leq 17.0$, and $\sim 6\%$ with $B \leq 16.5$, turn out to be QSOs. The lower

limit to the cumulative surface density of bright QSOs in the redshift range $0.3 < z < 2.2$ is set to 0.05 deg^{-2} for $B \leq 17.0$, and 0.15 deg^{-2} for $B \leq 17.5$, respectively.

10. The local ($z < 0.15$ and $z < 0.3$) AGN LF derived from SBS provides a more accurate zero-point for studying AGN/QSO evolution than previous samples. The SBS sample of low-redshifted AGN might be of use to test the nuclear luminosity function of AGN in the local Universe.

11. The existence of Narrow-line QSOs (NLQSOs), objects with spectral characteristics similar to NLS1s but with quasar luminosities, has been established. There exists a soft transition in all measured properties between SBS NLS1s and NLQSOs.

12. The luminosity function of relatively bright SBS QSOs shows that one of the most important results obtained on the basis of the complete sample of SBS QSOs is that the zero point of the logN-B relationship, which is basic to any AGN evolution model, must be corrected. The LogN-B relationship for SBS bright QSOs in the magnitude range $15.0 < B \leq 17.5$ and redshift interval $0.3 < z < 2.2$ reaches its lowest known value of 0.67 ± 0.03. From this we conclude that the apparent evolution of the luminosity function is most likely the result of selection effects, rather than an indication of fast cosmological evolution.

13. A sample of very rare extragalactic and Galactic objects was discovered: Table 32 summarizes this result. Besides the objects presented in Table 32, were also found 14 very luminous QSOs with $-29.5 > M(B) > -31.5$; 13 BALQSOs; 5 DLAQSOs; 37 rich absorption-line spectrum QSOs and 18 high-redshift QSOs with a dense Lyα forest.

14. More than 1000 peculiar Galactic stars were identified. The vast majority (67%) of stellar objects selected in the SBS are DA white dwarfs (40%) and sdB subdwarfs (27%). The surface density of DA WD with $B \leq 16.5$ and $B \leq 17.0$ corresponds to 0.1 and 0.14 deg^{-2}, respectively.

UV Excess Galaxies and Emission-Line Galaxies

15. The luminosity functions (LF) of SBS UVX galaxies and AGN allow us to conclude the following: within the survey area and up to a distance of $\sim$ 500 Mpc, the SBS UVX galaxies comprise about $\sim$ 12% of field galaxies. The proportion of AGN among the UVX galaxies is no less than 15%, which is the highest amongst similar surveys up to date. About 1.8% of field galaxies with $z \sim 0.1$ are Seyfert galaxies. This value is nearly twice larger than the value of 1% previously obtained for the local Universe. In addition to the 90 LINERs, the percentage of AGNs is no less than 3% for field galaxies in a volume of 0.5 Gpc. The proportion of emission line galaxies without UV-excess is a little less than the proportion of UVX galaxies. Together they bring the number of relatively strong emission line galaxies to at least 20% of field galaxies.

16. The spatial distribution of 1562 SBS galaxies shows that the large-scale structure of the Universe is reliably mapped out to a scale of about 500 Mpc within the SBS sky area. A few nearby voids with a mean size of about 40 Mpc have been found. Studies of the spatial distribution of SBS BCDGs allow the study of biasing in the spatial distribution of low mass galaxies.

17. UVX and star forming ELG do not show major differences in their magnitude, redshift, morphological type, and other properties; In both samples, amongst classified objects, the majority of galaxies are spirals and their magnitude and redshift distributions are similar. Both UVX and ELG distributions peak near magnitude $B \sim 17.0$ and show incompleteness for $z > 0.08$. The absolute magnitude distribution of both SBS UVX and ELGs shows a similar distribution with asymmetric wings spreading into the region of low-luminosity objects. The majority of these low-luminosity objects are in fact blue compact dwarf galaxies (BCDG) in both the SBS UVX and ELG samples. The fraction of dwarf UVX and ELG is similar to the fraction of star-forming UVX and ELG in the total sample of SBS galaxies. The ELG sample complements UVX sample for star-forming galaxies but not that of AGN.

18. 198 binary and multiple systems of galaxies have been identified in the SBS. These include 82 close-binaries or mergers with a component separation of 2–8 arcsec, 96 pairs of galaxies with a component separation of 9–90 arcsec, 10 triple systems and 10 quadruple systems containing two pairs of galaxies.

Blue Compact and Metal-Deficient Galaxies

19. The largest (562 objects) homogenous known sample of SBN and blue compact galaxies ($\sim$ 350 objects) selected from the Northern hemisphere has been compiled. The space density of BCG and blue compact dwarf galaxies (BCDG) have been estimated. BCG comprises of $\sim$ 4 % of field galaxies and nearly 20% of the total sample of SBS galaxies. More than half of BCGs (195) are blue compact dwarf galaxies (BCDG) and their space density is about $\sim$ 2% of field galaxies.

20. Blue compact dwarf galaxies. After 23 years of observation, only one star-forming galaxy comparable to IZw 18 was found, SBS 0335–052. In some sense SBS 0335–052 is more extreme than IZw 18 in that, despite being almost as metal-poor as IZw 18, it is clearly more luminous with $M_B = -16.7$ and thus lies further off the well known metallicity-luminosity relation.

21. Metal-deficient blue compact dwarf galaxies. A large gap in the BCDG metallicity distribution between $Z_\odot/15$ and $Z_\odot/50$ that existed for more than 20 years has now been filled as a result of the compilation of a reasonably large sample of low metallically ($Z/Z_\odot \leq 1/10$) galaxies discovered among the SBS BCDG and whose metallicities are close to that of IZw 18. Nearly $\sim$ 20% of observed SBS BCDG turned out to be metal-deficient galaxies with 12+log(O/H) $<$ 8.3. More than 55% of all known extremely metal-poor galaxies with $12 + \log(\mathrm{O/H}) < 7.49$ were discovered owing to the SBS survey. The proportion of metal-deficient dwarf galaxies with $12 + log(\mathrm{O/H}) < 8.3$ reaches about $\sim$ 0.2% of the field galaxies.

    A dozen of luminous $-18.4 > M_B > -19.9$ BCGs are found with subsolar oxygen abundances. It is not excluded, in contrast to the metallicity-luminosity relationship, that metal-poorness is not the reserved privilege of blue compact dwarf galaxies. The majority of SBS BCGs, as well as BCDGs, have not yet been investigated. Investigation of the total sample of the SBS BCGs, and BCDGs may significantly improve our knowledge of the evolutionary state of star-forming and metal-deficient galaxies.

The Multiwavelength Catalogue of SBS Objects

22. A multiwavelength Catalogue of the SBS objects was presented. To date, 1423 SBS objects have been identified as X-ray ($\sim$ 350 objects), IRAS (541 objects) and FIRST (532 objects) radio sources. A significant portion are new identifications. Fluxes and luminosities are presented in four wavebands, soft X-ray (0.2–2.4 keV), optical 3000–9000 Å, FIR (12–100 μ), and radio at 1415 MHz (21 cm). FIR and radio luminosities are given for 991 objects, 867 galaxies and 124 QSOs.

23. IRAS fluxes at 12, 25, 60 and 100 μ and FIR colors for 541 SBS galaxies and luminosities for 492 objects with measured redshifts were identified with IRAS sources and have been analyzed, giving 84 Luminous Infrared galaxies (LIG) and Ultraluminous Infrared galaxies (ULIG), of which more than half are AGNs. The remainder of SBS galaxies (70%) are not IRAS sources. AGN comprise 31% of the LIG and together with LINERs they compose 48%. The dominant population among LIGs is SBN(36%), LINERS(27%) and Sy2(9%) galaxies. 71% of the ULIGs in the SBS are AGN.

    The IRAS color-color diagrams $\log[S_\nu(60\mu)/S_\nu(100\mu)]$ versus $\log[S_\nu(25\mu)/S_\nu(60\mu)]$ and $\log[S_\nu(12\mu)/S_\nu(25\mu)]$ have been constructed as well. Correlations between $\log[S_\nu(60\mu)/S_\nu(100\mu)]$ and $\log[S_\nu(12\mu)/S_\nu(25\mu)]$ exist up to distances $\sim$ 250 Mpc.

24. The space density of LIG and ULIG AGN is estimated. They consist of about 0.4% of the field galaxies. The Space density of Luminous Infrared AGN is at least 3 times less than the space density of optically selected AGN, most of which are not LIG nor ULIG or even detected as IRAS sources.

25. Peak and integral intensities for 532 SBS objects are presented, of which 398 galaxies and 134 stellar point sources were identified with the FIRST radio sources. Radio luminosities are given for 499 objects, 375 galaxies, and 124 QSOs.

26. 350 objects (219 stellar objects and 131 galaxies) were identified with X-ray sources. 336 of them are extragalactic objects: 182 QSOs, 17 NLQSOs, 5 BLLacs, 2 BALQSOs, and 131 galaxies. Among the remainder 14 objects, 13 are Galactic stars, seven WD DA, five C V, one DO, and one object is a planetary nebula.

27. The FIR-Radio correlation was analyzed for a few hundreds of different type of SBS galaxies

and a hundred of AGN. A strong correlation was found for all type of galaxies and AGN, both between the peak intensity radio luminosities (which perhaps is associated with the nuclear region of the galaxy) and the integral intensity radio luminosities and the FIR luminosities. The conclusion is that the FIR-radio correlation exists for all type of galaxies and AGN in the local and medium-redshifted Universe. The correlation is practically the same for peak and integral radio luminosities.

28. Our multiwavelength investigation of the homogeneously selected samples of SBS AGN in the X-rays, optical and radio shows that the dominant properties of SBS AGN are not identical to these established before. Most turn out to be strong optical emitters but not strong FIR, nor X-ray or radio emitters. SBS NLS1/NLQSO samples show that they are not LIGs nor ULIGs but predominantly weak infrared sources. About $\sim 25\%$ of them are not soft nor medium X-ray sources. Their SEDs suggest that these objects may possess a Big Blue Bump. Coupled with the weakness of X-ray radiation in some of them, it argues against the presence of a BLR in these NLS1s/NLQSOs.

29. An optically selected sample of SBS AGN (that is, a single parameter survey) is more complete than a *ROSAT* soft X-ray, IRAS or FIRST survey alone. More than 60% of SBS optically selected AGN are not detected by *ROSAT*. Similarly, more than 70% of SBS AGN were not detected by IRAS or FIRST radio surveys. SBS BLS1 galaxies are predominantly not FIR sources. Most of them are soft X-ray sources and 1/4 of them are radio sources. SBS Sy2 galaxies are predominantly FIR and radio sources. None of the SBS Sy2s turn out to be soft X-ray sources. This demonstrates that a complete census of AGNs must involve complementary surveys with different selection biases.

A comparison with other galaxy and quasar surveys shows that the SBS survey is one of the most powerful surveys of low and high-redshifted bright AGN, QSO, star-forming galaxies and other objects. SBS spans the bridge between the well known bright QSO surveys like BQS, MBQS, EQS, HQS, HBQS, and the relatively faint surveys like LBQS, AAT, 2dF, SDSS, etc. It similarly it makes a connection between bright EL surveys and deep redshift surveys (Colless 1999, Astro-ph/9911326).

The use of the combined UV excess and emission-line techniques put forward by the SBS has led to the discovery of active and star-forming galaxies with a range of observed and derived parameters broader than in other surveys based on a single selection technique. The UVX technique covers a larger space in redshifts than does the EL technique.

The SBS galaxies and QSOs provide an excellent catalogue for addressing a number of issues regarding the properties of star-forming and active galaxies, particularly the type of questions that requires statistically complete data sets. SBS should yield accurate numbers for the frequency of AGN/starburst activity within the general galaxy population. Another study likely to yield fruitful results is the cross-correlation of the SBS Catalogue with surveys at other wavelengths, such as radio, FIR, NIR, EUV, soft and hard X-rays. The multiwavelength studies using the SBS sample should lead to new insights into the nature of the activity present in these galaxies.

The final results from these follow-up investigations, as well as the full *multiwavelength* Catalogue for SBS Sy galaxies and QSOs (emission line parameters, IRAS, X-rays and radio data), will be presented in more detail in a second paper. The comparison with other surveys and the statistical properties of SBS objects will also be discussed.

The purpose of this work was to open up the use of the SBS Catalogue to future studies aiming at establishing the characteristics and origin of the wide range of activity observed in AGN and QSOs. We foresee that the SBS survey, like the FBS survey, will play a role for the low and medium-redshifted Universe similar to that of the Markarian survey for the local Universe.

The author is more than grateful to his teacher, B. E. Markarian, for his initial invitation to participate in the First Byurakan Survey and for the initiation and continuation of the FBS, which was later transformed into the Second Byurakan Survey. The author also wishes to express his thanks to the Byurakan co-workers, Valery Yu. Terebij, E. Erastova, V. Chavushian, S. Balayan, S. Hakopian, M. Gjulzadian, N. Ivanova, A. Garibjanian, and S. Mkrtchian and to the high quality technical specialists Aram Astvazaturian (Varpet Aram), S. Zarazian, S. Karapetian, H. Sarkisian and others, without whom the SBS could have not been organized and pursued. The author thanks G. Kojoian, D. Weedman, and R. West who provided the Kodak plates at the beginning of the SBS survey. Thanks also to M. Schmidt who in 1976 arranged the investigation of SBS objects with R. Green and C. Foltz as well as to R. Green and C. Foltz for their permanent interest and help in investigation of SBS QSOs and peculiar objects. Many thanks to D. Osterbrock for his advice, and to his collaborators on whose account the investigation the Markarian Sy galaxies was continued and extended to the investigation of SBS Sy galaxies. My thanks go to M. Bicay for the arrangement of the measurement of accurate coordinates of SBS objects. The author thanks all of his co-authors with whom he had a chance to cooperate during the last three decades.

The author is specially grateful to the time allocation committee of the 6 m telescope, whose members during these last 25 years provided us with the observing time necessary to investigate FBS and SBS objects. J.S. acknowledges the support and assistance of the staff at the SAO, BAO, MMT, GHO, and SPM observatories. The author gives special thanks to V. Afanasiev for giving us a chance to continue the SBS survey at the Special Astrophysical Observatory (Russia) after 1990. The author wishes to thank A. Serrano and L. Carrasco for enabling the continuation of the investigation of the SBS survey objects at GHO, Cananea, México, after 1996. J.S. also thanks D. Dultzin-Hacyan, I. Cruz-González, J.-A. de Diego, and E. Benitez for their help in continuing the investigation of SBS objects at IAUNAM. I also thank G. Tovmassian, H. Tovmassian, S. Jarikov, R. Mujica, R. Costero, V. Orlov, L. Binette, C. Allen, L. Tzaturyan, V. Voitsekhovich, and M. García Bravo. J.S. acknowledges the help of J. Mazzarella for correcting the English text and for his helpful advice with the first version of the catalogue. J.S. thanks A. Petrosian for his careful proof-reading of the final version of the catalogue and for his constructive corrections and advice. The investigation of the SBS objects, as well as the compilation of the SBS Catalogue and the General Catalogue were completed in México. J.S. extends his thanks to the members of his family who during 25 years have lovingly supported him in his astronomical work.

The author thanks J. Orta for the preparation of the final version of the catalogue. The author thanks the referees Roger Coziol and Luc Binette, the latter especially for his careful reading of the manuscript and for his meticulous corrections, which greatly improved the catalogue.

APPENDIX

In the Appendix are presented the following lists: the list of 198 multiple systems of galaxies, 82 possible merger systems, 96 physical pairs, 12 triple, and 15 quadruple systems of galaxies.

The list of objects outside the main contiguous area of the SBS survey containing 392 objects is presented as well: 180 objects were selected in the Southern hemisphere SBS test area (108 galaxies and 72 stellar objects); the objects within the strip centered on declination of +47 degrees: 160 objects consisting of 137 stellar objects and 23 galaxies. We also present a separate list of 39 objects, red stars and carbon C2 stars, and a list of variable stars (13 objects) found during the SBS survey.

A. DOUBLE AND MULTIPLE SYSTEMS OF SBS GALAXIES

In Table 33 the data for 82 close binary systems of galaxies (possible mergers), which show two nuclei with similar brightness in a common shell or envelope, the angular separation between components being 2–8 arcsec are presented. Such objects are often called “double nucleus” galaxies.

Table 34 contains the data for 96 pairs of galaxies. Here we include the systems of galaxies that have an angular separation of 9–90 arcsec. For the majority of these, both components are SBS galaxies. The remainder consist of pairs in which the companion is not a SBS galaxy. For these, only the data for the SBS companion are given. In 18 pairs one of the components shows double nuclei, similar to the objects listed in Table 33. That is, they form a triple system of galaxies, in which two galaxies form a close binary within a common envelope. We use the following definition for pairs of galaxies: $dB \leq 2.5$ magnitude and a linear projected separation less than 100 kpc. Table 35 contains the data for 10 triple systems in which all three components are clearly separated. Table 36 includes 10 quadruple systems of galaxies, pairs in which each component is a close binary within a common envelope. Note that the subsample of ~ 100 SBS double systems of galaxies was recently studied by Petrosian et al. (2002;2003).

Tables 37 and 38 contains the data of 160 objects, 137 stellar objects and 23 galaxies centered on the strip at declination +47 degrees, that is one of the unfinished strip of the SBS survey. Tables 39 and 40 contain the data of 180 objects selected from the Southern hemisphere SBS test area, 108 galaxies and 72 stellar objects. Table 41 contains the data of 39 objects, 37 red stars, two Hα emission-line, and 10 C2 stars. The data for 13 objects with a variability amplitude of more than 2 mag are given in Table 42.

TABLE 33

CLOSE-BINARIES IN A COMMON ENVELOPE, OR MERGERS WITH AN ANGULAR SEPARATION BETWEEN COMPONENTS OF 2–8 ARCSEC. N=82

SBS design.	z em	B	Angular sep.(")	Sp. class	SBS design.	z em	B	Angul. sep.(")	Sp. class
0743+550	.0187	16.0	4	ELG	1157+581	.0660	18.0		SBN
0745+590	.0267	17.0	6	HII	1158+590	.0543	16.5		SBN
0745+557	.0171	15.3		SBN	1201+520	.0631	16.5		
0745+601A	.0327	18.0	3	SBN	1202+583	.0087	15.4		BCDG
0745+598	.0700:	19.0	3	E+A	1203+592	.0109	16.5	6	BCDG
0755+588	.0174	16.0	3	LINER:	1219+534B	.0357	16.0	5	HII
0816+610	.0289	17.0		E+A	1223+557	.0310	17.0		SBN
0830+563	.0262	17.0	4		1224+533	.0013	16.5	5	BCDG
0909+570	.0413	16.5		Sy2	1226+539	.0571	16.5	5	SBN
0916+543	.0110	15.6	6	HII	1232+549	.0810	19.0		
0919+519SN	.0479	16.5	3	HII	1305+547	.0328	16.0	3	HII
0921+525	.0353	16.13		NLS1	1305+541A	.0305	16.0		HII
0925+542	.0413	16.5		SBN	1305+502	.0332	17.0		SB
0926+558SN	.0245	17.0		SBN	1306+550	.0166	15.2		SBN
0930+554	.0014	17.6		BCDG	1306+511	.0334	15.5		SBN
0933+578SN	.0286	16.6	2	SBN	1308+501A	.0248	16.5		SBN
0938+545	.0497	15.7	3	E+A	1312+566	.0677	17.0		HII
0942+573	.0044	16.0		BCDG	1318+520	.0158	15.8		SBN
0943+521A	.0670	16.5	3	SBN	1320+596	.0651	17.0		Abs
0950+538	.0432	15.6	5		1349+570	.0551	18.0		E+A
0955+526	.0470	17.0		SBN	1404+571	.0410	16.5	8	SB
1028+566	.0242	16.5		HII	1410+576SN	.0508	16.5	3	SBN
1040+560	.0260	15.2	3	SBN	1413+602	.0293	17.0	3	SB
1046+562	.0462	16.5		HII	1413+509	.0498	17.0		
1055+597	.0231	15.6		SBN	1418+514	.	17.0		
1100+532	.0205	16.5	3	HII	1422+545	.0207	16.5	5	HII
1110+567	.0343	15.3		LINER:	1442+506	.0731	16.0	2	SBN
1113+598AB	.0815	15.5	7	LINER	1448+606	.0076	15.3		BCDG
1114+516	.0333	15.6		E+A	1457+540	.0275	16.5		E+A
1115+585	.0066	17.5	5	BCDG	1458+600A	.0395	17.0	4	SBN
1116+609	.0360	15.6	4	ELG	1513+562	.0512	17.0		HII
1116+517	.0021	17.0	3	BCDG	1519+496	.0147	16.0		BCDG
1120+586A	.0377	18.5		SBN	1522+588	.0341	18.5		BCDG
1122+590	.0604	18.5	4	HII	1524+554	.0119	17.0		BCDG
1125+588	.0104	11.8		HII	1530+607	.0653:	17.5		
1141+553	.0222	15.3	3	E+A	1533+585	.0926	17.5	4	SBN
1144+579	.0308	13.9	7		1541+515	.0360	18.0	5	HII
1145+547	.0324	15.6		E+A	1610+525	.0293	14.0	3	SBN
1145+601	.0054	15.3	6	BCDG	1620+577	.0198	17.5		BCDG
1145+549	.0599	16.5			1629+501	.0202	15.5		
1153+575	.0220	16.5		HII	1707+565	.0123	17.0		BCDG

TABLE 34

PAIRS OF SBS GALAXIES WITH AN ANGULAR SEPARATION OF COMPONENTS BETWEEN 9 – 90″. N=96

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.(″)	Sp. class	Other name
0748+588	07 52 43.32	+58 41 34.6	.0306	17.5		ELG	KUG
0750+603A	07 55 09.06	+60 10 59.7	.0359	17.5		SBN	HS
0750+603B	07 55 11.71	+60 11 33.1	.0358	17.5		SBN	HS
0754+592	07 59 04.10	+59 08 12.4	.0197	15.4		E+A	
0755+574A	07 59 35.38	+57 18 11.8	.0269	16.0		ELG	
0755+574B	07 59 46.43	+57 20 33.0	.0291	15.7	cl-bin:	ELG	KUG
0806+579A	08 10 06.99	+57 50 12.5	.0262	15.1		ELG	
0806+579B	08 10 15.37	+57 49 08.8	.0258	17.5		ELG	
0806+589A	08 10 23.89	+58 49 07.4	.0674	17.5		Abs	
0806+589B	08 10 43.57	+58 49 44.9	.0675	17.5		Abs	
0808+580A	08 12 08.56	+57 54 27.9	.0264	17.5	cl-bin.5”	ELG	KUG
0808+580B	08 12 50.58	+57 55 17.4	.0273	15.63		Sy2	
0808+581A	08 12 16.55	+57 57 30.5	.0262	18.5		E+A	
0808+581B	08 12 34.49	+57 57 37.9	.0267	17.5		Abs	
0810+583A	08 14 15.32	+58 11 58.9	.0257	17.0		SBN	
0810+583B	08 14 33.38	+58 08 53.0	.0282	18.5		BCDG	
0811+585A	08 15 05.01	+58 21 25.3	.0248	17.0			
0811+585B	08 15 23.31	+58 23 39.8	.0262	17.5			
0811+607A	08 15 50.84	+60 37 45.3	.0251	15.5	cl-bin.5”	ELG	KUG
0811+607B	08 15 55.70	+60 38 42.8	.0247	16.5		ELG	
0903+499A	09 06 55.84	+49 46 22.8	.0336	15.4		SBN	
0903+499B	09 07 08.34	+49 46 50.8	.0338	17.5		SBN	
0906+502A	09 10 07.54	+50 03 31.0	.0343	14.4			
0906+502B	09 10 10.01	+50 02 51.0	.0337	16.0		SBN	
0912+599	09 16 43.90	+59 46 28.7	.0141	15.6		HII	Mkn 19
0915+515A	09 18 57.54	+51 22 11.0	.0135	15.2		SBN	
0915+515B	09 18 59.54	+51 19 26.0	.0137	15.3		E+A	

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.($''$)	Sp. class	Other name
0915+556	09 19 13.05	+55 27 54.3	.0493	17.08	20”	HII	HS
0917+525	09 21 12.67	+52 19 09.3	.0712	16.5		SBN	KUG
0922+498	09 25 56.23	+49 25 46.1	.0275	16.4			KUG
0924+554N	09 28 24.29	+55 11 00.7	.0823	16.5		LINER	KUG
0926+606A	09 30 06.55	+60 26 52.2	.0134	17.0		BCDG	
0926+606B	09 30 09.15	+60 28 04.4	.0138	18.0		BCDG	
0938+551	09 41 49.13	+54 57 55.4	.0483	18.0		SBN	
0938+552	09 41 58.71	+54 58 48.5	.0485	18.0		SBN	
0938+544	09 42 16.85	+54 14 11.1	.0454	16.5		E+A	
0940+569A	09 43 34.37	+56 40 18.0	.1370	18.5		Abs	
0940+569B	09 43 42.56	+56 41 27.5	.1384	18.5		LINER:	
0942+587A	09 45 54.66	+58 30 56.1	.0308	16.5		SBN	
0942+587B	09 46 08.87	+58 31 51.8	.0310	16.5		SBN	
0943+563A	09 47 10.72	+56 06 26.7	.0255	15.5		SBN	Mkn 123
0943+563B	09 47 13.09	+56 06 06.1	.0254	18.0		BCDG	KUG
0946+558	09 49 30.31	+55 34 47.2	.0052	15.7		BCDG	Mkn 22
0946+547A	09 50 03.70	+54 29 05.4	.0318	17.0		E+A	
0946+547B	09 50 18.76	+54 28 08.0	.0323	17.5		E+A	
0953+603	09 56 51.11	+60 05 11.4	.0310	16.0		E+A	Mkn 128
0953+602	09 57 00.71	+59 58 07.6	.0305	15.6		SBN	Mkn 23
0956+524A	09 59 19.01	+52 15 25.1	.0408	14.9		E+A	
0956+524B	09 59 50.40	+52 13 43.4	.0395	18.5		SB	
1000+536	10 04 15.48	+53 23 33.6	.0337	15.7		LINER:	
1001+536	10 04 28.68	+53 26 09.8	.0336	15.3			
1005+589A	10 08 40.40	+58 43 56.6	.0307	16.5		HII	
1005+589B	10 09 09.15	+58 44 34.9	.0308	16.5		SB	

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.($''$)	Sp. class	Other name
1011+600	10 14 59.12	+59 49 02.8	.0073	17.5		BCDG	
1016+576A	10 19 38.33	+57 25 07.2	.0265	17.0		SBN	Mkn 30
1016+576B	10 19 42.78	+57 25 24.5	.0258	14.7		SBN	Mkn 31
1050+505A	10 53 08.66	+50 17 03.4	.0046	14.5		BCDG	
1050+505B	10 53 10.80	+50 16 54.5	.0046	16.0		BCDG	
1057+511A	10 59 58.19	+50 54 10.1	.0096	14.5		LINER	
1057+511B	11 00 06.03	+50 51 24.6	.0094	17.5		BCDG	
1115+540A	11 18 17.05	+53 44 59.2	.0360	15.5		E+A	Mkn 38
1115+540B	11 18 20.72	+53 45 10.0	.0364	15.5		SBN	Mkn 39
1116+547A	11 19 02.78	+54 26 27.0	.0707	17.0		Abs	
1116+547B	11 19 03.48	+54 27 27.1	.0719	17.0		E+A	
1120+586A	11 23 40.55	+58 22 41.4	.0377	18.5		SBN	
1120+586B	11 23 48.27	+58 22 05.3	.0371	18.5		SBN	
1121+562A	11 24 01.33	+55 57 45.8	.0529	15.4		Abs	
1121+562B	11 24 06.95	+55 59 46.4	.0531	15.8		E+A	
1121+491A	11 24 25.69	+48 52 51.2	.1031	17.0		Abs	
1121+491B	11 24 27.25	+48 52 46.2	.1073	17.0		Abs	
1124+561	11 27 42.38	+55 55 16.1	.0182	16.5		SBN	
1125+562	11 28 04.84	+55 56 31.0	.0190	16.5		SBN	
1129+576	11 32 02.54	+57 22 45.7	.0055	17.0		BCDG	
1129+577	11 32 04.02	+57 26 20.7	.0058	15.3		BCDG	
1139+601	11 42 41.91	+59 50 16.7	.0419	18.0		SBN	
1140+600A	11 42 50.27	+59 48 06.1	.0440	17.0		SBN	
1144+590	11 47 03.18	+58 44 31.3	.0116	16.0		SBN	
1144+591	11 47 18.75	+58 53 08.7	.0091	16.5		BCDG	
1144+527A	11 47 20.14	+52 29 18.5	.0472	16.0		SBN	Mkn1456
1144+527B	11 47 21.59	+52 26 58.2	.0489	15.7		Sy2	Mkn1457

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.($''$)	Sp. class	Other name
1157+565A	12 00 13.79	+56 15 02.0	.0642	16.5			VIIZw432
1157+565B	12 00 15.84	+56 15 48.0	.0642	16.5			VIIZw432
1200+589B	12 03 22.63	+58 41 35.7	.0326	18.5		BCDG	
1200+589C	12 03 25.81	+58 41 41.1	.0325	18.5		BCDG	
1201+578A	12 03 49.03	+57 32 36.2	.0660	18.0		E+A	
1201+578B	12 03 55.44	+57 32 52.1	.0650	17.5			
1204+505B	12 06 55.55	+50 17 36.8	.0620	17.0	36”	Sy1.8	
1204+591A	12 07 02.18	+58 49 58.9	.0316	16.5		LINER:	
1204+591B	12 07 02.90	+58 49 43.5	.0313	17.0		LINER:	
1209+605A	12 11 40.95	+60 17 37.6	.0430	18.5		SBN	
1209+605B	12 11 45.52	+60 17 59.5	.0430	18.0		SBN	
1212+601A	12 14 48.62	+59 54 22.6	.0604	16.5		Abs	NGC4199A
1212+601B	12 14 51.68	+59 54 33.6	.0612	17.0			NGC4199B
1216+550A	12 18 49.56	+54 44 57.7	.0527	18.0		SBN	
1216+550B	12 19 02.07	+54 48 54.4	.0530	18.5		SBN	
1219+534A	12 21 27.85	+53 10 47.6	.0356	17.5		SB	
1219+534B	12 21 31.15	+53 11 19.4	.0357	16.0		HII	
1223+503A	12 25 32.14	+50 02 06.7	.0245	16.0	cl-bin:	HII	
1223+503B	12 25 49.22	+50 05 44.6	.0237	14.9		E+A	
1223+537A	12 26 07.19	+53 26 07.4	.0519	18.5		SB	
1223+537B	12 26 11.17	+53 26 02.7	.0526	17.5	cl-bin.3”	HII	
1227+568A	12 29 27.53	+56 34 04.3	.0534	17.5		SBN	
1227+568B	12 29 50.42	+56 34 28.4	.0536	18.0		SBN	
1240+554B	12 42 42.75	+55 08 43.4	.0159	14.8		Abs	NGC4644
1240+554C	12 42 52.65	+55 08 45.0	.0164	15.6		SB	NGC4644A
1258+548A	13 00 28.98	+54 35 50.2	.1084	18.0		Abs	
1258+548B	13 00 39.18	+54 36 57.3	.1085	18.0		Sy2	

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.(″)	Sp. class	Other name
1300+520A	13 02 32.85	+51 46 24.8	.0551	16.5		E+A	
1300+520B	13 02 40.30	+51 46 45.0	.0547	15.6		Sy2	
1303+537	13 06 04.08	+53 29 43.2	.0250	16.0		HII	Mkn 242
1303+538C	13 06 05.92	+53 36 49.0	.0242	15.7		SBN	
1311+563A	13 13 15.86	+56 05 52.9	.0410	16.0		SBN	
1311+563B	13 13 57.11	+56 07 37.4	.0399	17.5		HII	
1319+579A	13 21 22.57	+57 41 29.4	.0074	18.5		BCDG	SW NGC5113
1319+579B	13 21 24.42	+57 41 40.6	.0082	18.5		BCDG	NE NGC5113
1339+569	13 41 49.66	+56 42 46.5	.0402	16.5		SBN	
1340+569	13 42 10.23	+56 42 11.6	.0401	16.98		Sy1.8	
1340+529	13 42 51.79	+52 42 30.5	.0060	16.5		BCDG	Mkn1480
1341+529	13 42 59.40	+52 41 18.1	.0063	17.0		BCDG	Mkn1481
1342+562A	13 44 27.28	+56 01 32.7	.0709	18.0		LINER	
1342+562B	13 44 27.52	+56 01 27.7	.0712	17.0		HII	
1351+578	13 53 38.82	+57 33 31.5	.0254	16.0		SBN	
1351+577	13 53 41.65	+57 31 20.4	.0261	16.5		SBN	
1400+520	14 02 07.77	+51 49 18.6	.0405	15.7		SBN	
1400+519	14 02 24.51	+51 41 12.6	.0412	16.0		Abs	IZw 79
1411+556A	14 12 47.50	+55 25 47.5	.0415	16.5			
1411+556B	14 12 56.95	+55 25 54.2	.0411	18.0		HII	
1406+490A	14 08 11.43	+48 53 43.8	.0510	17.0			
1406+490B	14 08 13.60	+48 51 44.8	.0517	15.99		HII	IZw 81
1413+573	14 15 09.24	+57 05 15.3	.0110	16.5		BCDG	KUG
1416+531	14 18 31.00	+52 53 39.9	.0818	17.0		Abs	
1417+530	14 19 10.18	+52 51 51.1	.0818	17.5		E+A	
1423+600W	14 24 58.39	+59 47 00.7	.0374	16.5		SBN	
1423+600E	14 24 55.91	+59 47 21.3	.0374	16.5		E+A	

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.(″)	Sp. class	Other name
1433+554N	14 35 02.02	+55 12 50.5	.0726	16.5	cl-bin.3”	LINER:	CG 481
1433+554S	14 35 03.19	+55 11 45.5	.0730	16.5		HII	CG 481
1436+529A	14 37 44.79	+52 43 34.1	.0119	15.6	cl-bin.4”	BCDG	CG 491
1436+529B	14 38 35.27	+52 42 23.0	.0095	15.7		E+A	KUG
1439+537	14 40 38.18	+53 30 15.2	.0380	15.33		Sy2	Mkn 477
1500+557A	15 01 27.31	+55 31 26.8	.0372	17.5		HII	
1500+557B	15 01 27.75	+55 31 33.0	.0371	17.5		HII	
1500+506A	15 01 51.33	+50 25 47.4	.0259	17.5		HII	
1500+506B	15 02 03.52	+50 25 41.4	.0264	16.5		HII	
1509+583A	15 10 15.85	+58 10 42.7	.0306	16.0		E+A	
1509+583B	15 10 17.66	+58 10 38.8	.0319	16.5		ELG	
1510+571	15 12 12.62	+57 00 07.6	.0022	16.5		BCDG	KUG
1517+566	15 18 47.33	+56 29 04.8	.0680	16.6	30”	SBN	VIIZw593
1519+508A	15 21 07.36	+50 40 19.8	.0560	15.5	15”	HII	CG 692
1519+508B	15 21 08.90	+50 40 07.5	.0563	16.07	15”	BLS1	CG 693
1520+503	15 22 02.25	+50 10 25.4	.0740	16.5	10”		CG 698
1533+574A	15 34 13.31	+57 17 06.9	.0119	15.8		BCDG	
1533+574B	15 34 14.03	+57 17 04.1	.0126	16.6		BCDG	
1538+574A	15 40 04.61	+57 15 18.2	.0809	17.0		LINER	
1538+574B	15 40 04.75	+57 15 03.7	.0805	17.5		SBN	
1542+573B	15 43 48.58	+57 13 57.1	.0143	16.0		SBN	
1542+573C	15 43 53.48	+57 13 24.7	.0143	18.5		BCDG:	
1551+593A	15 52 11.53	+59 14 55.4	.0297	17.0	20”	HII	
1551+593B	15 52 11.82	+59 14 35.9	.0313	17.0		E+A	
1551+601A	15 52 41.34	+60 02 37.9	.0104	18.5		BCDG	
1551+601B	15 52 41.64	+60 02 43.9	.0104	18.5		BCDG	

TABLE 34 (CONTINUED)

SBS design.	R.A. 2000	Dec 2000	z em	B	Angular separ.(″)	Sp. class	Other name
1552+524A	15 54 09.10	+52 19 46.4	.0463	16.5	cl-bin:	E+A	
1552+524B	15 54 10.66	+52 19 09.0	.0470	17.0		SBN	
1558+585	15 59 54.62	+58 22 48.7	.0142	17.5		BCDG	
1559+585	16 00 10.76	+58 23 09.4	.0142	14.8		SB	
1609+580	16 10 52.11	+57 58 14.4	.0838	18.0	8”		
1609+581	16 10 52.19	+57 58 26.3	.0839	18.0	8”		
1610+589	16 11 24.65	+58 51 01.1	.0321	15.68		Sy1.5	RBS 1565
1616+594A	16 17 21.02	+59 19 12.1	.0145	14.8	Cl-bin:	SB	
1616+594B	16 17 27.51	+59 19 00.2	.0147	15.7	90”		
1619+560	16 20 52.52	+55 57 39.6	.0313	16.5		HII	NGC6136
1632+505	16 33 21.30	+50 24 21.5	.0439	15.4			
1657+590A	16 58 24.27	+58 57 21.0	.0186	14.6	90”	HII	NGC6285
1657+590B	16 58 31.71	+58 56 14.5	.0185	14.2	90”	LINER	NGC6286
1705+607	17 06 15.80	+60 42 18.8	.0120	15.7	60”	SBN	Mkn 892
1706+607	17 07 36.90	+60 43 45.8	.0108	14.3	60”	Abs	NGC6306
1712+593A	17 13 07.01	+59 19 24.2	.0039	14.3	50”	SBN	
1712+593B	17 13 10.21	+59 19 56.2	.0044	17.0	50”	E+A	

In all cases when a single objects is introduced it means that the second component is not an SBS galaxy.

TABLE 35

TRIPLE GALAXY SYSTEMS AMONGST SBS GALAXIES. N=10

SBS design.	R.A. 2000	Dec. 2000	z em	B	Sp. class	Other name
0743+591A	07 47 21.08	+59 01 07.7	.0320	15.4	E+A	
0743+591B	07 47 46.03	+59 00 26.6	.0213	18.5	BCDG	
0743+591C	07 47 58.86	+59 00 52.0	.0218	14.7	E+A	
0814+579A	08 18 10.51	+57 45 31.4	.0269	15.3	LINER:	
0814+579B	08 18 12.68	+57 48 51.8	.0273	17.0	LINER:	
0814+579C	08 18 12.93	+57 46 39.1	.0270	18.0	ELG	
0831+529A	08 34 45.10	+52 42 56.8	.0451	15.1	E+A	NGC2600
0831+530	08 35 04.27	+52 49 53.9	.0447	15.4	Abs	NGC2602
0831+529B	08 35 34.27	+52 47 21.0	.0445	15.0	E+A	NGC2606
0905+499A	09 08 44.50	+49 45 27.8	.0357	16.5	E+A	
0905+499B	09 08 53.21	+49 45 02.4	.0341	16.0	E+A	
0905+499C	09 09 01.44	+49 45 38.5	.0354	16.5	E+A	
1102+599A	11 05 01.89	+59 41 03.7	.0340	15.2	LINER	
1102+599B	11 05 04.37	+59 39 56.3	.0333	16.0	SBN	
1102+599C	11 05 20.29	+59 39 44.8	.0333	17.0	SBN	
1136+559A	11 39 08.50	+55 39 51.9	.0614	15.8		
1136+559B	11 39 12.28	+55 39 56.9	.0626	16.3		
1136+559C	11 39 14.17	+55 40 22.7	.0608	17.5		
1230+560	12 32 24.48	+55 44 00.0	.0331	17.0	SBN	
1241+549	12 43 46.50	+54 38 46.7	.0165	17.5	BCDG	
1241+551A	12 43 48.01	+54 53 46.0	.0165	14.1	SBN	Mkn 220
1241+551B	12 43 49.41	+54 54 17.9	.0165	14.7	HII	Mkn 221
1317+523A	13 19 47.52	+52 04 13.9	.0157	15.4	SBN	
1317+523B	13 19 49.92	+52 03 40.7	.0156	16.5	HII	
1317+523C	13 20 00.94	+52 03 03.2	.0154	16.0	LINER	Mkn 251
1511+515A	15 12 43.01	+51 23 33.7	.0361	16.5	SBN	CG 659
1511+515B	15 12 50.65	+51 23 28.7	.0363	16.0	SBN	CG 661
1511+515C	15 12 52.32	+51 23 54.3	.0363	15.3	SBN	CG 662

TABLE 36

QUADRUPLE MERGER SYSTEMS. PAIRS OF GALAXIES IN WHICH BOTH COMPONENTS ARE CLOSE-BINARIES WITHIN A COMMON ENVELOPE. N=11

SBS design.	R.A. 2000	Dec. 2000	z em	B	Angular separ.(″)	Sp. class	Other name
0750+603A	07 55 09.06	+60 10 59.7	.0359	17.5	cl-bin.3”	SBN	HS
0750+603B	07 55 11.71	+60 11 33.1	.0358	17.5	cl-bin.3”	SBN	HS
0921+519N	09 24 29.52	+51 43 04.3	.0479	16.5	cl-bin.3”	HII	KUG
0921+519S	09 24 28.50	+51 43 03.7	.0484	16.5	cl-bin.3”	HII	KUG
0926+558N	09 29 56.37	+55 39 15.9	.0245	17.0	cl-bin.3”	SBN	KUG
0926+558S	09 29 55.30	+55 39 15.2	.0240	17.0	cl-bin.3”	SBN	KUG
0926+606A	09 30 06.55	+60 26 52.2	.0136	17.0	cl-bin.8”	BCDG	
0926+606B	09 30 09.15	+60 28 04.4	.0143	18.0	cl-bin.3”	BCDG	
1121+491A	11 24 25.69	+48 52 51.2	.1031	17.0	cl-bin.15”	Abs	
1121+491B	11 24 27.25	+48 52 46.2	.1073	17.0	cl-bin.15”	Abs	
1342+562A	13 44 27.28	+56 01 32.7	.0709	18.0	cl-bin.5”	LINER	
1342+562B	13 44 27.52	+56 01 27.7	.0712	17.0	cl-bin.5”	HII	
1410+576N	14 11 46.76	+57 26 05.2	.0508	16.5	cl-bin.4”	SBN	KUG
1410+576S	14 11 46.66	+57 26 04.2	.0511	16.5	cl-bin.4”	SBN	KUG
1500+557A	15 01 27.31	+55 31 26.8	.0372	17.5	cl-bin.8”	HII	
1500+557B	15 01 27.75	+55 31 33.0	.0371	17.5	cl-bin.8”	HII	
1533+574A	15 34 13.31	+57 17 06.9	.0119	15.8	cl-bin.10”	BCDG	VIIZw611
1533+574B	15 34 14.03	+57 17 04.1	.0126	16.6	cl-bin.10”	BCDG	VIIZw611
1538+574A	15 40 04.61	+57 15 18.2	.0809	17.0	cl-bin.15”	LINER	
1538+574B	15 40 04.75	+57 15 03.7	.0805	17.5	cl-bin.15”	SBN	
1551+601A	15 52 41.34	+60 02 37.9	.0104	18.5	cl-bin.6”	BCDG	
1551+601B	15 52 41.64	+60 02 43.9	.0104	18.5	cl-bin.6”	BCDG	

TABLE 37

THE LIST OF STELLAR OBJECTS INSIDE THE STRIP CENTERED ON DECLINATION +47°00'[a]

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Date of obs.	Wave -band	Other name
0747+476	07 47 21.2	+47 35 38	12	17.0	BS0			NVSS
0752+466	07 52 30	+46 38 00	13	15.5	BS			
0802+479	08 02 06	+47 54 00	8	17.0	BSO			
0809+482	08 09 30	+48 16 00	8	17.0	BS			
0812+478	08 12 40.7	+47 44 37	11	15.5	BS			
0815+486	08 15 30	+48 40 00	8	17.5	BSO			
0818+461	08 18 06.4	+46 12 06	8	17.5	BSO			
0826+480	08 26 30	+48 02 00	10	16.0	BS			
0829+487	08 29 18	+48 44 00	7	17.0	BSO			
0834+488	08 34 49.2	+48 48 34	10	15.5	BSO			RBS713
0852+482	08 52 26.5	+48 08 29	9	16.0	BSO			
0906+462	09 06 36	+46 12 00	7	17.0	BSO			
0906+484	09 06 45.2	+48 25 56	9	16.0	BSO			PG
0908+464	09 08 54	+46 29 00	7	17.0	BSO			
0911+456	09 11 36	+45 36 00	14	15.0	BS			
0913+474	09 13 32.2	+47 29 16	7	17.5	BSO			
0915+460	09 15 34.3	+45 56 20	8	17.0	BSO			
0922+472	09 22 21.1	+47 14 14	7	17.5	BS			
0927+473	09 26 59.6	+47 20 31	7	17.5	BSO			RBS780
0941+468	09 41 31.7	+46 49 22	8	16.5	BS			
0941+461	09 41 57.7	+46 16 02	13	15.0	BS			
0950+467	09 50 30	+45 47 00	7	16.5	BSO			
1000+470	10 00 15.1	+47 04 17	7	17.5	BS			
1001+473	10 01 06	+47 20 00	7	17.0	BS			
1003+465	10 03 06.7	+46 37 20	7	17.0	BSO			
1007+461	10 07 41.2	+46 09 36	8	16.5	BS			
1010+465	10 10 56 3	+46 34 47	7	17.5	QSO	14.02.80	3500–5400	
1021+473	10 21 18.0	+47 21 00	7	17.5	BS			
1022+459	10 22 42	+45 59 00	9	16.0	BS			
1026+453	10 26 44.9	+45 22 40	9	16.5	BSO			
1033+464	10 33 25.8	+46 24 20	12	16.0	BS			
1038+478	10 38 59.2	+47 49 13	7	17.5	QSO			
1039+462	10 39 30	+46 16 00	13	14.5	BS			
1040+467	10 40 48	+46 45 00	7	17.5	BSO			
1047+467	10 47 48	+46 44 00	8	17.5	BSO			
1051+468	10 51 49.2	+48 47 39	9	16.0	BS0			RBS918
1054+473	10 54 57.0	+47 17 58	7	18.5	BS			
1055+482	10 55 17.0	+48 13 54	8	17.5	BSO			
1101+453	11 01 35.5	+45 19 25	8	17.0	BS			RBS939
1103+476	11 03 06	+47 39 00	7	17.0	BS			
1104+476	11 04 24	+47 36 00	8	16.0	BS			
1104+476	11 04 30	+47 37 00	8	17.0	BS			
1107+472	11 07 24	+47 14 00	7	17.0	BSO			
1108+475	11 08 24	+47 34 00	12	15.5	BS			
1111+488	11 11 54	+48 48 00	6	18.0	BSO			
1118+482	11 18 42	+48 14 00	9	17.0	BSO			
1122+482	11 22 24	+48 15 00	9	17.0	BSO			
1126+468	11 26 42	+46 52 00	15	14.5	BS			
1126+475	11 26 35.0	+47 29 26	13	16.5	BS0			
1129+485	11 29 08.0	+48 34 28	7	17.0	BSO	14.02.80	3500–5400	
1132+470	11 32 06	+47 05 00	14	15.5	BS			

TABLE 37 (CONTINUED)

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Date of obs.	Wave -band	Other name
1134+463	11 34 42	+46 18 00	16	14.0	BS			
1135+474	11 35 24	+47 26 00	12	17.0	QSO	14.02.80	3500–5400	
1135+481	11 35 48	+48 11 00	12	17.0	QSO			
1136+470	11 36 54.5	+47 00 01	16	14.5	BS			
1141+476	11 41 18	+47 38 00	12	17.0	BSO			
1143+457	11 43 06.2	+45 43 45	7	17.5	QSO	14.02.80	3500–5400	
1145+476	11 45 02.0	+47 37 02	12	17.0	BS			
1147+484	11 47 42	+48 25 02	7	17.5	BS			
1148+474	11 48 29.7	+47 28 38	7	17.0	BSO			
1151+488	11 51 30	+48 48 00	7	17.5	BSO			
1206+481	12 06 35.2	+48 11 00	9	16.0	BS			
1211+459	12 11 35.2	+45 54 54	7	17.5	BSO			
1211+489	12 11 42	+48 58 00	8	17.0	BS			
1213+456	12 13 12	+45 37 00	16	14.5	BS			
1214+460	12 14 24	+46 03 00	7	17.0	BSO			
1215+465	12 15 30	+46 35 00	6	18.0	BSO			
1217+464	12 17 30	+46 28 00	8	18.0	QSO			
1218+461	12 18 42.0	+46 05 55	8	17.5	BSO			
1221+484	12 21 56.0	+48 28 30	7	17.5	BSO			
1223+476	12 23 30	+47 41 00	6	18.0	BSO			
1223+478	12 23 36	+47 50 00	10	16.0	BS			
1227+455	12 27 03.5	+45 30 13	9	16.5	BSO			Ton 79
1227+469	12 27 42	+46 54 00	15	13.5	BS			
1229+481	12 29 14.1	+48 07 26	7	18.0	BSO			
1231+465	12 31 00	+46 30 00	9	16.0	BS			
1232+479	12 32 30	+47 54 00	14	14.5	BS			
1232+466	12 32 48	+46 39 00	7	17.5	BSO			
1234+482	12 34 24.0	+48 12 00	14	13.5	BS			
1236+479	12 36 36.0	+47 55 00	8	15.0	BS			
1244+477	12 44 24	+47 47 00	9	16.5	BS			
1244+481	12 44 10.0	+48 07 30	6	17.5	BSO			
1246+482	12 46 47.1	+48 14 45	7	17.0	BS			
1253+482	12 53 12	+48 16 00	7	17.0	BSO			
1302+469	13 02 18	+46 59 00	7	17.5	BSO			
1302+478	13 02 24	+47 48 00	11	14.5	BS			
1307+462	13 07 54	+46 17 00	9	16.0	QSO	14.02.80	3500–5400	
1316+453	13 16 54	+45 21 00	14	14.0	BS			
1317+457	13 17 06	+45 46 00	7	17.0	BSO			
1319+466	13 19 00	+46 38 00	13	14.5	BS			
1320+470	13 20 06	+47 01 00	7	17.5	BSO			
1320+479	13 20 37	+47 55 00	6	18.0	BSO			
1330+473	13 30 38	+47 19 05	10	14.5	BS			
1331+470	13 31 25	+47 00 03	6	18.0	BSO			
1334+464	13 34 00	+46 26 05	8	17.0	BSO			
1334+487	13 34 03	+48 44 03	13	13.0	BSO			
1338+481	13 38 07	+48 07 02	13	13.0	BS			
1358+481	13 58 26	+48 11 02	7	17.0	BSO			
1401+486	14 01 37	+48 38 03	6	18.0	BSO			
1419+471	14 19 04	+47 10 02	8	18.0	BS			
1427+480	14 27 49	+48 01 03	14	16.0	BSO			
1432+459	14 32 43	+45 57 04	6	18.0	BSO			
1437+473	14 37 31	+47 21 02	6	18.0	BSO			
1439+479	14 39 44	+47 56 00	6	18.5	BSO			

TABLE 37 (CONTINUED)

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Date of obs.	Wave -band	Other name
1444+487	14 44 19	+48 44 01	8	17.0	BSO			
1447+459	14 47 06	+45 58 02	11	15.0	BS			
1448+485	14 48 42	+48 30 03	12	16.0	BS			
1450+457	14 50 25	+45 47 02	8	17.5	BSO			
1452+475	14 52 43	+47 32 01	10	16.0	BSO			
1513+482	15 13 55	+48 16 04	9	16.5	BSO			
1530+459	15 30 37	+45 57 05	10	17.0	BS			
1532+469	15 32 38	+46 57 03	7	17.5	BSO			
1532+467	15 32 56	+46 42 02	21	11.0	BS			
1538+458	15 38 44	+45 53 01	7	17.5	BSO			
1543+460	15 43 19	+46 01 00	7	17.5	BSO			
1543+454B	15 43 27	+45 26 05	7	16.0	BS			
1544+489	15 44 05	+48 55 03	7	17.0	BSO			
1544+488	15 44 44	+48 48 02	14	13.0	BS			
1547+476	15 47 19	+47 39 03	10	15.5	BS			
1549+476	15 49 38	+47 37 04	8	16.0	BS			
1552+460	15 52 04	+46 02 02	11	16.5	BS			
1552+464	15 52 57	+46 26 00	13	16.0	BS			
1556+489	15 56 03	+48 59 01	11	16.0	BS			
1603+487	16 03 39	+48 43 02	9	16.5	BSO			
1608+480	16 08 57	+48 05 03	10	16.0	BS			
1621+476	16 21 27	+47 38 02	9	16.5	BSO			
1622+457	16 22 08	+45 44 01	9	16.5	QSO:			
1626+470	16 26 21	+47 05 04	15	14.0	BS			
1629+455	16 29 20	+45 34 05	7	18.0	BSO			
1629+466	16 29 49	+46 37 03	15	14.0	BS			
1630+481	16 30 37	+48 11 02	8	17.0	BSO			
1640+478	16 40 44	+47 52 01	11	16.0	BSO			
1641+460	16 41 25	+46 02 00	15	14.5	BS			
1700+485	17 00 54	+48 35 05	14	15.0	BS			
1707+475	17 07 48	+47 35 03	12	16.0	BS			
1717+474	17 17 55	+47 25 02	12	16.0	BS			
1718+481	17 18 18	+48 07 10	13	15.0	QSO			PG

[a]All spectroscopic observations of the objects in tables 28-32 were done with 6-m telescope of the Special Astrophysical Observatory.

TABLE 38

THE LIST OF GALAXIES IN THE STRIP CENTERED ON DECLINATION +47°00'

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Data of obs.	Wave -band	Sp. class
0654+598	06 54 21.03	+59 50 44	16	16.0	s1e	28.11.95	4000–7200	BLS1
0837+472	08 40 29.9	+47 07 09	8	18.0	s1e			
0911+472	09 11 13.3	+47 14 35	9	16.5	sd1e	14.02.80	5400–7500	
0947+481	09 47 26.9	+48 11 59	8	17.0	se			
1017+480	10 17 03.4	+48 04 03	8x7	16.5	sd2			
1108+487	11 07 48.1	+48 47 33	10	17.02	s1e	04.04.80	5400–7500	QSO
1109+484	11 09 29.7	+48 27 44	13x11	16.5	d2e			
1227+486	12 25 08.3	+48 57 09	6	18.0	s2e:			
1232+470	12 32 54.8	+47 02 20	7	17.0	d3 e			
1307+473	13 07 00.3	+47 22 01	12x7	17.5	d3e:			
1309+485	13 09 06.7	+48 30 05	13x9	16.5	s1			
1311+481	13 11 07.2	+48 06 06	11	17.5	de			
1323+483	13 23 13.0	+48 18 00	7	17.5	dse	14.02.80	5400–7500	
1400+461	14 00 12.3	+46 05 53	14x10	15.5	d2e	14.02.80	5400–7500	BCDG
1403+473	14 03 12.0	+47 22 47	9	17.5	ds2	14.02.80	5400–7500	
1415+437	14 17 01.8	+43 30 13	45*10	15.5	sd2e			BCDG
1418+473	14 18 12.5	+47 21 24	9	17.5	d2e:			
1419+480	14 19 38.6	+48 01 04	10x9	16.5	s1e	14.02.80	5400–7500	BLS1
1428+457	14 28 19.8	+45 45 49	24x14	16.0	d3e	14.02.80	5400–7500	BCDG
1459+483	14 59 44.2	+48 18 13	10	17.0	ds2e	14.02.80	5400–7500	
1533+469	15 33 18.1	+46 59 07	15x10	16.5	de	14.02.80	5400–7500	
1543+454A	15 43 23.4	+45 25 44	9	17.0	de			
1723+565	17 23 41.0	+56 31 22	9	17.0	dse			

TABLE 39

THE LIST OF GALAXIES IN THE SOUTHERN TEST AREA OF THE SBS SURVEY

SBS design.	R.A 1950	Dec. 1950	dxd (")	z em	m_{pg}	Spect. type	Date of obs.	Wave -band	Spect. class	Other name
0120+315	01 20 20.6	+31 33 34	8	.0760	18.5	sd1e	29.10.80	5400–7500	Sy1	
0121+319	01 21 56.5	+31 54 00	13*12	.0353	14.2	sd3e:			Liner	Mkn 991
0122+318	01 22 42.7	+31 52 35	48*18	.0169	14.0	sd3e:				Mkn 993
0123+307	01 23 37.7	+30 45 00	8	.0440	17.5	d3e	29.10.80	5400–7500		
0123+313	01 23 45.1	+31 21 13	12	.0459	15.0	ds2e			Sy1	Mkn 358
0126+325	01 27 00.4	+32 29 14	14	.0460	17.0	sd2e:	29.10.80	5400–7500		
0127+307	01 27 53.6	+30 43 31	18*12	.0164	18.0	sd3	29.10.80	5400–7500	BCDG	
0128+306	01 28 26.2	+30 39 39	18*15	.0431	17.0	ds3	29.10.80	5400–7500		
0128+333	01 28 55.8	+33 21 31	10	.0170	14.0	s2	03.11.80	5400–7500		NGC 579
0129+329	01 29 13.8	+32 55 19	15*9	.0355	15.1	d3e:				Mkn 1156
0129+297	01 29 18.9	+29 43 00	11	.1240	18.0	s2e:	29.10.80	5400–7500		
0129+298	01 29 21.0	+29 53 07	8	.100:	18.5	ds3	27.12.80	3500–5400		
0132+313	01 32 12.1	+31 21 00	12*10	.0450	18.5	d3	04.11.80	5400–7500		
0133+317	01 33 48.2	+31 46 00	14*9		18.0	d2				
0134+313	01 34 00.3	+31 22 00	9	.0640	18.0	ds1e:	30.10.80	5400–7500		
0134+319	01 34 30.4	+31 55 00	13	.0450	18.0	d2	30.10.80	5400–7500		
0134+318	01 34 36.5	+31 52 18	20*10	.0446	18.0	d2	30.10.80	5400–7500		
0134+322	01 34 36.2	+32 12 00	15*12	.0160	17.5	d3	26.12.80	3500–5400		
0136+325	01 36 03.5	+32 32 37	10*7		18.0	sd2	03.11.80	3500–5400		
0136+328	01 36 20.8	+32 51 54	9	.0210	18.0	sd3e:	03.11.80	5400–7500		
0136+040	01 36 39.7	+04 01 47	9		17.0	d3e				
0137+309	01 37 09.2	+30 58 47	8	.0283	16.0	sd3				Mkn 1163
0137+027	01 37 18.3	+02 42 00	8		17.0	s1e				
0138+326	01 38 10.8	+32 38 25	11	.0407	15.8	sd3				Mkn 1164
0138+046	01 38 40.1	+04 39 55	16*14	.0316	16.5	d3e:				
0139+036	01 39 01.2	+03 38 00	18*13	.0429	17.0	sd3e:				
0141+020	01 41 22.7	+02 05 54	25*22	.0172	14.0	sd2e			Sy2	Mkn 573
0142+028	01 42 12.1	+02 52 00	8		17.5	d2				
0142+046	01 42 05.6	+04 38 40	7	.0054	18.0	d1e	09.11.77	5400–7500	BCDG	
0143+050	01 43 05.6	+05 03 00	13		16.5	d3e				
0143+346	01 43 33.2	+34 40 40	15*10	.0181	14.7	ds3				Mkn 1006
0144+039	01 44 02.3	+03 58 35	30*8	.0177	17.5	s3e				
0144+020	01 44 29.2	+02 04 47	7		17.5	dse				
0144+024	01 44 28.9	+02 26 38	10	.0187	17.0	ds1e	14.02.80	3500–5400		Tol 369
0144+350	01 44 27.5	+35 03 01	11	.0655	17.5	sd1e				
0144+025	01 44 45.8	+02 35 02	8		17.0	ds3				
0144+025	01 44 45.0	+02 35 02	22*11	.0240	16.0	s2e:				
0145+351	01 45 16.1	+35 09 00	28*8	.0150	17.0	s3				
0145+351	01 45 16.5	+35 09 42	8*6		18.0	s3				
0146+347	01 46 23.2	+34 43 13	16*12	.0134	17.0	sd2e:	03.11.80	5400–7500		
0146+348	01 46 20.7	+34 49 29	30*20	.0167	15.0	sd2e:	03.11.80	5400–7500		
0146+360	01 46 25.4	+35 59 31	9*7	.0135	15.7	d2e:				
0146+347	01 46 30.1	+34 43 32	18*14	.0134	15.0	s2e:	03.11.80	5400–7500		
0146+346	01 46 44.1	+34 41 33	14*11	.0360	17.5	ds3e	03.11.80	5400–7500		

TABLE 39 (CONTINUED)

SBS design.	R.A 1950	Dec. 1950	dxd (")	z em	m_{pg}	Spect. type	Date of obs.	Wave -band	Spect. class	Other name
0147+335	01 47 46.9	+33 29 36	14*10	.0187	15.0	ds3				Mkn 1008
0147+350	01 47 48.8	+35 02 13	47*20	.0141	13.3	sd2e				Mkn 1009
0148+346	01 48 22.4	+34 36 05	18*10	.0156	16.5	de:				
0149+355	01 49 25.7	+35 32 59	12	.0137	18.0	ds3				
0149+358	01 49 37.8	+35 48 24	13*9	.0094	18.0	d3e				
0150+015	01 50 00.1	+01 30 00	10		17.0	sd2				
0151+029	01 51 18.2	+02 55 00	12*8		17.5	d2e				
0151+011	01 51 42.3	+01 07 03	10		16.5	d2e:				
0151+366	01 51 55.7	+36 40 20	25*20	.0190	14.2	s2				Mkn 2
0152+351	01 52 01.7	+35 10 32	27*13	.0540	15.1	ds2				Mkn 1010
0152+350	01 52 14.2	+35 02 13	20*20	.	14.5	s3	03.11.80	5400–7500		
0153+340	01 53 12.1	+34 03 05	9		17.5	sde				
0153+010	01 53 22.5	+00 59 16	7		17.5	s3e				
0153+365	01 53 30.1	+36 33 32	27*13	.0196	14.9	ds3				Mkn 1011
0153+035	01 53 48.1	+03 31 00	20*16		15.0	s2e:				
0153+366	01 53 47.9	+36 38 31	25*14	.0188	17.5	s2e	28.12.80	5400–7500	Sy2	
0154+037	01 54 24.1	+03 47 00	14		16.5	s2e:				
0154+040	01 54 36.2	+04 03 00	14*10		17.5	d2				
0155+021	01 55 03.9	+02 10 48	10	.0165	17.0	sd2				Mkn 1169
0155+018	01 55 30.0	+01 48 25	10	.0218	16.0	s2				
0155+340	01 55 30.1	+34 01 00	9		18.5	sd1e				
0157+347	01 57 36.2	+34 45 00	8		18.0	sd2e				
0157+024	01 57 51.1	+02 25 49	11	.0788	15.3	sd2			Sy1	Mkn 584
0158+336	01 58 00.1	+33 39 09	12*8	.0377	18.0	ds2e:	03.11.80	5400–7500		
0158+335	01 58 36.2	+33 35 00	8	.	17.5	s1	03.11.80	5400–7500		
0200+023	02 00 55.2	+02 19 35	10*8	.0213	15.5	sd3				Mkn 585
0203+043	02 03 08.6	+04 19 24	13*9		17.0	d2e:				
0204+040	02 04 36.1	+04 05 00	11		17.5	ds2				
0204+027	02 04 51.1	+02 42 41	7		17.5	sd1				
0320-050	03 20 47.2	−05 05 51	7		18.0	ds3e:				
0322-051A	03 22 06.3	−05 09 25	7	.	18.5	s3	27.12.80	3500–5400		
0322-051B	03 22 06.3	−05 10 00	5	.	18.5	d3	09.11.77	5400–7500		
0322-031	03 22 17.7	−03 11 29	7*7	.0090	14.5	s2				Mkn 608
0322-032	03 22 18.0	−03 13 03	45*18	.0088	14.0	ds3e			Sy2	Mkn 607
0322-063	03 22 57.9	−06 18 58	13	.0345	14.5	s2e			Sy1.8	Mkn 609
0323-063	03 23 03.3	−06 18 20	12	.0345	16.5	d3e				Mkn 610
0323-041	03 23 29.2	−04 10 51	8		17.0	sd3				
0323-055	03 23 37.0	−05 33 20	7*5		18.0	d2e				
0323-041	03 23 42.1	−04 11 02	6		18.5	d3				
0324-043	03 23 56.2	−04 23 01	12		16.0	s3				
0325-054	03 25 00.1	−05 26 02	18*11		17.0	d3				
0325-044	03 25 10.1	−04 25 53	10		17.5	ds3				
0325-046	03 25 47.9	−04 39 06	11*7		17.0	ds3				
0326-065	03 26 36.9	−06 30 50	7		18.0	s1e:				
0328-033	03 28 09.9	−03 18 35	10	.0199	15.5	sd2e			Sy2	Mkn 612

TABLE 39 (CONTINUED)

SBS design.	R.A 1950	Dec. 1950	dxd (")	z em	m_{pg}	Spect. type	Date of obs.	Wave -band	Spect. class	Other name
0328-039	03 28 25.9	−03 57 36	7	.	18.0	s3e:	19.12.80	3500–5400		
0328-058	03 28 34.2	−05 50 12	6	.	18.5	ds3e	19.12.80	3500–5400		
0329-043	03 29 24.4	−04 23 06	14*10		17.5	sd3e:				
0329-042	03 29 36.9	−04 16 01	18*12		16.5	d2e:				
0330-049	03 30 12.1	−04 58 02	12		17.0	s3				
0330-050	03 30 16.2	−05 02 25	14*10		17.5	ds2				
0330-052	03 30 56.4	−05 17 12	7*5		17.0	s2	12.11.77	5400–7500	BCDG	
0332-066	03 32 12.1	−06 40 08	7		18.0	sde:				
0332-045	03 32 14.8	−04 33 58	14		16.5	sd2e				
0332-058	03 32 30.9	−05 49 32	10		18.0	sde:				
0333-048	03 33 57.6	−04 51 56	11	.0209	16.0	d2				Mkn 613
0335-051	03 35 09.1	−05 08 18	12*8	.	17.5	sd3e	14.12.80	5400–7500		
0335-052*	03 35 15.2	−05 12 28	9*7	.0135	18.0	sd1e	13.11.80	5400–7500	BCDG	
0335-051	03 35 28.9	−05 09 48	14*11	.0359	17.0	ds2				
0335-069	03 35 33.8	−06 54 57	7*5		18.0	ds3e:	19.12.80	5400–7500		
0335-056	03 35 42.1	−05 41 24	7	.0225	17.5	d3e	05.11.80	3500–5400		
0335-057	03 35 42.2	−05 44 48	9*7	.0911	18.0	d2	05.11.80	5400–7500		
0336-060	03 36 04.7	−06 01 00	7*5		17.0	d3e:				
0336-039	03 36 42.1	−03 56 00	6		18.5	ds3e:				

One of the most metal-deficient galaxy, the second known after IZw 18.

TABLE 40

THE LIST OF STELLAR OBJECTS IN THE SOUTHERN TEST AREA OF THE SBS SURVEY

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Data of obs.	Wave -band
0120+297	01 20 48	+29 47	12	17.5	BSO		
0122+321	01 22 48	+32 10	10	16.0	BS		
0123+331	01 23 12	+33 10	8	17.5	BSO		
0123+302	01 23 30	+30 12	12	17.5	BS		
0123+330	01 23 30	+32 59	9	17.5	QSO:		
0123+329	01 23 30	+32 56	9	17.5	BS		
0125+335	01 25 12	+33 31	8	18.0	BSO		
0126+322	01 26 12	+32 13	7	19.0	BSO		
0127+317	01 27 00	+31 47	15	14.5	BS		
0127+332	01 27 00	+33 13	6	18.0	BSO		
0127+322	01 27 00	+32 12	12	16.5	BS		
0127+331	01 27 30	+33 06	9	17.5	F	26.12.80	3500–5400
0128+310	01 28 30	+31 00	7	18.0	BSO		
0128+312	01 28 42	+31 17	6	18.5	BSO		
0128+323	01 28 42	+32 22	14	15.5	BS		
0129+295	01 29 12	+29 35	12	17.5	BS		
0129+298	01 29 12	+29 51	8	18.0	BSO	29.10.80	3500–5400
0131+319	01 31 42	+31 58	8	18.0	BSO		
0133+299	01 33 36	+29 59	8	18.0	BSO		
0133+317	01 33 42	+31 47	8	17.5	QSO:		
0136+311	01 36 24	+31 07	6	18.5	QSO:		
0137+325	01 37 36	+32 35	6	18.5	BSO		
0138+048	01 38 18	+04 51	8	17.5	BSO		
0139+044	01 39 24	+04 27	8	17.0	BSO		
0142+013	01 42 30	+01 20	7	17.5	BSO		
0143+044	01 43 42	+04 29	10	16.5	BSO		
0143+345	01 43 48	+34 33	5	18.5	BSO		
0144+023	01 44 36	+02 22	14	15.0	BS		
0145+363	01 45 48	+36 19	12	15.5	BS		
0146+032	01 46 30	+03 15	7	17.5	BSO		
0146+433	01 46 42	+34 19	8	17.0	BSO		
0147+049	01 47 12	+04 57	5	18.0	BSO		
0148+435	01 48 12	+34 33	8	17.0	BSO		
0148+037	01 48 18	+03 46	7	17.5	BSO		
0148+026	01 48 24	+02 37	9	16.5	BS		
0148+028	01 48 42	+02 48	8	17.0	BSO		
0149+031	01 49 18	+03 08	7	17.0	BS		
0149+351	01 49 18	+35 10	6	18.0	QSO:		

TABLE 40 (CONTINUED)

SBS design.	R.A 1950	Dec. 1950	dxd (")	m_{pg}	Spect. type	Data of obs.	Wave -band
0149+362	01 49 24	+36 16	5	18.5	BSO		
0149+040	01 49 48	+04 03	7	18.0	BSO		
0150+354	01 50 24	+35 27	9	16.0	BS		
0150+339[a]	01 50 24	+33 54	9	16.5	BS		
0150+357	01 50 30	+35 43	6	18.5	BSO		
0151+359	01 51 00	+35 55	6	18.5	BSO		
0151+041	01 51 12	+04 10	5	18.5	BSO		
0151+048	01 51 18	+04 48	4	18.5	QSO		
0151+017	01 51 30	+01 45	12	15.5	BS		
0151+045	01 51 54	+04 34	8	17.5	QSO		
0152+336	01 52 06	+33 40	6	18.5	BSO		
0152+367	01 52 30	+36 46	6	18.0	BSO		
0152+015	01 52 36	+01 35	7	17.5	BSO		
0153+042	01 53 24	+04 16	8	17.5	BSO		
0155+358	01 55 00	+35 52	6	18.0	BSO		
0156+035	01 56 06	+03 32	10	16.5	BS		
0156+015	01 56 24	+01 30	7	17.5	BSO		
0156+034	01 56 36	+03 25	7	17.0	BSO		
0157+365	01 57 42	+36 33	6	18.0	QSO:		
0158+021	01 58 18	+02 06	8	17.5	BSO		
0158+335	01 58 36	+33 35	8	17.5	BSO		
0159+036	01 59 24	+03 47	9	16.5	BSO		
0159+037	01 59 30	+03 47	12	17.0	BS		
0200+028	02 00 30	+02 50	9	16.5	BSO		
0201+369	02 01 00	+36 58	8	17.5	BSO		
0203+024	02 03 00	+02 24	8	16.5	BSO		
0203+034	02 03 30	+03 25	8	17.0	BSO		
0204+049	02 04 06	+04 58	7	18.0	QSO:		
0322-054	03 22 36	−05 26	5	18.5	BSO		
0324-066	03 24 36	−06 40	6	18.0	BSO		
0331-068	03 31 42	−06 52	12	15.5	BSO		
0332-032	03 32 42	−03 14	7	18.0	BSO		
0333-052	03 33 30	−05 12	7	18.5	BSO		
0335-066	03 35 54	−06 37	8	17.5	BSO		

TABLE 41

THE LIST OF C2, RED (RS) AND Hα EMISSION-LINE STARS WITHIN THE SBS SURVEY AREA

SBS design.	R.A 1950	Dec. 1950	m_{pg}	Type.	Comments
0748+540	07 48 00	+54 05	13.0	C2	
0759+533	07 59 12	+53 19	13.5	C2	
0832+534	08 32 42	+53 28	11.0	C2	SW UMa
0837+503	08 37 24	+50 20	15.0	C2	
0854+530	08 54 18	+53 00	15.0	C2	
1310+561	13 10 48	+56 11	16.0	C2:	
1444+503	14 44 54	+50 23	17.5	C2	
1537+571	15 37 18	+57 10	15.0	C2	
1543+555	15 43 54	+55 30	16.0	C2:	
1701+555	17 01 12	+55 31	13.0	C2	
0713+502	07 13 54	+50 15	19.5	RS	
0719+509	07 19 36	+50 57	15.5	RS	
0724+512	07 24 06	+51 12	15.5	RS	
0758+507	07 58 12	+50 45	13.0	RS	
0802+529	08 02 18	+52 56	13.5	RS	
0859+502	08 59 48	+50 17	12.0	RS	
0936+499	09 36 30	+49 54	19.5	RS	
0938+493	09 38 12	+49 22	19.5	RS	
0939+498	09 39 12	+49 52	18.0	RS	
0939+499	09 39 54	+49 56	17.5	RS	
0939+521	09 39 54	+52 10	19.5	RS	
0940+498	09 40 36	+49 53	19.0	RS	
0940+495	09 40 54	+49 30	19.0	RS	
0941+496	09 41 48	+49 40	18.0	RS	
0945+520	09 45 24	+52 03	18.5	RS	
0955+510	09 55 00	+51 02	18.5	RS	
0955+521	09 55 24	+52 11	19.0	RS	
1030+537	10 30 48	+53 44	15.0	RS	
1032+544	10 32 54	+54 29	16.0	RS	
1033+547	10 33 06	+54 45	16.0	RS	
1039+513	10 39 12	+51 22	19.0	RS	
1041+524	10 41 54	+52 26	19.5	RS	
1108+586	11 08 30	+58 40	18.0	RS	
1236+587	12 36 36	+58 45	14.0	RS	
1525+555	15 25 18	+55 32	16.5	RS	
1531+550	15 31 54	+55 06	12.0	RS	
1656+539	16 56 36	+53 56	14.0	RS	
1203+566	12 03 06	+56 41	18.0	Ha	
1311+536	13 11 42	+53 36	16.0	Ha	

TABLE 42

THE LIST OF VARIABLE STARS WITH $\delta M > 2.0$ DETECTED WITHIN THE SBS SURVEY AREA

SBS design.	R.A 1950	Dec. 1950	Mag. range	Data of obs.	Wave -band	Type.
0731+516	07 31 36	+51 38	12–15.0			
0755+600	07 55 18	+60 03	17–19.5	25.11.81	3300–5100	UGem:
0833+536	08 33 06	+53 40	16–18.5			A5-A7
0914+516	09 14 48	+51 36	12–14.5			
1031+590	10 31 00	+59 03	14–16.0	03.02.84	3600–5300	Polar
1114+523	11 14 36	+52 21	16–18.5			
1305+541	13 05 09	+54 09	15–21.0			UGem:
1316+577	13 16 00	+57 44	16–19.5			
1338+514	13 38 06	+51 25	17–19.5			
1533+599	15 33 00	+59 57	15–20.5			Polar:
1552+533	15 52 12	+53 19	16–18.0			
1636+552	16 36 06	+55 14	15–17.0			
1646+532	16 46 00	+53 17	13–17.0			

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