TABLE 1

EXAMPLES OF SPECTROSCOPIC CHARACTERISTICS OF THE ISOLATED NELGS[†]

Identification in SDSS	$\log\left(\frac{\mathrm{O[III]}}{\mathrm{H}\beta}\right)$	$\log\left(\frac{\mathrm{N[II]}}{\mathrm{H}\alpha}\right)$	Activity Type	$L_{\mathrm{H}\alpha}$ $L_\odot$	$\sigma_\star$ km s^{-1}	$\log(\lambda\ L_{5100})$ erg s^{-1}
SDSS J105809.84−004628.8	−0.364	−0.351	SFG	6.19	87	42.13
SDSS J113903.33−001221.6	0.228	0.060	AGN	6.05	144	42.56
SDSS J135807.05−002332.9	−0.604	−0.521	SFG	7.03	86	42.76
SDSS J142223.76−002315.5	−0.437	−0.494	SFG	5.50	81	41.16
SDSS J150654.85+001110.8	0.253	0.055	AGN	6.67	202	43.11
SDSS J113423.32−023145.5	0.363	0.238	AGN	6.23	136	43.00
SDSS J115425.04−021910.3	−0.275	−0.453	SFG	5.36	78	41.29
SDSS J122353.98−032634.4	−0.218	−0.148	TO	5.39	113	41.64
SDSS J124428.12−030018.8	−0.193	−0.300	TO	6.28	115	42.69
SDSS J170128.21+634128.0	−0.671	−0.375	SFG	7.20	99	42.52

[†]Full table available in electronic form at `http://www.astroscu.unam.mx/rmaa/RMxAA..47-2/RMxAA..47-2_rcoziol-tables.zip/`.

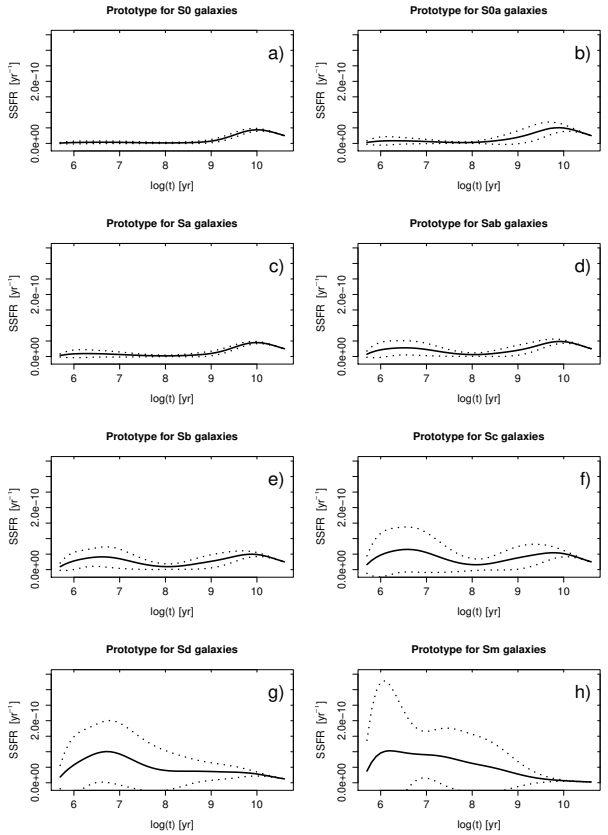

Fig. 2. SFH for the isolated NELGs. In each graph we show the mean prototype (solid line) and its dispersion at two sigma (dotted line). In order to use the same scale for all morphological classes, we have applied a factor of 0.5 and 0.1 to the SFH curves of the Sd and Sm, respectively.

cation. The final prototypes, including 327 (80%) of the 409 isolated NELGs, are presented in Figure 2. The prototypes suggest that S0, S0a, and Sa galaxies formed most of their stars in the past, $\log(t) > 9.0$ yr, while the Sab had a near constant star formation activity over the whole time lapse covered by STARLIGHT. This is also true for the Sb galaxies, but with a slightly larger dispersion. In the Sc galaxies, recent star formation activity becomes more important than in the past, but the dispersion also increases significantly the later the type. In Sd and Sm galaxies most of the stars appear to have formed recently, $\log(t) < 8.0$ yr. These results are in good agreement with similar studies based on integrated spectroscopy (e.g., Kennicutt 1992).

The remaining 20% galaxies were considered peculiar. Among these galaxies we count 36 late-type spirals (Sc or Sd) with a SFH typical of an Sa. These galaxies turned out to be cases where the fiber was covering only the innermost part of the galaxies. Also considered peculiar were 22 galaxies with a burst of star formation ∼100 Myr in the past. No external cause for the bursts could be determined, the galaxies being confirmed as isolated. Another 24 E or S0 galaxies were found to show a trace (not intense) of very recent star formation. All these peculiar galaxies were excluded from our analysis.

2.2. *Activity classification*

For our spectral activity analysis we further reduced our sample to 292 NELGs with a S/N $\geq$ 3 in the four most important emission lines: Hβ, [OIII]λ5007, Hα and [NII]λ6584. In Table 1 we com-