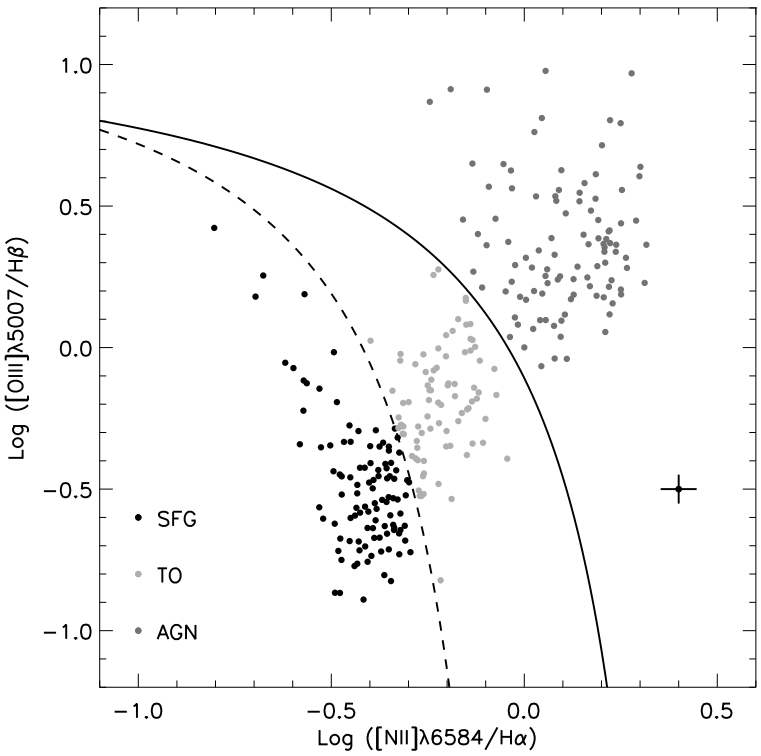

Fig. 3. Diagnostic diagram for the activity classification of the isolated NELGs. The separation between SFGs and TOs was suggested by Kauffmann et al. (2003) and the separation between TOs and AGNs by Kewley et al. (2006). Mean uncertainties on the line ratios are indicated as a cross on the lower right of diagram (not a datum). The color figure can be viewed online.

pile the spectroscopic characteristics of these galaxies as measured in the template subtracted spectra. Column 1 gives the SDSS identification of the galaxies. In Columns 2 and 3 we list the values of the two line ratios used to determine the activity type of the galaxies. The adopted classification is given in Column 4. In Column 5 we list the Hα emission line luminosity. In Column 6 we give the velocity dispersion of the stars, $\sigma_\star$, as deduced from the STARLIGHT template and corrected for the SDSS spectral resolution. Considering the size of the fiber used in SDSS ($3''$), this value can be taken as the stellar velocity dispersion of the bulge of the galaxy. Finally, in Column 7, we give the luminosity of the continuum at λ5100 Å as measured in the spectra before template subtraction.

We have identified the activity type of the 292 isolated NELGs in Figure 3, where we compare the two line ratios [OIII]λ5007/Hβ and [NII]λ6584/Hα. The typical low uncertainty levels on these ratios (cross in Figure 3) have practically no effect on our classification. We distinguish 105 SFGs (36.0%), 83 TOs (28.4%), and 104 AGNs (35.6%).

2.3. *Physical characteristics of the isolated NELGS*

We present the basic physical properties of the 292 isolated NELGs in Table 2. After the SDSS identification in Column 1, we list in Columns 2, 3 and 4 the right ascension, declination and redshift of the galaxies as listed in SDSS DR7. The results of our morphological classification are given in Column 5. Also from the SDSS DR7 database, we give in Columns 6 and 7 the Petrosian radii (in kpc) at 90% of the light distribution and the concentration index, CI, which is the ratio of the two Petrosian radii (CI = $R_{90\%}/R_{50\%}$). In Column 8 we list the luminosity in the K band as determined from 2MASS (K20 from 2MASS). In Column 9, we give the mean stellar age of the stellar populations consistent with the STARLIGHT template (Asari et al. 2007).

The K20 magnitudes from 2MASS were extracted from the extended sources catalog (Jarrett et al. 2000) by choosing the closest galaxy within 5 arcsecs of the best match. They were corrected for Galactic extinction at the position of the galaxies using the dust maps published in Schlegel et al. (1998). We also applied a k-correction using the method de-