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Spectrophotometry of galaxies in the Virgo cluster.II: The data ⋆

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Abstract. Drift-scan mode (3600-6800 Å) spectra with $500 < R < 1000$ resolution are presented for 333 galaxies members to nearby clusters, covering the whole Hubble sequence. The majority (225) were obtained for galaxies in the Virgo cluster where a completeness of 36 %, if all Hubble types are considered, and of 51 %, restricting to late-types, was reached at $m_p \leq 16$. Our data can be therefore considered representative of the integrated spectral properties of giant and dwarf galaxies in this cluster. Intensities and equivalent widths (EWs) are derived for the principal lines, both in emission and in absorption. Deblending of the underlying absorption from emission was achieved in most cases.

Key words. Clusters: individual: Virgo; Galaxies: spectra

1. Introduction

Local galaxies are the relics of evolutionary processes that took place in the universe since the early collapse of primordial matter fluctuations up to the present cosmological epoch. Such processes have not yet been convincingly unveiled, in spite of an increasing observational effort involving today's major observational facilities. A satisfactory characterization of the properties of local galaxies is building up only recently, as data obtained through a variety of observational windows of the electromagnetic spectrum are being gathered (see Kennicutt, 1998; Roberts & Haynes, 1994; Gavazzi, Pierini & Boselli, 1996; Tuffs et al. 2002; Popescu et al. 2002). Complete imaging data sets taken in a broad frequency range are becoming available owing to extensive observational campaigns, e.g. 2MASS (Jarrett et al. 2003), SLOAN (Stoughton et al. 2002), SINGS (Kennicutt et al. 2003) just to mention few.
As far as nearby clusters, such as the Virgo cluster and the Coma supercluster, multifrequency data for over 3000 galaxies are collected and distributed via the WEB site "GOLDMine" (Gavazzi et al. 2003).
Spectroscopic data are equally invaluable sources of information, but are more difficult to obtain and more time consuming. The spectroscopic characterization of the stellar continua provide us with "clocks" on stellar populations, while line indices unable us to quantify the chemical evolution of the stars and of the interstellar medium in galaxies. However much less extensive surveying was carried out in the spectroscopic than in the imaging mode, if one excludes the pioneering work of Kennicutt (1992) (K92 hereafter) who first tried to assess the systematic spectral properties of nearby galaxies along the Hubble sequence and of Jansen et al. (2000) who extended the spectral survey of K92 to a large sample of isolated galaxies, later analyzed by Stasinska & Sodre (2001). These spectroscopic surveys were carried out in the drift-scan mode, i.e. with the slit sliding over the whole galaxy area. Spectra taken in this way are representative of the mean galaxies, unlike most long slit observations which are dominated by the nuclear light.
In 1998, inspired by the work of K92 and of Jansen et al. (2000) we initiated a long term project aimed at characterizing spectroscopically the galaxies in the nearest rich cluster: the Virgo cluster. In Paper I of this series (Gavazzi et al. 2002a) we analyzed the spectral continua based on preliminary 124 spectra obtained until 2001. Here we present the full set of 333 spectra obtained so far (spring 2003). hey are available in JPG and FITS format at the WEB site GOLDMine (http://goldmine.mib.infn.it) (Gavazzi et al. 2003). Their analysis is postponed to Paper III (in preparation).
The present paper is organized as follows: Section 2 describes the surveyed sample, the observational and data reduction techniques. Section 3 gives the details of the line measurements, including the deblending of unresolved

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⋆ Based on observations collected at the Observatoire de Haute Provence (OHP) (France), operated by the CNRS, at the European Southern Observatory (proposals 66.B-0026; 68.B-0505), at the Loiano telescope belonging to the University of Bologna (Italy) and at the Observatorio Astronomico National de San Pedro Martir (Mexico).

lines and the separation of emission from underlying absorption lines. The derived spectral parameters are given in Section 4 and briefly summarized in Section 5.

2. Observations

Long-slit spectra of 333 galaxies, obtained during approximately 50 nights distributed in 6 years (1998-2003) using the 1.93 m telescope of the Observatoire de Haute Provence (OHP), the ESO/3.6 m telescope, the Loiano/1.52 m telescope and the San Pedro Martir (SPM) 2.1 m telescope are presented. The observations were taken in the "drift-scan" mode: i.e. with the slit, generally parallel to the galaxy major axis, drifting over the optical surface of the galaxy. [1]
At ESO we set the guide velocity of the telescope such that during the integration time the slit slides one time through the full length of the galaxy. At the remaining observatories the drifting was obtained by slewing manually several times the telescope between two extreme positions checked on one offset star or on the galaxy itself. Not unexpectedly spectra obtained in this way have lower S/N ratio than traditional long-slit spectra of similar integration time, because a large fraction of the time is spent on low surface brightness regions. Our spectra cover the wavelength range 3600-6800 Å (from [OII] to [SII]) with a resolution of $500 < R < 1000$. The spectrograph characteristics are given in Table 1. For 6 bright emission line galaxies observed at ESO we used both a low resolution grism and a high resolution red grism.
The observations at OHP, Loiano and San Pedro Martir were carried out in approximately 1.5-3 arcsec seeing conditions, while subarcsecond conditions were often encountered at ESO. We remark that the present data, owing to the "drift-scan" method are marginally affected by the seeing conditions. The OHP observations were sometimes taken through cirrus, otherwise in transparent or photometric conditions, while the observations obtained at ESO, SPM and Loiano were transparent or photometric. The spectrophotomectric standards Feige 34, Hz 44 and Hiltner 600 (ESO) were observed twice on each night.

2.1. The sample

Targets of the present spectrophotometric measurements were primarily selected from the Virgo Cluster Catalog (Binggeli et al. 1985: VCC). Among these we observed 225 objects.[2] Limiting to the 621 galaxies with $m_p \leq 16$ which are Virgo cluster members ($V < 3000$ or classified as possible members by Binggeli et al. 1985, 1993; Gavazzi et al. 1999), 223 have their spectra measured. At this limiting magnitude the completeness of our spectroscopic work is thus 36 % and it increases to 46 % at $m_p \leq 15$ and to 62 % at $m_p \leq 14$, as listed in Table 3. Most unobserved galaxies are dE and E, therefore the completeness results significantly higher among late-type galaxies. In these morphological classes we covered more than 50 % of the galaxies with $m_p \leq 16$. At the adopted distance of 17 Mpc (or $\mu = 31.1$) $m_p = 16$ corresponds to $M_p = -15$, thus our survey can be considered as representative of the spectroscopic properties of late-type galaxies in the Virgo cluster including dwarf systems.
Observations of CGCG (Zwicky et al. 1961-68) galaxies with $m_p \leq 15.7$ in other nearby clusters (45 in Coma+A1367, 37 in Cancer, 8 in the A262 and Centaurus clusters and another 10 isolated objects) were taken as fillers when Virgo was not observable. These do not form a complete set.
Table 2 summarizes the number of obtained spectra in each run and cluster and the approximate seeing conditions.
General parameters derived from the literature for galaxies in the observed sample, along with the log-book of the observations, are given in Table 6, arranged as follows:
Column 1: Galaxy designation.
Column 2, 3: (J2000) celestial coordinates.
Column 4: Heliocentric velocity (from this work or from the literature).
Column 5: Cluster membership. The membership to the various sub-units within the Virgo cluster is according to Gavazzi et al. 1999.
Column 6: Morphological type (from the VCC or from Gavazzi & Boselli, 1996).
Column 7: S=Seyfert, L=Liner H=HII (from NED).
Column 8, 9: Major and minor B band optical diameters (in arcmin). These are consistent with the diameters given in the UGC.
Column 10: Distance in Mpc. We assume a distance of 17 Mpc for the members (and possible members) of Virgo cluster A, 22 Mpc for Virgo cluster B, 32 Mpc for objects in the M and W clouds. We adopt a distance of 65 Mpc for A262 and of 33 Mpc for the Centaurus cluster; 51-74 Mpc for the Cancer cluster, according to the membership to the individual sub-groups. Distances of 96 and 91.3 Mpc are assumed for Coma and A1367 respectively. We adopt $H_o = 75$ km s^{-1}Mpc^{-1}.
Columns 11, 12, 13: Total apparent (uncorrected) V, B and H (1.65 μm) magnitudes. These are magnitudes at the 25$^{\rm th}$mag arcsec^{-2} isophote obtained consistently with Gavazzi & Boselli (1996).
Column 14: Observing run.
Column 15: Photometric quality: P=Photometric; T=transparent; C=thin Cirrus.
Column 16: Dispersion.

[1] Galaxies with major axis > 5 arcmin were observed with the slit perpendicular to the major axis. Few galaxies with both diameters larger than the slit length were observed. However most of the light from these objects comes from a region corresponding to half the (25$^{\rm th}$ mag arcsec^{-2}) diameters quoted in Tab. 2, thus well within the slit length.

[2] Including 6 additional spectra taken with the William Herschel Telescope kindly provided to us by J.M. Vilchez (VCC 324, 334, 562, 841, 848, and 2037) and 2 spectra taken from the spectral atlas of Kennicutt (1992) (VCC 355 e 1226) the total number of Virgo spectra is 233.

Table 1. The spectrograph characteristics

Telescope	*Run*	*Spectrograph*	*Disp* Å/mm	*Disp* Å/pix	$\Delta\lambda$ Å	*CCD*	*pix* μm	*Spat.Scale* "/pix	*Slit* arcsec
OHP/1.93	1998	*CARELEC*	260	7.0	3600 − 7200	512 × 512 *TEK*	27	1.17	300 × 2.5
OHP/1.93	1999	*CARELEC*	133	1.8	3400 − 7000	2048 × 1024 *EEV*	13.5	0.58	300 × 2.5
OHP/1.93	2000	*CARELEC*	133	1.8	3400 − 7000	2048 × 1024 *EEV*	13.5	0.58	300 × 2.5
OHP/1.93	2001	*CARELEC*	133	1.8	3400 − 7000	2048 × 1024 *EEV*	13.5	0.58	300 × 2.5
OHP/1.93	2002	*CARELEC*	133	1.8	3400 − 7000	2048 × 1024 *EEV*	13.5	0.58	300 × 2.5
OHP/1.93	2003	*CARELEC*	133	1.8	3400 − 7000	2048 × 1024 *EEV*	13.5	0.58	300 × 2.5
ESO/3.6(LD)	2001	*EFOSC2*	135	4.0	3380 − 7520	2048 × 2048 *LOR*	15	0.16	300 × 1.5
ESO/3.6(HD)	2001	*EFOSC2*	67	2.0	4700 − 6770	2048 × 2048 *LOR*	15	0.16	300 × 1.5
ESO/3.6(LD)	2002	*EFOSC2*	135	4.0	3380 − 7520	2048 × 2048 *LOR*	15	0.16	300 × 1.5
SPM/2.1	2002	*Boller&Chivens*	125	3.0	3900 − 7000	1024 × 1024 *SITE3*	24	0.96	300 × 2.0
LOI/1.52	2003	*BFOSC*	198	4.0	3600 − 8900	1300 × 1340 *EEV*	20	0.58	300 × 2.0

Table 2. The number of observed spectra

Telescope	*Date*	*Virgo*	*Coma*	*A262*	*Cancer*	*Centaurus*	*Other*	*Tot*	*Seeing(")*
OHP/1.93	5 *Mar* 1998	9	–	–	–	–	–	9	2.0 − 3.0
OHP/1.93	9 − 15 *Mar* 1999	22	–	–	2	–	2	26	2.0 − 3.0
OHP/1.93	1 − 6 *Feb* 2000	27	–	8	16	–	2	53	2.0 − 3.0
OHP/1.93	19 − 25 *Mar* 2001	24	5	–	1	–	–	30	2.0 − 3.0
OHP/1.93	7 − 13 *Mar* 2002	51	4	–	4	–	1	60	2.0 − 3.0
OHP/1.93	25 *Mar* − 06 *Apr* 2003	14	33	–	–	–	–	47	2.0 − 3.0
ESO/3.6(LD)	23 − 25 *Mar* 2001	41	1	–	–	8	–	50	0.5 − 2.0
ESO/3.6(HD)	23 − 25 *Mar* 2001	(6)	–	–	–	–	–	(6)	0.5 − 2.0
ESO/3.6(LD)	15 − 16 *Mar* 2002	33	–	–	–	–	5	38	0.5 − 1.0
SPM/2.1	17 *Mar* 2002	3	1	–	–	–	–	4	1.5 − 2.0
LOI/1.52	*Jan* − *Feb* 2003	1	1	–	14	–	–	16	2.0 − 2.5
Tot		225 + (6)	45	8	37	8	10	333 + (6)	

Table 3. Completeness of spectroscopic observations for Virgo cluster members and possible members regardless of their Hubble type and for late-type galaxies.

m_{pg}	*N VCC*	*with z*	*N Spectra*	%
≤16 all types	621	568	223	(36)
≤15 all types	430	427	198	(46)
≤14 all types	252	252	157	(62)
≤16 late-type	323	318	164	(51)
≤15 late-type	244	244	149	(61)
≤14 late-type	151	151	114	(75)

Column 17: Integration time (number of exposures × individual exposure time).

2.2. Data reduction

The reduction of the spectra was carried out using standard tasks in the IRAF package.[3] Visual inspection of the raw images provided us with a list of bad-pixel which were masked from the science frames. Bias subtraction and flat-field normalization was applied using median of several bias frames and exposures of quartz lamps. When at least three exposures were obtained for an object (see "number of exposures" in Column 17 of Table 6), they were

[3] IRAF is the Image Analysis and Reduction Facility made available to the astronomical community by the National Optical Astronomy Observatories, which are operated by AURA, Inc., under contract with the U.S. National Science Foundation. STSDAS is distributed by the Space Telescope Science Institute, which is operated by the Association of Universities for Research in Astronomy (AURA), Inc., under NASA contract NAS 5–26555.

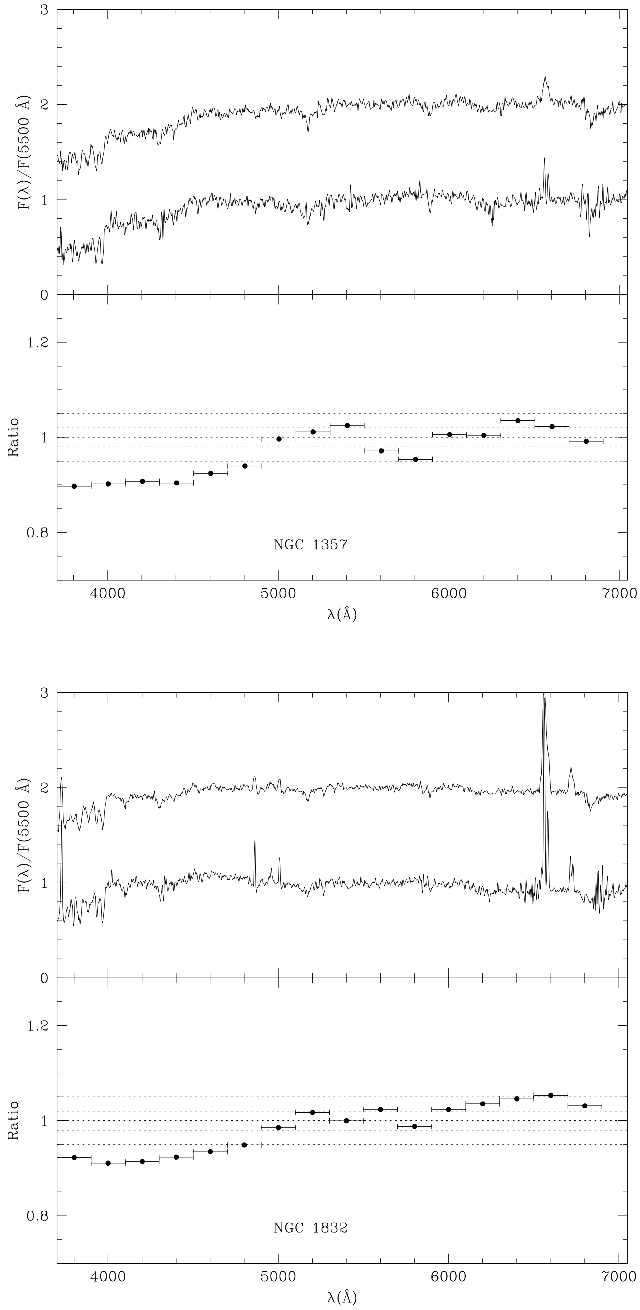

Fig. 1. Comparison between the spectra of NGC 1357 and 1832 obtained in this work and by K92. (top panels). The ratio of the two measurements is given in the bottom panels.

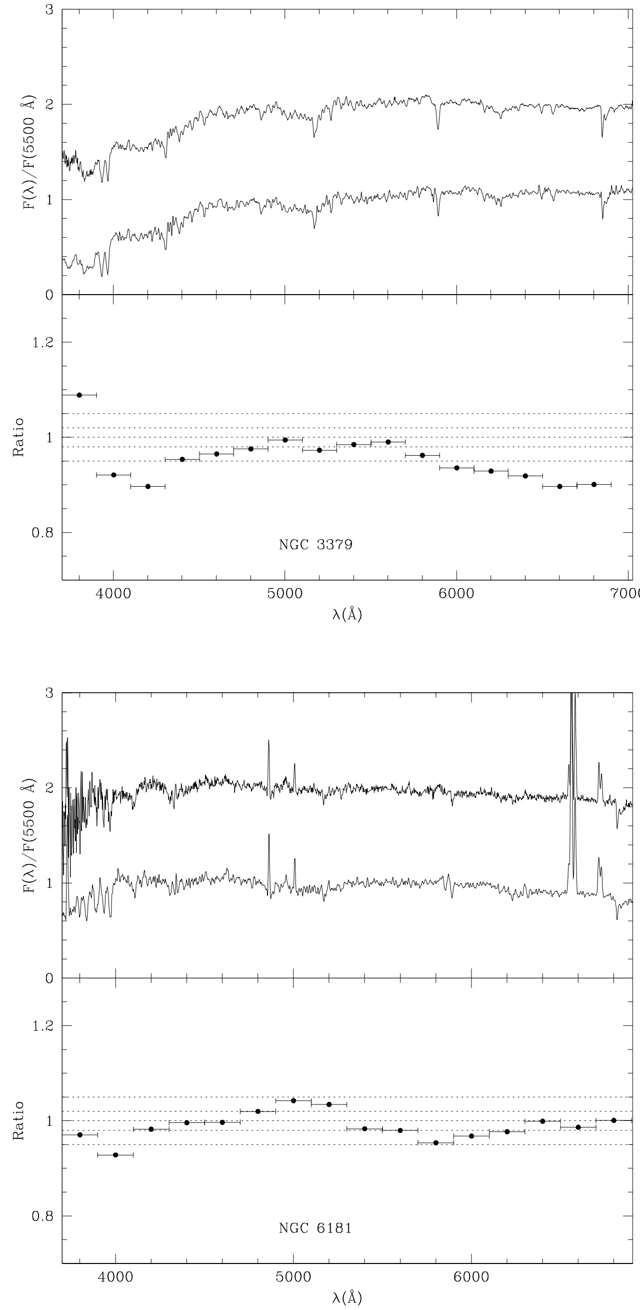

Fig. 2. Same as Fig.1 for NGC 3379 and 6181.

combined using a median filter, thus removing the cosmic rays. Otherwise the point-like ones were subtracted using $COSMICRAY$ and the remaining extended features were removed under visual inspection of the spectra.
The λ calibration was carried out using $IDENTIFY - REIDENTIFY - FITCOOR$ on exposures of He/Ar lamps and the calibration was transferred to the science frames using $TRANSFORM$. Typical errors on the dispersion solution are of few tenths of Å, as confirmed from the measurements of the sky lines. The two-dimensional frames were sky subtracted using $BACKGROUND$. One-dimensional spectra were obtained integrating the signal along the slit using $APSUM$. The apertures were limited to regions where the signal intensity was above 1 σ of the sky noise.
The flux calibration was achieved using $STANDARD - SENSFUNC - CALIBRATE$ on spectra of the standard stars Feige 34, Hz 44 and Hiltner 600 (ESO) taken twice on each night. Cubic spline sensitivity functions of 20^{th} order or higher were fit to the calibration spectra, allowing the transformation of the measured intensities into flux densities (erg $s^{-1}cm^{-2}Å^{-1}$), including the atmospheric ex-

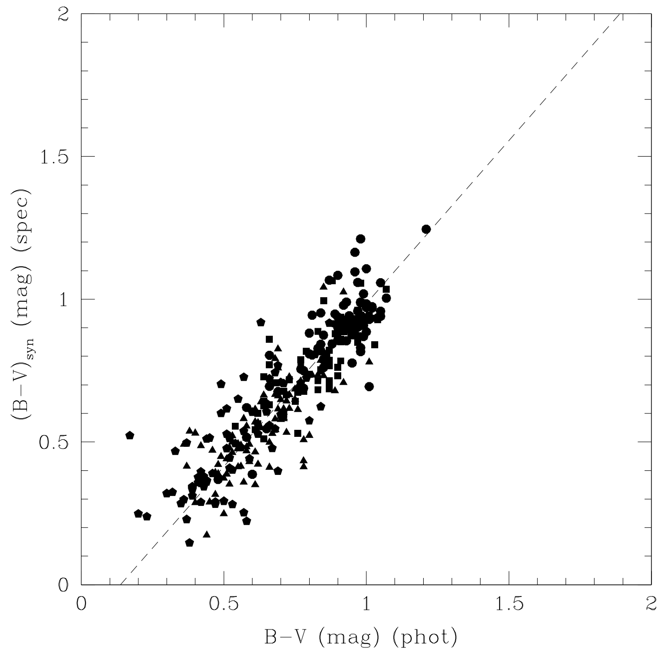

Fig. 3. Comparison of the synthesized $B-V$ color from our spectra and from photometry. Unless otherwise specified, in this and following figures dE-E-S0a are represented with circles; Sa-Sb with squares; Sbc-Scd with triangles; Sd-BCD with pentagons. The dashed line represents the best linear fit to the data.

tinction correction. However, because during an exposure taken in the "drift-scan" mode the fraction of light collected by the slit changes with time, an absolute calibration of our science spectra cannot be achieved. Thus all spectra were normalized to their intensity at $\lambda = 5500$ Å. The spectrophotomectric standards were instead used to calibrate the absolute response of the system as a function of wavelength. The uncertainty of this measurement over the whole spectral region resulted within 15%, as derived comparing the spectra of four galaxies taken in this work with the corresponding ones by K92 (see Section 2.3).

Three template spectra with high signal-to-noise ratio were selected for being representative of absorption-line objects, of weak emission-line objects and of strong emission-line objects respectively. They were shifted to their rest frame wavelength. All the remaining spectra were cross-correlated with one of these template spectra using $FXCOR$, thus providing their relative redshift. All spectra were shifted to the rest frame wavelength using $DOPCOR$ to better than 1 Å and finally they were normalized to their intensity determined in the interval 5400-5600 Å.

2.3. Comparison with the K92 Atlas

Four bright galaxies (NGC 1357, 1832, 3379 and 6181) were measured in common with K92 and their comparison is useful to assess the quality of our data. Figs. 1 and 2 show the spectra of these objects as obtained by us (top spectra) and as given by K92 (bottom spectra). The ratio of the two measurements is shown in the bottom panel of each figure. The two sets of data are found in agreement within 15 % in the range 3800–6800 Å.

2.4. Synthetic and photometric color indices

Synthesized spectroscopic colors $B-V$ and $B-R$ were obtained deconvolving the continua with the profiles of the B, V and R Johnson filters. Since the width of the R filter (5500–7000 Å) exceeds by 200 Å in the red the domain covered by our spectra, $B-R$ is computed deconvolving the Bruzual & Charlot (1993) population synthesis models fit to the observed spectra (see Paper I) with the B and R filter profiles. Fig. 3 shows the comparison between the photometric colors $(B-V)_T$ and the $B-V$ color synthesized on the spectra for 312 galaxies. The two differ by 0.05 mag with an rms scatter of 0.15 mag.
The comparison of the synthesized $B-R$ color from our spectra with $(B-V)_T$ color from photometry is given in Fig.4. Unless otherwise specified, in this and in the following figures we plot the best fit linear regression obtained using the *bysector* method of Feigelson & Babu (1992). The results of the linear regression analysis, including the uncertainties in their slope and zero point are summarized in Tab. 4.

3. Line measurements

Under visual inspection to the spectra we carried out a first-order measurement to all lines, both in emission and in absorption, using $SPLOT$. This provided a list of fluxes and EWs with respect to a user defined continuum level. This preliminary measurement was then refined as described in the following Sections.

3.1. Deblending of H_α from [NII]

H_α (λ6563) is bracketed by the weaker [NII] doublet ([NII1] λ6548 and [NII2] λ6584). The three lines are clearly resolved in the OHP (R=1000) spectra, thus for spectra taken at OHP the measurements of the individual lines is reliable. In the lower resolution (R=500) spectra taken at ESO, Loiano and SPM the three lines are not well resolved, thus the deblending obtained with $SPLOT$ is often inaccurate. In most of these cases we could only measure the global flux T of the triplet H_α+[NII1]+[NII2]. To measure them individually we proceed as follows: we calibrate on the OHP spectra the empirical relation between (([NII1]+[NII2])/H_α) and the V-band luminosity shown in Fig. 5, which derives from the well known metallicity-luminosity relation (see Raimann et al. 2000). We find:
$Log(([NII1]+[NII2])/H_\alpha) = 0.583(L_V/L_\odot) - 5.996.$
which, coupled to [NII1] = 0.34 [NII2] provides an estimate of each individual component [NII1], [NII2] and H_α. We apply the above procedure only if [NII2] emission is detected, but not resolved from H_α, i.e. when the line separation is lower than the sum of the individual HWHM.

Table 4. The bysector linear regression analysis.

Regression	R	see Fig.
$(B-V)_{syn} = 1.141 \pm 0.027 * (B-V)_T - 0.156 \pm 0.017$	0.86	3
$(B-R)_{syn} = 1.593 \pm 0.052 * (B-V)_T - 0.062 \pm 0.033$	0.78	4
$H_\alpha + [NII1] + [NII2] = 0.575 \pm 0.052 * log(L_V/L_\odot) - 5.922 \pm 0.206$	0.58	5
$H_\alpha + [NII1] + [NII2](sp) = 1.189 \pm 0.054 * H_\alpha + [NII1] + [NII2](ph) - 0.322 \pm 0.057$	0.75	7
$\mathrm{Mg}_2 = 0.095 \pm 0.009 * log(L_V/L_\odot) - 0.701 \pm 0.043$	0.71	14
$NaD = 17.031 \pm 0.975 * Mg_2 - 0.660 \pm 0.221$	0.74	15
$H_\beta = -8.707 \pm 1.206 * Mg_2 + 4.045 \pm 0.218$	-0.54	16
$\mathrm{G}_{4300} = 20.365 \pm 2.406 * Mg_2 + 0.227 \pm 0.446$	0.60	17
$\Delta_{4000} = 2.266 \pm 0.206 * Mg_2 + 0.040 \pm 0.040$	0.69	18

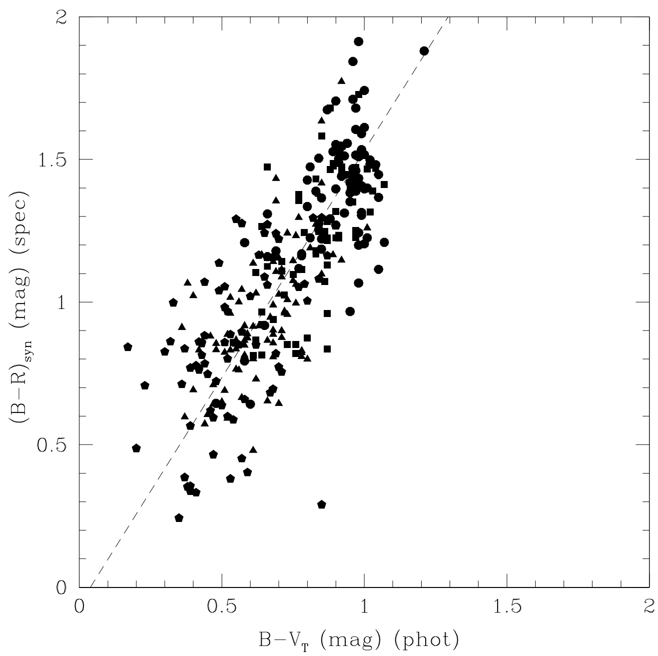

Fig. 4. Comparison of the synthesized $B-R$ color from our spectra with $(B-V)_T$ color from photometry. Same symbols as in Fig.3. The dashed line represents the best linear fit to the data.

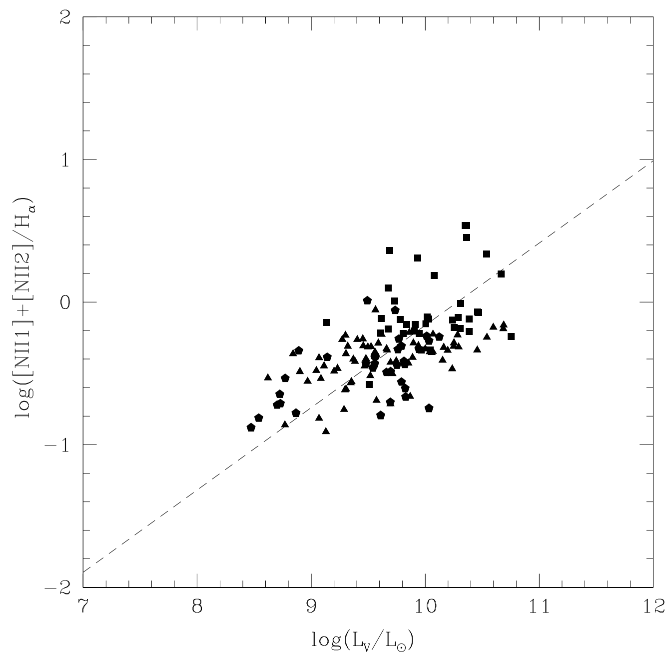

Fig. 5. $Log(([NII1] + [NII2])/H_\alpha)$ versus V-band luminosity for spectra taken at OHP. The dashed line represents the best linear fit to the data.

Otherwise H_α and [NII2] were measured individually and [NII1] was set as 0.34 [NII2].
The above procedure was checked a posteriori using 6 emission-line galaxies observed at ESO with both the low and the high resolution grisms. Fig 6 illustrates the consistency of the EW of [NII2] and H_α obtained on the low resolution spectra applying the deblending procedure with those directly measured on the HD spectra. The deblended measurements are found overestimated by 20 % on average.

3.2. Comparison with H_α from imaging

Several (223) galaxies in our sample have their H_α+[NII] measured from imaging (Boselli & Gavazzi 2002, Boselli et al. 2002, Gavazzi et al. 2002b). In spite of the different measuring techniques, the equivalent width derived from imaging and from our spectra are found within 0.31 dex *rms*, as shown in Fig. 7. This confirms that the "drift-mode" spectroscopy is indeed representative of the entire galaxy, as claimed in the introduction.

3.3. [OII] λ3727

Due to low sensitivity in the blue of CARELEC, only 22% of the emission line objects (EWH_α >0) observed at OHP have [OII](λ3727) detected, as opposed to 79% in ESO spectra whose rms noise at 4000 Å is half that of OHP spectra. For the remaining OHP spectra we estimate $3 * \sigma$ upper limits to the strength of [OII] as $3 \times rms_{(3750-4050)} \times 7$, where 7 Å is the mean FWHM of the [OII] lines detected at OHP.

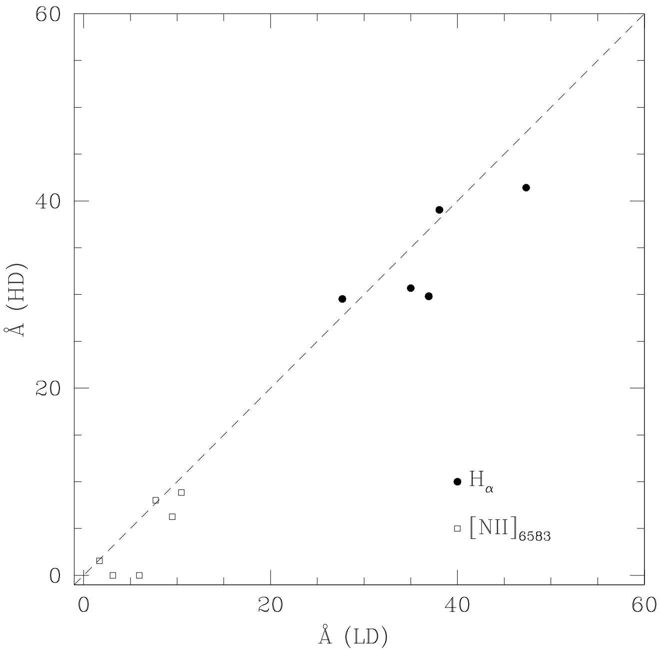

Fig. 6. Relation between [NII] and H_α EW as measured in the High dispersion ESO spectra vs. the same quantities obtained on the Low dispersion spectra and deblended according to the procedure described in Sect. 3.1. The dashed line represents the one-to-one relation.

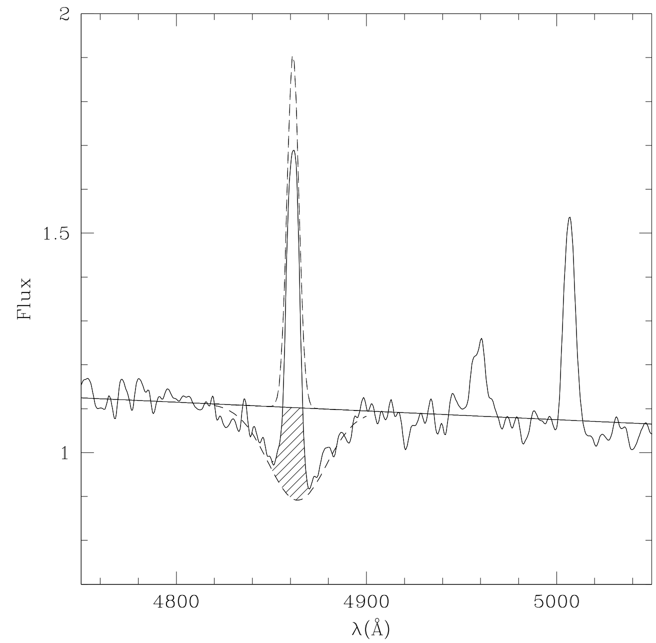

Fig. 8. Enlargement of the spectrum of VCC 25 to illustrate the deblending of H_β in emission from the underlying absorption. The observed H_β (continuum line) is deblended into a corrected emission and an absorption component (dotted lines). The shaded region represents the portion of the absorption line that is added to the emission line to obtain its correction.

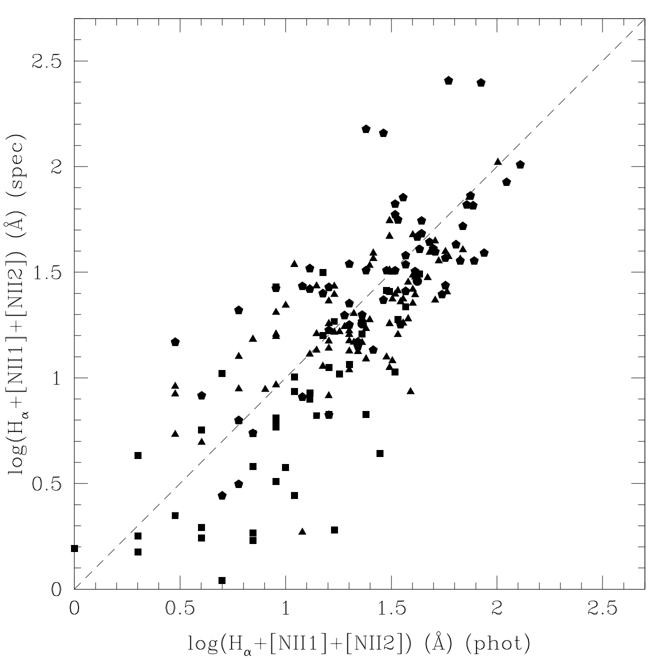

Fig. 7. Comparison of H_α+[NII1]+[NII2] EW derived from imaging and from our spectra. Same symbols as in Fig.3. The dashed line represents the one-to-one relation.

3.4. Correction for underlying absorption

Most emission line galaxies show evidence for underlying absorption in correspondence to emission lines. In particular, out of 174 spectra where we could measure $H\beta$ in emission, in 151 cases we detect significant $H\beta$ in absorption, and in fewer cases $H\gamma$ and $H\delta$ as well. We deblended the underlying absorption from the emission lines using a multiple component fitting procedure written by us in the IRAF environment. To do so we measure the emission line and subtract it from the spectra. The resulting absorption line is also measured with respect to a reference continuum. These two measurements are used as first guess in a fitting algorithm which fits jointly the emission and absorption lines to the reference continuum (see Fig.8). The value of the emission lines is given in Table 7, that of the underlying absorption in Table 8.

As shown in Fig. 9 the distribution of the underlying H_β is peaked at 5.7 ±1.9 Å, consistently with K92 who reported a mean underlying H_β of 5 Å.

For objects whose H_β was detected in emission but the deblending procedure was not applied (no absorption feature was evident) a mean additive correction for underlying absorption equal to -1.8 in flux and -1.4 Å in EW was used. These values correspond to the fraction of the (broader) absorption feature that lies under the emission feature.

No mean correction was applied to other lines except H_β.

3.5. The Balmer decrement (C_1)

From H_β corrected for underlying absorption (Sect 3.4) and H_α corrected for deblending from [NII] (Sect 3.1) we

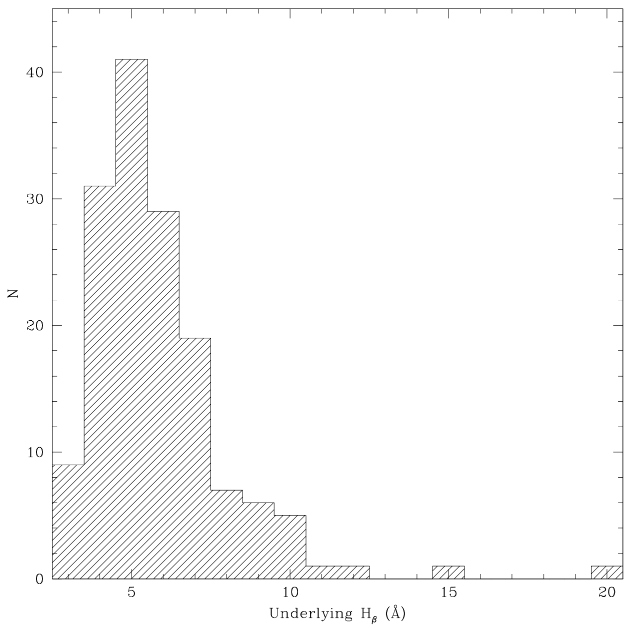

Fig. 9. Histogram of the underlying EW in absorption at H_β.

evaluate the Balmer decrement:
$C_1 = (log(H_\alpha/H_\beta)_{theor} - log(H_\alpha/H_\beta)_{obs})/(f(H_\alpha) - f(H_\beta))$
(in the current notation: $A(H_\beta)=2.5*C_1$).
The ratio $log(H_\alpha/H_\beta)_{theor}$ depends on the electron density and on the gas temperature. Assuming T=10000K and n=100 e/cm^3, as in Osterbrock (1989) case B, $(H_\alpha/H_\beta)_{theor} = 2.86$ holds.
The corrected line fluxes are derived, relative to H_β, using C_1 and the reddening function $f(\lambda)$ of Lequeux et al. (1979) (see Table 5) based on the extinction law of Whitford (1958) [4].
When EW$H_\alpha > 1$ Å but H_β is undetected we derive a $3*\sigma$ lower limit to C_1 using (Buat et al. 2002):
$H_\beta < 3 \times rms_{(4500-4800)} \times H_\alpha HWHM$
assuming that H_α and H_β have similar HWHM (Half Width Half Maximum).
Fig.10 shows the obtained C_1 as a function of the synthetic $B-R$ color index for our objects (coded according to the morphological type) and for galaxies observed by Jansen et al. (2000) and analyzed by Stasinska & Sodre (2001). Our data confirm the positive correlation between the two quantities: i.e. increasing C_1 with increasing $B-R$. However the dispersion appears higher and the relation steeper than in Stasinska & Sodre (2001). Notice that these authors did not measure the underlying absorption at H_β.

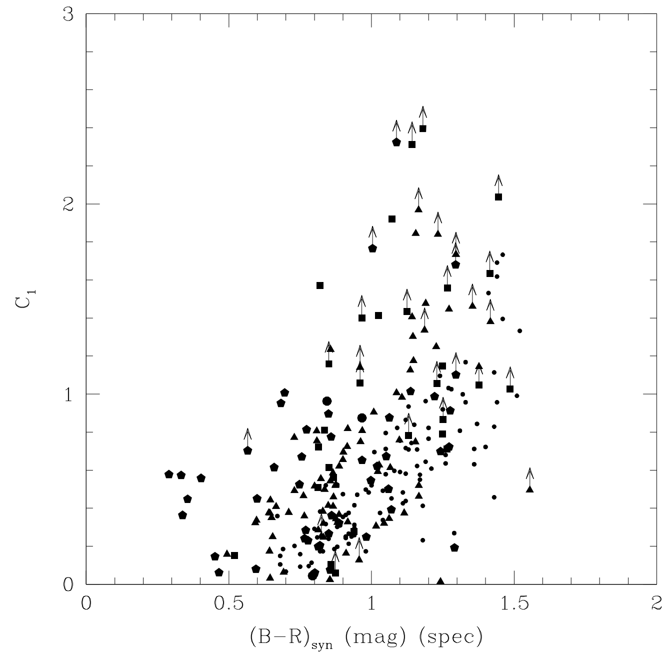

Fig. 10. C_1 versus $(B-R)_{syn}$ (excluding Seyfert objects). Same symbols as in Fig.3 with the addition of galaxies observed by Jansen et al. (2000) (small dots).

Table 5. Dereddening law relative to H_β

Line	λ(Å)	f(λ)-f(H_β)
$[OII]$	3727	0.31
H_δ	4101	0.20
H_γ	4340	0.13
H_β	4861	0
$[OIII]$	4958	-0.02
$[OIII]$	5007	-0.03
$[NII]$	6548	-0.33
H_α	6563	-0.33
$[NII]$	6584	-0.34
$[SII]$	6717	-0.37
$[SII]$	6731	-0.37

4. Results

The 333 (rest-framed and normalized) spectra obtained in this work are illustrated in Fig. 19.
The ESO spectra are given in the range 3600–6800 Å. The OHP spectra, noisier in the blue, were resampled with a step of 5 Å and are given from 3850 to 6800 Å, unless the strength of the [OII] line was higher than 3 times the noise determined locally near the line (see Section 3.3).
The flux scale of Fig. 19 is given in three intervals: 0.2 – 2; 0.2 – 5, 0.2 – 15 according to the intensity of the brightest lines. The additional 6 high dispersion spectra obtained at ESO are given in the last page of Fig. 19.
All spectra presented in Fig. 19 are available in

[4] We have compared the $f(\lambda)$ of Lequeux et al. (1979) with the derivation of Cardelli et al. (1989), which assumes the extinction law of Seaton (1979) and of Savage & Mathis (1979). The two functions are in agreement (in the optical range of our interest): differences are ≤ 0.03 from [OII] to Hα (included); 0.05 at [SII].

the FITS format at the WEB site GOLDMine (http://goldmine.mib.infn.it/).

4.1. Emission lines

The (corrected) emission lines parameters are listed in Table 7:
Column 1: Galaxy identification.
Column 2: Balmer decrement C_1 (or lower limit).
Column 3-13: Line intensities corrected for Balmer decrement, normalized to H_α.
Column 3: [OII] (λ3727) (or upper limit).
Column 4: H_δ (λ4101).
Column 5: H_γ (λ4340).
column 6: H_β (λ4861).
Column 7: [OIII] (λ4959).
Column 8: [OIII] (λ5007).
Column 9: [NII] (λ6548).
Column 10: H_α (λ6563).
Column 11: [NII] (λ6584).
Column 12: [SII] (λ6717).
Column 13: [SII] (λ6731).
Column 14-24: Equivalent widths (Å).
Column 14: [OII] (λ3727) (or upper limit).
Column 15: H_δ (λ4101).
Column 16: H_γ (λ4340).
Column 17: H_β (λ4861).
Column 18: [OIII] (λ4959).
Column 19: [OIII] (λ5007).
Column 20: [NII] (λ6548).
Column 21: H_α (λ6563).
Column 22: [NII] (λ6584).
Column 23: [SII] (λ6717).
Column 24: [SII] (λ6731).
Column 25: Notes.

4.2. Balmer absorption lines

Whenever an absorption feature is detected in correspondence of Balmer lines (either alone or deblended from emission, as discussed in Sect. 3.4) its EW is listed in Table 8 as follows:
Column 1: Galaxy identification.
Column 2: H_δ (λ4101).
Column 3: H_γ (λ4340).
Column 4: H_β (λ4861).
Column 5: H_α (λ6563).
Column 6: Notes.
Frequency distributions of the EWs of the principal (emission and absorption) lines (H_α, H_β and [OIII] (λ5007)) in 4 intervals of Hubble type are given in Figs.11, 12 and 13 respectively. For each Hubble type interval, the total number of objects and the number of objects with a given measured line (either in emission or in absorption) is labeled in each panel. The continuum lines represent similar frequency distributions obtained with the Jansen et al. (2000) data. If one excludes the absorption lines (negative E.W.) that Jansen et al. (2000) did not measure, whereas they are included in our analysis, the two distributions appear consistent one another. In fact the probability that the two distributions are derived from the same parent populations is: > 62 % for S0-Sab, > 97 % for Sb-Sd and > 57 % for Sdm-BCD, as derived from the Kolmogorov-Smirnov test (dS0-E are excluded from this analysis due to the poor statistics). The implications of this finding is that, to the first order, galaxies in rich clusters do not have emission line properties dramatically different from isolated galaxies. Small differences, if any, require a more subtle analysis to be identified, which is postponed to Paper III.

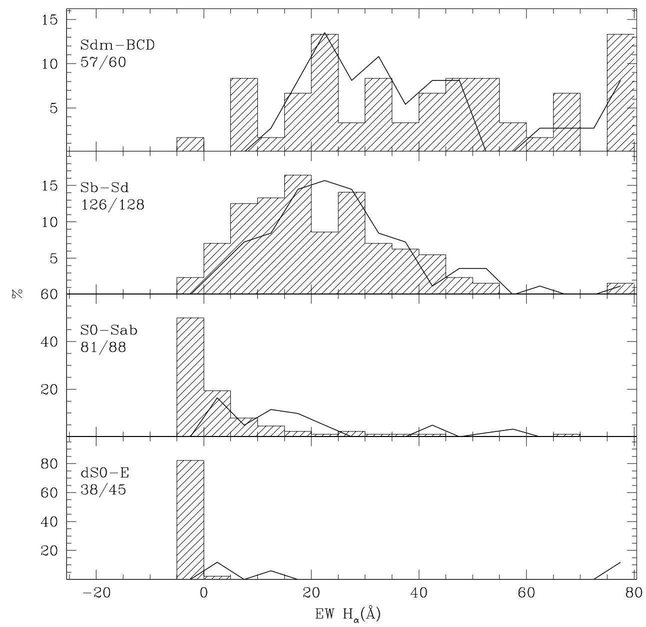

Fig. 11. Distribution of H_α E.W. in four intervals of Hubble type. Positive E.W. represent emission lines, negative values represent absorption lines. The continuum line represents the frequency distribution obtained with the Jansen et al. (2000) data.

4.3. Absorption line indices

The absorption lines indices are derived for early-type objects (dE-dS0-E-S0) and are listed in Table 9. They are derived according to the Lick system (Worthey et al. 1994) as the result of the integration in defined bands. Continua are determined on both sides of the line under measurement, and averaged. The line strength (or EW) is given as the difference between the integral in the interval containing the line and in the adjacent continuum.[5]

[5] The integration has been carried in the Lick system, but the indices were not corrected using Lick standards. Notice that the EW$H\beta$ listed in Table 9 do not correspond with those in

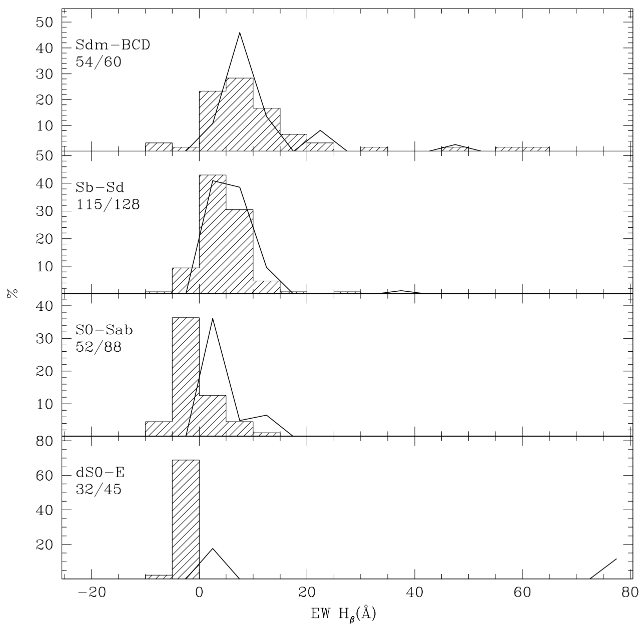

Fig. 12. Same as in Fig.11 for H$_\beta$ E.W.

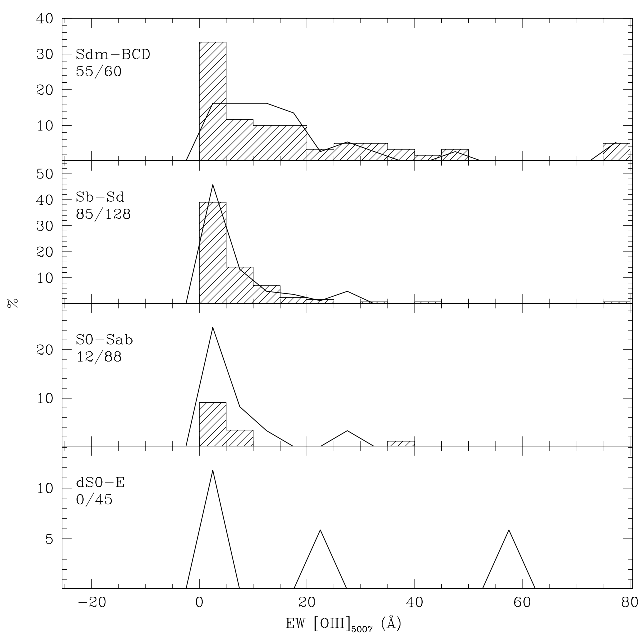

Fig. 13. Same as in Fig.11 for [OIII2] E.W.

Table 9 is organized as follows:
Column 1: Galaxy identification.
Column 2: Calcium Break (Δ_{4000}) (λ4000) in mag.
Column 3: G_{4300} ($\lambda\lambda$ $4283 - 4317$) in Å.
Column 4: $H\beta$ ($\lambda\lambda$ $4849 - 4877$) in Å.
Column 5: Mg_2 ($\lambda\lambda$ $5156 - 5197$) in mag.

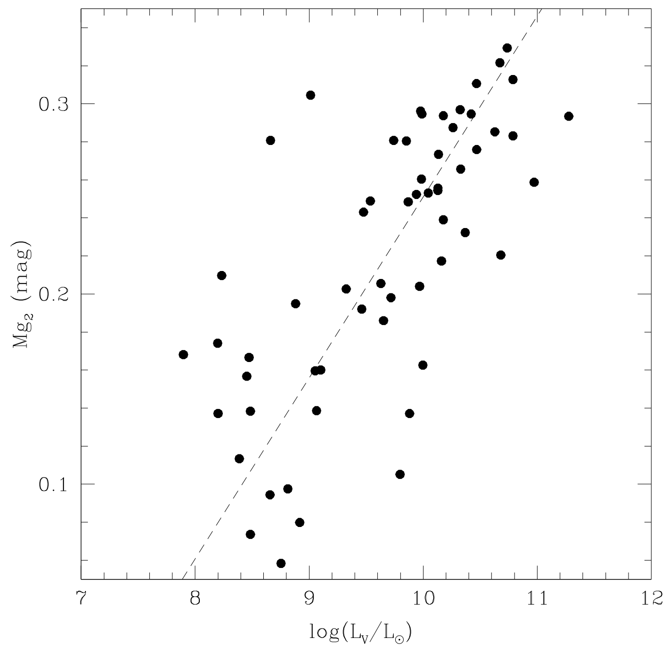

Fig. 14. The Mg_2 absorption index vs. V band luminosity for dE-dS0-E-S0. The dashed line represents the best linear fit to the data.

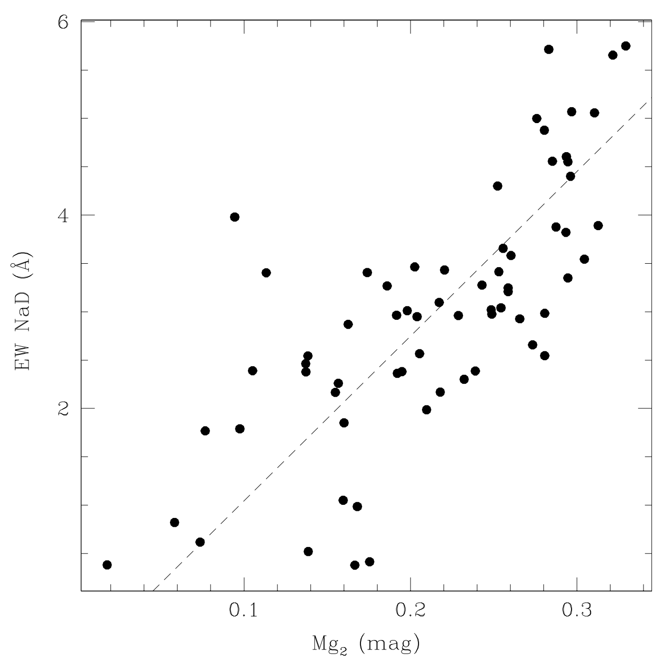

Fig. 15. The Mg_2 absorption index vs. the NaD absorption index for dE-dS0-E-S0. The dashed line represents the best linear fit to the data.

Column 6: NaD ($\lambda\lambda$ $5879 - 5911$) in Å.

The principal metallicity index, Mg_2 is plotted in Fig.14 as a function of the V band luminosity, confirming the well known increase of metallicity with luminosity (Bica and Alloin 1987). Other absorption line indices, namely NaD, G_{4300} and Δ_{4000} are plotted in Figs.15, 17 and 18 as a

Table 8 for galaxies in common between the two Tables (e.g. elliptical galaxies with $H\beta$ in absorption) because they are obtained with different measuring techniques.

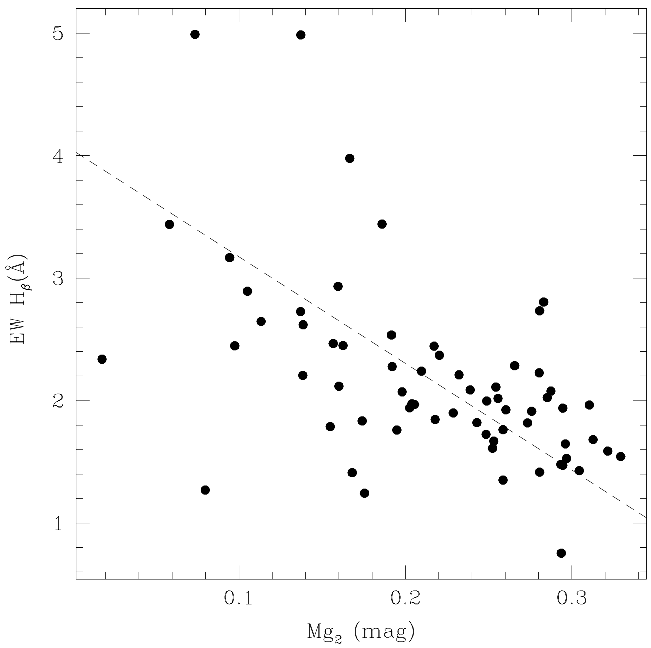

Fig. 16. The Mg_2 absorption index vs. the H_β absorption index for dE-dS0-E-S0. The dashed line represents the best linear fit to the data.

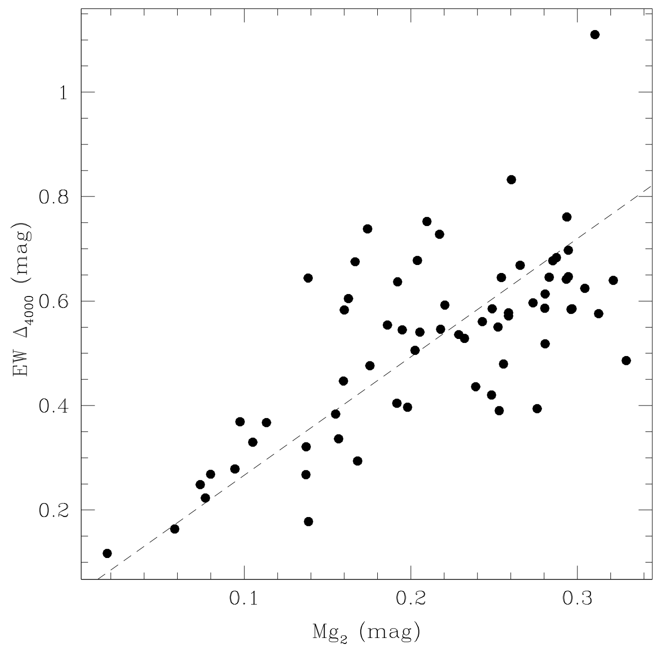

Fig. 18. The Mg_2 absorption index vs. the Calcium break (Δ_{4000}) for dE-dS0-E-S0. The dashed line represents the best linear fit to the data.

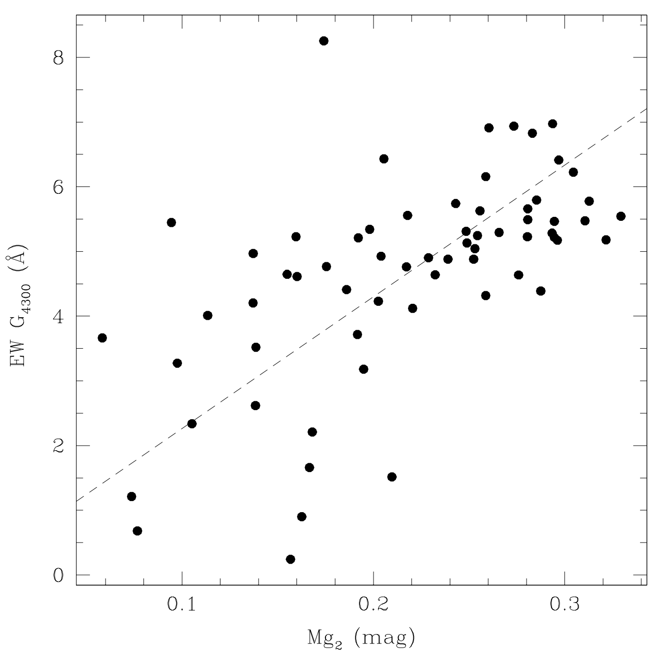

Fig. 17. The Mg_2 absorption index vs. the G_{4300} absorption index for dE-dS0-E-S0. The dashed line represents the best linear fit to the data.

function of Mg_2, showing the expected correlation with metallicity. On the opposite the strength of $H\beta$ in absorption shows the reverse trend with Mg_2 (Fig.16), as this line is more sensitive to the age than to the metallicity of stellar populations (Worthey et al. 1994). The significance of these correlations can be estimated from the uncertainty in the slope and zero point listed in Tab. 4. Beside the mentioned dependence on luminosity, no significant differences are found among dE and dS0 or among E and S0.

5. Summary and conclusions

Using 5 middle-size telescopes for 50 nights distributed in 6 years we obtained drift-scan spectra (3600-6800 Å) with $500 < R < 1000$ for 333 galaxies in nearby clusters. The majority (225) where secured for galaxies in the Virgo cluster. The observations can be considered representative of the spectral properties of giant and dwarf galaxies in this cluster, as the completeness achieved at $M_p = -15$ is 36 % for all types and 51% for late-type galaxies.

Here we present the individual spectra reduced to their rest-frame wavelength and normalized to their intensity at 5500 Å.

Intensities (corrected for dereddening) and EWs are derived for the principal lines both in emission and in absorption. Special care is devoted to deblending of H_α from the [NII] doublet and of emission lines from underlying absorption. In the case of $H\beta$ we measured underlying absorption 87 % of the times we detected emission, with a mean EW of 5.7 Å.

For early-type galaxies we derive the Lick absorption line indices.

The complete line analysis is postponed to a forthcoming Paper III where the metallicity indicators will be derived and analyzed.

The comparison of the line properties of our cluster sample with those of 200 isolated galaxies observed by Jansen et al (2000) with a similar experimental setup will allow to study the influence of the cluster environment on the interstellar medium and on the stellar population of galaxies. This analysis will help shading light on the elusive processes that made cluster galaxies evolve separately from their isolated counterparts.

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Table 6: Parameters of the observed galaxies.

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC0001	120820.02	134100.2	2267	Virgo M	BCD	-	0.80	0.18	32	15.13	15.90	12.80	O00	T	133	2 × 1800
VCC0024	121035.65	114538.5	1289	Virgo M	BCD	-	1.00	0.37	32	15.19	15.80	-	O01	P	133	1 × 1800
VCC0025	121037.33	160159.5	2169	Virgo M	Sc	-	2.54	1.71	32	12.19	12.77	9.85	O00	P	133	1 × 1800
VCC0047	121211.77	131447.8	1862	Virgo M	Sa	-	1.41	0.76	32	13.84	14.60	10.95	E01	P	135	1 × 900
VCC0049	121216.46	131223.9	2307	Virgo M	E	S	1.76	1.40	32	11.73	12.67	8.85	E01	P	135	1 × 900
VCC0058	121232.21	120725.9	2207	Virgo M	Sb	-	2.54	1.75	32	12.90	13.60	10.45	E01	P	135	2 × 900
VCC0066	121246.27	105156.0	369	Virgo N	Sc	-	5.35	1.87	17	11.39	11.97	9.15	O99	T	133	3 × 1000
VCC0073	121302.99	070219.0	2082	Virgo W	Sb	-	1.89	0.69	32	12.57	13.41	9.48	O02	C	133	1 × 1800
VCC0087	121340.91	152713.2	-134	Virgo N	Sm	-	1.45	0.72	17	14.80	15.27	-	O00	T	133	2 × 1800
VCC0089	121347.34	132530.2	2116	Virgo M	Sc	-	2.26	1.63	32	11.95	12.72	9.40	O01	C	133	2 × 1800
VCC0092	121348.24	145401.2	-135	Virgo N	Sb	S	9.78	2.60	17	9.83	10.72	6.85	O00	P	133	1 × 1800
VCC0097	121353.65	131022.2	2476	Virgo M	Sc	-	1.96	0.97	32	12.48	13.32	9.67	E01	P	135	2 × 600
VCC0119	121437.43	124847.4	620	Virgo M	Sc	-	1.71	0.56	32.0	15.43	15.98	-	O03	P	133	2 × 1800
VCC0131	121504.41	140144.5	2317	Virgo N	Sc	-	2.60	0.28	17	13.88	14.65	10.88	O01	C	133	1 × 1800
VCC0134	121505.24	133541.5	7867	Virgo Bg	Sc	-	1.26	0.95	104.9	-	-	-	O03	P	133	1 × 1800
VCC0142	121513.16	131105.6	5868	Virgo Bg	Sc	-	1.41	1.20	78.6	-	-	-	O03	P	133	1 × 1800
VCC0145	121516.77	130126.6	702	Virgo N	Sc	-	5.10	0.85	17	12.28	13.01	9.66	O02	P	133	1 × 1800
VCC0152	121530.31	093508.6	592	Virgo N	Scd	-	1.96	0.89	17	12.72	13.55	9.75	O99	C	133	2 × 1200
VCC0157	121539.28	135405.7	-83	Virgo N	Sc	-	3.60	2.01	17	11.13	11.83	8.17	O02	P	133	1 × 1800
VCC0159	121541.50	081707.7	2584	Virgo W	Im	-	1.04	0.52	32	15.66	16.02	-	E01	P	135	3 × 900
VCC0162	121546.12	104153.7	1979	Virgo N	Sd	-	2.92	0.50	17	14.60	15.05	12.45	E01	P	135	2 × 600
VCC0162													E01	P	67	1 × 600
VCC0167	121554.22	130859.7	140	Virgo N	Sb	L	9.12	2.16	17	9.77	10.83	6.76	O02	P	133	1 × 1800
VCC0187	121622.77	131827.9	226	Virgo N	Scd	-	3.52	0.50	17.0	13.37	14.10	10.57	O03	T	133	1 × 1800
VCC0220	121706.50	073723.1	2224	Virgo W	S0	-	2.72	0.85	32	12.02	13.02	9.07	E01	P	135	1 × 600

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC0221	121708.62	034050.1	2031	Virgo W	Sc	-	1.76	1.56	32.0	12.99	13.57	11.19	O03	P	133	1 × 1800
VCC0226	121711.34	151927.1	864	Virgo N	Sc	-	2.01	1.16	17	11.88	12.65	8.95	E01	P	135	1 × 900
VCC0228	121716.45	124742.1	4987	Virgo Bg	Sb	-	1.10	0.67	66.7	-	-	-	O03	P	133	1 × 1800
VCC0307	121849.40	142459.6	2405	Virgo N	Sc	-	6.15	5.60	17	9.84	10.50	7.10	O00	P	133	1 × 1800
VCC0318	121903.40	085122.7	2469	Virgo W	Scd	-	1.71	1.00	32	14.09	14.45	-	O99	C	133	2 × 1200
VCC0345	121923.57	054932.8	2200	Virgo W	E	L	3.95	2.92	32	10.47	11.49	7.59	O02	T	133	1 × 1800
VCC0358	121935.66	055047.9	2633	Virgo B	Sa	-	1.55	1.06	23	12.89	13.81	10.17	O02	T	133	1 × 1800
VCC0369	121945.59	124757.0	1009	Virgo N	S0	-	3.77	3.52	17	11.01	12.01	8.25	S02	P	125	1 × 900
VCC0382	121955.90	052034.0	2378	Virgo W	Sc	-	2.01	1.29	32	11.91	12.47	9.40	E02	T	135	1 × 1200
VCC0386	122003.70	052028.1	2499	Virgo W	Sa	-	1.55	0.97	32	13.64	14.56	10.69	E02	T	135	1 × 1200
VCC0393	122007.47	074128.1	2617	Virgo B	Sc	-	2.10	2.10	23	13.04	13.67	10.62	E01	P	135	2 × 900
VCC0459	122111.46	173818.5	2108	Virgo A	BCD	-	0.84	0.36	17	-	-	-	O99	T	133	1 × 1200
VCC0460	122112.68	182256.5	921	Virgo A	Sa	L	5.10	2.92	17	10.50	11.45	7.49	O02	P	133	1 × 1800
VCC0465	122117.82	113031.5	357	Virgo N	Sc	-	3.95	1.24	17	12.05	12.53	9.76	O02	P	133	1 × 1800
VCC0483	122132.67	143622.6	1136	Virgo A	Sc	-	3.60	2.01	17	11.33	12.02	8.50	O98	P	260	1 × 900
VCC0491	122140.20	113009.7	234	Virgo N	Scd	-	1.96	1.96	17	12.76	13.16	10.83	O02	P	133	1 × 1800
VCC0497	122142.26	143551.7	1150	Virgo A	Sc	-	6.74	1.60	17	11.47	12.40	8.12	O98	P	260	1 × 900
VCC0508	122154.84	042824.8	1568	Virgo S	Sc	S	6.59	5.35	17	9.63	10.30	6.98	O02	P	133	1 × 1800
VCC0522	122203.54	124427.8	1888	Virgo A	Sa	-	2.60	1.29	17	12.65	13.42	10.00	O02	P	133	1 × 1800
VCC0523	122204.23	124712.8	1508	Virgo A	dS0	-	1.87	1.16	17	-	-	10.89	O02	P	133	1 × 1800
VCC0534	122212.35	070838.9	1071	Virgo B	Sa	-	2.01	1.00	23	12.95	13.82	10.10	E01	P	135	3 × 900
VCC0538	122214.94	070951.9	500	Virgo B	E	-	0.36	0.36	23	15.67	16.67	-	E01	P	135	3 × 900
VCC0552	122227.02	043400.0	1296	Virgo S	Sc	-	1.89	1.43	17.0	13.31	13.81	-	O03	P	133	1 × 1800
VCC0559	122231.29	153214.0	153	Virgo A	Sab	-	5.10	1.24	17	11.96	12.79	9.02	O02	T	133	1 × 1800
VCC0596	122254.82	154920.2	1575	Virgo A	Sc	L	9.12	8.11	17	9.34	10.02	6.57	O98	P	260	1 × 900

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC0630	122317.02	112207.3	1564	Virgo A	Sd	-	5.86	1.45	17	12.18	12.98	9.76	O02	T	133	1 × 1800
VCC0634	122319.89	154910.3	499	Virgo A	dE	-	1.65	1.28	17	13.69	14.47	11.15	O98	P	260	2 × 900
VCC0636	122321.08	155204.3	105	Virgo A	dE/dS0	-	0.64	0.64	17	16.24	16.90	14.10	O98	P	260	2 × 900
VCC0655	122337.45	173228.5	1147	Virgo A	S/BCD	-	1.55	1.55	17	12.93	13.60	-	O99	C	133	3 × 1200
VCC0656	122338.81	065714.5	1014	Virgo B	Sb	-	2.48	0.93	23	12.45	13.37	9.32	O99	T	133	1 × 1200
VCC0664	122344.36	122842.5	-427	Virgo A	Sc	-	2.60	1.87	17	13.16	13.60	-	O00	T	133	2 × 1800
VCC0667	122348.48	071111.5	1420	Virgo B	Sc	-	1.71	0.85	23	13.71	14.39	10.85	E02	T	135	1 × 1800
VCC0685	122357.82	164138.6	1241	Virgo A	S0	-	3.20	1.16	17	11.04	11.95	8.07	E01	P	135	1 × 600
VCC0688	122400.10	074705.6	1125	Virgo B	Sc	-	1.41	0.80	23	13.32	14.02	10.73	E01	P	135	1 × 900
VCC0692	122401.37	121216.6	2324	Virgo A	Sc	-	2.92	1.87	17	12.52	13.00	10.35	O01	C	133	1 × 1800
VCC0699	122407.44	063626.7	727	Virgo B	Pec	-	1.95	1.38	23	13.36	13.78	11.13	E02	T	135	1 × 600
VCC0713	122414.10	083203.7	1137	Virgo B	Sc	-	3.20	0.50	23	12.87	13.80	9.80	E01	P	135	1 × 900
VCC0731	122427.84	071904.8	1240	Virgo B	E	-	8.73	6.18	23	9.67	10.65	6.77	E01	P	135	1 × 600
VCC0758	122454.71	072638.0	784	Virgo B	S0	-	1.76	0.87	23	12.51	13.47	9.77	E01	P	135	1 × 600
VCC0759	122455.08	114216.0	943	Virgo A	S0	-	5.10	2.48	17	10.87	11.86	8.05	O02	C	133	1 × 1200
VCC0762	122502.80	073023.1	1341	Virgo B	dE	-	0.84	0.60	23	-	-	-	O99	C	133	2 × 1800
VCC0781	122514.73	124253.2	-254	Virgo A	dS0	-	1.08	0.50	17	14.34	15.02	-	E01	P	135	1 × 900
VCC0787	122518.10	054427.2	1136	Virgo B	Scd	-	1.84	1.07	23	13.35	13.83	11.13	E02	T	135	1 × 1200
VCC0792	122522.07	100101.2	971	Virgo B	Sab	-	3.52	1.75	23	11.56	12.46	8.57	O02	T	133	1 × 1800
VCC0794	122522.04	162547.2	918	Virgo A	dS0	-	1.71	0.43	17	-	-	12.65	E01	P	135	1 × 900
VCC0798	122524.20	181123.3	760	Virgo A	S0	-	5.86	3.36	17	9.28	10.17	6.60	O01	P	133	1 × 600
VCC0801	122525.43	162812.3	1710	Virgo A	?	-	2.60	1.29	17	12.23	12.77	9.67	E01	P	135	1 × 900
VCC0801													E01	P	67	1 × 900
VCC0809	122533.17	121536.3	-142	Virgo A	Sc	-	1.45	0.36	17	14.43	15.10	-	O00	T	133	1 × 1800
VCC0827	122542.71	071255.4	-2	Virgo B	Sc	-	3.60	0.43	23	13.27	14.05	9.85	O01	P	133	1 × 1800

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC0828	122541.69	124841.4	583	Virgo A	E	-	1.84	0.83	17	12.29	13.20	9.32	E01	P	135	1 × 600
VCC0836	122546.60	123940.4	2515	Virgo A	Sab	S	5.10	1.24	17	11.11	11.85	8.37	O01	C	133	1 × 1800
VCC0849	122550.59	102732.5	1103	Virgo B	Sbc	-	2.18	1.82	23	12.84	13.39	10.73	O02	T	133	1 × 1800
VCC0851	122554.16	073313.5	1195	Virgo B	Sc	-	2.16	0.50	23	13.56	14.35	10.78	O01	P	133	1 × 1800
VCC0857	122555.64	181249.5	914	Virgo A	Sb	L	3.60	3.60	17	11.09	11.92	-	O99	T	133	2 × 1050
VCC0865	122559.19	154012.5	-124	Virgo A	Sc	-	3.36	1.00	17	12.60	13.11	10.47	O02	T	133	1 × 1800
VCC0873	122607.32	130643.6	234	Virgo A	Sc	-	3.95	1.16	17	11.80	12.65	8.67	O00	T	133	1 × 900
VCC0874	122607.11	161051.6	1738	Virgo A	Sc	H	1.89	1.11	17	12.35	13.10	9.60	O00	P	133	1 × 1800
VCC0905	122629.16	085216.8	1290	Virgo B	Sc	-	2.79	2.79	23.0	12.95	13.61	11.06	O03	P	133	1 × 1800
VCC0912	122632.16	123639.8	105	Virgo A	Sbc	-	2.92	1.75	17	12.34	12.97	9.72	O00	T	133	1 × 1800
VCC0921	122635.80	035756.8	2289	Virgo S	Sbc	L	1.89	1.57	17.0	12.73	13.53	10.52	O03	P	133	1 × 1800
VCC0938	122646.67	075507.9	1395	Virgo S	Sc	-	2.18	2.04	17	12.68	13.30	10.20	O01	P	133	1 × 1800
VCC0939	122647.25	085303.9	1271	Virgo B	Sc	-	3.45	3.45	23.0	12.40	12.98	10.65	O03	P	133	1 × 1800
VCC0945	122651.06	131032.9	-9	Virgo A	Sm	-	1.29	0.57	17	15.30	15.50	-	E02	T	135	1 × 1800
VCC0950	122651.38	113316.9	1098	Virgo A	Sm	-	1.71	0.85	17	15.44	15.83	-	E02	T	135	1 × 2400
VCC0951	122654.36	114006.0	2066	Virgo A	dE/dS0	-	1.43	0.94	17	13.95	14.61	11.54	E02	T	135	1 × 1800
VCC0957	122658.58	022942.0	1695	Virgo S	Sc	-	2.01	0.85	17	12.31	12.83	9.84	O02	T	133	1 × 1800
VCC0958	122656.30	150248.0	-273	Virgo A	Sa	H	3.52	1.39	17	11.15	12.09	7.96	O02	T	133	1 × 1800
VCC0971	122708.93	055248.1	1120	Virgo B	Sd	-	3.06	0.43	23	13.61	14.17	-	O02	P	133	1 × 1800
VCC0973	122708.70	161933.1	6222	Virgo Bg	Sc	-	1.45	0.60	82.9	-	-	-	O03	P	133	1 × 1800
VCC0975	122711.04	071547.1	933	Virgo B	Scd	-	3.95	3.68	23	12.96	13.47	10.80	E01	P	135	3 × 900
VCC0979	122711.65	092515.1	438	Virgo B	Sa	H	4.33	2.16	23	11.65	12.31	9.18	E02	T	135	1 × 600
VCC0980	122711.26	155350.1	2342	Virgo A	Scd	-	2.48	1.00	17.0	14.80	15.32	12.72	O03	T	133	1 × 1800
VCC0984	122713.30	124405.1	1883	Virgo A	Sa	-	2.99	1.00	17	11.95	12.85	9.35	E01	P	135	1 × 900
VCC0995	122721.55	105155.2	928	Virgo A	Sc	-	1.53	0.11	17	14.78	15.40	-	E01	P	135	1 × 600

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC0995													E01	P	67	1 × 600
VCC1002	122726.37	061544.2	1450	Virgo B	Sc	-	3.02	2.69	23	12.04	12.73	9.63	E02	T	135	1 × 1800
VCC1003	122726.31	110629.2	1130	Virgo A	S0a	L	8.12	3.52	17	9.96	10.95	6.90	O01	C	133	1 × 1800
VCC1010	122726.65	121727.2	913	Virgo A	dS0	-	1.58	0.79	17	13.23	14.07	10.75	O00	T	133	1 × 900
VCC1018	122732.87	061354.3	6402	Virgo Bg	Sc	-	1.10	1.10	86.2	14.76	15.31	-	E02	T	135	1 × 1800
VCC1028	122738.33	142724.3	21	Virgo A	dS0	-	0.73	0.73	17	-	-	-	O99	T	133	2 × 1200
VCC1030	122740.42	130444.3	775	Virgo A	S0	L	2.92	2.48	17	10.94	11.85	7.92	O01	C	133	1 × 1800
VCC1036	122742.23	121854.4	1163	Virgo A	dE/dS0	-	1.76	0.73	17	13.35	14.20	10.75	O00	T	133	2 × 900
VCC1043	122745.52	130031.4	70	Virgo A	Sb	L	8.12	3.68	17	10.07	11.07	7.35	O01	C	133	1 × 1800
VCC1047	122753.52	121735.5	724	Virgo A	Sa	-	2.01	1.71	17	11.88	12.85	9.05	O00	T	133	1 × 1800
VCC1062	122803.66	094817.5	517	Virgo B	S0	-	5.05	1.67	23	10.47	11.40	7.52	S02	P	125	1 × 900
VCC1068	122806.23	120442.6	25400	Virgo Bg	E	-	0.56	0.44	338.7	15.51	16.72	-	E01	P	135	1 × 600
VCC1073	122808.53	120535.6	1899	Virgo A	dE	-	1.37	1.04	17	13.78	14.70	11.17	E01	P	135	1 × 600
VCC1086	122816.00	092610.6	363	Virgo B	S..	-	3.20	0.50	23	12.91	13.76	10.01	O02	T	133	1 × 1800
VCC1091	122818.70	084346.7	1119	Virgo B	Sbc	-	1.45	0.43	23.0	13.92	14.34	-	O03	P	133	1 × 1800
VCC1107	122830.29	071930.8	0	Virgo S	dE	-	0.85	0.51	17	15.48	16.27	13.30	O98	P	260	3 × 900
VCC1110	122829.27	170506.8	1954	Virgo A	Sab	L	6.15	4.04	17	10.07	10.95	7.02	O99	C	133	2 × 1200
VCC1118	122840.50	091532.9	865	Virgo B	Sc	-	1.96	0.97	23	12.74	13.44	10.07	O02	P	133	1 × 1800
VCC1125	122843.34	114520.9	152	Virgo A	S0	-	2.92	0.57	17	11.91	12.88	9.30	E01	P	135	1 × 600
VCC1145	122859.20	033416.0	884	Virgo S	Sb	L	2.92	2.92	17	10.79	11.70	8.00	O00	P	133	1 × 1800
VCC1146	122857.51	131431.0	662	Virgo A	E	-	1.80	1.52	17	12.33	13.20	9.70	O00	T	133	1 × 1800
VCC1154	122900.00	135845.0	1210	Virgo A	S0	-	3.36	2.60	17	10.55	11.52	7.55	O02	C	133	1 × 1200
VCC1158	122903.01	131101.1	1919	Virgo A	Sa	-	3.52	1.29	17	11.23	12.20	8.22	O00	T	133	1 × 1800
VCC1189	122928.83	064612.3	597	Virgo S	Sc	-	1.84	1.07	17	13.56	14.02	-	O99	T	133	2 × 1200
VCC1192	122930.35	075938.3	1474	Virgo S	E	-	0.73	0.47	17	14.33	15.30	11.45	O98	P	260	1 × 900

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC1193	122930.59	074148.3	757	Virgo S	Sc	-	1.20	0.35	17	13.73	14.30	11.22	O01	P	133	1 × 1800
VCC1196	122931.25	140258.3	895	Virgo A	S0a	-	1.76	1.06	17	13.07	13.92	10.38	O01	P	133	1 × 1800
VCC1200	122934.53	104737.3	-123	Virgo A	Im	-	1.26	0.84	17	15.06	15.55	13.35	E01	P	135	2 × 900
VCC1203	122937.35	075601.4	948	Virgo S	S0	-	0.65	0.65	17	15.49	16.35	12.70	O98	P	260	1 × 900
VCC1205	122937.87	074924.4	2339	Virgo S	Sc	-	1.84	1.15	17	12.63	13.15	10.25	E01	P	135	1 × 900
VCC1205													E01	P	67	1 × 900
VCC1217	122942.54	112404.4	38	Virgo A	Sm	-	1.87	1.29	17	14.62	14.79	12.72	E02	P	135	1 × 2400
VCC1231	122948.82	132545.5	2236	Virgo A	E	-	4.04	2.01	17	10.32	11.35	7.49	S02	P	125	1 × 900
VCC1242	122953.32	140405.5	1610	Virgo A	S0	-	2.48	1.16	17	11.69	12.62	9.03	O02	T	133	1 × 1500
VCC1253	123002.37	133810.6	1353	Virgo A	S0a	S	3.60	3.60	17	10.57	11.52	7.50	O00	P	133	1 × 900
VCC1254	123005.31	080428.6	1350	Virgo S	dE	-	1.27	1.27	17	14.80	15.60	11.78	O98	P	260	2 × 700
VCC1283	123018.46	133440.7	876	Virgo A	S0	-	2.27	2.27	17	12.67	13.60	9.87	O01	P	133	1 × 1800
VCC1290	123026.47	041452.8	2438	Virgo S	Sb	-	2.01	1.07	17	12.61	13.23	9.97	E02	T	135	1 × 900
VCC1297	123031.82	122925.9	1486	Virgo A	E	-	0.51	0.45	17	13.45	14.45	10.35	E01	P	135	1 × 600
VCC1316	123049.41	122328.0	1292	Virgo A	E	S	11.0	11.0	17	8.83	9.85	6.20	O00	P	133	1 × 300
VCC1326	123057.15	112859.1	497	Virgo A	Sa	-	1.89	0.94	17	12.71	13.52	10.07	E01	P	135	1 × 900
VCC1327	123057.72	121616.1	450	Virgo A	E	-	1.10	0.88	17	11.49	12.14	9.23	E02	T	135	1 × 600
VCC1330	123059.58	080439.1	1777	Virgo S	Sa	-	1.96	1.96	17	12.51	13.17	9.42	E01	P	135	1 × 900
VCC1348	123115.70	121954.3	1679	Virgo A	dE	-	0.55	0.55	17	15.40	16.27	12.57	O00	T	133	2 × 1800
VCC1356	123122.92	112934.3	1251	Virgo A	Sm/BCD	-	1.10	0.43	17	15.08	15.55	-	E01	P	135	1 × 900
VCC1368	123132.79	113736.4	1123	Virgo A	S0a	-	2.01	0.85	17	12.50	13.45	9.87	E01	P	135	1 × 900
VCC1379	123139.62	165107.5	1505	Virgo A	Sc	-	2.85	1.53	17	12.17	12.75	9.97	O99	C	133	1 × 1200
VCC1393	123154.69	150726.6	2100	Virgo A	Sc	-	1.69	1.11	17	13.20	13.73	10.94	O02	P	133	1 × 1800
VCC1401	123158.91	142509.7	2284	Virgo A	Sbc	S	7.23	3.86	17	9.49	10.50	6.35	O02	P	133	1 × 1800
VCC1410	123203.22	164114.7	1629	Virgo A	Sm	-	1.48	0.78	17	14.05	14.55	-	O99	T	133	2 × 1200

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC1411	123204.83	114902.7	911	Virgo A	Pec	-	0.70	0.43	17	15.51	15.95	-	E02	T	135	1 × 1200
VCC1412	123206.13	111034.8	1342	Virgo A	Sa	-	4.33	1.71	17	11.15	12.17	8.17	E01	P	135	1 × 600
VCC1419	123210.46	132509.8	737	Virgo A	S..	-	2.16	1.29	17	13.00	13.82	10.38	O01	P	133	1 × 1800
VCC1426	123222.80	115338.9	1110	Virgo A	Im	-	0.80	0.8	17	15.73	16.41	-	E02	P	135	1 × 2400
VCC1448	123240.83	124613.1	2583	Virgo A	dIm	-	2.31	1.83	17	13.85	14.54	11.68	E02	P	135	1 × 2400
VCC1450	123241.91	140256.1	-173	Virgo A	Sc	-	2.60	2.01	17	12.98	13.42	10.83	O01	C	133	1 × 1800
VCC1486	123309.94	112049.4	129	Virgo A	S..	-	1.10	0.78	17	14.21	14.91	-	E02	P	135	1 × 900
VCC1491	123313.98	125127.4	1903	Virgo A	dE	-	0.80	0.61	17	14.77	15.60	12.15	O00	T	133	1 × 1800
VCC1499	123319.77	125111.5	-575	Virgo A	E	-	0.64	0.46	17	14.77	15.25	12.60	O00	T	133	1 × 1800
VCC1508	123330.18	083916.6	1212	Virgo S	Sc	-	3.60	2.60	17	11.83	12.38	9.73	O02	P	133	1 × 1800
VCC1516	123339.78	091030.7	2330	Virgo S	Sbc	-	4.04	1.00	17	12.33	12.94	9.96	E02	T	135	1 × 1200
VCC1524	123347.74	151001.8	262	Virgo A	Sd	-	3.20	2.92	17	14.16	14.53	-	O03	P	133	1 × 1800
VCC1532	123356.79	152116.9	2335	Virgo A	Sc	-	1.87	1.36	17	13.31	13.90	10.73	O02	P	133	1 × 1800
VCC1540	123408.46	023911.0	1736	Virgo S	Sb	H	5.86	1.87	17	10.35	11.38	7.24	O02	P	133	1 × 1800
VCC1552	123415.77	130429.1	195	Virgo A	Sa	-	4.24	2.42	17	11.65	12.52	8.90	O01	P	133	1 × 1800
VCC1554	123419.31	062807.1	2021	Virgo S	Sm	-	2.60	1.00	17	11.96	12.35	9.67	O99	C	133	1 × 1200
VCC1569	123431.68	133013.2	799	Virgo A	Scd	-	1.07	0.71	17	15.39	15.85	-	E01	P	135	4 × 900
VCC1575	123439.28	070938.3	597	Virgo S	Sm	-	2.00	1.41	17	13.13	13.80	-	O99	C	133	2 × 1200
VCC1581	123444.93	061807.4	2065	Virgo S	Sm	-	1.46	1.16	17	14.52	15.09	-	E02	P	135	1 × 2400
VCC1588	123450.48	153305.4	1288	Virgo A	Scd	L	2.60	1.87	17	12.01	12.69	9.45	O02	P	133	1 × 1800
VCC1593	123455.87	153356.5	13828	Virgo Bg	Sbc	S	0.85	0.85	183.7	14.43	15.04	11.77	O02	P	133	1 × 1800
VCC1615	123526.33	142948.8	484	Virgo A	Sb	S	6.00	4.99	17	10.20	11.07	7.40	O00	P	133	1 × 1800
VCC1619	123530.84	121316.9	381	Virgo A	E	L	3.95	0.87	17	11.65	12.60	8.92	O99	T	133	1 × 900
VCC1630	123538.13	121555.9	1470	Virgo A	E	-	2.01	1.60	17	12.14	13.10	9.10	O99	T	133	1 × 900
VCC1632	123539.87	123325.0	322	Virgo A	S0	L	7.23	7.23	17	9.89	10.85	7.04	O02	C	133	1 × 1200

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC1673	123632.66	111528.6	2277	Virgo A	Sc	-	2.92	1.87	17	10.49	11.17	8.60	O01	C	133	1 × 1800
VCC1675	123634.65	080317.6	1795	Virgo S	Pec	-	1.26	0.74	17	-	-	-	O99	T	133	3 × 1200
VCC1676	123634.16	111419.6	2255	Virgo A	Sc	-	5.10	1.75	17	10.25	11.17	-	O01	C	133	1 × 1800
VCC1678	123637.61	063716.6	1073	Virgo S	Sd	-	2.16	1.87	17	13.96	14.47	-	E01	P	135	3 × 900
VCC1683	123638.31	105629.6	-558	Virgo A	dE	-	0.57	0.43	17.0	14.10	14.79	-	L03	P	198	1 × 900
VCC1686	123643.57	131531.7	1122	Virgo A	Sm	-	2.79	1.71	17	13.03	13.45	-	E01	P	135	1 × 900
VCC1686													E01	P	67	1 × 900
VCC1690	123649.78	130945.7	-216	Virgo A	Sab	S	10.73	5.35	17	9.32	10.10	6.80	O00	P	133	1 × 1800
VCC1699	123702.24	065530.9	1635	Virgo S	Sm	-	1.55	0.83	17	14.13	14.45	-	E02	P	135	1 × 1200
VCC1725	123741.51	083331.3	1068	Virgo S	Sm/BCD	-	1.55	0.97	17	14.23	14.60	12.50	O00	T	133	2 × 1800
VCC1726	123745.08	070622.4	61	Virgo S	Sdm	-	1.29	1.00	17	15.13	15.35	-	E01	P	135	3 × 900
VCC1727	123743.48	114904.4	1520	Virgo A	Sab	S	6.29	4.87	17	9.64	10.50	6.72	O00	P	133	1 × 900
VCC1730	123748.60	052206.4	1032	Virgo S	Sc	-	2.16	1.60	17	11.94	12.77	8.85	O00	P	133	1 × 1200
VCC1757	123817.79	130635.8	1783	Virgo A	Sa	-	1.87	1.00	17	13.14	13.90	-	O01	P	133	1 × 1800
VCC1758	123820.81	075328.8	1788	Virgo S	Sc	-	1.71	0.27	17	14.35	14.97	-	E02	P	135	1 × 900
VCC1789	123921.34	045619.5	1619	Virgo S	Im	-	1.10	0.62	17	14.88	15.72	12.60	E02	P	135	1 × 1200
VCC1791	123924.55	075752.5	2079	Virgo S	Sm/BCD	-	1.29	0.64	17	14.37	14.67	-	E01	P	135	1 × 900
VCC1791													E01	P	67	1 × 900
VCC1811	123951.63	151753.9	632	Virgo E	Sc	-	2.16	1.42	17	12.56	13.11	10.22	O02	P	133	1 × 1800
VCC1813	123955.88	101034.9	1834	Virgo E	Sa	L	4.76	4.04	17	10.53	11.48	7.44	O02	P	133	1 × 1800
VCC1859	124057.47	115441.7	1645	Virgo E	Sa	-	5.10	2.01	17	11.95	12.66	9.20	O02	P	133	1 × 1800
VCC1868	124112.26	115308.9	2255	Virgo E	Scd	-	3.95	0.78	17	12.80	13.63	9.80	O02	P	133	1 × 1800
VCC1869	124113.52	100922.9	1864	Virgo E	S0a	-	4.30	3.42	17	11.16	12.11	8.09	O02	T	133	1 × 1500
VCC1903	124202.46	113848.5	444	Virgo E	E	-	7.67	4.12	17	9.81	10.77	6.95	O02	P	133	1 × 1800
VCC1918	124218.10	054421.7	980	Virgo S	Im	-	1.03	0.36	17	16.41	-	-	E02	T	135	1 × 1200

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
VCC1929	124237.12	142122.0	291	Virgo E	Scd	-	2.48	1.07	17	13.19	13.77	-	O02	P	133	1 × 1800
VCC1932	124240.83	141746.0	116	Virgo E	Sc	-	2.92	0.87	17	12.45	13.18	9.67	O02	P	133	1 × 1800
VCC1938	124247.66	112634.1	1147	Virgo E	S0	-	2.01	1.42	17	11.35	12.20	8.47	O99	T	133	1 × 900
VCC1943	124252.35	131526.2	1048	Virgo E	Sb	S	3.20	2.01	17	11.67	12.43	8.89	O02	P	133	1 × 1800
VCC1970	124329.11	100534.7	1325	Virgo E	Im	-	0.71	0.50	17	15.60	-	-	E02	P	135	1 × 1200
VCC1972	124332.28	113454.7	1422	Virgo E	Sc	-	2.60	2.16	17	11.34	12.02	8.74	O02	P	133	1 × 1800
VCC1978	124339.58	113309.8	1095	Virgo E	S0	-	5.10	5.10	17	9.14	10.16	5.96	O02	P	133	1 × 1800
VCC1987	124356.71	130734.0	1039	Virgo E	Sc	-	4.99	2.60	17	10.60	11.31	7.86	O02	P	133	1 × 1800
VCC1992	124410.02	120659.2	1003	Virgo E	Im	-	0.81	0.51	17	16.01	16.49	14.88	E02	P	135	1 × 2400
VCC1999	124429.38	132953.5	510	Virgo E	Sa	-	1.99	1.25	17	12.34	13.20	9.62	O02	P	133	1 × 1800
VCC2000	124432.31	111126.5	1115	Virgo E	E	-	1.89	1.24	17	11.31	12.28	8.45	O02	T	133	1 × 1200
VCC2006	124445.93	122111.7	844	Virgo E	?	-	2.60	0.71	17	13.46	13.97	-	E02	P	135	1 × 900
VCC2033	124604.76	082830.8	1486	Virgo E	BCD	-	0.73	0.73	17	15.08	15.60	-	O00	T	133	1 × 1800
VCC2058	124745.39	134548.3	1620	Virgo E	Sc	-	5.86	4.44	17	10.98	11.72	8.42	O99	C	133	2 × 1200
VCC2066	124815.05	105906.7	1181	Virgo E	?	-	3.20	1.16	17	11.64	12.30	9.15	O99	T	133	2 × 1200
VCC2070	124822.96	082913.8	1008	Virgo E	Sa	S	5.67	2.84	17	10.56	11.47	7.57	O99	C	133	2 × 1200
VCC2087	125106.81	105444.3	908	Virgo E	S0a	-	1.96	1.96	17	12.13	12.97	9.25	O01	C	133	1 × 1800
VCC2092	125217.64	111848.4	1377	Virgo E	S0	-	5.03	2.35	17	10.66	11.62	7.49	O02	T	133	1 × 1200
VCC2095	125255.92	111350.1	985	Virgo E	S0	L	8.70	1.95	17	10.23	11.15	7.30	E01	P	135	1 × 600
Z013046	120241.91	015843.7	2011	Virgo	Sa	-	3.00	2.22	17	12.10	12.99	8.94	E02	T	135	1 × 600
Z014034	122542.64	003420.4	2145	Virgo	S0	H	1.90	1.23	17	12.78	13.36	10.02	E02	P	135	1 × 900
Z014063	123245.48	000643.1	1129	Virgo	Sc	-	11.00	2.05	17	10.87	11.72	7.7	O02	T	133	2 × 2400
Z014110	124231.91	-000457.0	1711	Virgo	Sc	-	3.20	1.37	17	11.79	12.32	9.38	E02	P	135	1 × 600
Z043034	124911.87	032324.5	727	Virgo	Sc	-	3.60	2.99	17	12.45	12.85	9.89	E02	P	135	1 × 600
Z043071	125549.50	041814.0	760	Virgo	Sc	-	2.60	1.22	17	11.91	12.29	9.24	E02	P	135	1 × 900

Table 6: *Cont.*

Galaxy (1)	R.A. (2000) (2)	Dec. (2000) (3)	V_{hel} km s^{-1} (4)	Cluster (5)	Type (6)	Nuc. (7)	a ' (8)	b ' (9)	Dist. Mpc (10)	m_V mag (11)	m_B mag (12)	m_H mag (13)	Run (14)	Phot. (15)	Disp Å mm^{-1} (16)	T_{exp} sec (17)
Z043093	130039.34	023002.2	962	Virgo	Sc	-	2.50	2.39	17	11.31	11.89	8.67	E02	T	135	1 × 1200
Z069058	120809.15	102245.1	1652	Virgo	S0	-	4.10	1.56	17	11.28	12.13	9.09	O02	C	133	2 × 1200
Z071060	125155.15	120500.1	1779	Virgo	Sd	-	2.20	0.61	17	12.84	13.50	9.85	E01	P	135	1 × 900
Z071092	125927.14	141015.8	1986	Virgo	Sa	L	6.00	1.44	17	11.10	12.07	8.16	O02	P	133	1 × 1200
Z100004	124342.47	162334.8	797	Virgo	Sc	L	3.90	2.76	17	10.78	11.57	8.25	O01	C	133	1 × 1800
Z100011	124938.89	150955.0	1129	Virgo	S0a	-	4.30	1.16	17	11.05	12.05	7.85	O01	P	133	1 × 600
Z119016	081414.07	212118.3	3385	Cancer D	Sb	-	2.13	1.23	51.3	12.42	13.29	9.52	O02	T	133	1 × 1200
Z119024	081633.89	212434.8	4714	Cancer A	S0	-	1.74	0.87	66.4	13.62	14.58	10.61	L03	P	198	3 × 600
Z119027	081657.57	203044.3	4331	Cancer A	Sa	-	0.83	0.67	66.4	15.02	15.66	12.37	O02	T	133	1 × 1500
Z119028	081725.46	210948.6	2156	Cancer Bg	Pec	-	0.97	0.47	31.2	15.13	15.46	13.01	L03	P	198	3 × 900
Z119029	081725.84	214107.6	3566	Cancer D	Sbc	-	2.01	1.56	51.3	12.75	13.42	10.30	O00	T	133	2 × 1200
Z119031	081734.96	205410.0	4695	Cancer A	S0	-	1.61	0.89	66.4	13.50	14.48	10.41	L03	P	198	3 × 600
Z119034	081752.37	210637.0	11240	Cancer Bg	Pec	-	0.76	0.57	149.9	15.40	16.10	12.68	O00	T	133	2 × 1800
Z119035	081756.85	222609.8	2096	Cancer Bg	Sbc	-	1.35	0.38	31.2	15.00	15.57	12.48	L03	P	198	3 × 900
Z119040	081825.78	204715.0	4816	Cancer A	Sbc	-	0.82	0.48	66.4	15.03	15.75	12.53	O00	P	133	1 × 1800
Z119041	081829.45	204540.8	4817	Cancer A	Sab	-	1.33	0.49	66.4	14.18	15.05	11.10	O00	P	133	1 × 1800
Z119043	081849.13	211305.6	4458	Cancer A	Pec	-	0.77	0.35	66.4	15.05	15.67	12.50	O00	P	133	2 × 1800
Z119044	081850.23	220656.5	3494	Cancer D	Pec	-	0.93	0.41	51.3	15.48	15.97	13.37	L03	P	198	3 × 900
Z119046	081901.88	211107.8	4099	Cancer D	Sc	-	1.85	1.19	51.3	13.64	14.25	10.93	O00	P	133	2 × 1800
Z119047	081905.05	214727.6	4506	Cancer A	Sab	-	1.00	0.92	66.4	13.94	14.67	11.47	O00	T	133	1 × 1800
Z119048	081910.65	212607.3	4833	Cancer A	S0	-	1.45	1.32	66.4	13.13	14.10	10.07	L03	P	198	3 × 900
Z119050	081912.83	203037.1	4998	Cancer A	Sab	-	1.78	1.18	66.4	13.06	13.97	10.10	O00	P	133	1 × 1800
Z119051	081913.00	204525.1	5028	Cancer A	Sb	-	0.79	0.54	66.4	15.22	15.83	12.86	O02	P	133	2 × 1800
Z119053	081919.82	210331.7	4877	Cancer A	S0a	-	0.63	0.50	66.4	15.04	15.62	12.53	O00	T	133	1 × 1800
Z119054	081932.08	212338.0	4039	Cancer A	Sa	-	0.95	0.70	66.4	14.42	15.15	11.40	O00	P	133	2 × 1800

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Z119056	081941.39	220230.5	3448	Cancer D	S..	-	0.68	0.40	51.3	15.29	15.86	12.57	L03	P	198	4 × 600
Z119057	081948.27	220153.1	3584	Cancer D	Sab	-	1.83	0.86	51.3	12.60	13.48	9.68	L03	P	198	3 × 600
Z119059	081958.89	210358.4	4221	Cancer A	Sc	-	0.72	0.29	66.4	15.70	16.20	13.35	O00	T	133	2 × 1800
Z119061	082010.78	210406.7	5191	Cancer A	Sb	-	0.80	0.64	66.4	14.75	15.65	11.70	O00	T	133	2 × 1800
Z119063	082023.54	210753.9	5074	Cancer A	S0a	-	1.09	0.75	66.4	13.02	14.02	9.84	L03	P	198	3 × 600
Z119065	082035.65	210404.2	4545	Cancer A	E	-	2.60	2.21	66.4	12.26	13.25	9.45	O99	T	133	2 × 900
Z119066	082051.60	223923.3	4142	Cancer E	Sb	-	1.06	0.75	58.3	14.04	14.68	11.64	L03	P	198	3 × 900
Z119067	082121.08	205202.5	5124	Cancer A	E	-	0.92	0.47	66.4	14.02	15.00	10.97	O00	P	133	1 × 1800
Z119068	082121.93	205439.4	6562	Cancer B	Sa	-	0.99	0.73	89.2	14.67	15.27	12.07	O00	P	133	1 × 1800
Z119071	082201.46	212032.1	6487	Cancer B	Sab	-	0.95	0.83	89.2	14.64	15.35	12.04	O02	P	133	1 × 1800
Z119074	082243.46	223311.6	2115	Cancer Bg	E	-	2.35	1.44	31.2	12.34	13.30	9.35	L03	P	198	3 × 600
Z119078	082311.37	223954.8	2061	Cancer Bg	Sc	-	2.41	1.67	31.2	12.58	13.43	9.93	L03	P	198	3 × 600
Z119081	082341.35	212605.1	5141	Cancer A	S0	-	1.68	0.78	66.4	13.54	14.44	10.53	L03	P	198	3 × 900
Z119082	082355.24	205831.3	4783	Cancer A	Sa	-	0.80	0.40	66.4	14.28	15.30	11.25	O00	P	133	1 × 1800
Z119083	082401.59	210138.9	4640	Cancer A	Sb	-	2.67	0.55	66.4	13.17	14.15	9.77	O00	P	133	1 × 1800
Z119085	082420.23	203157.8	5971	Cancer B	Sa	-	0.84	0.41	89.2	15.03	15.80	12.20	O01	C	133	1 × 1800
Z119091	082512.06	202004.7	4406	Cancer A	Sb	-	0.99	0.96	66.4	13.30	14.15	10.37	L03	P	198	3 × 900
Z119109	082741.93	212846.9	4332	Cancer A	Sc	-	3.33	1.96	66.4	12.23	13.00	9.42	O99	T	133	2 × 900
Z097062	114214.64	195832.5	7809	A1367	Pec	-	1.01	0.40	91.3	15.10	15.55	12.83	O02	T	133	1 × 1200
Z097063	114215.51	200254.1	6102	A1367	Pec	-	0.58	0.34	91.3	15.78	16.32	13.28	O03	P	133	1 × 1800
Z097064	114214.53	200549.6	5976	A1367	S..	-	0.65	0.44	91.3	15.14	16.01	12.50	O03	P	133	2 × 1800
Z097068	114224.47	200706.4	5974	A1367	Sbc	-	1.23	0.76	91.3	14.01	14.69	11.28	O03	P	133	1 × 1800
Z097073	114256.43	195759.0	7290	A1367	Pec	-	0.76	0.74	91.3	15.30	15.72	13.28	E01	P	135	1 × 900
Z097079	114313.35	200016.4	6996	A1367	Pec	-	0.75	0.45	91.3	15.40	15.87	13.50	O01	C	133	1 × 1200
Z097079	114313.35	200016.4	6996	A1367	Pec	-	0.75	0.45	91.3	15.40	15.87	13.50	S02	P	125	2 × 1800

Table 6: *Cont.*

Galaxy (1)	R.A. (2000) (2)	Dec. (2000) (3)	V_{hel} km s^{-1} (4)	Cluster (5)	Type (6)	Nuc. (7)	a ' (8)	b ' (9)	Dist. Mpc (10)	m_V mag (11)	m_B mag (12)	m_H mag (13)	Run (14)	Phot. (15)	Disp Å mm^{-1} (16)	T_{exp} sec (17)
Z097088	114359.54	194643.8	5634	A1367	S0	-	0.82	0.40	91.3	14.64	15.62	11.76	O03	P	133	1 × 1800
Z097091	114359.04	200437.5	7368	A1367	Sa	-	1.12	0.81	91.3	14.03	14.76	11.19	O03	P	133	1 × 1800
Z097093	114401.85	194703.4	4857	A1367	Pec	-	0.96	0.39	91.3	15.39	15.92	13.19	O03	P	133	1 × 1800
Z097097	114400.80	200145.0	6828	A1367	S0a	-	1.40	0.29	91.3	13.99	14.99	10.96	O03	P	133	1 × 1800
Z097114	114447.71	194623.1	8522	A1367	Pec	-	0.54	0.49	91.3	15.46	15.98	13.21	L03	P	198	4 × 600
Z097120	114449.11	194741.9	5595	A1367	Sa	-	1.32	0.85	91.3	13.46	14.32	10.68	O03	T	133	1 × 1800
Z097122	114452.30	192716.9	5468	A1367	Pec	-	1.45	0.47	91.3	14.18	14.81	11.48	O03	P	133	1 × 1800
Z097123	114455.82	192937.6	6385	A1367	E	-	0.30	0.20	91.3	-	-	12.33	O03	P	133	1 × 1800
Z097125	114454.82	194635.2	8271	A1367	S0a	-	0.84	0.59	91.3	14.87	15.82	11.88	O03	T	133	1 × 1800
Z097129	114503.89	195822.9	5082	A1367	Sb	-	2.36	1.27	91.3	12.81	13.68	9.99	O03	T	133	1 × 1800
Z097138	114544.77	200151.1	5317	A1367	Pec	-	0.75	0.64	91.3	15.07	15.53	13.45	O03	P	133	1 × 1800
Z127049	114548.83	203742.4	7061	A1367	Pec	-	1.04	0.45	91.3	14.77	15.47	11.95	O03	P	133	1 × 1800
Z160020	125606.05	274039.9	4968	Coma	Pec	H	0.45	0.22	96.0	15.26	15.63	13.12	O03	P	133	1 × 1800
Z160026	125628.56	271729.2	7545	Coma	Sc	-	0.85	0.55	96.0	15.11	15.81	12.63	O03	P	133	1 × 1800
Z160055	125805.55	281432.8	7164	Coma	Sab	-	1.51	0.58	96	13.78	14.45	10.95	O01	C	133	2 × 1800
Z160058	125809.48	284229.5	7616	Coma	Sbc	-	1.24	0.42	96.0	14.64	15.32	11.92	O03	P	133	1 × 1800
Z160064	125835.33	271551.5	7368	Coma	Pec	-	0.49	0.45	96.0	15.59	15.98	13.49	O03	P	133	1 × 1800
Z160067	125837.17	271036.0	7653	Coma	Pec	-	0.56	0.52	96.0	15.19	15.58	13.04	O03	P	133	1 × 1800
Z160076	125940.23	283751.2	5390	Coma	Sc	-	0.64	0.60	96.0	15.50	15.87	13.65	O03	P	133	1 × 1800
Z160086	130033.58	273814.2	7499	Coma	Pec	-	0.75	0.54	96.0	15.36	15.77	13.22	O03	P	133	1 × 1800
Z160086	130033.58	273814.2	7499	Coma	Pec	-	0.75	0.54	96	15.36	15.77	13.22	O02	T	133	1 × 900
Z160088	130039.63	290111.1	7287	Coma	Sb	-	1.12	0.64	96.0	14.02	14.78	11.16	O03	P	133	1 × 1800
Z160095	130126.09	275308.1	5482	Coma	Sb	-	2.28	2.23	96	12.55	13.52	9.51	O02	T	133	1 × 2700
Z160097	130131.69	275049.2	5525	Coma	S0	-	1.15	0.83	96	13.82	14.80	10.98	O02	T	133	1 × 2700
Z160103	130153.62	273726.6	7874	Coma	E	-	1.31	0.99	96.0	13.17	14.24	10.25	O03	P	133	1 × 1800

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Z160106	130207.89	273854.3	6876	Coma	Pec	-	0.89	0.54	96.0	14.66	15.34	12.07	O03	P	133	1 × 1800
Z160108	130212.74	281252.9	8323	Coma	Pec	-	0.46	0.43	96.0	15.34	15.86	12.93	O03	P	133	1 × 1800
Z160110	130221.41	281349.2	5733	Coma	S0	-	0.59	0.28	96.0	-	15.63	11.78	O03	P	133	1 × 1800
Z160127	130426.46	271816.7	5500	Coma	Sc	-	0.95	0.64	96.0	15.07	15.56	13.34	O03	P	133	1 × 1800
Z160128	130422.57	284838.5	8066	Coma	Pec	H	0.63	0.62	96.0	15.17	15.52	13.51	O03	P	133	1 × 1800
Z160139	130637.92	285059.1	4749	Coma	Pec	-	1.22	0.64	96	14.66	15.22	13.20	O01	P	133	1 × 1200
Z160212	125856.12	275000.9	7549	Coma	Sa	-	1.22	0.37	96.0	14.30	15.10	11.31	O03	P	133	1 × 1800
Z160213	125902.07	280655.6	9386	Coma	Pec	-	0.51	0.43	96.0	15.26	15.85	12.85	O03	T	133	1 × 1800
Z160215	125903.95	280724.5	7966	Coma	E	-	0.96	0.80	96.0	13.69	14.74	10.82	O03	T	133	1 × 1800
Z160219	125907.84	275116.5	6709	Coma	S0	-	0.58	0.48	96.0	14.89	15.87	11.73	O03	P	133	1 × 1800
Z160252	130037.74	280328.2	7718	Coma	Pec	-	0.85	0.36	96	14.71	15.37	12.25	O01	P	133	1 × 1200
Z160258	130051.51	280233.5	8742	Coma	E	-	0.92	0.68	96	13.92	14.98	10.93	O01	P	133	1 × 1200
Z160260	130056.10	274727.5	7985	Coma	Sa	-	1.89	1.50	96.0	12.86	13.73	10.01	O03	P	133	1 × 1800
Z522038	015245.75	363707.9	5543	A262	Sc	-	1.26	1.09	65.2	13.19	13.90	10.50	O00	P	133	1 × 1800
Z522041	015253.79	360312.1	6125	A262	Sc	-	1.27	1.13	65.2	13.76	14.45	11.08	O00	P	133	1 × 1800
Z522058	015453.93	365505.2	5621	A262	Sa	-	0.80	0.78	65.2	13.86	14.50	10.95	O00	T	133	2 × 1800
Z522060	015457.88	352511.5	16200	A262	Pec	-	0.70	0.50	65.2	14.48	15.32	11.50	O00	P	133	1 × 1800
Z522062	015501.80	065512.7	5621	A262	Sc	-	1.07	0.65	65.2	14.74	15.45	11.88	O00	T	133	2 × 1800
Z522065	015514.06	352727.1	5709	A262	Sa	-	0.80	0.29	65.2	14.68	15.75	11.57	O00	P	133	1 × 1800
Z522072	015621.39	353421.5	5338	A262	S..	-	0.40	0.40	65.2	15.20	16.00	12.00	O00	P	133	1 × 1800
Z522079	015640.05	353529.7	5229	A262	Sc	-	0.70	0.50	65.2	15.16	16.00	12.48	O00	P	133	1 × 1800
CCC0045	124822.83	-410724.7	3684	Centaurus	E	-	0.60	0.60	-	-	14.92	-	E01	P	135	2 × 900
CCC0094	124925.48	-412546.5	4081	Centaurus	dS0	-	0.82	0.70	-	-	-	-	E01	P	135	5 × 900
CCC0095	124926.19	-412923.5	4204	Centaurus	S0	-	1.00	0.60	-	-	14.43	-	E01	P	135	5 × 900
CCC0096	124926.69	-412747.8	4943	Centaurus	S0	-	0.90	0.39	-	-	14.70	-	E01	P	135	5 × 900

Table 6: *Cont.*

Galaxy	R.A. (2000)	Dec. (2000)	V_{hel} km s^{-1}	Cluster	Type	Nuc.	a '	b '	Dist. Mpc	m_V mag	m_B mag	m_H mag	Run	Phot.	Disp Å mm^{-1}	T_{exp} sec
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
CCC0119	124951.58	-411334.2	2245	Centaurus	E	-	1.00	0.82	-	-	12.48	-	E01	P	135	3 × 900
CCC0122	124954.15	-411646.4	3835	Centaurus	S0a	-	1.40	0.60	-	-	13.97	-	E01	P	135	3 × 900
CCC0222	125212.85	-412020.7	5193	Centaurus	Sc	-	1.10	1.00	-	-	14.96	-	E01	P	135	6 × 900
CCC0226	125215.98	-412326.4	2997	Centaurus	S0a	-	1.30	0.50	-	-	13.97	-	E01	P	135	6 × 900
ES555022	060108.29	-214412.7	1748	Isol.	Sbc	-	2.30	0.70	23.3	-	13.49	-	E02	T	135	1 × 600
NGC0205	004022.00	414107.0	-241	Isol.	E	-	21.90	11.00	0.7	-	9.08	-	O00	P	133	1 × 600
NGC0221	004241.83	405154.5	-145	Isol.	E	-	8.70	6.50	0.7	-	9.16	-	O00	P	133	1 × 300
NGC1357	033316.99	-133948.1	2009	Isol.	Sab	-	2.80	1.90	24.7	-	12.46	-	E02	T	135	2 × 600
NGC1832	051203.34	-154116.2	1937	Isol.	Sbc	-	2.60	1.70	23.5	-	12.44	-	E02	T	135	2 × 600
NGC3034	095552.22	694046.9	203	Isol.	Pec	-	11.20	4.30	5.2	-	9.25	-	O99	C	133	1 × 900
NGC3379	104749.60	123454.8	911	Isol.	E	L	5.40	4.80	8.1	-	10.28	-	O99	C	133	2 × 900
NGC6181	163220.96	194935.5	2375	Isol.	Sc	H	2.50	1.10	36.7	-	12.67	-	O02	C	133	1 × 1200
UCGA117	001254.51	332141.1	4756	Isol.	Sbc	-	1.40	0.90	-	-	14.78	-	E02	P	135	1 × 1200
UCGA118	001300.90	220618.0	5981	Isol.	dE	-	0.90	0.80	-	-	14.76	-	E02	T	135	1 × 1200

Table 7: Emission lines.

Name	C_1	Flux (f(H_α)≡ 1)											EW (Å)											Notes
		[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
VCC1	0.67	< 2.37	-	-	0.35	-	0.06	0.12	1.00	0.34	0.32	0.21	<11.01	-	-	1.69	-	0.30	1.17	9.84	3.34	3.41	2.22	3
VCC24	0.62	< 1.10	-	-	0.35	0.30	0.90	0.04	1.00	0.13	0.22	0.17	< 7.72	-	-	3.09	2.86	8.63	0.63	16.22	2.07	3.73	2.80	3
VCC25	0.41	< 0.36	-	-	0.35	0.10	0.19	0.11	1.00	0.34	0.20	0.14	< 5.00	-	-	5.89	1.79	3.35	3.31	31.55	10.95	6.74	4.69	3
VCC47	> 0.94	0.36	-	-	-	-	-	0.11	1.00	0.31	-	-	4.83	-	-	-	-	-	0.83	7.77	2.43	-	-	5
VCC49	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3.01	-	-	
VCC58	0	1.06	-	-	0.35	-	-	-	1.00	0.67	-	0.49	14.47	-	-	3.25	-	-	-	10.53	7.02	-	5.10	3
VCC66	0.52	< 1.32	-	0.09	0.35	0.19	0.50	-	1.00	0.20	0.26	0.18	<11.73	-	1.20	5.27	2.99	8.41	-	30.09	6.00	8.15	5.81	3
VCC73	0.79	< 0.90	-	-	0.35	-	0.18	0.15	1.00	0.55	0.23	0.13	< 4.16	-	-	1.98	-	1.14	1.58	10.76	5.98	2.72	1.47	3
VCC87	0.08	< 0.64	-	0.12	0.35	0.19	0.48	0.01	1.00	0.12	0.28	0.21	< 7.52	-	1.39	4.71	2.71	6.78	0.27	23.10	2.79	6.76	4.94	2,3
VCC89	0.55	< 1.03	-	-	0.35	0.14	0.14	0.10	1.00	0.38	0.21	0.16	< 6.03	-	-	2.76	1.20	1.17	1.65	15.87	6.02	3.52	2.74	3
VCC92	0.89	< 5.10	-	-	0.35	-	0.14	0.29	1.00	0.56	0.33	0.12	<11.59	-	-	1.03	-	0.46	1.80	6.26	3.56	2.19	0.79	3
VCC97	> 1.10	-	-	-	-	-	-	0.36	1.00	0.35	0.28	2.24	-	-	-	-	-	-	3.39	9.53	3.31	2.71	22.02	
VCC119	0.36	< 1.29	-	-	0.35	0.23	0.40	0.04	1.00	0.09	0.25	0.19	< 9.90	-	-	4.28	2.86	5.07	0.99	22.42	2.10	5.93	4.50	3
VCC131	0.35	< 1.65	-	-	0.35	-	0.16	0.09	1.00	0.34	0.25	0.16	<21.34	-	-	3.74	-	1.81	1.53	16.51	5.63	4.25	2.60	3
VCC134	0.44	< 0.94	-	-	0.35	-	0.19	0.14	1.00	0.39	-	-	< 5.60	-	-	2.35	-	1.36	1.77	12.83	5.04	-	-	3
VCC142	0.16	1.18	-	-	0.35	0.09	0.21	0.09	1.00	0.29	0.20	0.15	19.20	-	-	5.92	1.51	3.77	2.51	29.18	8.45	6.23	4.74	3
VCC145	0.03	< 1.76	-	0.29	0.35	-	0.23	0.12	1.00	0.28	0.24	0.18	<40.19	-	4.75	5.13	-	3.85	1.88	16.10	4.59	3.93	2.96	
VCC152	1.14	< 1.58	-	-	0.35	0.16	0.15	0.12	1.00	0.32	0.21	0.15	< 7.19	-	-	2.45	1.20	1.18	1.92	16.20	5.17	3.63	2.67	3
VCC157	0.75	< 0.86	-	-	0.35	-	-	0.11	1.00	0.38	0.18	0.11	< 5.52	-	-	2.97	-	-	1.86	16.86	6.54	3.21	1.98	3
VCC159	> 1.48	1.46	-	-	-	0.35	0.83	-	1.00	-	0.22	0.41	23.42	-	-	-	6.13	15.05	-	23.69	-	5.37	10.23	
VCC162	0	1.22	-	-	0.35	0.12	0.51	0.03	1.00	0.08	0.34	0.05	35.75	-	-	9.35	3.38	14.64	1.06	36.92	3.13	11.89	1.69	3,5
VCC167	> 1.40	< 1.41	-	-	-	-	-	-	1.00	0.63	0.09	0.09	< 7.29	-	-	-	-	-	-	2.17	1.43	0.21	0.22	4
VCC187	0.91	2.75	-	-	0.35	0.13	0.33	0.08	1.00	0.26	0.25	0.17	18.91	-	-	3.08	1.20	3.18	1.57	20.89	5.40	5.64	3.85	3
VCC220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC221	0.41	0.72	-	-	0.35	0.06	0.15	0.09	1.00	0.29	0.20	0.15	19.62	-	-	8.33	1.56	3.80	4.04	43.46	12.85	8.99	6.80	3
VCC226	> 1.89	-	-	-	-	-	-	-	1.00	0.34	0.11	0.14	-	-	-	-	-	-	-	9.34	3.15	1.04	1.31	
VCC228	0.15	1.13	-	0.14	0.35	0.12	0.29	0.06	1.00	0.23	0.21	0.13	9.45	-	2.14	5.93	2.15	5.20	1.84	28.51	6.47	6.24	3.76	2,3
VCC307	0.59	< 0.51	-	0.08	0.35	-	0.08	0.11	1.00	0.35	0.14	0.10	< 4.95	-	0.96	4.86	-	1.18	3.09	28.69	10.20	4.22	3.03	2,3
VCC318	0.18	< 0.89	-	0.25	0.35	0.24	0.62	0.07	1.00	0.17	0.29	0.20	<16.95	-	3.89	5.69	3.87	10.10	1.78	24.92	4.33	7.34	5.19	
VCC324	0.39	0.90	0.11	0.17	0.35	0.39	1.16	0.03	1.00	0.07	0.09	0.06	104.20	11.23	19.84	59.07	61.15	186.80	7.57	284.70	21.07	24.09	17.69	1,2
VCC334	0.37	1.48	-	0.25	0.35	0.27	0.77	0.02	1.00	0.09	0.18	0.12	38.80	-	5.62	9.82	8.09	23.38	1.20	50.15	4.43	9.57	6.34	2,3
VCC345	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC355	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC358	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC382	0	0.34	-	-	0.35	0.09	0.15	0.32	1.00	0.95	0.34	0.25	22.35	-	-	11.79	3.18	5.18	8.97	28.01	26.39	9.14	6.64	3,5
VCC386	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC393	> 1.93	0.54	-	-	-	-	-	0.09	1.00	0.27	0.15	0.29	11.53	-	-	-	-	-	1.45	15.68	4.28	2.36	4.66	5
VCC459	0.21	2.25	-	0.16	0.35	0.37	1.03	0.04	1.00	0.11	0.18	0.12	67.57	-	4.79	11.51	12.41	35.20	2.23	56.48	6.47	10.29	7.06	2
VCC460	-	<20.53	-	-	-	-	-	-	1.00	3.96	-	-	<25.57	-	-	-	-	-	-	0.57	2.30	-	-	

Table 7: *Cont.*

Name	C_1	Flux (f(H$_\alpha$)≡ 1)											EW (Å)											Notes
		[OII] 3727	H$_\delta$ 4101	H$_\gamma$ 4340	H$_\beta$ 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H$_\alpha$ 6563	[NII] 6584	[SII] 6717	[SII] 6731	[OII] 3727	H$_\delta$ 4101	H$_\gamma$ 4340	H$_\beta$ 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H$_\alpha$ 6563	[NII] 6584	[SII] 6717	[SII] 6731	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
VCC465	0.02	0.86	-	0.08	0.35	0.17	0.45	0.05	1.00	0.16	0.23	0.16	26.38	-	2.49	12.51	6.36	16.31	2.22	48.36	7.70	11.61	8.36	2,3
VCC483	> 1.46	< 0.49	-	-	-	-	-	0.23	1.00	0.38	0.18	-	< 8.98	-	-	-	-	-	2.59	11.24	4.30	1.72	-	6
VCC491	0.06	1.23	0.04	0.15	0.35	0.25	0.73	0.04	1.00	0.13	0.18	0.12	76.09	2.01	7.27	19.67	14.88	43.37	4.05	95.89	12.90	17.80	12.06	1,2,3
VCC497	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC508	0.49	0.70	-	-	0.35	0.20	0.10	0.13	1.00	0.43	0.16	0.11	7.81	-	-	5.36	3.31	1.69	3.76	28.60	12.56	4.83	3.36	3
VCC522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC523	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC534	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC538	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC552	0.03	1.33	-	0.13	0.35	0.30	0.89	0.04	1.00	0.11	0.17	0.11	49.08	-	3.99	11.56	10.29	31.34	2.01	52.72	6.08	9.20	6.03	2,3
VCC559	> 2.40	< 1.07	-	-	-	-	-	0.15	1.00	0.46	0.16	0.10	< 6.36	-	-	-	-	-	0.70	4.57	2.25	0.79	0.51	4
VCC562	0.24	1.07	-	-	0.35	0.37	1.05	0.02	1.00	0.06	0.11	0.07	112.40	-	-	60.63	66.71	193.60	6.30	352.20	21.52	40.21	27.56	
VCC596	> 2.15	< 0.36	-	-	-	-	-	-	1.00	0.26	0.14	-	< 9.71	-	-	-	-	-	-	16.36	4.29	2.32	-	6
VCC630	> 1.77	< 1.09	-	-	-	-	0.11	-	1.00	0.31	0.27	0.23	< 7.34	-	-	-	-	0.64	-	6.57	2.07	1.85	1.60	
VCC634	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC636	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC655	0.75	1.00	-	-	0.35	-	0.06	0.08	1.00	0.29	0.20	0.15	9.14	-	-	3.21	-	0.57	1.27	15.94	4.68	3.45	2.57	3
VCC656	> 2.04	< 0.86	-	-	-	-	-	0.12	1.00	0.53	0.16	0.17	< 6.37	-	-	-	-	-	0.40	3.40	1.81	0.56	0.59	4
VCC664	0	0.96	0.07	0.13	0.35	0.32	0.95	0.03	1.00	0.09	0.14	0.10	59.92	4.55	8.99	27.75	27.28	83.49	4.69	145.80	13.32	20.96	15.44	1,2,3
VCC667	0.43	1.03	-	-	0.35	-	-	0.06	1.00	0.18	0.24	0.32	11.11	-	-	3.07	-	-	0.88	13.95	2.59	3.55	4.78	3,5
VCC685	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC688	1.89	-	-	-	0.35	-	-	-	1.00	0.11	0.26	0.09	-	-	-	0.67	-	-	-	9.02	0.97	2.76	0.92	3
VCC692	0.17	< 0.57	-	-	0.35	0.06	0.17	0.09	1.00	0.29	0.26	0.17	< 6.74	-	-	4.73	0.91	2.45	2.21	24.01	6.99	6.01	4.05	3
VCC699	0	0.78	-	-	0.35	0.16	0.47	0.08	1.00	0.22	0.23	0.11	42.28	-	-	13.00	6.32	18.09	3.41	45.35	10.04	10.37	5.07	3,5
VCC713	> 0.84	-	-	-	-	-	-	-	1.00	0.68	-	-	-	-	-	-	-	-	-	4.98	3.40	-	-	
VCC731	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC758	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC759	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC762	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC787	0	0.74	-	0.05	0.35	0.15	0.36	0.08	1.00	0.22	0.27	0.18	43.61	-	2.10	14.12	6.12	14.70	3.28	43.37	9.65	11.37	7.90	2,3,5
VCC792	> 1.56	< 0.99	-	-	-	-	-	0.16	1.00	0.59	0.20	0.14	< 5.72	-	-	-	-	-	0.65	3.97	2.37	0.84	0.59	
VCC794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC798	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC801	0.18	0.95	-	-	0.35	0.14	0.32	0.09	1.00	0.27	0.29	0.15	38.95	-	-	11.33	4.54	10.68	3.56	38.06	10.46	11.24	5.80	3,5
VCC809	0.69	< 2.68	-	-	0.35	0.13	0.32	0.06	1.00	0.23	0.31	0.23	<13.39	-	-	2.42	0.97	2.45	1.03	16.15	3.76	5.38	4.14	3
VCC827	0.38	1.86	-	-	0.35	0.22	0.65	0.07	1.00	0.20	0.20	0.13	35.86	-	-	8.65	5.71	17.40	3.05	42.29	8.46	8.78	5.82	3
VCC828	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC836	0.55	2.14	0.25	0.12	0.35	0.61	1.75	0.14	1.00	0.46	0.29	0.23	30.91	4.33	2.27	7.09	12.91	37.46	4.72	33.70	15.64	10.32	8.28	1,3
VCC841	0.61	1.04	0.09	0.21	0.35	0.18	0.56	0.04	1.00	0.12	0.13	0.09	40.47	3.40	8.96	20.21	9.78	29.52	7.55	168.50	20.33	21.65	14.48	1,2

Table 7: *Cont.*

Name	C_1	Flux (f(H$_\alpha$)≡ 1) [OII] 3727	H$_\delta$ 4101	H$_\gamma$ 4340	H$_\beta$ 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H$_\alpha$ 6563	[NII] 6584	[SII] 6717	[SII] 6731	EW (Å) [OII] 3727	H$_\delta$ 4101	H$_\gamma$ 4340	H$_\beta$ 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H$_\alpha$ 6563	[NII] 6584	[SII] 6717	[SII] 6731	Notes
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
VCC848	0	0.93	-	-	0.35	0.25	0.80	0.06	1.00	0.16	0.29	0.25	12.17	-	-	3.34	2.52	7.95	0.75	11.63	1.91	3.31	2.84	3
VCC849	0.46	2.10	-	-	0.35	0.32	0.35	0.07	1.00	0.23	0.23	0.16	25.90	-	-	4.15	4.07	4.63	1.64	23.85	5.65	5.89	3.99	3
VCC851	0.75	< 1.86	-	-	0.35	-	0.29	0.08	1.00	0.26	0.28	0.18	< 8.02	-	-	3.00	-	2.73	1.63	19.42	5.05	5.68	3.73	3
VCC857	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC865	0.54	1.73	-	-	0.35	0.63	0.35	0.07	1.00	0.20	0.26	0.17	16.09	-	-	5.47	11.01	6.28	2.44	32.80	6.71	9.34	6.28	3
VCC873	1.48	< 8.23	-	-	0.35	-	-	0.07	1.00	0.40	0.17	0.13	<11.55	-	-	0.93	-	-	0.61	9.14	3.75	1.71	1.34	3
VCC874	1.80	<18.91	-	-	0.35	-	-	0.12	1.00	0.43	0.19	0.14	< 9.57	-	-	0.46	-	-	0.73	6.28	2.78	1.36	1.00	3
VCC905	0.25	3.61	-	-	0.35	0.46	0.28	-	1.00	0.32	0.39	0.23	12.20	-	-	2.28	3.21	2.00	-	11.27	3.66	4.62	2.72	3
VCC912	0.82	< 3.58	-	-	0.35	-	-	0.13	1.00	0.36	0.19	0.16	<16.14	-	-	2.25	-	-	2.07	16.21	5.97	3.41	2.80	3
VCC921	0.51	1.37	-	-	0.35	-	0.12	0.14	1.00	0.45	0.19	0.13	16.50	-	-	4.06	-	1.48	3.17	23.54	10.66	4.67	3.14	3
VCC938	0.49	1.25	-	-	0.35	0.09	0.08	0.14	1.00	0.35	0.20	0.13	20.35	-	-	3.45	0.99	0.85	2.80	20.03	7.05	4.20	2.78	3
VCC939	0.29	2.21	-	-	0.35	0.34	0.17	0.10	1.00	0.28	0.25	0.18	41.06	-	-	3.17	3.18	1.60	1.53	16.08	4.55	4.22	2.99	3
VCC945	> 1.17	1.30	-	-	-	0.33	0.82	-	1.00	-	-	-	16.42	-	-	-	4.26	10.74	-	21.49	-	-	-	
VCC950	> 0.79	0.95	-	-	-	0.41	0.46	-	1.00	0.20	-	-	13.49	-	-	-	5.55	6.22	-	21.89	4.39	-	-	
VCC951	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC957	0.37	0.94	-	-	0.35	0.12	0.23	0.08	1.00	0.27	0.20	0.14	18.48	-	-	7.25	2.72	5.31	3.09	37.78	10.44	8.14	5.75	3
VCC958	> 0.66	< 1.31	-	-	-	-	-	0.41	1.00	1.64	0.45	0.39	< 4.27	-	-	-	-	-	0.69	1.69	2.78	0.78	0.69	
VCC971	0.27	2.01	-	-	0.35	0.29	0.70	-	1.00	0.11	0.23	0.15	37.71	-	-	6.03	5.23	12.81	-	29.01	3.33	7.15	4.73	3
VCC973	0.77	4.40	-	-	0.35	-	0.34	0.13	1.00	0.35	0.20	-	13.83	-	-	1.89	-	1.98	1.57	12.46	4.41	2.74	-	3,6
VCC975	> 0.31	0.79	-	-	-	-	0.17	-	1.00	0.13	0.37	0.05	26.68	-	-	-	-	4.93	-	43.32	5.68	15.91	2.29	
VCC979	0.43	1.13	-	-	0.35	-	-	0.27	1.00	0.78	0.29	0.22	13.42	-	-	3.24	-	-	3.78	14.23	11.12	4.42	3.34	3,5
VCC980	0.32	2.22	-	-	0.35	0.20	0.63	-	1.00	0.15	0.25	0.17	32.93	-	-	6.27	3.77	12.27	-	35.33	5.22	9.31	6.35	3
VCC984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC995	0.55	2.67	-	-	0.35	0.54	1.27	-	1.00	0.05	0.11	0.15	29.64	-	-	6.04	10.12	24.19	-	35.58	1.70	4.26	5.75	
VCC1002	0.92	2.24	-	-	0.35	-	-	0.16	1.00	0.46	0.25	0.14	10.89	-	-	2.11	-	-	2.24	14.16	6.58	3.89	2.12	3,5
VCC1003	-	<15.14	-	-	-	-	-	-	1.00	-	-	-	< 9.43	-	-	-	-	-	-	0.33	-	-	-	4
VCC1010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1018	0	1.04	-	-	0.35	-	0.32	0.18	1.00	0.54	0.53	0.01	34.97	-	-	7.64	-	7.09	4.82	26.28	14.17	13.78	0.34	3,5
VCC1028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1036	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1043	> 0.35	< 1.45	-	-	-	-	-	0.97	1.00	2.49	1.04	0.98	< 5.60	-	-	-	-	-	1.78	1.83	4.56	1.90	1.80	
VCC1047	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1086	> 1.10	< 1.75	-	-	-	-	-	0.21	1.00	0.81	0.28	0.24	< 6.20	-	-	-	-	-	0.49	2.31	1.88	0.67	0.56	
VCC1091	0.25	1.47	-	-	0.35	0.29	0.83	-	1.00	0.11	0.20	0.12	44.02	-	-	9.85	8.40	24.94	-	46.19	4.99	9.28	5.69	3
VCC1107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1110	-	< 3.84	-	-	-	-	-	0.82	1.00	2.01	0.87	0.88	< 7.72	-	-	-	-	-	0.70	0.85	1.70	0.76	0.77	4

Table 7: *Cont.*

		Flux (f(H_α)≡ 1)											EW (Å)											
Name (1)	C_1 (2)	[OII] 3727 (3)	H_δ 4101 (4)	H_γ 4340 (5)	H_β 4862 (6)	[OIII] 4959 (7)	[OIII] 5007 (8)	[NII] 6548 (9)	H_α 6563 (10)	[NII] 6584 (11)	[SII] 6717 (12)	[SII] 6731 (13)	[OII] 3727 (14)	H_δ 4101 (15)	H_γ 4340 (16)	H_β 4862 (17)	[OIII] 4959 (18)	[OIII] 5007 (19)	[NII] 6548 (20)	H_α 6563 (21)	[NII] 6584 (22)	[SII] 6717 (23)	[SII] 6731 (24)	Notes (25)
VCC1118	0.63	1.07	-	-	0.35	-	0.07	0.11	1.00	0.34	0.21	0.14	9.33	-	-	3.41	-	0.76	2.01	19.01	6.53	4.41	2.99	3
VCC1125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1145	> 1.20	< 1.21	-	-	-	-	-	0.35	1.00	1.19	0.54	0.42	< 5.77	-	-	-	-	-	1.08	3.09	3.67	1.68	1.32	
VCC1146	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1158	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1189	0.33	1.83	-	0.16	0.35	0.15	0.44	0.06	1.00	0.21	0.25	0.17	29.80	-	2.02	4.89	2.23	6.55	1.61	25.33	5.44	6.28	4.27	2,3
VCC1192	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1193	0.41	1.35	-	-	0.35	0.11	0.27	0.07	1.00	0.26	0.28	0.19	6.73	-	-	4.02	1.31	3.26	1.52	22.79	5.91	6.61	4.44	3
VCC1196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1200	> 0.49	1.73	-	-	-	0.41	0.71	-	1.00	-	0.52	-	9.24	-	-	-	2.55	4.53	-	8.59	-	4.69	-	6
VCC1203	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1205	0.33	1.31	-	-	0.35	0.11	0.19	0.07	1.00	0.27	-	-	24.56	-	-	6.45	2.08	3.71	1.98	28.32	7.71	-	-	3
VCC1217	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1231	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1242	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1253	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1290	0	0.31	-	-	0.35	0.08	0.09	0.09	1.00	0.26	0.18	0.18	13.89	-	-	8.25	2.03	2.25	1.87	21.41	5.49	3.81	3.77	3,5
VCC1297	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1316	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.21	-	1.30	-	-	
VCC1326	> 0.02	-	-	-	-	-	-	-	1.00	-	0.39	-	-	-	-	-	-	-	-	5.39	-	2.12	-	6
VCC1327	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85	-	-	-	-	-	-	-	3
VCC1348	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1356	0.19	1.67	-	-	0.35	0.37	0.98	0.02	1.00	0.06	0.25	0.10	39.89	-	-	10.23	11.17	30.38	1.00	45.56	2.95	11.97	4.49	5
VCC1368	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1379	0	< 0.59	-	-	0.35	-	0.11	0.19	1.00	0.29	0.23	0.16	<11.44	-	-	5.98	-	1.96	4.44	22.73	6.59	4.86	3.30	3
VCC1393	0.32	1.19	-	0.07	0.35	-	0.11	0.09	1.00	0.27	0.22	0.15	23.74	-	1.16	6.96	-	2.33	3.08	35.86	9.79	8.35	5.70	2,3
VCC1401	1.42	< 4.26	-	-	0.35	-	-	0.14	1.00	0.53	0.14	0.14	< 4.80	-	-	0.76	-	-	0.92	6.60	3.55	1.10	1.11	3
VCC1410	0	< 0.43	-	-	0.35	0.18	0.39	0.08	1.00	0.21	0.27	0.19	<11.23	-	-	6.13	3.15	6.98	1.70	21.53	4.60	5.72	4.16	3
VCC1411	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1412	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1419	> 1.68	< 2.75	-	-	-	-	-	-	1.00	0.39	0.23	0.23	<13.92	-	-	-	-	-	-	2.75	1.06	0.64	0.63	4
VCC1426	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1450	0	< 0.18	-	0.20	0.35	0.06	0.15	0.08	1.00	0.25	0.22	0.15	< 6.03	-	6.81	12.63	2.08	5.83	4.44	54.44	13.36	11.96	8.05	2,3
VCC1486	0.94	3.31	-	-	0.35	-	0.30	0.04	1.00	0.12	0.25	0.15	26.66	-	-	4.10	-	3.70	1.04	25.45	3.06	7.14	4.27	3,5

Table 7: *Cont.*

		Flux (f(H_α)≡ 1)											EW (Å)											
Name (1)	C_1 (2)	[OII] 3727 (3)	H_δ 4101 (4)	H_γ 4340 (5)	H_β 4862 (6)	[OIII] 4959 (7)	[OIII] 5007 (8)	[NII] 6548 (9)	H_α 6563 (10)	[NII] 6584 (11)	[SII] 6717 (12)	[SII] 6731 (13)	[OII] 3727 (14)	H_δ 4101 (15)	H_γ 4340 (16)	H_β 4862 (17)	[OIII] 4959 (18)	[OIII] 5007 (19)	[NII] 6548 (20)	H_α 6563 (21)	[NII] 6584 (22)	[SII] 6717 (23)	[SII] 6731 (24)	Notes (25)
VCC1491	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1499	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1508	0.46	1.74	-	-	0.35	0.24	0.43	0.09	1.00	0.23	0.20	0.15	14.81	-	-	4.76	3.50	6.54	2.50	29.15	6.74	6.40	4.57	3
VCC1516	1.19	3.70	-	-	0.35	-	0.21	0.08	1.00	0.39	0.24	0.23	14.64	-	-	2.01	-	1.37	1.33	16.04	6.29	4.18	3.95	3
VCC1524	0	0.71	-	-	0.35	0.13	0.36	0.04	1.00	0.15	0.28	0.18	26.75	-	-	7.54	2.85	8.13	1.05	24.39	3.70	6.86	4.38	3
VCC1532	0.52	1.56	-	-	0.35	-	0.10	0.10	1.00	0.31	0.24	0.16	19.81	-	-	5.35	-	1.62	3.19	31.51	9.72	8.07	5.43	3
VCC1540	1.43	< 2.78	-	-	0.35	-	-	0.16	1.00	0.50	0.15	0.22	< 6.08	-	-	1.48	-	-	1.90	11.79	5.99	2.10	2.98	3
VCC1552	> 0.78	< 6.06	-	-	-	-	-	0.28	1.00	0.74	-	-	<13.96	-	-	-	-	-	0.47	1.60	1.22	-	-	4
VCC1554	0.28	1.32	-	0.15	0.35	0.25	0.71	0.04	1.00	0.12	0.18	0.13	47.60	-	6.25	17.43	12.98	38.11	3.96	96.17	11.49	17.44	12.06	1,2,3
VCC1569	0.36	2.32	-	-	0.35	0.22	0.72	0.02	1.00	0.06	0.23	0.08	27.62	-	-	6.03	4.08	13.39	0.65	32.60	1.92	7.54	2.49	3,5
VCC1575	0.50	< 0.27	-	0.08	0.35	-	0.03	0.10	1.00	0.31	0.15	0.11	< 4.42	-	1.48	7.29	-	0.68	3.83	38.35	11.97	6.01	4.24	3
VCC1581	0	0.74	-	-	0.35	-	0.27	-	1.00	0.06	1.20	0.19	8.33	-	-	2.28	-	1.77	-	7.51	0.47	9.63	1.50	3
VCC1588	1.05	< 2.21	-	-	0.35	-	-	0.13	1.00	0.38	0.25	0.16	< 4.34	-	-	1.36	-	-	1.38	10.63	4.15	2.92	1.93	3
VCC1593	0.23	0.87	-	0.13	0.35	0.14	0.28	0.28	1.00	0.40	-	-	14.17	-	2.03	6.28	2.62	5.28	8.08	29.08	12.21	-	-	2,3
VCC1615	> 1.59	< 2.66	-	-	-	-	-	0.17	1.00	0.81	0.17	0.23	< 8.81	-	-	-	-	-	0.36	2.07	1.69	0.36	0.48	4
VCC1619	-	< 4.61	-	-	-	-	-	-	1.00	0.93	0.98	0.98	< 6.06	-	-	-	-	-	-	0.54	0.51	0.55	0.55	4
VCC1630	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1632	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1673	1.23	< 2.72	-	-	0.35	-	0.00	0.11	1.00	0.35	0.12	0.10	< 5.30	-	-	1.44	-	0.02	1.47	13.47	4.76	1.82	1.50	3
VCC1675	0	< 0.97	-	-	0.35	0.17	0.50	0.04	1.00	0.19	0.29	0.22	< 9.05	-	-	2.63	1.33	3.92	0.37	9.97	1.89	2.90	2.22	3
VCC1676	1.18	< 1.66	-	-	0.35	-	0.05	0.12	1.00	0.37	0.12	0.08	< 7.07	-	-	2.53	-	0.37	2.15	18.46	6.83	2.46	1.65	3
VCC1678	0.24	1.59	-	-	0.35	0.18	0.75	0.04	1.00	0.11	0.30	0.04	37.98	-	-	6.41	3.45	14.77	1.01	27.90	2.97	8.14	1.06	3,5
VCC1683	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1686	0.74	3.39	-	0.33	0.35	0.23	0.54	0.07	1.00	0.20	0.31	0.15	42.26	-	4.57	6.75	4.80	11.81	3.22	47.35	9.48	15.45	7.48	2,5
VCC1690	> 0.38	< 3.49	-	-	-	-	-	0.21	1.00	1.36	0.36	0.41	< 8.97	-	-	-	-	-	0.41	2.01	2.75	0.74	0.84	
VCC1699	0	0.55	0.08	0.11	0.35	0.60	1.71	0.04	1.00	0.11	0.08	0.04	68.07	8.14	12.67	45.11	81.62	236.70	6.09	167.49	17.90	13.12	6.22	1,5
VCC1725	0	0.83	-	0.17	0.35	0.26	0.77	0.05	1.00	0.14	0.23	0.16	39.06	-	5.94	13.93	10.86	32.66	3.47	64.58	8.80	15.08	10.66	2,3
VCC1726	0	0.77	-	-	0.35	0.10	0.42	-	1.00	-	0.18	0.23	46.92	-	-	20.49	6.44	26.31	-	68.44	-	12.21	15.93	3
VCC1727	> 0.14	< 1.61	-	-	-	-	-	0.48	1.00	1.69	0.89	0.53	< 5.85	-	-	-	-	-	1.01	2.08	3.52	1.90	1.14	
VCC1730	> 1.34	< 1.87	-	-	-	-	-	0.10	1.00	0.49	0.12	0.13	<13.84	-	-	-	-	-	0.54	5.46	2.71	0.64	0.72	
VCC1757	> 1.16	< 3.21	-	-	-	-	-	0.21	1.00	0.51	0.23	0.22	<12.87	-	-	-	-	-	0.93	4.52	2.32	1.04	1.00	
VCC1758	0.62	2.17	-	-	0.35	0.42	0.49	-	1.00	0.08	0.30	0.06	28.84	-	-	5.05	6.57	7.70	-	28.66	2.34	9.03	1.87	3
VCC1789	0	0.40	-	-	0.35	0.09	0.22	-	1.00	-	0.22	0.45	21.72	-	-	8.24	2.08	4.99	-	19.10	-	4.38	8.78	3
VCC1791	0.49	1.98	-	-	0.35	0.39	1.05	-	1.00	-	0.11	0.13	53.66	-	-	14.15	16.85	47.00	-	78.85	-	9.00	11.29	
VCC1811	0.50	< 1.00	-	-	0.35	-	0.23	0.09	1.00	0.31	0.25	0.16	< 6.58	-	-	2.97	-	2.14	1.50	17.44	5.49	4.70	3.07	3
VCC1813	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1859	> 2.31	< 1.39	-	-	-	-	-	0.14	1.00	0.63	0.29	0.25	< 5.93	-	-	-	-	-	0.45	3.05	2.06	0.97	0.85	4
VCC1868	1.45	< 5.05	-	-	0.35	-	-	0.11	1.00	0.43	0.24	0.19	< 7.60	-	-	1.04	-	-	0.99	8.77	3.88	2.44	1.96	3
VCC1869	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1903	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Table 7: *Cont.*

		Flux (f(H_α)≡ 1)											EW (Å)											
Name (1)	C_1 (2)	[OII] 3727 (3)	H_δ 4101 (4)	H_γ 4340 (5)	H_β 4862 (6)	[OIII] 4959 (7)	[OIII] 5007 (8)	[NII] 6548 (9)	H_α 6563 (10)	[NII] 6584 (11)	[SII] 6717 (12)	[SII] 6731 (13)	[OII] 3727 (14)	H_δ 4101 (15)	H_γ 4340 (16)	H_β 4862 (17)	[OIII] 4959 (18)	[OIII] 5007 (19)	[NII] 6548 (20)	H_α 6563 (21)	[NII] 6584 (22)	[SII] 6717 (23)	[SII] 6731 (24)	Notes (25)
VCC1918	> 1.11	1.22	-	-	-	-	0.56	-	1.00	-	0.24	-	36.27	-	-	-	-	12.76	-	34.39	-	8.90	-	6
VCC1929	0.35	2.07	-	0.11	0.35	0.19	0.39	0.08	1.00	0.21	0.23	0.16	14.40	-	1.61	6.13	3.46	7.14	2.50	31.80	6.78	7.70	5.39	3
VCC1932	1.01	< 1.51	-	-	0.35	0.52	0.17	0.12	1.00	0.43	0.22	0.15	< 5.78	-	-	2.32	3.78	1.26	1.95	16.61	7.19	4.18	2.86	3
VCC1938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1943	1.13	3.69	-	-	0.35	1.24	0.41	0.20	1.00	0.56	0.22	0.18	6.52	-	-	0.98	3.79	1.30	1.45	7.42	4.20	1.88	1.53	3
VCC1970	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1972	0.81	< 1.32	-	-	0.35	-	-	0.10	1.00	0.30	0.12	0.08	<10.03	-	-	4.11	-	-	2.77	26.97	8.31	3.48	2.44	3
VCC1978	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC1987	0.38	< 0.62	-	-	0.35	-	0.14	0.09	1.00	0.30	0.17	0.09	<12.80	-	-	8.00	-	3.33	3.28	35.06	10.44	6.26	3.41	
VCC1992	0	0.96	-	-	0.35	0.20	0.60	-	1.00	-	0.14	0.30	37.63	-	-	10.65	6.31	19.55	-	40.60	-	6.34	13.75	3
VCC1999	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC2000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC2006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC2033	0.01	1.14	0.03	-	0.35	0.17	0.55	0.08	1.00	0.12	0.20	0.14	28.26	0.43	-	6.77	3.49	11.05	2.14	27.67	3.30	5.56	3.96	1,3
VCC2037	0.28	1.73	-	0.14	0.35	0.23	0.57	-	1.00	0.10	0.26	0.19	27.08	-	2.10	6.67	4.37	10.87	-	30.99	3.21	7.76	5.70	2,3
VCC2058	1.30	< 6.39	-	-	0.35	-	-	0.11	1.00	0.36	0.12	0.12	<17.84	-	-	1.66	-	-	1.71	15.19	5.49	2.04	1.94	3
VCC2066	> 2.32	< 1.62	-	-	-	-	-	0.21	1.00	0.67	0.36	0.28	< 7.11	-	-	-	-	-	0.77	3.55	2.51	1.30	1.01	4
VCC2070	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.85	-	1.35	0.53	0.53	
VCC2087	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC2092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
VCC2095	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z13046	> 1.26	-	-	-	-	-	-	0.03	1.00	0.57	-	-	-	-	-	-	-	-	0.37	11.50	6.60	-	-	
Z14034	0.52	0.68	-	0.08	0.35	0.08	0.17	0.07	1.00	0.20	0.08	0.08	26.74	-	2.92	14.24	3.38	7.39	4.55	67.95	13.39	5.57	5.32	3,5
Z14063	0.52	< 1.31	-	-	0.35	0.59	0.33	0.07	1.00	0.27	0.27	0.16	< 9.25	-	-	2.84	5.11	2.92	0.93	13.14	3.56	3.86	2.32	3
Z14110	> 1.20	0.97	-	-	-	-	-	-	1.00	0.14	0.39	0.11	18.29	-	-	-	-	-	-	16.37	2.27	6.59	1.80	
Z43034	0.71	1.95	-	-	0.35	0.20	0.32	-	1.00	0.25	0.18	0.11	32.87	-	-	6.70	4.21	6.87	-	41.24	10.60	8.21	5.13	3
Z43071	0.49	1.37	-	-	0.35	0.15	0.25	0.14	1.00	0.42	0.27	0.16	26.94	-	-	6.98	3.24	5.47	4.82	33.91	14.17	9.52	5.67	3,5
Z43093	0.24	0.81	-	-	0.35	0.13	0.16	0.17	1.00	0.51	0.21	0.16	19.25	-	-	7.34	2.89	3.53	5.91	34.10	17.39	7.52	5.58	3,5
Z69058	-	< 3.08	-	-	-	-	-	-	1.00	0.98	-	-	< 4.61	-	-	-	-	-	-	1.01	0.99	-	-	
Z71060	0.78	2.23	-	-	0.35	0.15	0.36	0.07	1.00	0.34	0.21	0.14	36.68	-	-	7.35	3.36	8.49	2.64	40.46	13.84	8.84	5.73	
Z71092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z97062	0.52	< 0.69	-	-	0.35	0.22	0.25	0.08	1.00	0.30	0.13	0.10	< 7.52	-	-	5.30	3.61	4.21	2.58	32.42	10.01	4.66	3.58	3
Z97063	0	0.86	-	-	0.35	0.08	0.25	0.08	1.00	0.27	0.28	0.06	21.24	-	-	5.32	1.07	3.52	1.45	18.42	4.97	5.64	1.30	
Z97064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z97068	1.41	1.45	-	-	0.35	0.08	0.17	0.12	1.00	0.37	0.13	0.06	6.50	-	-	3.02	0.70	1.65	3.09	25.80	9.63	4.08	1.70	3
Z97073	0.03	1.34	-	0.06	0.35	0.18	0.56	0.14	1.00	0.40	0.20	0.15	58.74	-	2.43	17.54	9.55	30.19	9.40	69.44	27.66	14.57	11.53	5
Z97079	0.06	1.17	0.09	0.15	0.35	0.18	0.53	0.05	1.00	0.15	0.10	-	216.00	6.86	11.99	31.08	15.48	45.97	7.48	162.30	25.67	16.65	-	6
Z97087	0.38	1.44	0.06	0.14	0.35	0.19	0.55	0.04	1.00	0.23	0.15	0.09	42.26	1.58	4.02	12.26	6.95	20.47	2.13	59.26	13.88	9.78	5.83	1,2,3
Z97088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z97091	0.61	1.22	-	-	0.35	-	0.18	0.14	1.00	0.60	-	-	14.96	-	-	3.38	-	1.85	2.76	19.23	11.73	-	-	3

Table 7: *Cont.*

		Flux (f(H_α)≡ 1)											EW (Å)											
Name (1)	C_1 (2)	[OII] 3727 (3)	H_δ 4101 (4)	H_γ 4340 (5)	H_β 4862 (6)	[OIII] 4959 (7)	[OIII] 5007 (8)	[NII] 6548 (9)	H_α 6563 (10)	[NII] 6584 (11)	[SII] 6717 (12)	[SII] 6731 (13)	[OII] 3727 (14)	H_δ 4101 (15)	H_γ 4340 (16)	H_β 4862 (17)	[OIII] 4959 (18)	[OIII] 5007 (19)	[NII] 6548 (20)	H_α 6563 (21)	[NII] 6584 (22)	[SII] 6717 (23)	[SII] 6731 (24)	Notes (25)
Z97093	0.12	1.28	-	-	0.35	0.06	0.15	0.08	1.00	0.25	0.24	0.12	25.41	-	-	7.03	1.33	3.38	2.88	37.97	9.54	9.41	4.67	3
Z97097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z97114	0.77	0.97	-	-	0.35	0.07	0.12	-	1.00	0.23	0.15	0.13	16.86	-	-	9.98	2.25	3.78	-	66.07	15.16	10.39	9.22	
Z97120	1.92	< 8.80	-	-	0.35	-	-	0.24	1.00	0.61	-	-	< 4.63	-	-	0.46	-	-	1.47	6.17	3.82	-	-	3
Z97122	0.96	1.37	-	-	0.35	0.14	0.27	0.14	1.00	0.42	0.15	0.11	10.57	-	-	3.06	1.29	2.62	3.28	23.50	9.92	3.85	2.86	3
Z97123	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z97125	0.88	3.61	-	-	0.35	0.35	0.66	-	1.00	0.31	-	-	24.34	-	-	3.22	3.52	6.78	-	19.04	5.87	-	-	3
Z97129	> 1.06	< 1.01	-	-	-	-	-	-	1.00	0.54	0.39	-	< 8.88	-	-	-	-	-	-	7.74	4.22	3.14	-	6
Z97138	0	0.62	-	0.07	0.35	0.15	0.42	0.07	1.00	0.18	0.16	0.11	10.16	-	2.84	16.54	6.06	17.58	3.83	54.05	9.62	9.21	6.29	
Z100004	0.52	< 0.92	-	-	0.35	0.09	0.14	0.14	1.00	0.46	0.21	0.14	< 5.15	-	-	2.43	0.62	1.03	1.69	12.39	5.74	2.79	1.85	3
Z100011	-	< 5.26	-	-	-	-	-	-	1.00	2.30	-	0.43	< 8.18	-	-	-	-	-	-	0.76	1.80	-	0.33	4
Z119016	0	< 0.54	-	-	0.35	-	-	0.19	1.00	0.58	0.28	0.19	< 6.02	-	-	2.29	-	-	1.25	6.75	3.91	2.02	1.39	3
Z119024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119027	> 1.40	< 0.95	-	-	-	-	-	-	1.00	0.39	0.25	0.23	< 9.88	-	-	-	-	-	-	9.99	3.93	2.70	2.48	
Z119028	0.58	1.31	-	-	0.35	0.35	1.05	-	1.00	0.07	0.21	0.08	51.13	-	-	12.93	13.20	40.50	-	68.94	4.97	15.43	5.99	
Z119029	0.62	< 1.03	-	0.25	0.35	-	0.13	0.13	1.00	0.39	0.22	0.15	< 5.80	-	1.66	2.55	-	1.02	1.91	14.87	5.84	3.63	2.42	3
Z119031	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119034	0.67	< 0.66	-	-	0.35	-	0.11	0.15	1.00	0.41	-	-	< 4.84	-	-	3.40	-	1.18	3.42	22.49	9.50	-	-	3
Z119035	0.40	1.69	-	-	0.35	0.25	0.74	-	1.00	0.18	0.21	0.18	53.57	-	-	7.27	5.21	15.85	-	34.18	6.01	7.49	6.43	3
Z119040	> 0.13	< 3.22	-	-	-	-	-	0.12	1.00	0.76	0.01	0.41	< 7.97	-	-	-	-	-	0.27	2.18	1.65	0.03	0.91	
Z119041	1.15	< 2.31	-	-	0.35	-	0.03	0.16	1.00	0.47	0.17	0.11	< 7.23	-	-	1.55	-	0.17	1.71	10.77	5.10	2.00	1.28	3
Z119043	0.90	< 1.15	-	-	0.35	0.19	0.22	0.08	1.00	0.29	0.25	0.16	< 6.34	-	-	3.16	1.82	2.17	1.76	23.53	7.02	6.40	4.23	3
Z119044	1.07	-	-	-	0.35	0.46	1.11	-	1.00	0.09	0.25	0.27	-	-	-	4.05	5.91	14.48	-	34.63	3.27	10.24	11.00	
Z119046	0.72	< 1.52	-	-	0.35	-	0.28	0.11	1.00	0.40	0.18	0.16	< 8.04	-	-	2.75	-	2.42	1.93	17.26	7.03	3.43	2.95	3
Z119047	0.56	< 0.60	-	-	0.35	0.08	0.15	0.11	1.00	0.35	0.23	0.15	< 6.12	-	-	4.65	1.07	2.16	2.95	27.31	9.68	6.75	4.49	3
Z119048	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119050	0	< 3.18	-	-	-	-	-	1.05	1.00	2.38	0.09	0.11	< 7.21	-	-	-	-	-	1.27	1.21	2.87	0.11	0.13	
Z119051	0.10	< 0.74	-	-	0.35	-	0.42	0.05	1.00	0.22	0.33	0.26	< 7.64	-	-	3.26	-	4.20	0.62	13.14	2.88	4.76	3.80	3
Z119053	0.04	< 0.19	-	-	0.35	0.07	0.11	0.09	1.00	0.33	0.20	0.14	< 5.27	-	-	8.98	1.79	3.02	3.36	37.06	12.11	7.73	5.32	3
Z119054	1.41	< 7.75	-	-	0.35	-	0.12	0.18	1.00	0.42	0.16	0.17	< 9.73	-	-	0.89	-	0.35	1.62	9.05	3.88	1.66	1.76	3
Z119056	0.97	2.66	-	-	0.35	0.37	0.75	-	1.00	0.12	0.22	0.16	43.67	-	-	5.18	5.87	12.18	-	33.50	4.03	8.06	5.76	3
Z119057	0	-	-	-	-	-	-	-	1.00	0.59	-	-	-	-	-	-	-	-	-	2.71	1.59	-	-	
Z119059	0	< 0.24	0.04	-	0.35	0.09	0.27	0.05	1.00	0.20	0.24	0.15	< 8.26	1.10	-	10.85	2.74	8.51	1.75	38.18	7.48	9.00	5.77	3
Z119061	> 1.06	< 2.68	-	-	-	-	-	0.31	1.00	0.94	0.09	0.30	< 7.46	-	-	-	-	-	0.53	1.66	1.60	0.15	0.53	4
Z119063	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119065	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119066	0.81	2.12	-	-	0.35	0.23	0.23	-	1.00	0.22	0.25	0.23	33.93	-	-	5.02	3.43	3.55	-	28.12	6.24	7.78	7.04	3
Z119067	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119068	0.51	< 0.53	-	-	0.35	0.16	0.21	0.09	1.00	0.37	0.13	-	< 5.53	-	-	4.24	2.09	2.71	1.93	22.06	8.38	3.43	-	3,6
Z119071	> 1.43	< 0.91	-	-	-	-	-	0.21	1.00	0.49	0.38	-	< 8.69	-	-	-	-	-	1.53	7.21	3.57	3.12	-	6

Table 7: *Cont.*

Name	C_1	Flux ($f(H_\alpha)\equiv 1$)											EW (Å)											Notes
		[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Z119074	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119078	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119081	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119082	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119083	> 1.64	< 0.62	-	-	-	-	-	0.11	1.00	0.55	0.11	0.23	< 6.96	-	-	-	-	-	0.57	5.33	2.93	0.61	1.23	
Z119085	0	< 0.56	-	-	0.35	0.33	0.55	0.12	1.00	0.57	0.30	0.04	< 7.28	-	-	3.33	3.44	5.73	1.34	10.91	6.31	3.58	0.51	
Z119091	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z119109	> 1.84	< 0.91	-	-	-	-	-	0.16	1.00	0.49	0.28	0.19	<10.66	-	-	-	-	-	1.46	9.15	4.51	2.60	1.78	
Z127049	0.81	0.61	-	-	0.35	0.07	0.12	0.10	1.00	0.36	-	-	5.87	-	-	4.85	0.97	1.76	3.38	32.90	12.13	-	-	3
Z160020	0	0.67	-	-	0.35	0.10	0.29	0.07	1.00	0.21	0.15	0.10	29.11	-	-	17.63	5.01	15.54	5.76	86.18	18.04	13.13	9.00	3
Z160026	0.37	0.92	-	-	0.35	-	0.14	0.08	1.00	0.29	-	-	57.34	-	-	5.53	-	2.38	2.48	29.30	8.49	-	-	3
Z160055	0.28	< 0.32	-	-	0.35	0.10	0.15	0.15	1.00	0.47	-	-	< 6.65	-	-	7.02	2.15	3.35	4.21	28.38	13.37	-	-	3
Z160058	0.81	1.54	-	-	0.35	-	0.13	0.10	1.00	0.35	-	-	7.70	-	-	2.46	-	0.95	1.47	15.46	5.51	-	-	3
Z160064	0.45	1.25	-	-	0.35	0.11	0.31	0.08	1.00	0.24	-	-	21.57	-	-	8.01	2.62	7.56	4.03	50.24	12.27	-	-	3
Z160067	0.36	1.18	-	0.15	0.35	0.09	0.26	0.09	1.00	0.28	-	-	20.33	-	2.87	8.31	2.30	6.67	4.27	48.97	13.63	-	-	1,2,3
Z160076	0.34	1.07	0.19	0.07	0.35	0.17	0.54	0.04	1.00	0.15	0.19	0.12	17.94	3.07	1.29	7.24	3.63	11.68	1.46	38.38	5.96	7.51	4.78	1,3
Z160086	0.57	1.55	-	0.16	0.35	0.11	0.22	0.09	1.00	0.27	-	-	18.18	-	2.04	5.99	2.11	4.24	4.04	44.72	12.23	-	-	2,3
Z160088	1.57	< 6.39	-	-	0.35	-	-	0.27	1.00	0.51	-	-	< 5.48	-	-	0.69	-	-	2.07	7.86	4.11	-	-	3
Z160095	> 0.87	< 2.31	-	-	-	-	-	-	1.00	1.22	-	-	< 7.92	-	-	-	-	-	-	1.87	2.35	-	-	4
Z160097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160103	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160106	1.01	0.80	-	-	0.35	-	0.12	0.12	1.00	0.41	-	-	4.62	-	-	3.38	-	1.30	3.43	28.01	11.69	-	-	3
Z160108	0.45	< 0.33	-	-	0.35	0.08	0.13	0.12	1.00	0.35	-	-	< 5.82	-	-	8.02	1.87	3.05	4.78	41.28	14.55	-	-	3
Z160110	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160127	0.38	1.26	-	-	0.35	0.17	0.56	0.05	1.00	0.17	0.17	0.12	34.88	-	-	8.62	4.24	14.71	2.47	47.86	8.01	8.71	5.80	3
Z160128	0.09	1.42	-	-	0.35	0.19	0.56	0.06	1.00	0.16	-	-	60.74	-	-	10.84	6.33	18.43	3.29	54.99	8.64	-	-	3
Z160139	0.15	0.74	-	0.15	0.35	0.30	0.89	0.06	1.00	0.12	0.16	0.10	17.91	-	3.72	10.78	9.10	28.54	2.87	49.57	6.08	8.07	4.91	2,3
Z160212	> 0.06	< 2.73	-	-	-	-	-	-	1.00	1.19	-	-	< 5.38	-	-	-	-	-	-	1.55	1.85	-	-	
Z160213	0.56	0.83	-	0.35	0.35	-	0.12	0.12	1.00	0.37	-	-	13.91	-	6.08	7.47	-	2.76	6.12	50.09	18.83	-	-	2,3
Z160215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160219	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160252	0.95	< 0.68	-	0.15	0.35	0.08	0.18	0.13	1.00	0.44	-	-	< 5.99	-	1.91	6.12	1.40	3.43	5.29	40.09	18.05	-	-	2,3
Z160258	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Z160260	0.81	< 1.42	-	-	0.35	-	-	0.14	1.00	0.43	-	-	< 4.67	-	-	1.59	-	-	1.33	9.68	4.25	-	-	3
Z522038	0.75	< 1.16	-	-	0.35	0.08	-	0.14	1.00	0.45	0.15	0.10	< 6.06	-	-	2.41	0.60	-	2.02	14.74	6.71	2.35	1.52	3
Z522041	0.65	< 0.50	-	0.16	0.35	0.11	0.14	0.11	1.00	0.33	0.16	-	< 7.52	-	2.69	7.17	2.31	3.15	4.59	41.80	13.99	7.16	-	3,6
Z522058	0.72	< 0.27	-	0.14	0.35	0.08	0.10	0.22	1.00	0.56	0.12	0.11	< 3.09	-	2.04	6.56	1.51	1.96	9.61	43.95	24.94	5.72	5.08	2,3
Z522060	0.58	< 1.74	-	-	0.35	-	-	0.14	1.00	0.41	0.21	0.10	< 9.21	-	-	1.76	-	-	1.21	8.76	3.63	1.98	0.93	3
Z522062	0.34	< 0.92	-	-	0.35	-	0.05	0.10	1.00	0.36	0.21	0.19	< 8.49	-	-	3.37	-	0.52	1.60	15.97	5.77	3.49	3.08	3

Table 7: *Cont.*

Name	C_1	Flux (f(H_α)≡ 1)											EW (Å)											Notes
		[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	[OII] 3727	H_δ 4101	H_γ 4340	H_β 4862	[OIII] 4959	[OIII] 5007	[NII] 6548	H_α 6563	[NII] 6584	[SII] 6717	[SII] 6731	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)
Z522065	-	$<$ 8.04	-	-	-	-	-	0.75	1.00	1.54	-	-	$<$11.70	-	-	-	-	-	0.53	0.72	1.11	-	-	
Z522072	0.88	$<$ 1.62	-	-	0.35	-	0.16	0.09	1.00	0.28	0.21	0.12	$<$ 8.53	-	-	2.79	-	1.41	1.64	18.98	5.47	4.45	2.56	3
Z522079	0.76	$<$ 1.30	-	-	0.35	-	-	0.11	1.00	0.37	0.09	0.09	$<$ 6.65	-	-	1.93	-	-	1.21	10.71	4.02	1.07	1.07	3
CCC45	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC94	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC96	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC122	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
CCC222	1.25	1.61	-	-	0.35	-	-	0.04	1.00	0.39	0.25	0.16	8.22	-	-	3.35	-	-	1.02	26.34	10.40	7.68	4.85	3
CCC226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Notes:
1:H_δ; 2:H_γ; 3:H_β; 4:H_α flux corrected for underlying absorption (see Sect. 3.4).
5: [NII] deblended from H_α (see Sect. 3.1).
6: The [SII] doubled is blended. [SII]λ6717 is the sum of the two.

Table 8: Balmer absorption lines.

Name (1)	EWH_{δ} (Å) (2)	EWH_{γ} (Å) (3)	EWH_{β} (Å) (4)	EWH_{α} (Å) (5)	Notes (6)
VCC1	-	-	-3.99	-	3
VCC24	-6.55	-8.24	-5.56	-	3
VCC25	-4.06	-	-6.31	-	3
VCC47	-	-	-1.80	-	
VCC49	-	-	-3.10	-0.90	
VCC58	-3.46	-1.18	-5.91	-	3
VCC66	-	-	-5.41	-	3
VCC73	-3.26	-1.48	-4.27	-	3
VCC87	-7.25	-6.46	-6.78	-	2,3
VCC89	-2.86	-2.84	-4.95	-	3
VCC92	-	-	-4.88	-	3
VCC97	-	-	-1.70	-	
VCC119	-	-	-2.86	-	3
VCC131	-	-	-7.85	-	3
VCC134	-2.77	-	-6.12	-	3
VCC142	-3.52	-1.28	-5.42	-	3
VCC145	-	-	-	-	
VCC152	-7.68	-3.64	-6.10	-	3
VCC157	-5.06	-2.08	-5.52	-	3
VCC159	-5.61	-3.07	-	-	
VCC162	-4.29	-9.86	-9.52	-	3
VCC167	-	-	-	-2.75	4
VCC187	-6.98	-3.77	-5.16	-	3
VCC220	-	-	-	-0.73	
VCC221	-10.14	-	-6.23	-	3
VCC226	-2.62	-2.08	-	-	
VCC228	-3.54	-5.24	-4.53	-	2,3
VCC307	-3.92	-3.18	-5.36	-	2,3
VCC318	-2.37	-	-	-	
VCC324	-6.90	-5.29	-	-	1,2
VCC334	-	-6.87	-6.63	-	2,3
VCC345	-	-	-	-1.08	
VCC355	-1.29	-0.71	-1.71	-0.63	
VCC358	-1.39	-1.11	-2.29	-1.86	
VCC369	-	-	-	-1.30	
VCC382	-5.31	-	-12.13	-	3
VCC386	-	-	-	-	
VCC393	-7.35	-	-	-	
VCC459	-1.64	-3.80	-	-	2
VCC460	-4.80	-	-	-	
VCC465	-	-1.79	-5.87	-	2,3
VCC483	-	-	-4.51	-	
VCC491	-7.02	-3.54	-6.93	-	1,2,3
VCC497	-	-	-	-	
VCC508	-2.26	-	-4.60	-	3
VCC522	-	-	-	-1.84	
VCC523	-	-	-	-	
VCC534	-	-	-4.44	-	
VCC538	-	-	-2.64	-	
VCC552	-13.01	-5.45	-6.35	-	2,3
VCC559	-3.06	-2.16	-	-2.92	4
VCC562	-	-	-	-	
VCC596	-	-	-	-	
VCC630	-3.78	-	-	-	
VCC634	-	-	-	-3.16	
VCC636	-	-	-	-3.39	
VCC655	-	-	-4.27	-	3
VCC656	-2.03	-1.05	-3.70	-1.70	4
VCC664	-4.15	-7.79	-6.73	-	1,2,3
VCC667	-6.45	-	-6.15	-	3
VCC685	-	-	-3.14	-1.75	
VCC688	-3.40	-1.72	-5.09	-	3
VCC692	-4.80	-	-5.39	-	3
VCC699	-3.93	-	-11.27	-	3
VCC713	-	-	-2.60	-	
VCC731	-	-	-3.13	-1.56	
VCC758	-	-	-4.20	-	
VCC759	-	-	-	-1.38	
VCC762	-1.97	-	-1.44	-2.93	
VCC781	-2.89	-1.29	-3.48	-	
VCC787	-4.97	-7.13	-9.99	-	2,3
VCC792	-2.26	-	-	-	
VCC794	-	-	-	-	
VCC798	-	-	-3.71	-1.95	
VCC801	-4.96	-	-8.26	-	3
VCC809	-3.24	-1.95	-8.25	-	3
VCC827	-	-	-8.56	-	3
VCC828	-	-	-2.96	-1.70	
VCC836	-5.33	-	-3.28	-	1,3
VCC841	-4.78	-5.55	-	-	1,2
VCC848	-6.99	-4.86	-5.45	-	3
VCC849	-5.95	-	-5.00	-	3
VCC851	-11.01	-	-6.58	-	3
VCC857	-3.72	-1.27	-2.59	-2.05	
VCC865	-4.54	-	-6.99	-	3
VCC873	-2.98	-2.46	-5.80	-	3
VCC874	-3.45	-3.37	-8.07	-	3
VCC905	-3.44	-	-3.69	-	3
VCC912	-4.60	-	-4.33	-	3
VCC921	-2.62	-	-4.40	-	3
VCC938	-2.81	-2.14	-5.92	-	3
VCC939	-	-	-3.91	-	3
VCC945	-5.88	-6.29	-	-	
VCC950	-	-	-	-	
VCC951	-3.75	-2.52	-4.34	-3.80	
VCC957	-4.12	-0.78	-6.75	-	3
VCC958	-3.55	-1.21	-	-	
VCC971	-2.37	-	-5.18	-	3
VCC973	-	-	-1.93	-	3
VCC975	-6.86	-	-	-	
VCC979	-7.26	-4.46	-5.68	-	3
VCC980	-3.82	-	-5.52	-	3
VCC984	-	-	-3.71	-1.25	
VCC995	-6.33	-	-	-	
VCC1002	-4.47	-3.78	-4.27	-	3
VCC1003	-	-	-1.15	-0.89	4
VCC1010	-	-	-3.80	-1.74	
VCC1018	-4.79	-0.78	-10.30	-	3
VCC1028	-2.77	-5.57	-2.78	-2.44	
VCC1030	-	-	-3.09	-1.45	
VCC1036	-5.34	-2.12	-3.55	-1.55	
VCC1043	-	-	-2.80	-	
VCC1047	-1.65	-	-3.64	-1.47	
VCC1062	-	-	-	-1.00	
VCC1068	-	-	-2.58	-	
VCC1073	-	-	-3.25	-	
VCC1086	-3.92	-	-	-	
VCC1091	-	-	-5.41	-	3
VCC1107	-	-	-	-	
VCC1110	-3.15	-1.00	-2.00	-0.63	4
VCC1118	-	-	-4.96	-	3
VCC1125	-	-	-3.69	-1.39	
VCC1145	-1.30	-1.65	-6.91	-	
VCC1146	-1.40	-	-2.98	-1.76	
VCC1154	-	-	-	-1.24	
VCC1158	-1.66	-0.71	-4.38	-2.18	
VCC1189	-	-2.24	-4.85	-	2,3
VCC1192	-	-	-3.45	-2.24	
VCC1193	-3.47	-	-6.61	-	3
VCC1196	-2.09	-	-4.04	-1.81	
VCC1200	-9.28	-8.78	-4.57	-	
VCC1203	-	-	-3.74	-2.44	
VCC1205	-5.18	-0.81	-6.70	-	3
VCC1217	-6.49	-6.13	-9.65	-	
VCC1226	-	-	-2.84	-1.50	
VCC1231	-	-	-	-1.53	
VCC1242	-1.54	-	-2.97	-1.50	
VCC1253	-	-	-	-	
VCC1254	-	-	-2.98	-1.25	
VCC1283	-	-	-1.58	-1.92	
VCC1290	-4.03	-1.62	-10.36	-	3
VCC1297	-	-	-3.30	-1.74	

Table 8: *Cont.*

Name (1)	EWH$_\delta$ (Å) (2)	EWH$_\gamma$ (Å) (3)	EWH$_\beta$ (Å) (4)	EWH$_\alpha$ (Å) (5)	Notes (6)
VCC1316	-	-	-0.80	-0.46	
VCC1326	-4.23	-1.82	-5.05	-	
VCC1327	-3.40	-3.43	-4.73	-2.36	
VCC1330	-	-	-3.37	-	3
VCC1348	-	-	-1.44	-1.27	
VCC1356	-5.81	-	-	-	
VCC1368	-	-	-4.79	-1.61	
VCC1379	-	-	-8.51	-	3
VCC1393	-5.93	-9.13	-5.24	-	2,3
VCC1401	-1.89	-	-2.75	-	3
VCC1410	-2.43	-	-4.12	-	3
VCC1411	-6.63	-4.72	-	-	
VCC1412	-	-	-3.79	-2.20	
VCC1419	-	-	-1.72	-2.59	4
VCC1426	-	-	-	-	
VCC1448	-	-	-	-	
VCC1450	-	-5.30	-7.50	-	2,3
VCC1486	-	-	-3.52	-	3
VCC1491	-	-	-2.56	-1.14	
VCC1499	-5.80	-3.96	-5.85	-2.73	
VCC1508	-2.74	-	-6.36	-	3
VCC1516	-5.16	-2.77	-4.41	-	3
VCC1524	-	-	-5.46	-	3
VCC1532	-3.22	-1.78	-3.52	-	3
VCC1540	-	-	-3.82	-	3
VCC1552	-	-	-3.03	-1.28	4
VCC1554	-8.07	-4.87	-5.28	-	1,2,3
VCC1569	-7.02	-2.24	-4.38	-	3
VCC1575	-	-	-4.74	-	3
VCC1581	-5.37	-2.39	-5.22	-	3
VCC1588	-3.56	-2.76	-4.33	-	3
VCC1593	-3.61	-2.61	-3.04	-	2,3
VCC1615	-3.35	-	-4.05	-1.89	4
VCC1619	-1.85	-1.22	-3.39	-1.75	4
VCC1630	-1.82	-2.27	-2.93	-2.11	
VCC1632	-	-	-	-1.45	
VCC1673	-2.96	-	-4.39	-	3
VCC1675	-3.36	-1.40	-5.56	-	3
VCC1676	-2.60	-	-4.18	-	3
VCC1678	-10.20	-3.38	-7.39	-	3
VCC1683	-3.71	-2.78	-4.12	-4.36	
VCC1686	-4.41	-8.05	-	-	2
VCC1690	-3.73	-	-6.91	-	
VCC1699	-6.66	-	-	-	1
VCC1725	-	-7.73	-5.82	-	2,3
VCC1726	-	-	-21.70	-	3
VCC1727	-2.73	-1.17	-6.27	-	
VCC1730	-	-	-1.11	-	
VCC1757	-	-	-3.85	-	
VCC1758	-5.31	-0.92	-6.45	-	3
VCC1789	-	-	-9.24	-	3
VCC1791	-6.45	-	-	-	
VCC1811	-3.36	-3.63	-5.22	-	3
VCC1813	-	-	-	-1.25	
VCC1859	-4.17	-3.11	-	-0.92	4
VCC1868	-4.18	-	-4.96	-	3
VCC1869	-	-	-	-1.47	
VCC1903	-	-	-	-1.78	
VCC1918	-	-	-	-	
VCC1929	-2.31	-	-3.52	-	3
VCC1932	-4.63	-3.85	-5.88	-	3
VCC1938	-2.20	-1.72	-2.97	-1.99	
VCC1943	-2.02	-	-2.83	-	3
VCC1970	-	-5.56	-6.28	-4.48	
VCC1972	-3.36	-	-6.33	-	3
VCC1978	-	-	-	-1.22	
VCC1987	-	-	-	-	
VCC1992	-	-	-8.98	-	3
VCC1999	-	-	-	-1.68	
VCC2000	-	-	-	-1.54	
VCC2006	-4.38	-3.57	-5.53	-	
VCC2033	-4.82	-	-5.35	-	1,3
VCC2037	-2.50	-2.79	-4.30	-	2,3
VCC2058	-5.75	-	-4.88	-	3
VCC2066	-3.82	-3.83	-6.14	-2.37	4
VCC2070	-3.48	-1.27	-3.41	-1.15	
VCC2087	-	-	-2.71	-2.01	
VCC2092	-	-	-	-1.51	
VCC2095	-	-	-3.83	-1.34	
Z13046	-	-	-	-	
Z14034	-	-	-8.72	-	3
Z14063	-	-	-5.06	-	3
Z14110	-4.01	-	-	-	
Z43034	-4.11	-	-6.29	-	3
Z43071	-4.74	-0.71	-7.15	-	3
Z43093	-4.96	-	-7.92	-	3
Z69058	-2.02	-	-	-	
Z71060	-5.32	-	-	-	
Z71092	-	-	-	-	
Z97062	-	-	-5.43	-	3
Z97063	-6.76	-1.45	-	-	
Z97064	-2.78	-1.41	-2.22	-1.36	
Z97068	-4.37	-1.41	-8.99	-	3
Z97073	-2.38	-	-	-	
Z97079	-	-	-	-	
Z97087	-2.70	-2.70	-5.24	-	1,2,3
Z97088	-	-	-	-1.45	
Z97091	-3.15	-3.21	-7.15	-	3
Z97093	-3.74	-1.27	-7.20	-	3
Z97097	-	-	-	-1.75	
Z97114	-	-	-	-	
Z97120	-1.62	-2.46	-4.76	-	3
Z97122	-3.82	-4.58	-6.56	-	3
Z97123	-	-	-	-2.03	
Z97125	-	-	-7.93	-	3
Z97129	-	-	-	-	
Z97138	-	-	-	-	
Z100004	-1.28	-1.03	-4.01	-	3
Z100011	-	-	-	-0.67	4
Z119016	-	-	-3.80	-	3
Z119024	-	-	-	-1.70	
Z119027	-	-	-	-	
Z119028	-	-	-	-	
Z119029	-3.41	-	-4.52	-	3
Z119031	-	-	-	-1.43	
Z119034	-	-	-5.76	-	3
Z119035	-7.03	-	-3.91	-	3
Z119040	-2.75	-1.48	-4.38	-	
Z119041	-3.48	-1.31	-5.45	-	3
Z119043	-3.76	-	-5.38	-	3
Z119044	-13.10	-13.93	-	-	
Z119046	-2.31	-	-4.21	-	3
Z119047	-3.92	-1.13	-5.64	-	3
Z119048	-	-	-	-1.20	
Z119050	-	-	-3.11	-	
Z119051	-	-	-5.45	-	3
Z119053	-	-	-6.09	-	3
Z119054	-2.86	-	-4.50	-	3
Z119056	-7.03	-	-6.61	-	3
Z119057	-	-	-	-	
Z119059	-	-	-7.19	-	3
Z119061	-0.82	-1.84	-2.65	-1.42	4
Z119063	-	-	-	-0.99	
Z119065	-1.00	-0.68	-1.93	-2.23	
Z119066	-3.80	-4.53	-4.50	-	3
Z119067	-2.79	-0.66	-3.06	-2.02	
Z119068	-3.09	-	-5.16	-	3
Z119071	-	-	-	-	
Z119074	-	-	-	-1.20	
Z119078	-	-	-	-1.31	
Z119081	-	-	-	-1.24	
Z119082	-	-	-1.80	-1.61	

Table 8: *Cont.*

Name (1)	EWH$_\delta$ (Å) (2)	EWH$_\gamma$ (Å) (3)	EWH$_\beta$ (Å) (4)	EWH$_\alpha$ (Å) (5)	Notes (6)	Name (1)	EWH$_\delta$ (Å) (2)	EWH$_\gamma$ (Å) (3)	EWH$_\beta$ (Å) (4)	EWH$_\alpha$ (Å) (5)	Notes (6)
Z119083	-2.32	-1.61	-4.70	-		Z160213	-3.32	-8.04	-6.28	-	2,3
Z119085	-	-	-	-		Z160215	-	-	-	-1.68	
Z119091	-	-	-	-		Z160219	-	-	-3.92	-1.66	
Z119109	-	-	-	-		Z160241	-	-	-3.66	-1.73	
Z127049	-	-	-8.75	-	3	Z160252	-	-3.58	-5.90	-	2,3
Z160020	-	-	-7.50	-	3	Z160258	-	-	-1.85	-1.36	
Z160026	-4.38	-	-6.88	-	3	Z160260	-	-	-3.52	-	3
Z160055	-	-	-4.63	-	3	Z522038	-2.42	-	-4.52	-	3
Z160058	-4.86	-	-5.74	-	3	Z522041	-	-	-4.08	-	3
Z160064	-	-	-3.16	-	3	Z522058	-4.08	-2.77	-4.05	-	2,3
Z160067	-4.54	-4.28	-5.90	-	1,2,3	Z522060	-3.98	-3.53	-3.75	-	3
Z160076	-12.17	-	-4.05	-	1,3	Z522062	-4.23	-6.98	-5.44	-	3
Z160086	-7.84	-5.87	-10.30	-	2,3	Z522065	-2.64	-1.02	-5.20	-	
Z160088	-	-	-3.03	-	3	Z522072	-4.27	-	-8.04	-	3
Z160095	-	-	-	-1.01	4	Z522079	-4.08	-	-4.24	-	3
Z160097	-	-	-	-		CCC45	-	-	-2.23	-1.88	
Z160103	-	-	-	-1.36		CCC94	-	-	-2.54	-2.67	
Z160106	-3.58	-3.90	-4.59	-	3	CCC95	-	-	-3.37	-1.22	
Z160108	-4.22	-	-5.22	-	3	CCC96	-	-	-2.60	-1.36	
Z160110	-	-	-	-1.68		CCC119	-	-	-3.15	-1.90	
Z160127	-	-	-5.86	-	3	CCC122	-	-	-3.43	-1.53	
Z160128	-3.07	-	-6.31	-	3	CCC222	-4.78	-	-4.56	-	3
Z160139	-	-5.26	-4.89	-	2,3	CCC226	-	-	-3.97	-1.80	
Z160212	-2.88	-3.72	-	-							

Notes:
1:H$_\delta$; 2:H$_\gamma$; 3:H$_\beta$; 4:H$_\alpha$ absorption lines measured at the position of the corresponding emission lines (see Sect. 3.4).

Table 9: Absorption indices

Name	Δ_{4000}	EWG_{4300}	EWH$_\beta$	Mg_2	EW NaD	Name	Δ_{4000}	EWG_{4300}	EWH$_\beta$	Mg_2	EW NaD
	mag	Å	Å	mag	Å		mag	Å	Å	mag	Å
(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)	(6)
VCC49	0.55	5.34	1.82	0.22	2.90	VCC1348	0.75	1.52	2.24	0.21	1.99
VCC220	0.60	6.94	1.82	0.27	2.66	VCC1368	0.50	5.02	2.60	0.18	1.39
VCC345	0.50	4.98	1.70	0.31	5.06	VCC1491	0.64	2.62	2.21	0.14	2.54
VCC355	0.61	5.66	1.42	0.28	2.55	VCC1499	0.25	1.21	4.99	0.07	0.62
VCC369	0.70	5.22	1.94	0.29	3.35	VCC1619	0.55	4.67	1.90	0.20	3.17
VCC523	0.18	3.52	2.62	0.14	0.52	VCC1630	0.59	5.13	2.00	0.25	2.98
VCC538	0.37	4.01	2.65	0.11	3.40	VCC1632	0.36	5.68	1.70	0.28	4.77
VCC634	0.27	-	1.27	0.08	-	VCC1683	0.16	3.66	3.44	0.06	0.82
VCC636	0.29	2.21	1.41	0.17	0.99	VCC1869	0.42	5.43	1.86	0.25	3.55
VCC685	0.58	5.17	1.65	0.30	4.40	VCC1903	0.39	4.64	1.91	0.28	5.00
VCC731	0.58	5.78	1.68	0.31	3.89	VCC1938	0.59	5.23	2.23	0.28	4.88
VCC758	0.55	4.41	3.44	0.19	3.27	VCC1978	0.49	5.55	1.54	0.33	5.75
VCC759	0.39	5.04	1.67	0.25	3.41	VCC2000	0.42	5.31	1.72	0.25	3.02
VCC762	0.48	4.76	1.25	0.18	0.41	VCC2087	0.59	5.23	3.14	0.19	-
VCC781	0.28	5.45	3.17	0.09	3.98	VCC2092	0.48	5.63	2.02	0.26	3.65
VCC794	0.34	0.24	2.47	0.16	2.26	VCC2095	0.60	5.55	1.65	0.27	3.40
VCC798	0.59	4.12	2.37	0.22	3.43	Z14034	0.15	2.69	-	0.09	1.92
VCC828	0.56	5.74	1.82	0.24	3.28	Z69058	0.27	4.20	2.73	0.14	2.46
VCC951	0.37	3.28	2.45	0.10	1.79	Z97088	0.60	0.90	2.45	0.16	2.87
VCC1003	0.59	5.28	1.39	0.27	3.51	Z97097	0.75	5.51	2.24	0.24	2.81
VCC1010	0.58	4.61	2.12	0.16	1.85	Z97123	0.22	0.68	-	0.08	1.77
VCC1028	0.12	-	2.34	0.02	0.38	Z97125	0.22	1.64	-	0.15	3.26
VCC1030	0.51	4.93	1.90	0.24	3.38	Z100011	0.55	4.21	2.34	0.17	3.23
VCC1036	0.45	5.23	2.93	0.16	1.05	Z119024	0.65	5.25	2.11	0.25	3.04
VCC1062	1.11	5.47	1.96	0.31	5.06	Z119031	0.76	6.97	0.76	0.29	4.60
VCC1068	0.65	6.83	2.80	0.28	5.72	Z119048	0.59	6.41	1.53	0.30	5.07
VCC1073	0.54	3.18	1.76	0.19	2.38	Z119053	0.26	0.27	-	0.07	1.97
VCC1107	0.32	4.97	4.99	0.14	2.38	Z119063	0.56	8.05	2.11	0.28	4.93
VCC1125	0.54	6.43	1.97	0.21	2.57	Z119065	0.64	5.18	1.59	0.32	5.65
VCC1146	0.64	5.21	2.28	0.19	2.36	Z119067	0.68	4.93	1.97	0.20	2.95
VCC1154	0.44	4.88	2.09	0.24	2.39	Z119074	0.83	6.91	1.92	0.26	3.58
VCC1192	0.52	5.49	2.73	0.28	2.98	Z119081	0.73	4.76	2.44	0.22	3.10
VCC1196	0.51	3.49	2.91	0.14	1.18	Z160097	0.53	4.64	2.21	0.23	2.30
VCC1203	0.74	8.25	1.83	0.17	3.41	Z160103	0.68	5.80	2.03	0.29	4.56
VCC1226	0.58	4.32	1.35	0.26	3.25	Z160110	0.40	3.72	2.54	0.19	2.96
VCC1231	0.68	4.39	2.08	0.29	3.88	Z160215	0.65	5.46	1.47	0.29	4.55
VCC1242	0.40	5.34	2.07	0.20	3.01	Z160219	0.55	4.88	1.61	0.25	4.30
VCC1253	0.54	5.94	1.68	0.26	2.91	Z160241	0.64	5.28	1.48	0.29	3.82
VCC1254	0.68	1.66	3.98	0.17	0.38	Z160258	0.67	5.29	2.29	0.27	2.93
VCC1283	0.51	4.23	1.94	0.20	3.46	CCC45	0.54	4.90	1.90	0.23	2.96
VCC1297	0.62	6.23	1.43	0.30	3.54	CCC94	0.38	4.65	1.79	0.15	2.16
VCC1316	0.58	4.89	0.56	0.31	4.92	CCC96	0.55	5.56	1.84	0.22	2.17
VCC1327	0.33	2.34	2.89	0.11	2.39	CCC119	0.57	6.16	1.76	0.26	3.21

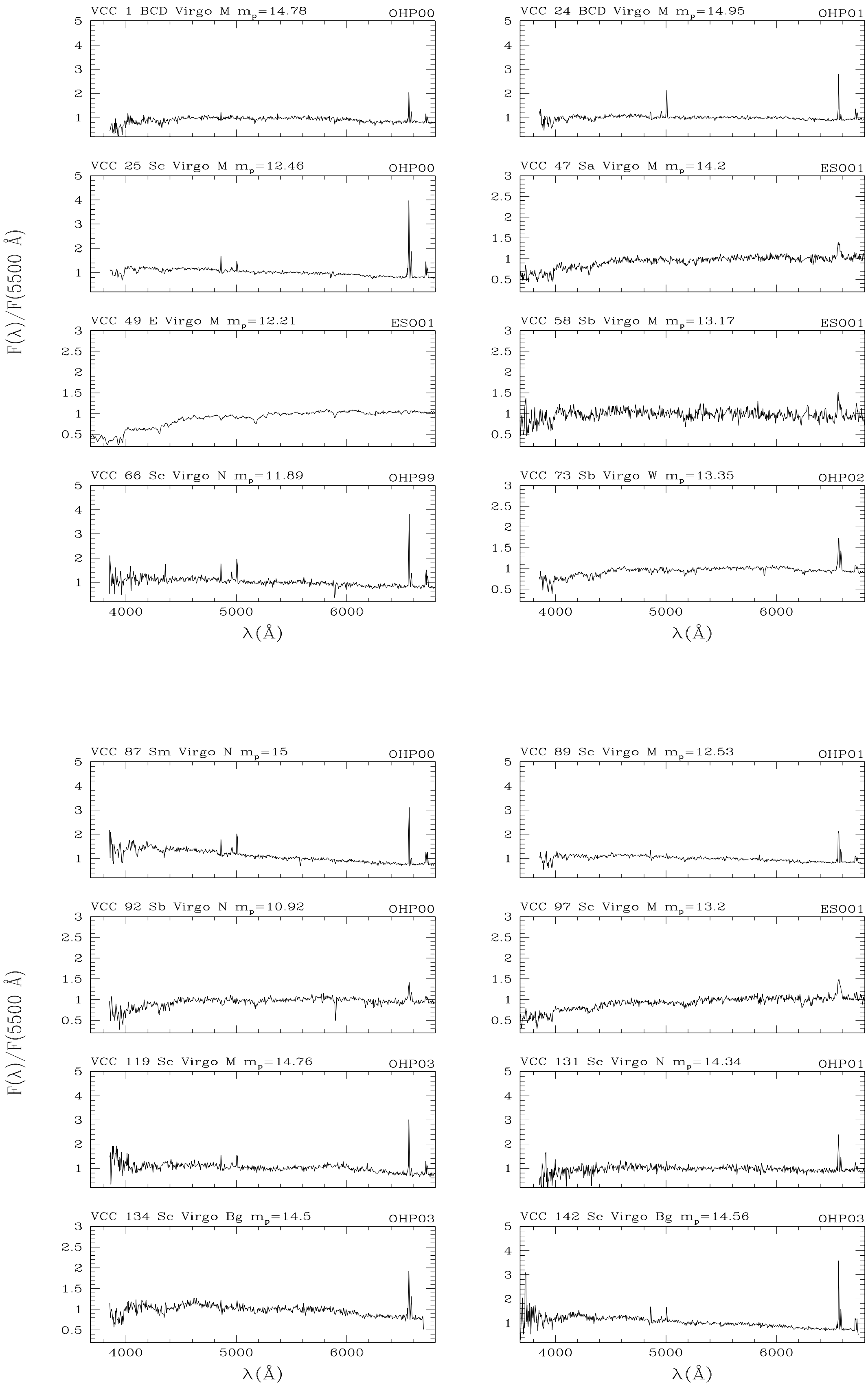
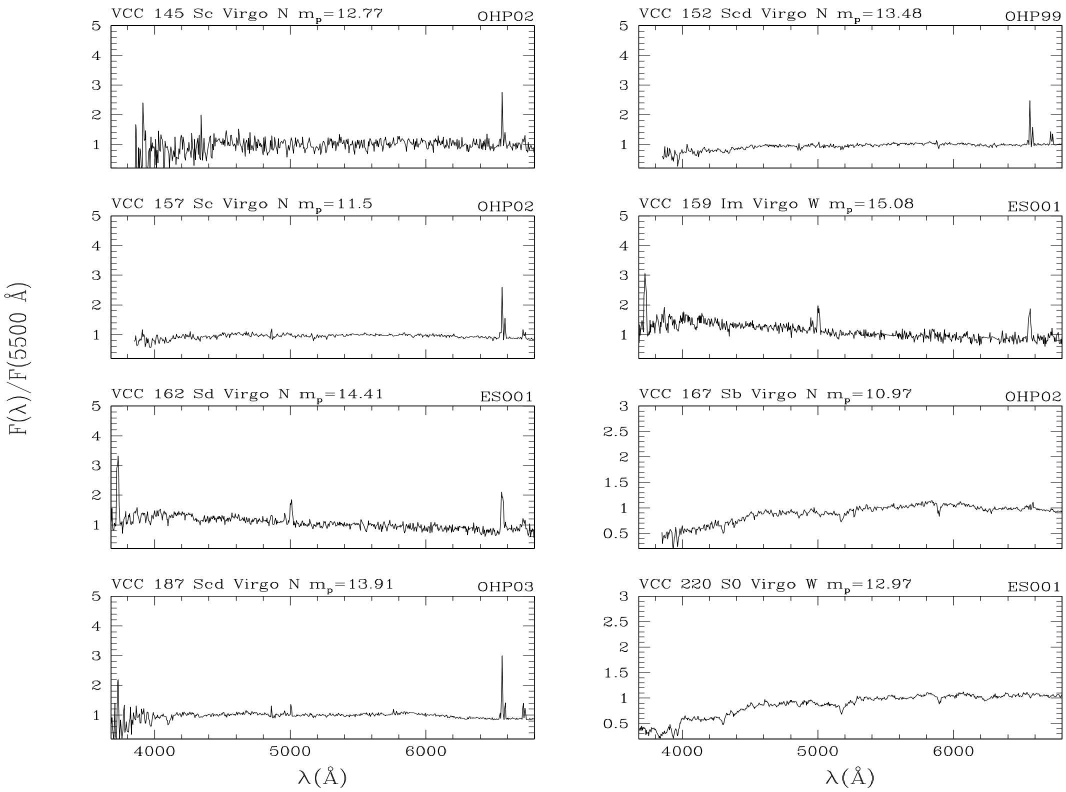


Fig. 19. The observed spectra. The galaxy identification, morphological type, membership, photographic magnitude and observing run are labeled on each panel.



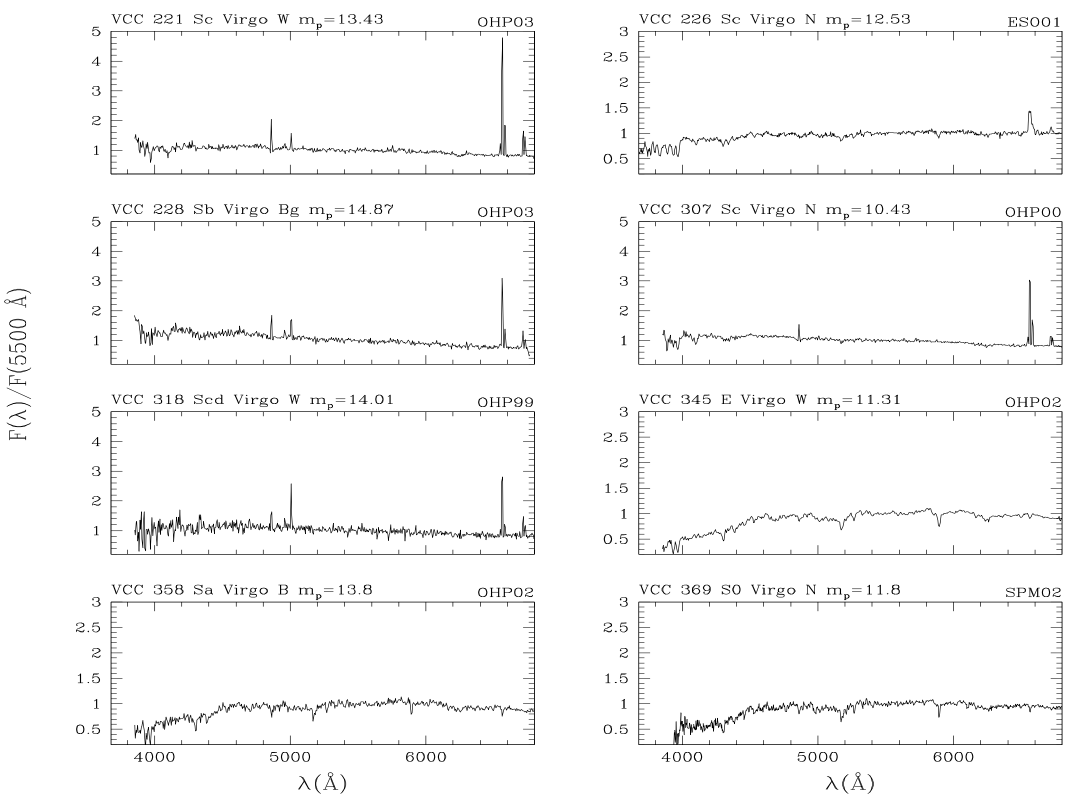
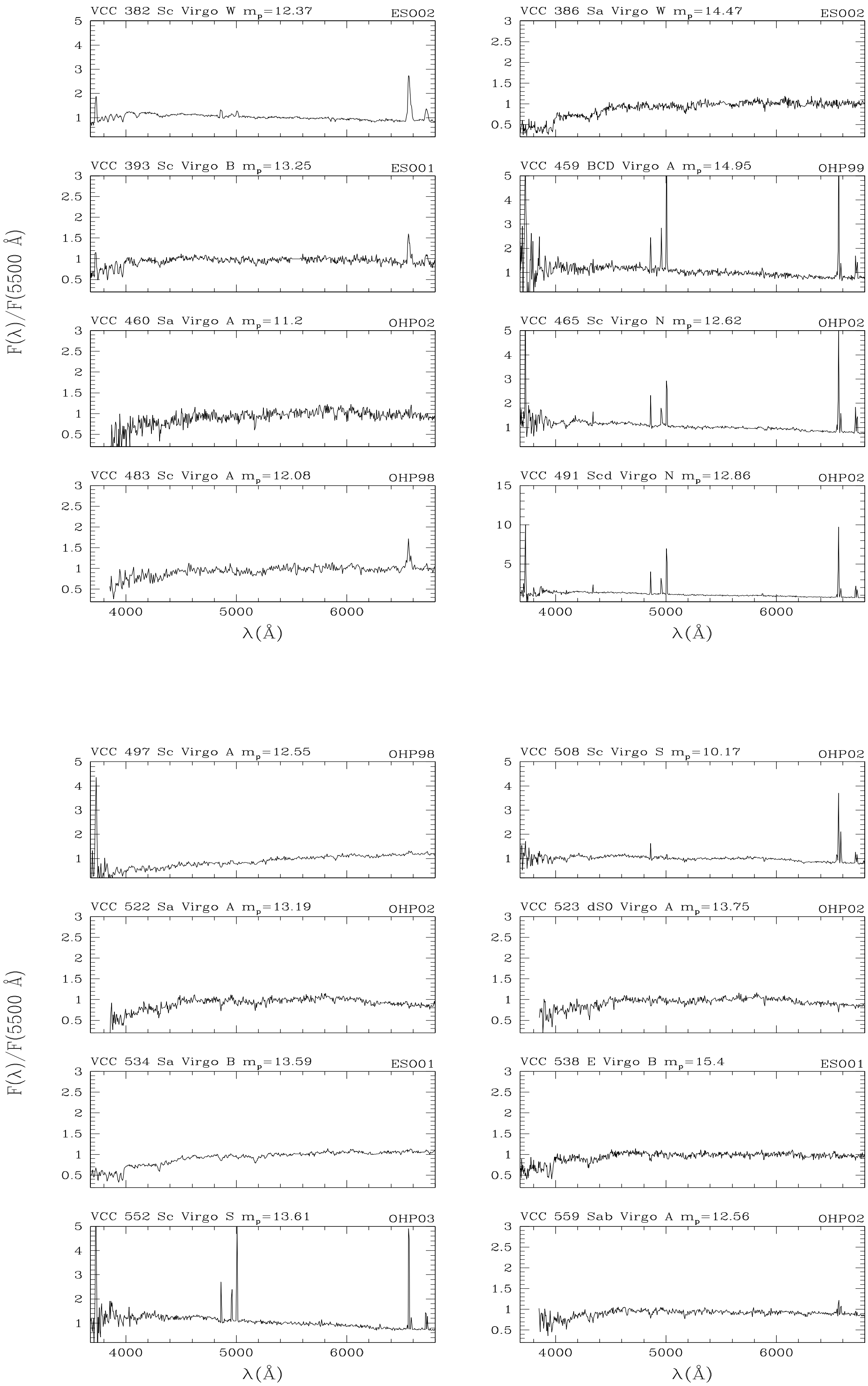


Fig. 19. continue



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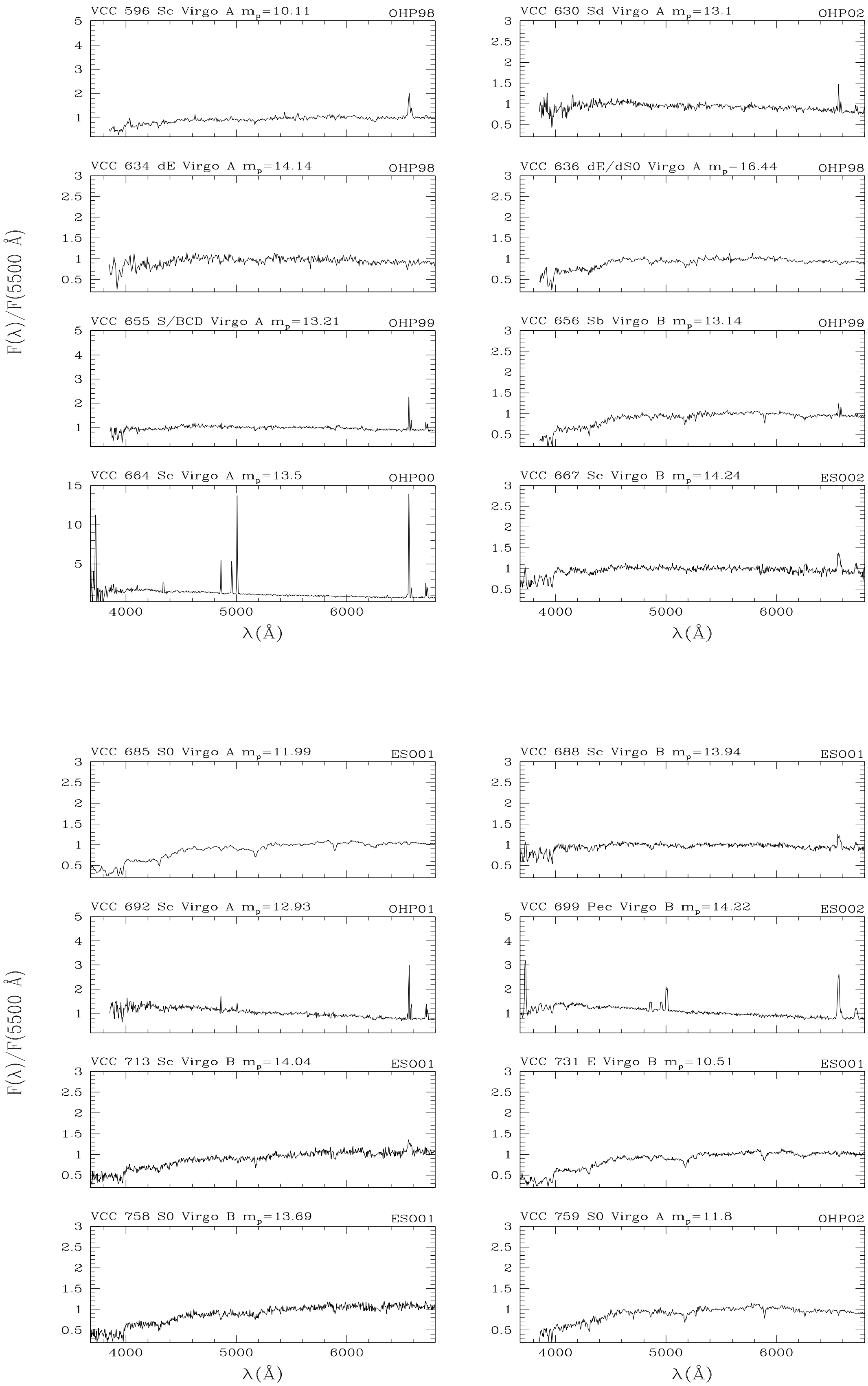

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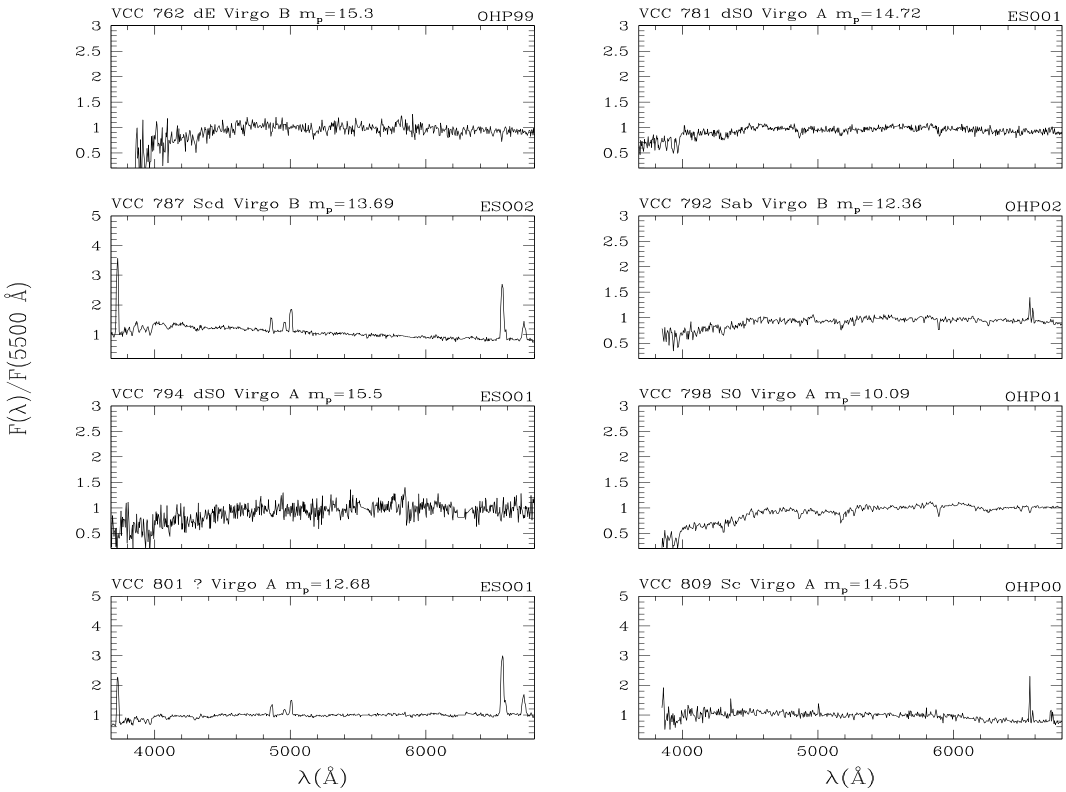

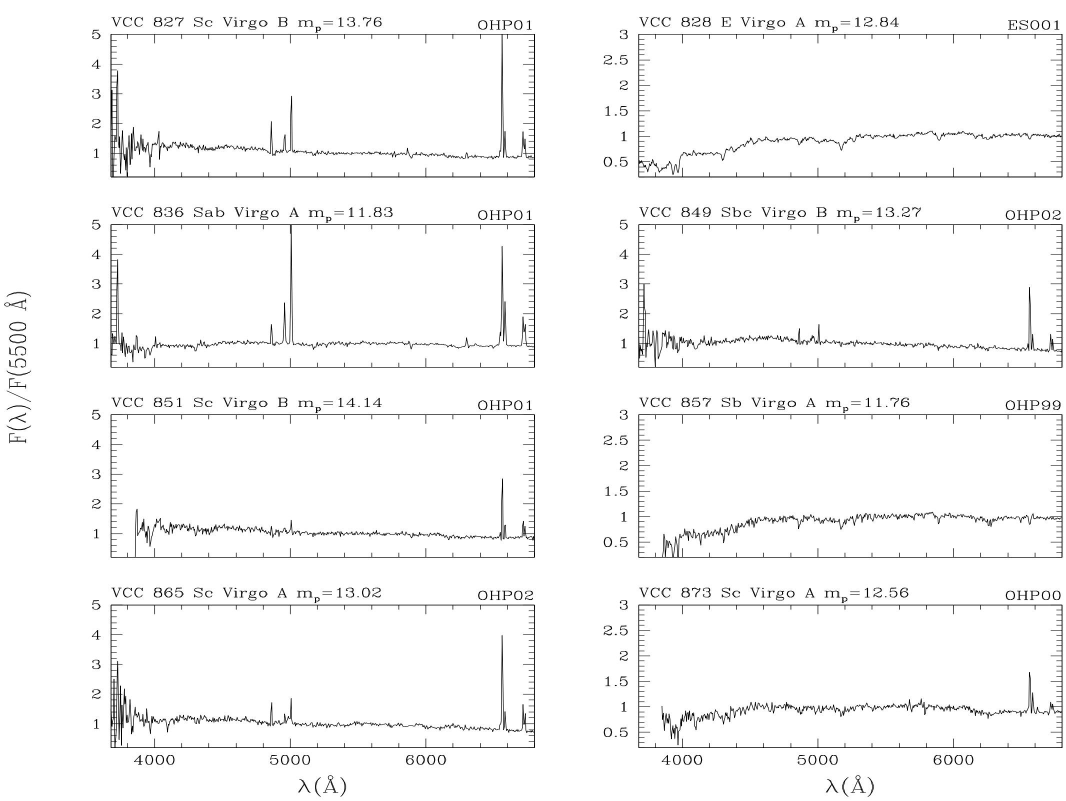

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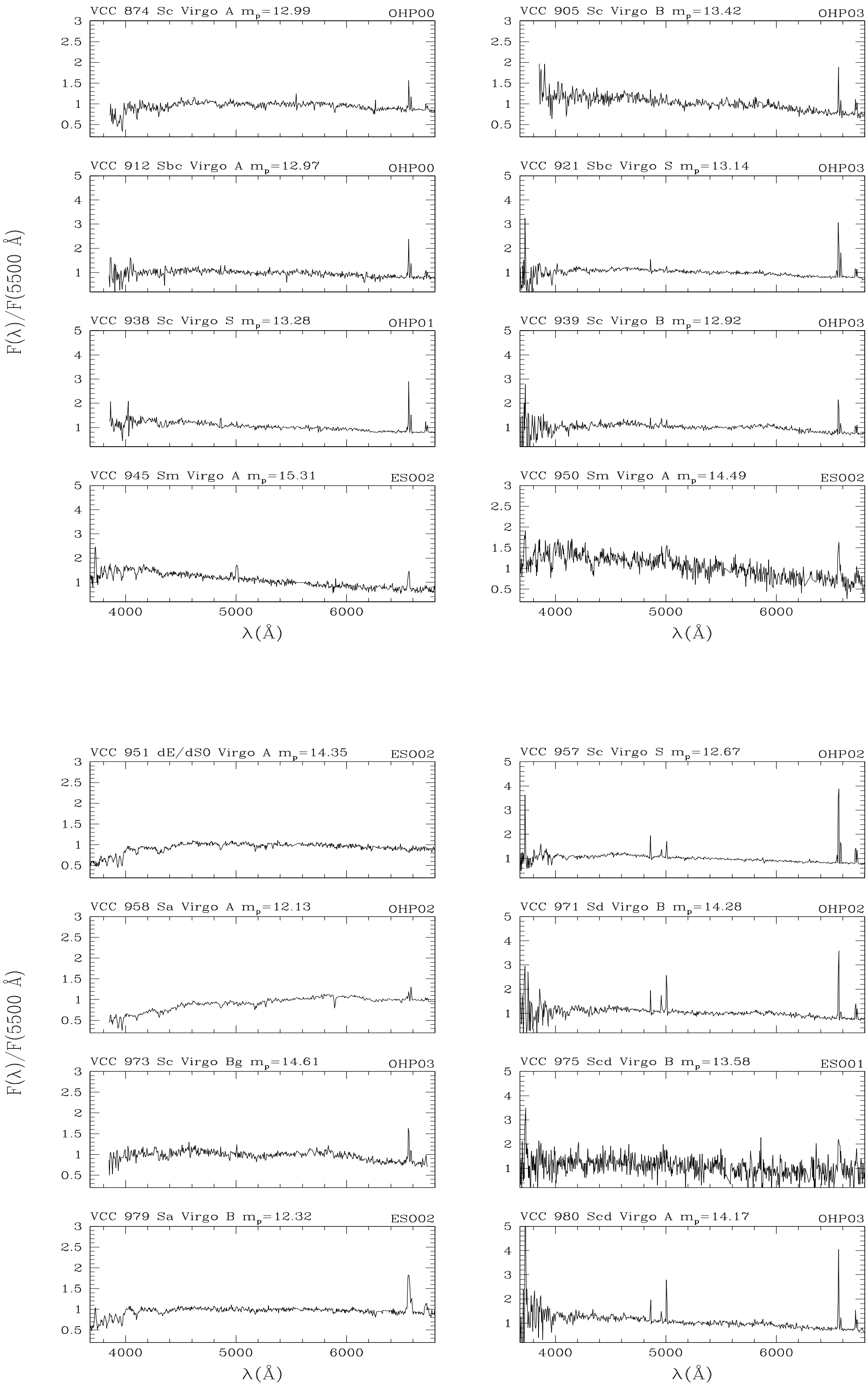

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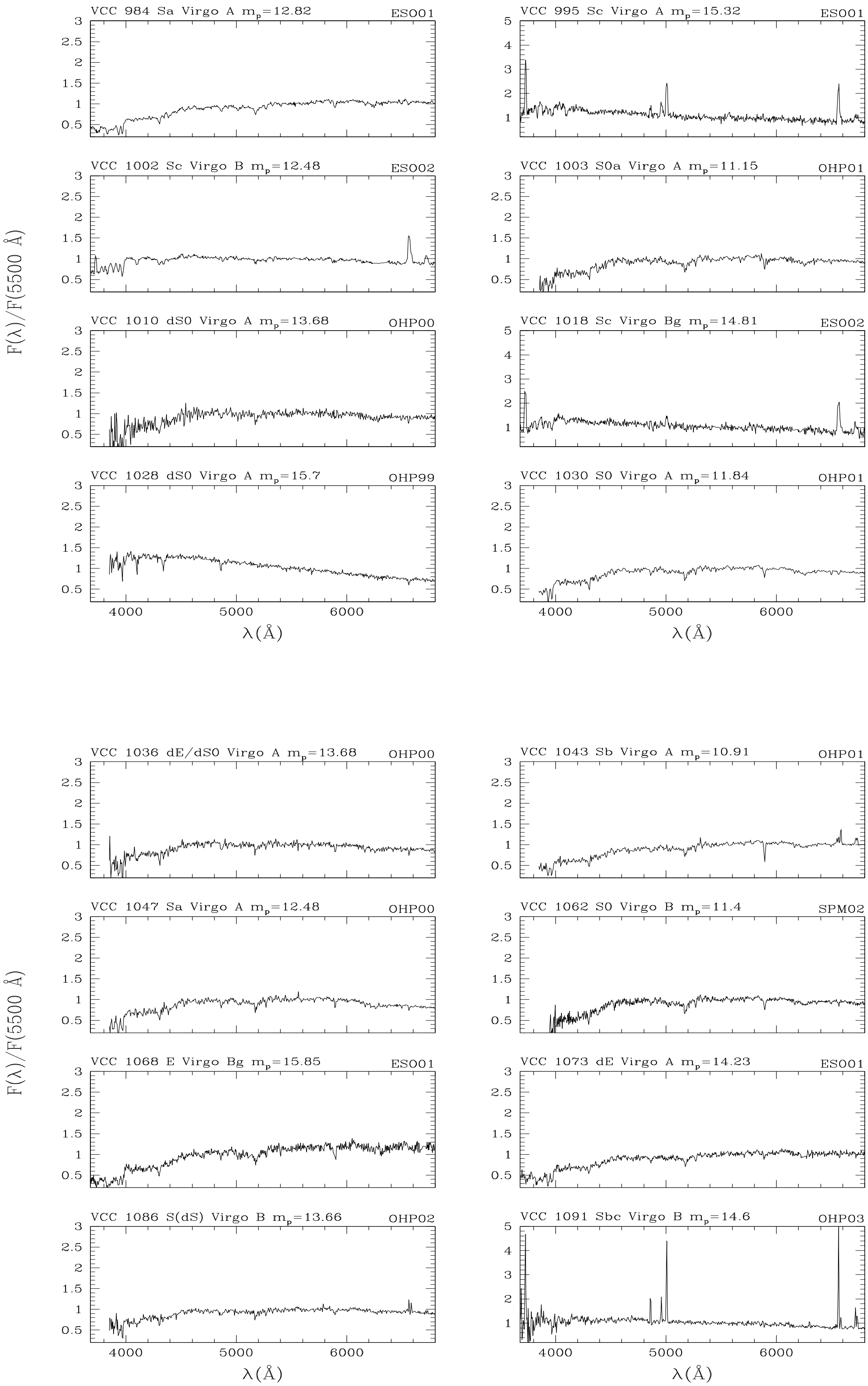

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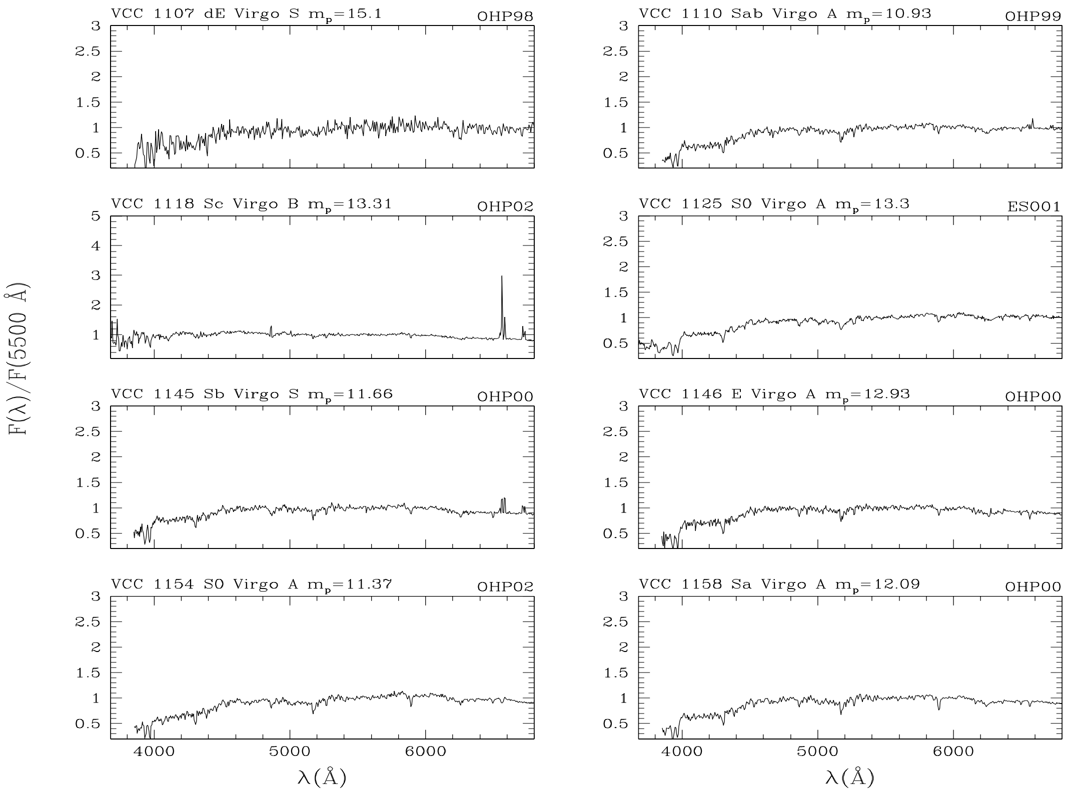

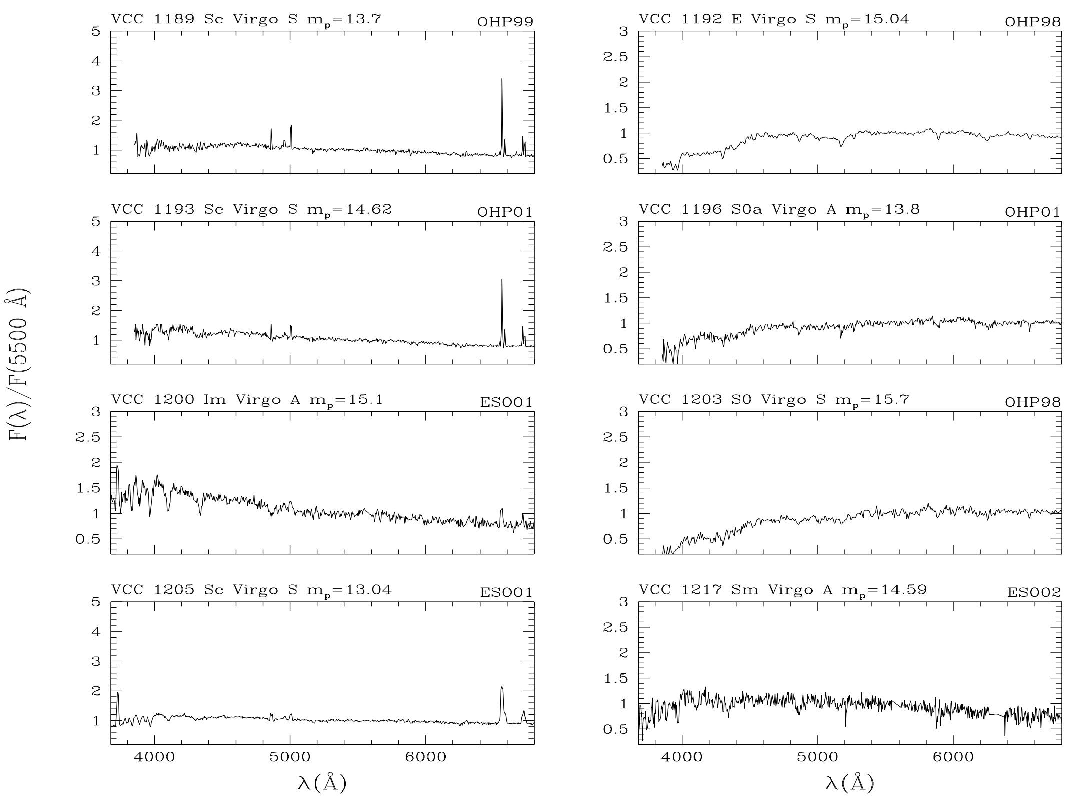

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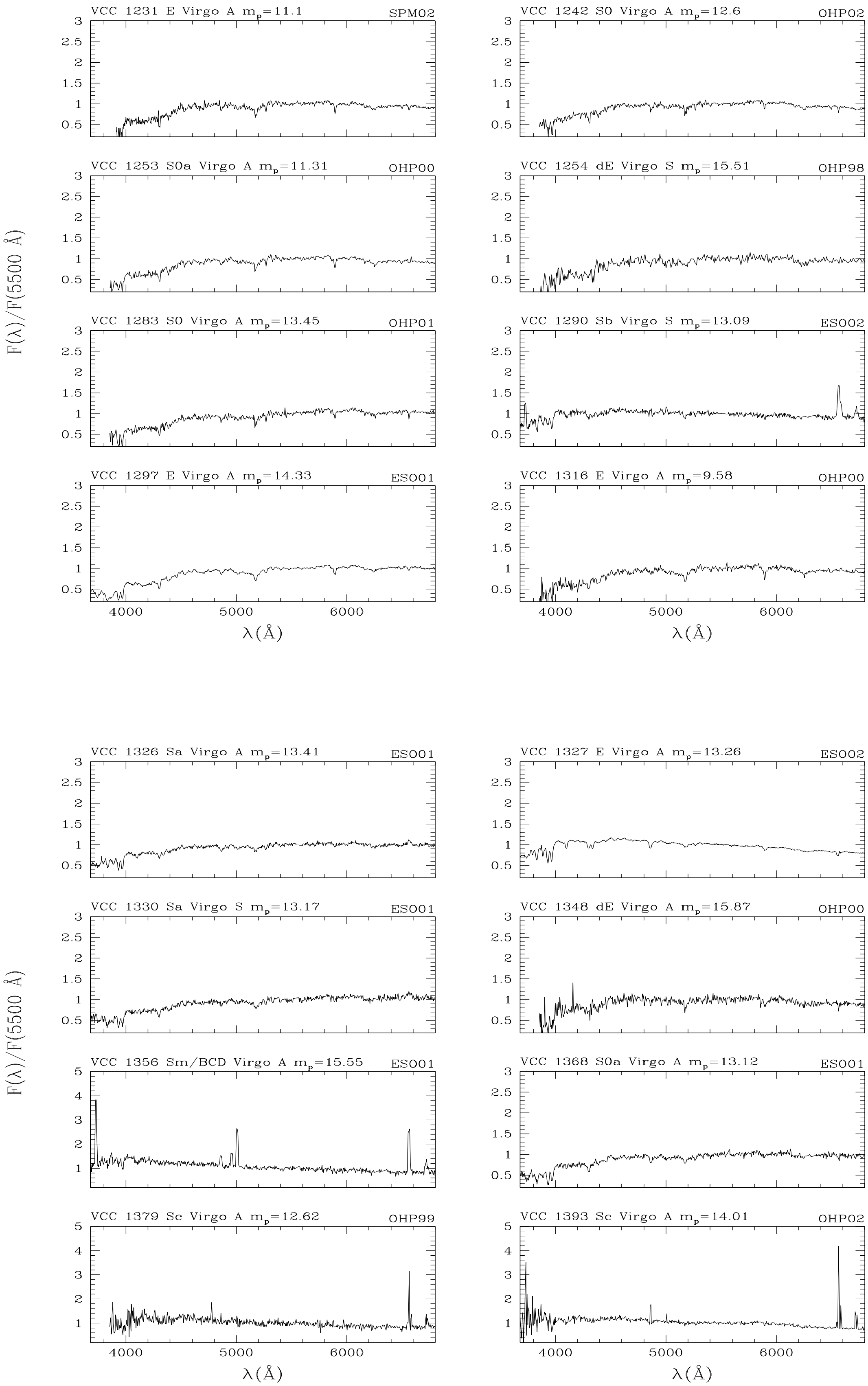

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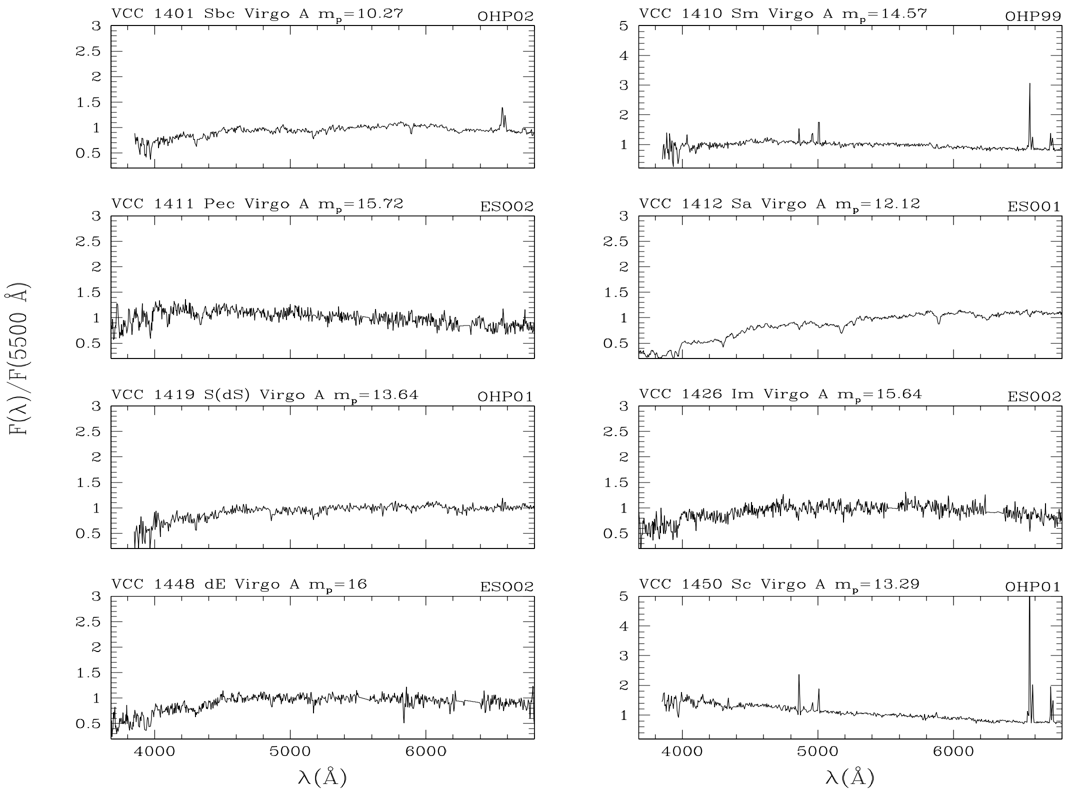


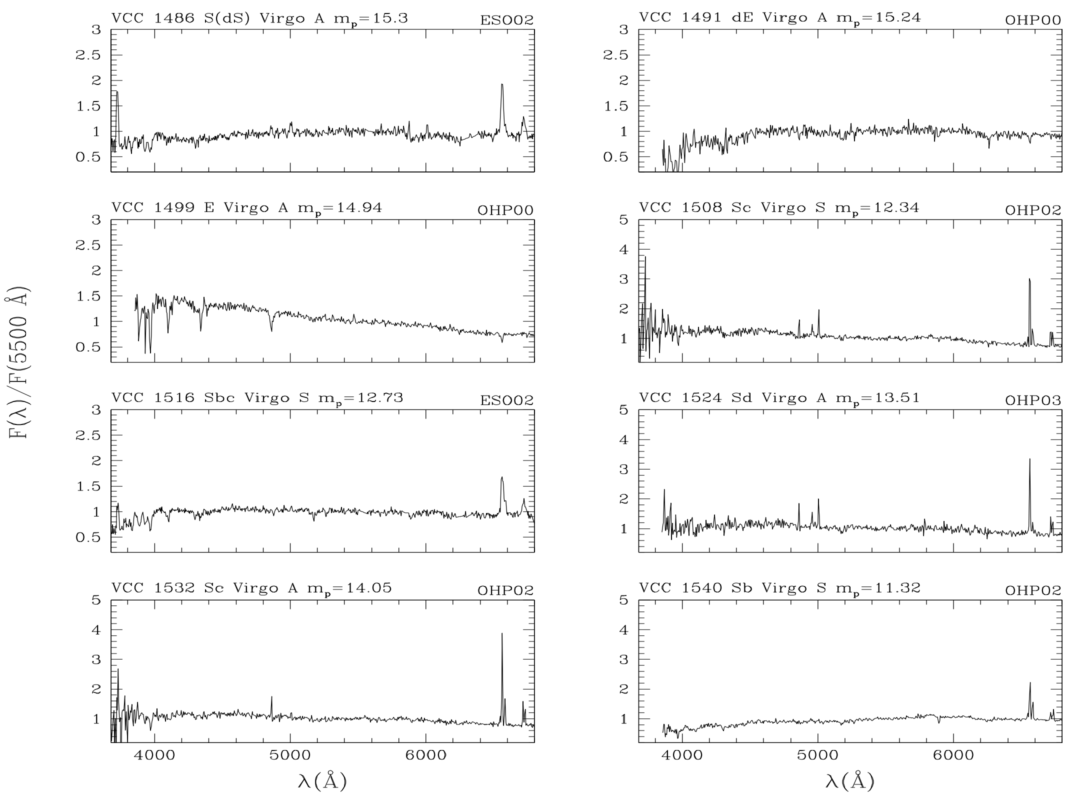
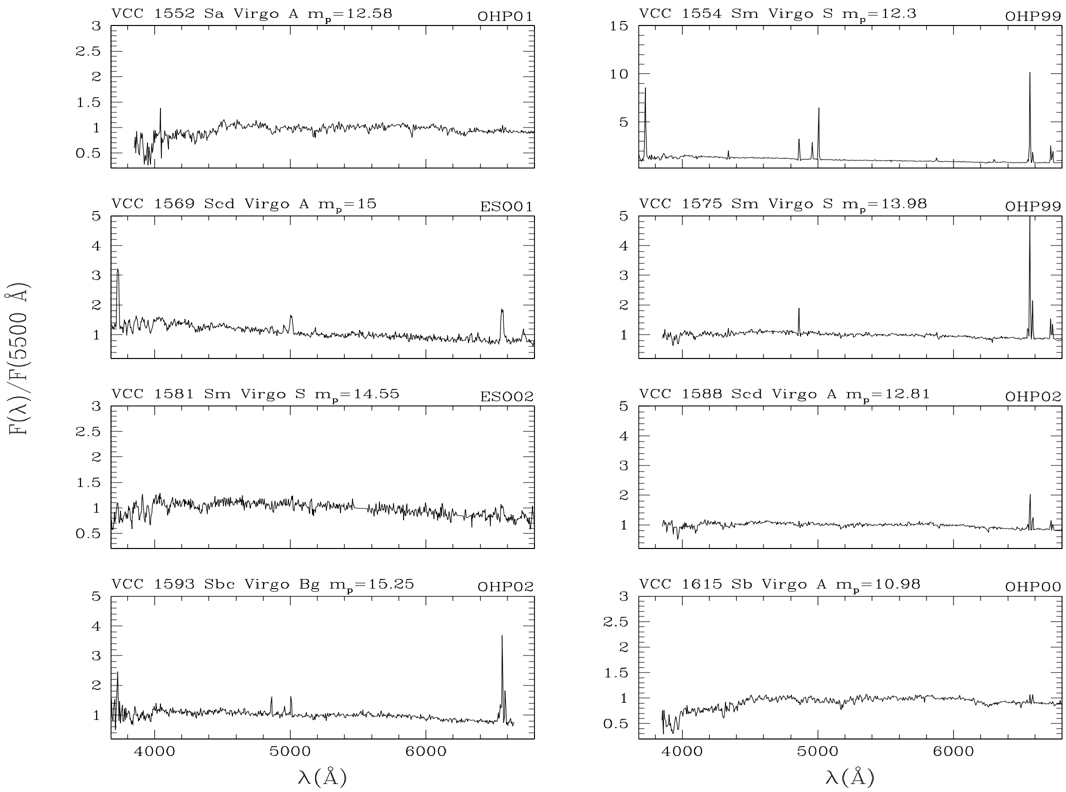
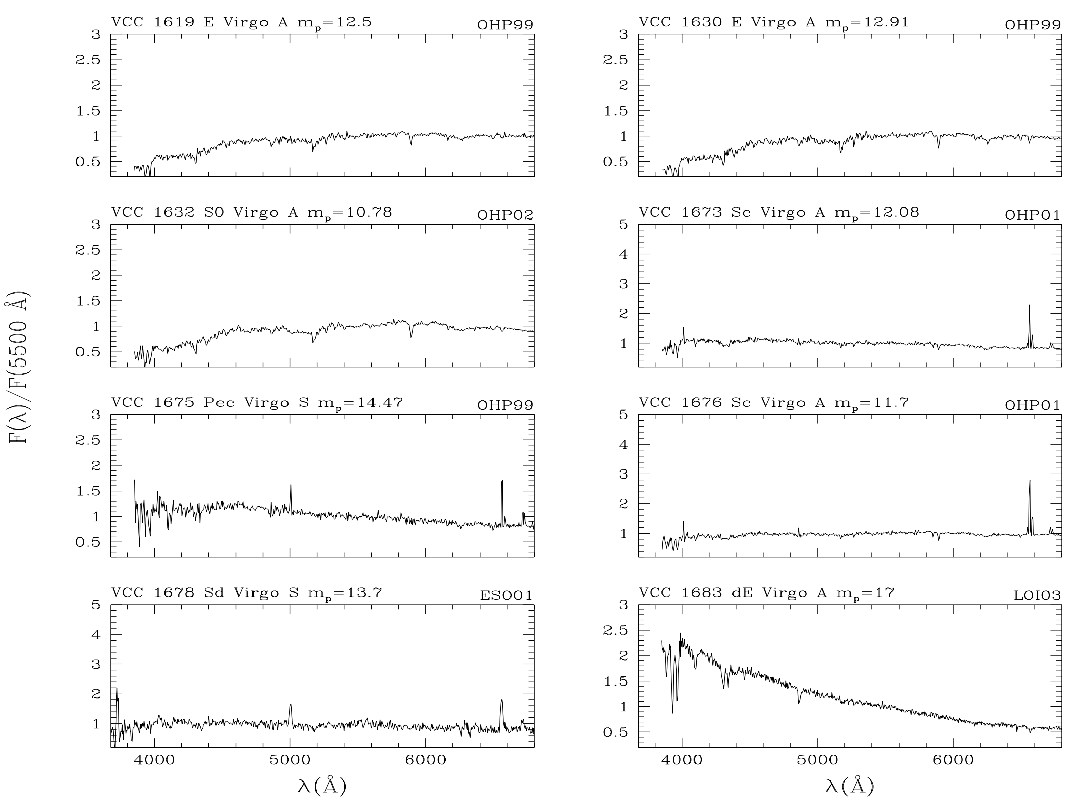


Fig. 19. continue





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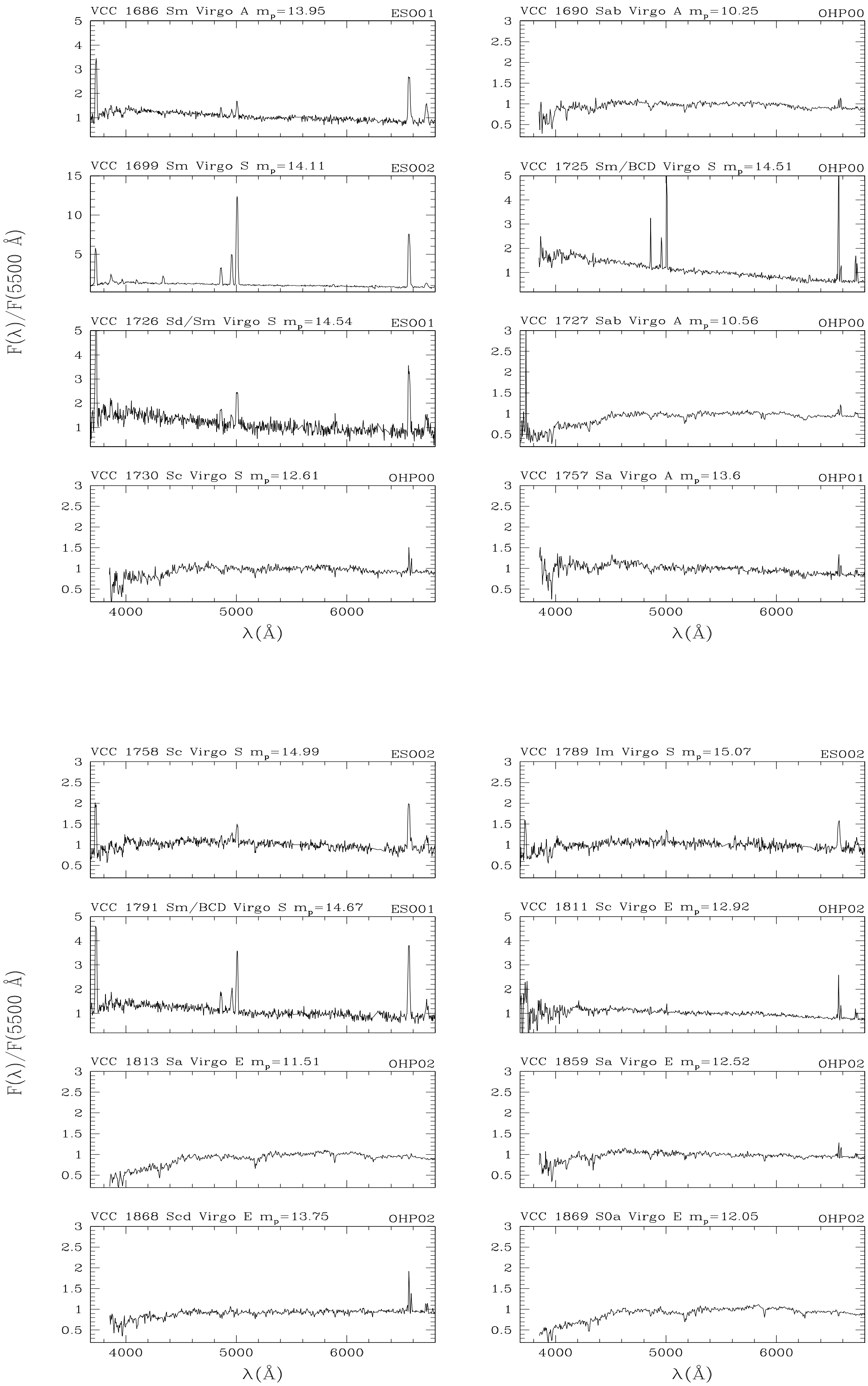

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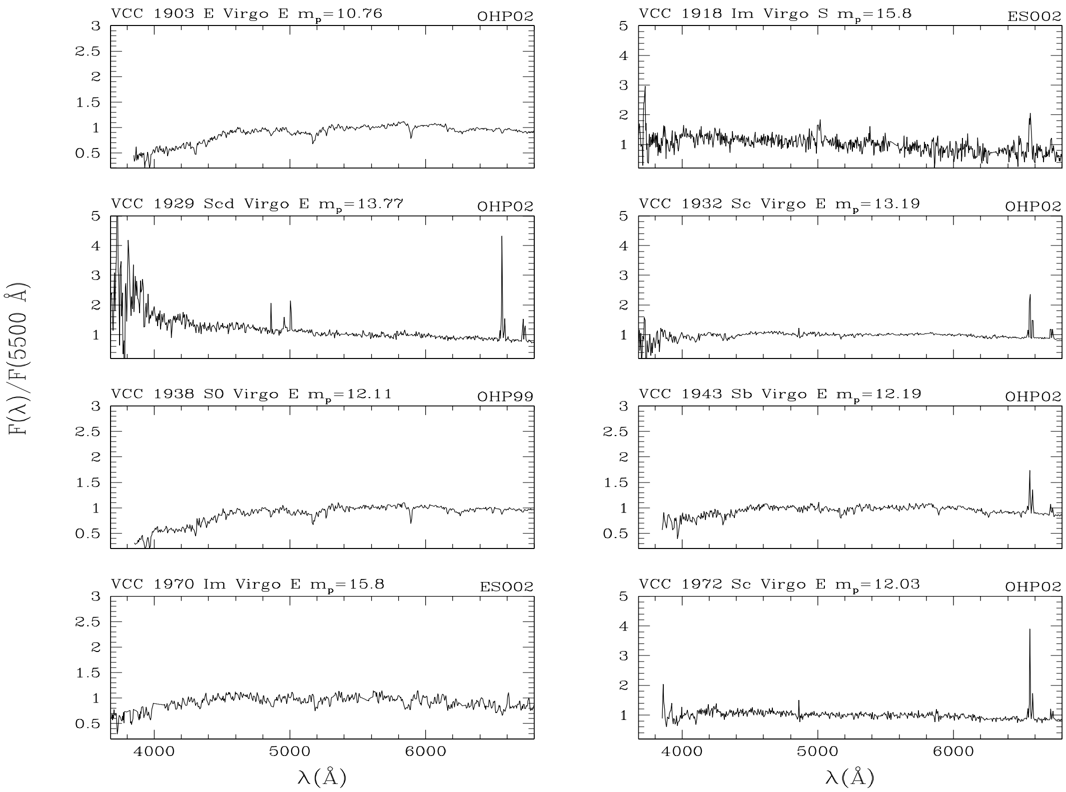


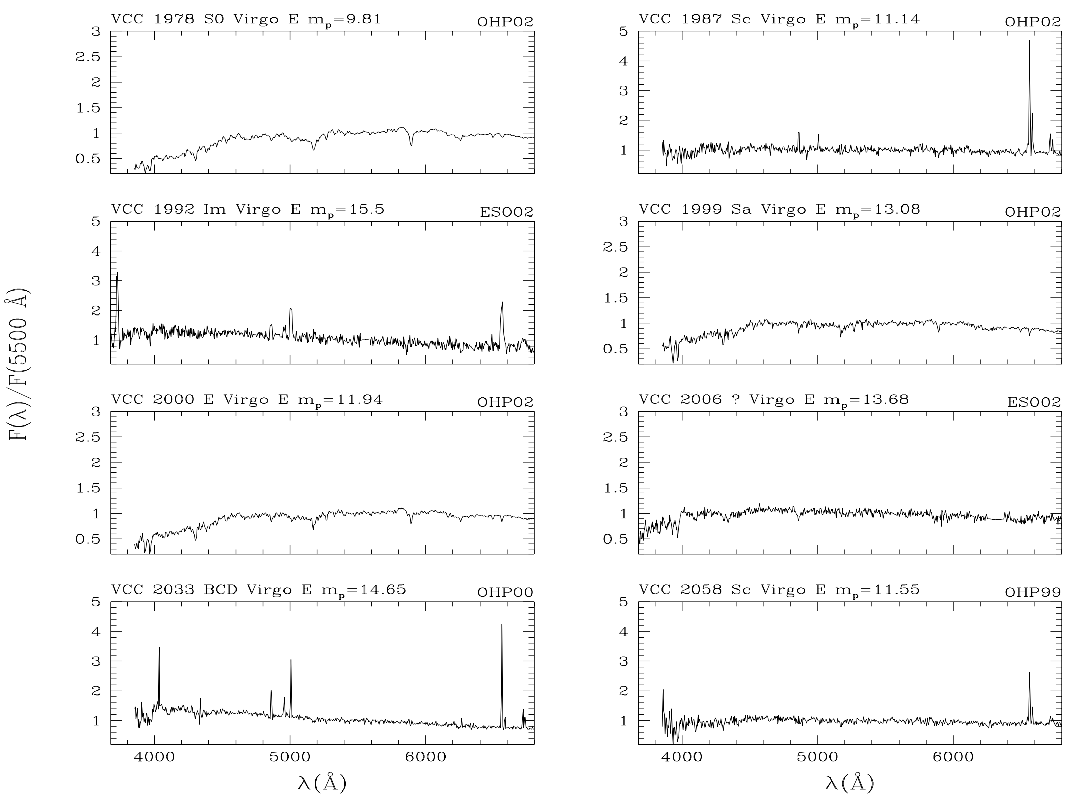
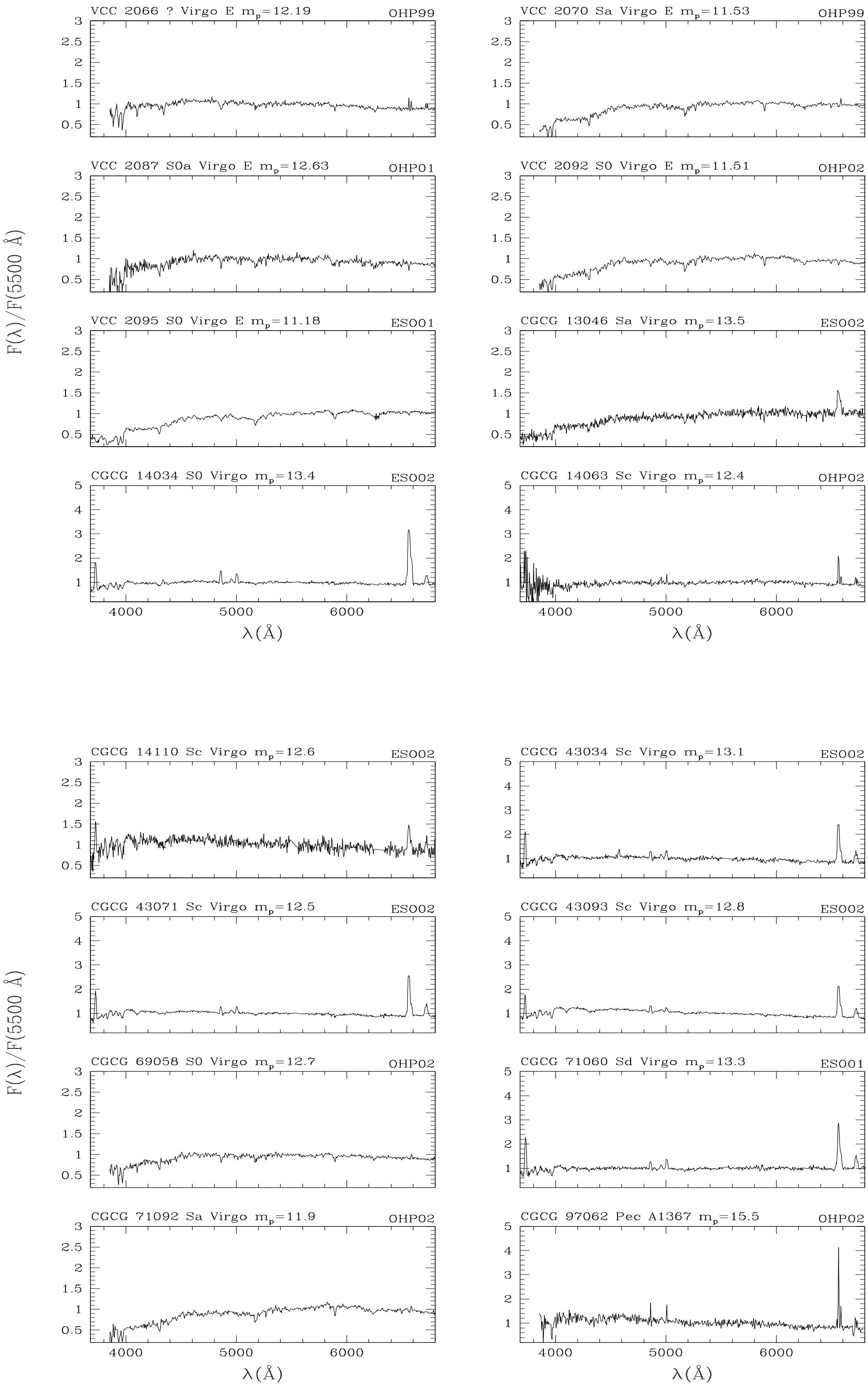


Fig. 19. continue



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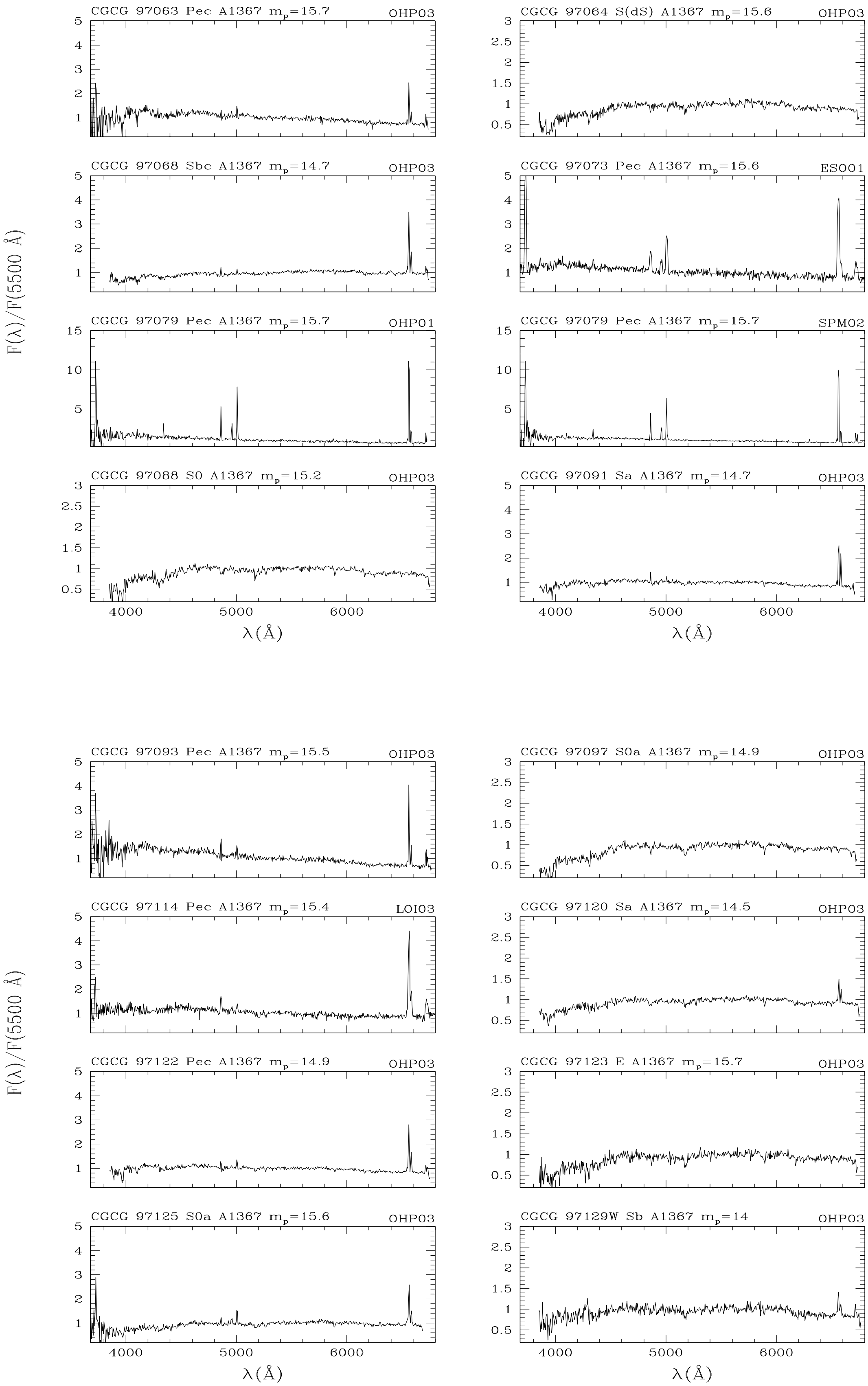
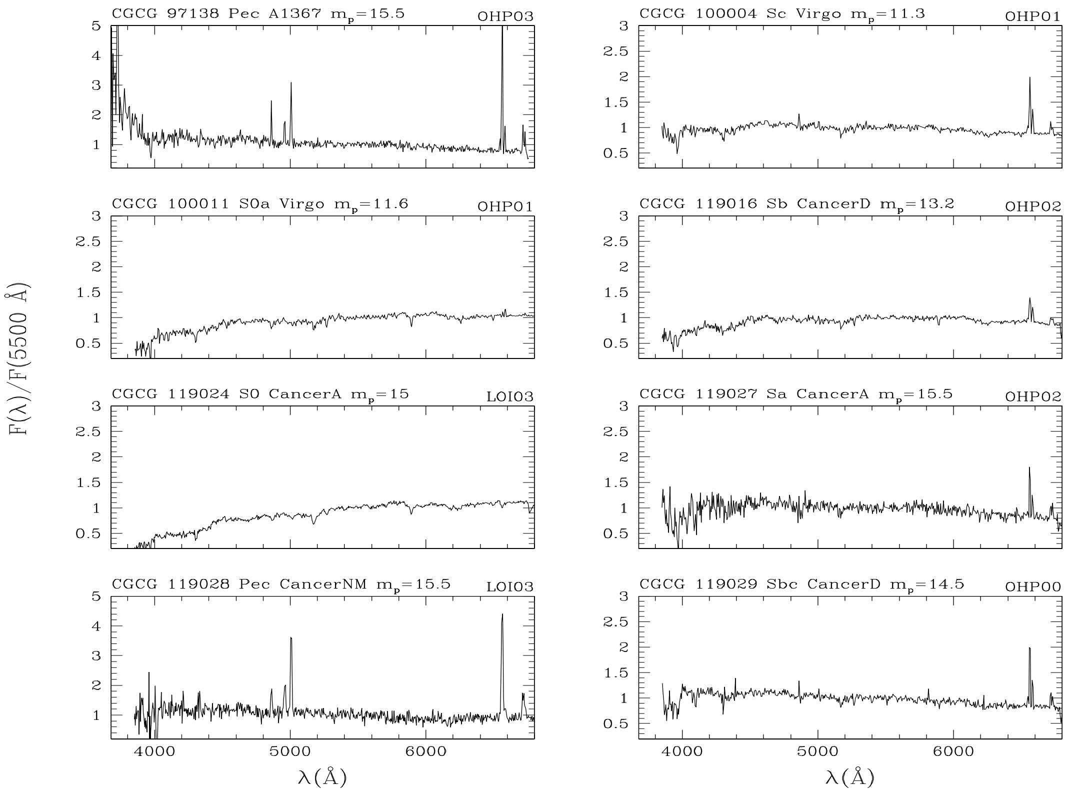
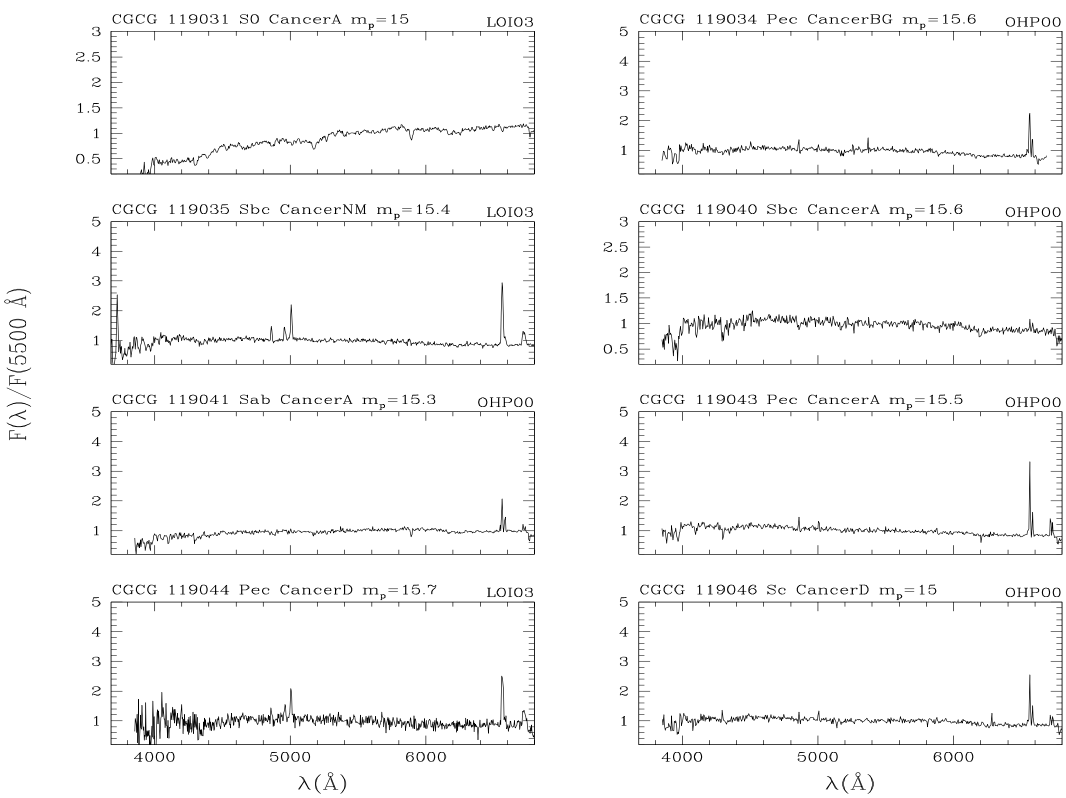


Fig. 19. continue





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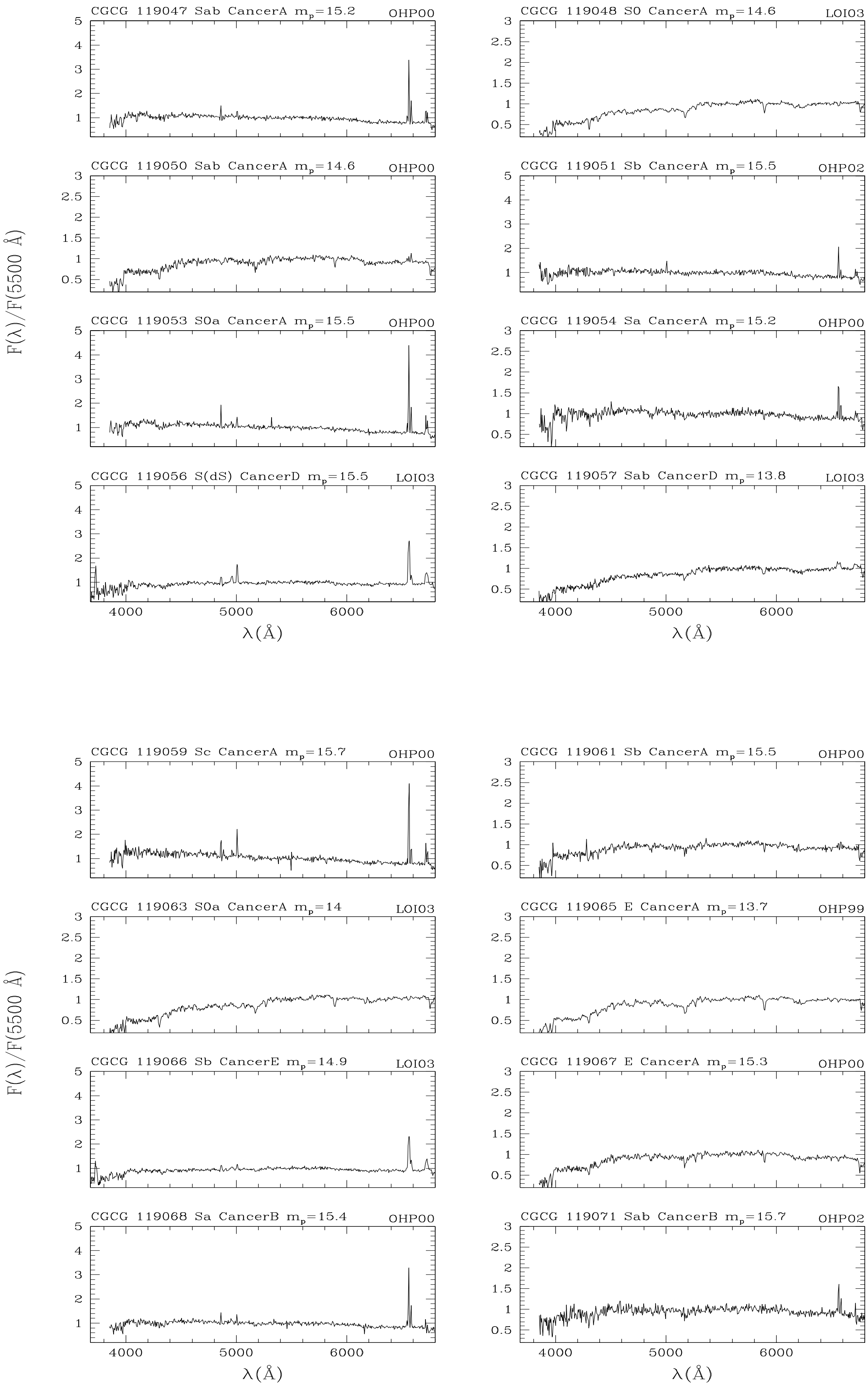

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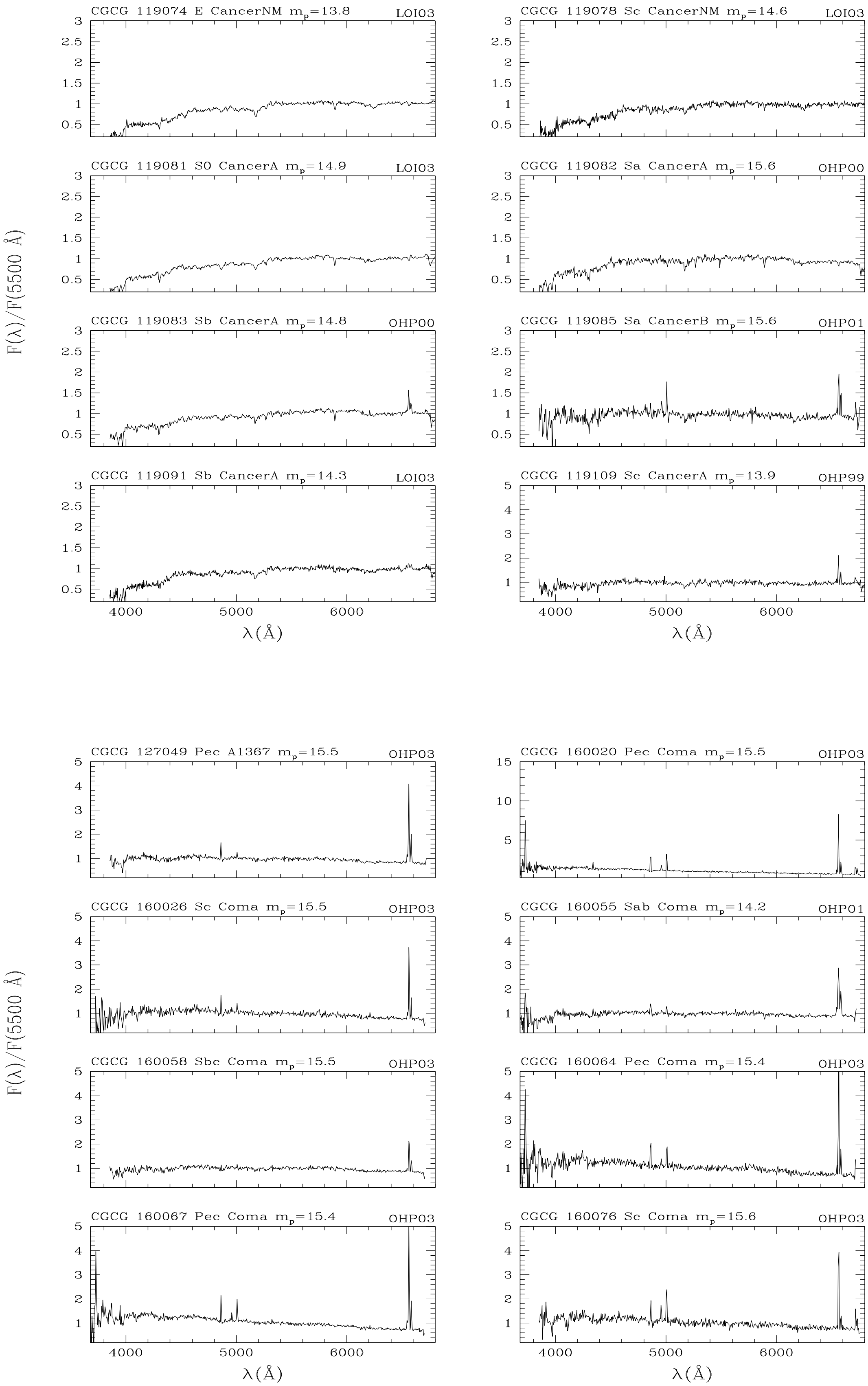

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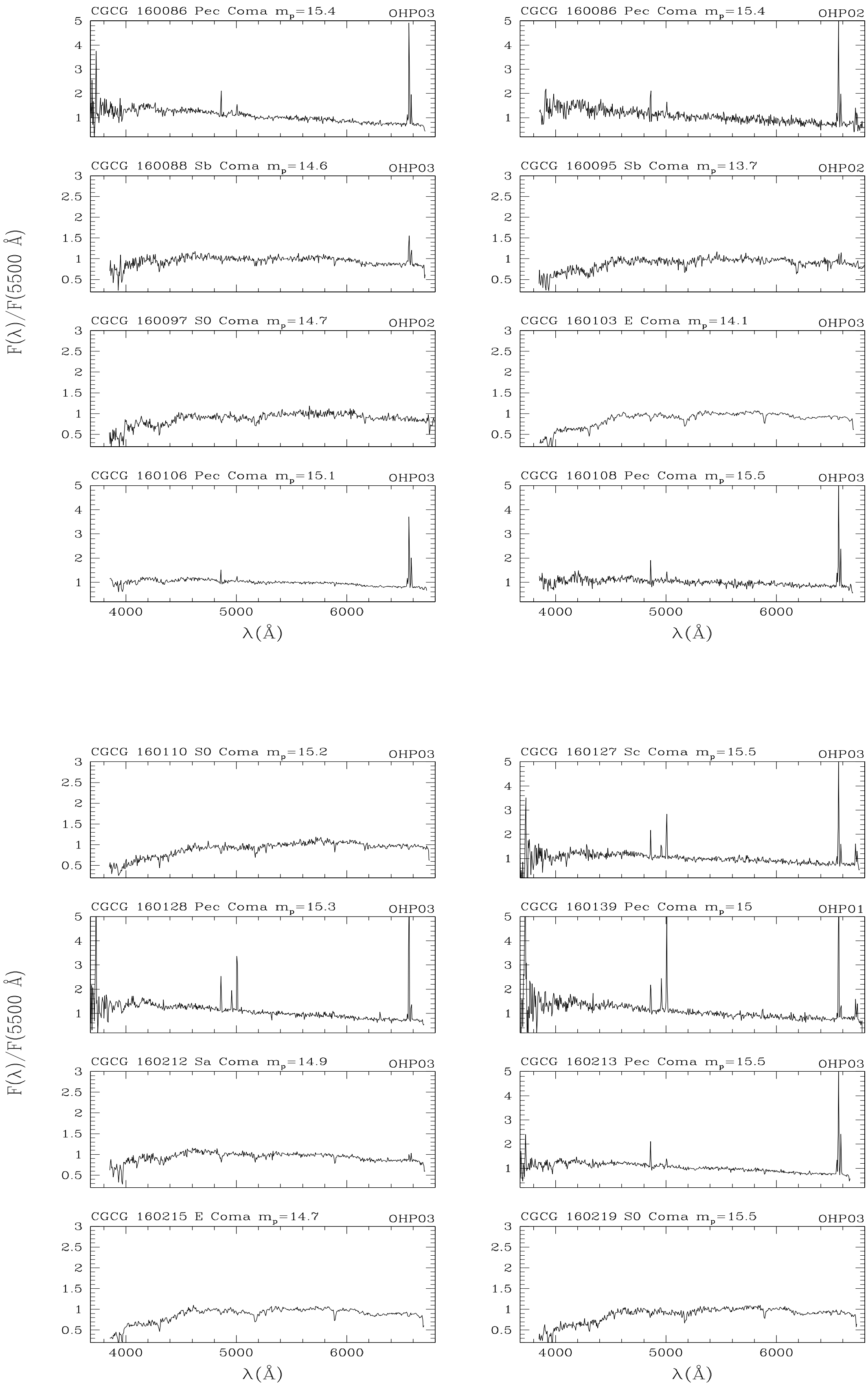

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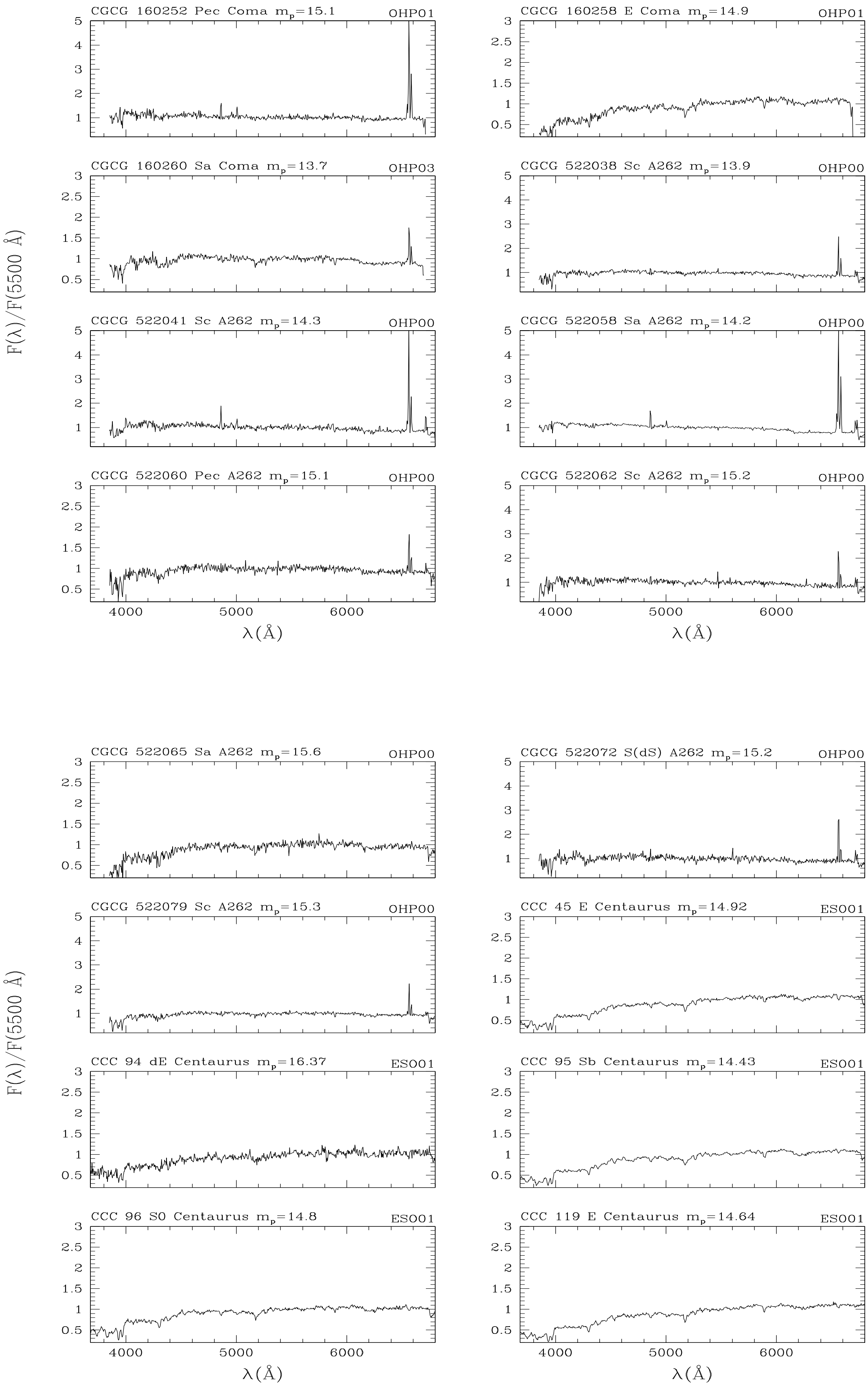

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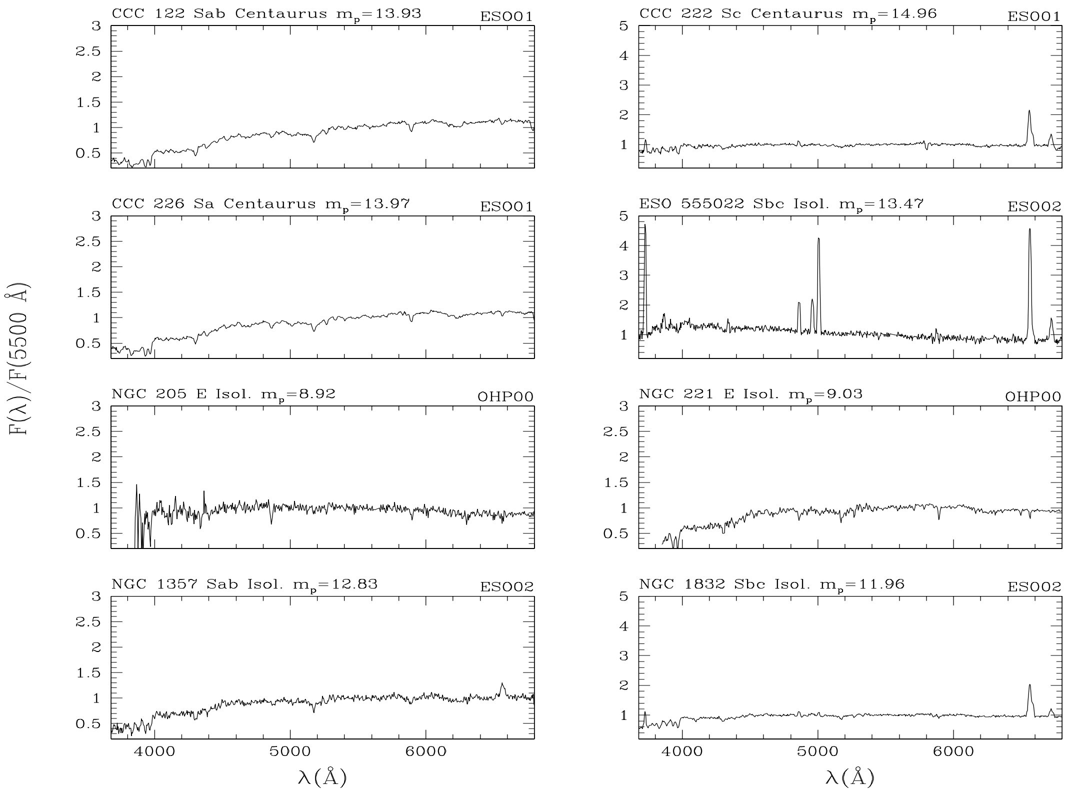

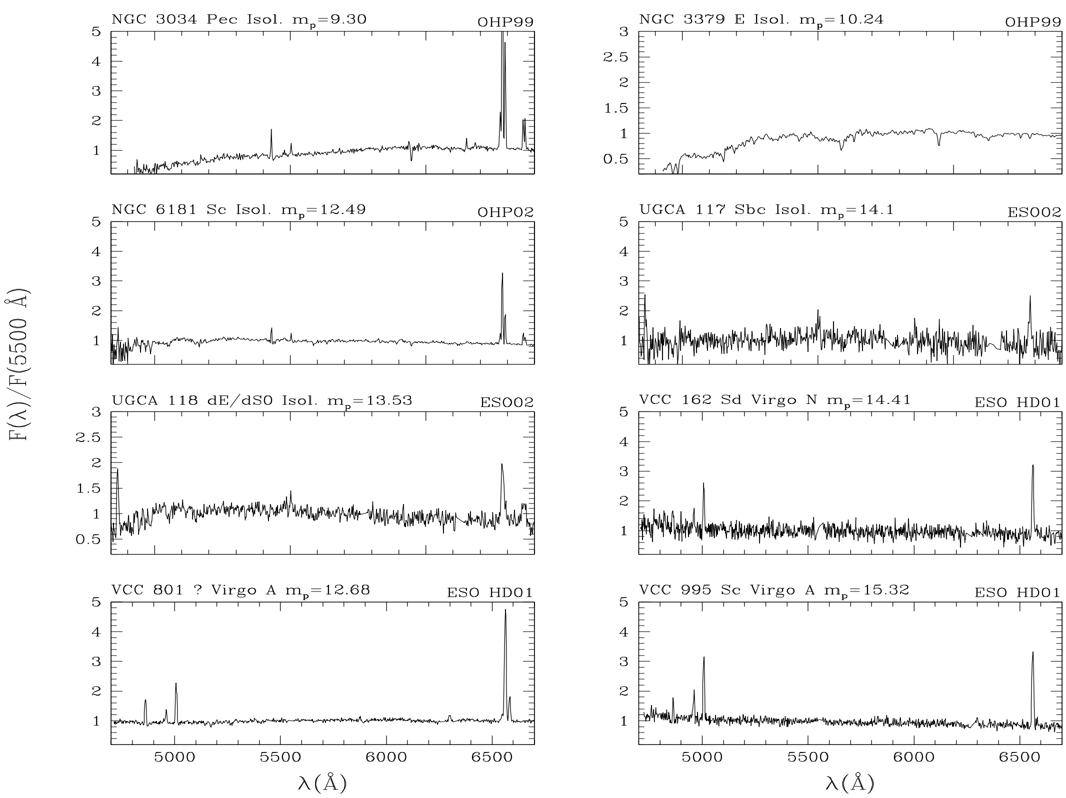

Fig. 19. continue

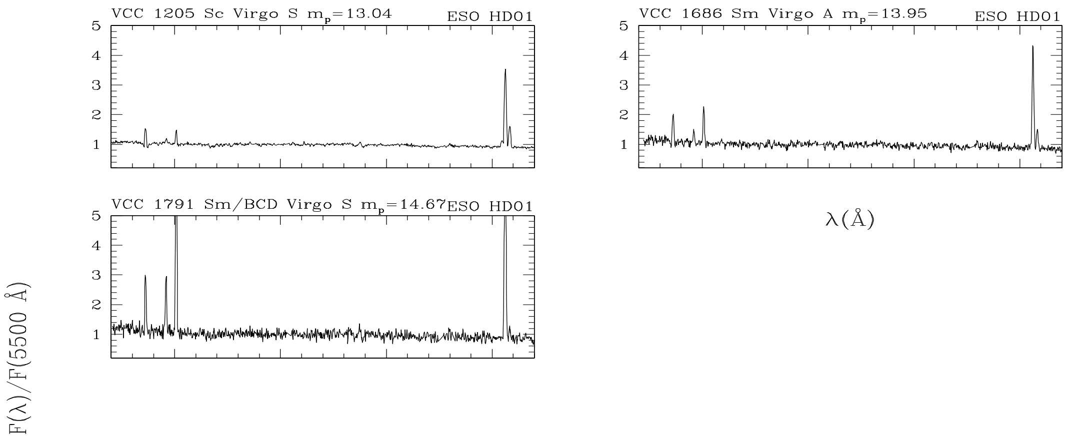

Fig. 19. continue