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## A CATALOG OF MORPHOLOGICAL TYPES IN 55 RICH CLUSTERS OF GALAXIES

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### ABSTRACT

Data are presented from a study of 55 rich clusters of galaxies. The data include positions, morphological types, estimated total magnitudes, bulge sizes, and ellipticities for  $\sim 6000$  galaxies, as determined from high scale photographic plates. Data reduction procedures are described, and a brief analysis of cluster richness, which indicates that Abell richness classes are only rough indicators of total cluster membership, is included.

*Subject headings:* galaxies: clusters of — galaxies: photometry — galaxies: structure

### I. INTRODUCTION

The purpose of this paper is to present the data accumulated in a study of the populations of rich clusters of galaxies. Analysis of the data is discussed elsewhere (Dressler 1980), but it is desirable to make available the reduced data and a description of the experimental technique. These data include cluster redshifts, positions, approximate total and bulge magnitudes, and ellipticity of  $\sim 6000$  galaxies distributed among 55 rich clusters, most of which have not been studied previously.

In addition, the determination of the cluster redshifts and an analysis of cluster richness are briefly discussed.

### II. SELECTION CRITERIA

The clusters in this sample have been basically selected for richness and low redshift and by the requirement that they be well contained and well defined (though not necessarily regular) in an area of a few square degrees of the sky.

Based on these criteria, discussed in greater detail below, photographic plates and redshifts were obtained for 55 clusters. In addition to 38 Abell (1958) clusters, 16 previously unstudied clusters in the southern sky were chosen by the author from a rather complete inspection of a plate copy of the ESO Quick Blue Sky Survey. These clusters have been designated by the prefix DC and the clusters' approximate (1950) position.

In order to insure a meaningful statistical analysis of the properties of each cluster, only those with at least  $\sim 50$  or more members were chosen.

The three telescopes used in obtaining photographic plates, the Las Campanas 2.5 m du Pont, the Palomar

1.5 m, and the Kitt Peak 4 m Mayall, have scales of  $10.^{\circ}9$ ,  $15.^{\circ}5$ , and  $18.^{\circ}6 \text{ mm}^{-1}$ , respectively. As is evident from Table 1, which lists the type and quality of the plate material used, the greater part of the survey consisted of  $50 \times 50 \text{ cm}$  103a-O plates baked in forming gas and exposed for one hour on the du Pont Telescope. These plates cover 2.1 square degrees and yet have a high plate scale. The use of high scale plates represents a significant advance over the Schmidt reflector plates used by other workers in this subject, allowing accurate classifications in clusters more distant than  $z=0.02$ . In addition, the low contrast 103a plates result in more reliable classifications than the high contrast IIIa emulsions, because a single exposure can show both outer and inner structure in a galaxy. These factors, coupled with the frequently excellent seeing and consistently dark skies at Las Campanas, make the du Pont an ideal instrument for the study of the populations of clusters of galaxies.

From early work it was found that images on the plates of  $0.06/z$  arcsec were essential for reliable galaxy classification. This requirement was adhered to fairly rigorously, so that the quality of most of the data, as indicated in Table 1, is good or excellent. Most of the ambiguities in classification are probably related to the peculiarities of individual galaxies that prevent a unique interpretation of their form, rather than an inability to discern that form.

### III. REDSHIFTS

Redshifts were already available for 26 of the clusters. The sources can be found in Table 1. To complete the sample, the author used Shectman's Reticon Scanner on the Cassegrain spectrograph of the du Pont Telescope. Spectra were obtained at approximately  $1 \text{ \AA}$  per pixel with a wavelength coverage of  $\sim 3500\text{--}7000 \text{ \AA}$  for at least two galaxies per cluster. These data were

<sup>1</sup>Operated jointly by the Carnegie Institution of Washington and the California Institute of Technology.

TABLE 1  
CLUSTER SAMPLE AND PLATE MATERIAL

Name	z	Source <sup>c</sup>	Tel <sup>d</sup>	Area Deg <sup>2</sup>	Plate <sup>e</sup> Quality	N	Name	z	Source <sup>c</sup>	Tel <sup>d</sup>	Area Deg <sup>2</sup>	Plate <sup>e</sup> Quality	N
A14	0.064	1	M	0.7	F	79	A1913	0.053	4	D	2.1	G	88
A76	0.038	3	D	1.0	G	73	A1983	0.046	4	D	2.1	G	124
A119	0.042	1	D	1.0	F-G	118	A1991	0.059	4	D	2.1	G	61
A151	0.053	3	D	2.1	P-F	105	A2040	0.045	4	D	2.1	G	111
A154	0.066	2	M	0.7	G	80	A2063	0.034	4	D	2.1	E	115
A168	0.045	2	M	0.7	G	106	A2151	0.036	3	D	2.1	G	157
A194	0.018	3	D	2.1	F	75	A2256	0.060	2	M	0.6	G	88
A376	0.047	1	M	0.7	G	120	A2589	0.042	5	M	0.7	G	72
A400	0.023	3	D	2.1	G	92	A2634	0.031	4	M	0.7	E	132
A496	0.036	6	D	1.0	F-G	85	A2657	0.041	4	M	0.7	G	84
A539 <sup>a</sup>	0.028	1	D	2.1	G	99	DC 0003-50 <sup>b</sup>	0.035	1	D	2.1	F	80
A548 <sup>a</sup>	0.040	1	D	2.1	E	235	DC 0107-46 <sup>b</sup>	0.023	1	D	2.1	F	111
A592	0.062	3	D	2.1	F	61	DC 0103-47 <sup>b</sup>	0.023	1	D	2.1	F	48
A754	0.054	2	D	2.1	E	150	DC 0247-31	0.021	1	D	2.1	F	67
A838	0.051	1	D	2.1	G	62	DC 0317-54	0.055	1	D	2.1	G	66
A957	0.044	4	D	2.1	G	84	DC 0326-53	0.058	1	D	2.1	F	164
A978	0.053	1	D	2.1	G	69	DC 0329-52	0.057	1	D	2.1	F-G	196
A979	0.055	1	D	2.1	G	87	DC 0410-62	0.017	1	D	2.1	G	103
A993	0.053	4	D	2.1	G	103	DC 0428-53	0.041	1	D	2.1	F-G	132
A1069	0.063	1	D	2.1	F	48	DC 0559-40	0.049	1	D	2.1	F-G	116
A1139	0.038	4	D	2.1	E	64	DC 0608-33	0.035	1	D	2.1	G	125
A1142	0.036	1	D	2.1	G	60	DC 0622-64	0.027	1	D	2.1	G-E	98
A1185	0.035	4	P	1.1	F	44	DC 1842-63	0.015	1	D	1.0	G	55
A1377	0.051	4	P	1.1	G	52	DC 2048-52	0.046	1	D	2.1	E	233
A1631	0.053 <sup>f</sup>	1	D	2.1	E	139	DC 2103-39	0.052	1	D	2.1	F	113
A1644	0.049	4	D	2.1	E	145	DC 2345-27	0.027	1	D	2.1	G	95
A1656	0.023	3	D	2.1	G	247	DC 2349-28	0.028	1	D	2.1	G	68
A1736	0.048	1	D	2.1	E	170	Centaurus	0.011	1	D	2.1	E	75

(a) Possibly two clusters

(b) One cluster

(c) 1 = This paper; 2 = Faber and Dressler 1977; 3 = Noonan 1973; 4 = Gunn and Thuan 1979; 5 = Faber 1979; 6 = Corwin 1974

(d) M = Mayall 4-m; P = Palomar 1.5-m; D = du Pont 2.5-m (4-m exposures are IIZa-J + GG385; P1.5-m and du Pont are 103a-O + GG385 or Wr2c)

(e) P = Poor; F = Fair; G = Good; E = Excellent

(f) Contaminated by foreground group at  $z = 0.015$  (Note change from Dressler 1980)

then reduced to wavelength calibrated scans with a computer program written by S. Mochnacki and R. Schommer for a California Institute of Technology PDP 11/34. It was found that an accuracy of  $\sigma_v \lesssim 100$  km s<sup>-1</sup> could be obtained from the positions of the H, K, and G features as read off the plots. The velocity dispersions of clusters are so high that such precision in measuring individual galaxies is more than sufficient for the present purpose.

#### IV. DATA REDUCTION

##### a) Measurement Procedures

A light box large enough to allow inspection of the 50 cm plates was constructed at the Hale Observatories shops. A commercially manufactured X-Y drafting machine stage was then purchased and attached to the light box. The author designed and built a double turret viewing assembly to replace the drafting head, the upper turret holding 3 $\times$  and 10 $\times$  magnifiers and the lower holding as many as four 60 mm diameter comparison scales that can be rotated into the field of the viewing eyepiece. Finally, millimeter scales and

pointers were added to both axes to allow the measurement of X-Y positions on the plates.

The four comparison scale positions were used as described below.

(1) *Open*.—This position was used for optimal viewing during classification.

(2) *Crosshair*.—Two photographically produced crosshairs were mounted separated by a 1.5 mm glass disk. The resulting “gunsight” virtually eliminates the problem of parallax caused by the separation of the crosshairs from the plate emulsion. It was thus possible to read positions to several tenths of a millimeter, which corresponds to a positional accuracy of  $\sim 3\text{--}6$  arcsec with the available plate material.

(3) *Galaxy magnitude scale* (see Fig. 1).—Two 50 cm du Pont plates of the Coma (A1656) and Hercules (A2151) clusters were accurately reproduced on film by John Bedke at the Hale Observatories Photo Lab. Twenty-two galaxies with  $12 \leq m_v \leq 16$  were selected from a larger sample of photographic photometry to an isophote of  $m_v \sim 23.8$  mag arcsec<sup>-2</sup> kindly supplied by A. Oemler. These were cut from the film copies and mounted between glass disks. As can be seen from Figure 1, five galaxies with Hubble types ranging from

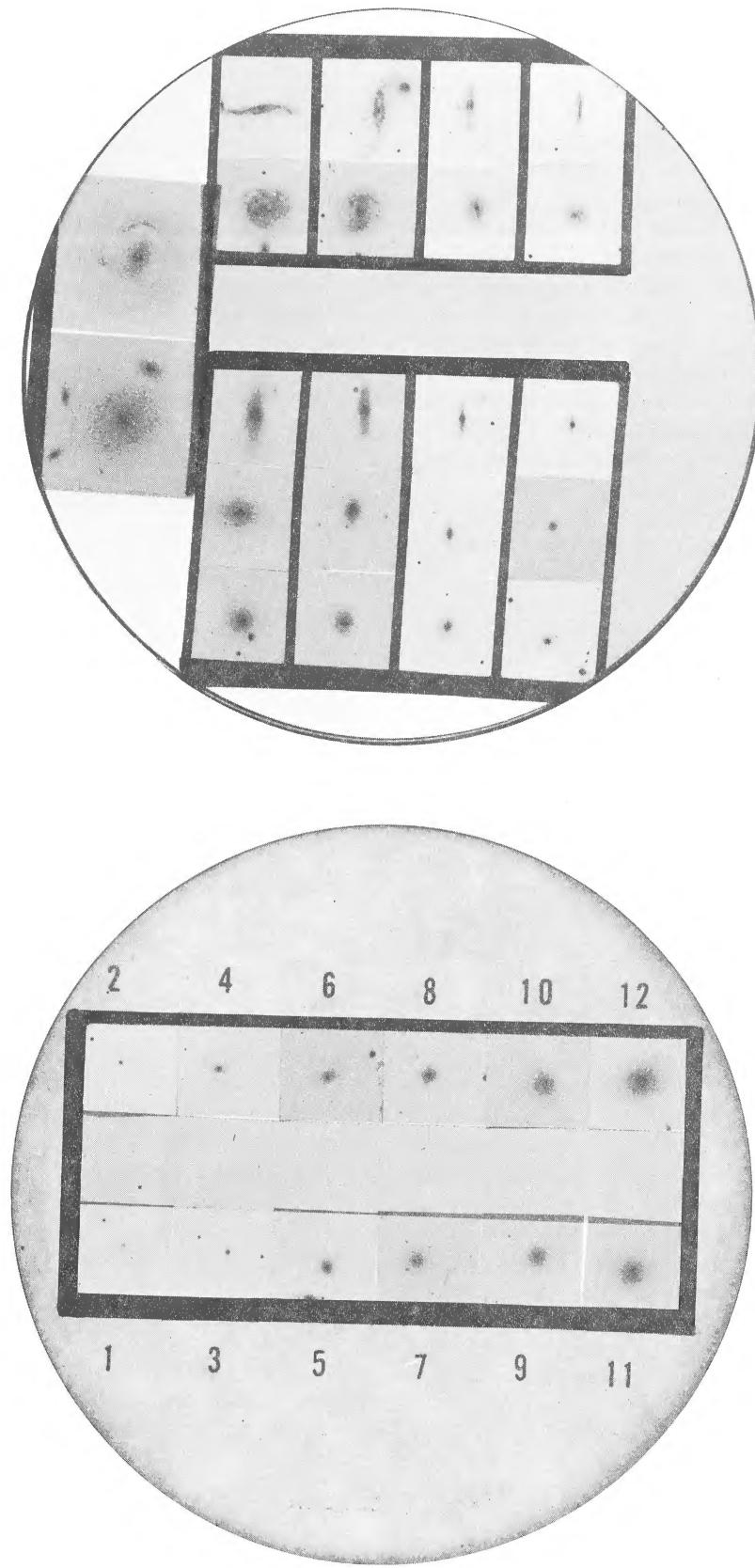


FIG. 1.—The comparison scale turret described in § IV. Enlargements of the total magnitude “fly spanner” and bulge scale are shown.

elliptical to spiral were used in each of the magnitude bins  $m_v = 16, 15, 14, 13$ , with two in the  $m_v = 12$  bin. An open strip down the center of the comparison sequence is fitted with a Wratten neutral density filter which matches the sky background of the film copies. In this way the galaxy to be measured can be viewed in close proximity to the comparisons and with an approximately equal density background. This elaborate "fly spanker" was tested by estimating, to the nearest integer magnitude for Coma, and half-magnitude for Hercules, the brightnesses of all galaxies in the Oemler sample, using the original plates of the Coma and Hercules clusters. The results, presented in Figure 2, show a random measuring error of  $\sigma = 0.36$  mag and little or no systematic effect. Thus 80–90% of the galaxies can be put properly into bins one magnitude in width. Much of the success of this method rests on the representation of elliptical, S0, and spiral galaxies in the comparator. Figure 1 demonstrates that galaxies of the same magnitude but different Hubble type appear to the eye to have quite dissimilar brightnesses.

(4) *Bulge Magnitude* (see Fig. 1).—Spheroidal stellar systems that resemble elliptical galaxies are fundamental constituents of many disk galaxies. The contribution of these bulges to the total light was estimated under the assumption that they are indeed similar to elliptical galaxies. A scale was made up of 12 elliptical galaxies selected from the Coma and Hercules film reproductions, which range from near the plate limit to the brightest available (Fig. 1). These were chosen to be approximately equally spaced to the eye according to brightness. Not surprisingly, measurement of ellipticals in Coma and Hercules from the Oemler sample disclosed that the scale was logarithmic and close to 0.5 mag per step. Repeat observations of the same plates indicated an uncertainty of about  $\pm 1$  step or  $\pm 0.5$  mag. In the actual process of estimating the bulge sizes (and implied magnitudes), the galaxies were viewed through a strip of neutral density filter as described in (3). The comparison between a galaxy's bulge size and the elliptical comparison sequence was made at a very bright isophotal level (log density  $\sim 2$  on the plate), far above typical disk brightnesses, which allowed easy decomposition of the two elements. The degree to which the bulge and total magnitudes can be compared to obtain the familiar bulge/disk ratio (which requires accurate photometry and careful deconvolution) rests on the validity of the assumption that the remaining profile of the bulge component matches that of an elliptical galaxy. In other words, the bulge size has been compared to an elliptical at a bright isophotal level and the total light contribution to the system is assumed to be like that of an elliptical down to a much fainter isophote.

Magnitudes determined as described in (3) and (4) are, of course, only estimates reliable at the  $\pm 0.5$  mag level. There are certainly systematic effects as well due

to the comparison of more distant clusters to the galaxies in Coma and Hercules, i.e., comparing galaxies of different intrinsic luminosity. This, combined with variations in plate sensitivity, exposure, and sky fog, probably results in zero point shifts and systematic errors at the 0.5 mag level, even with the very homogeneous set of du Pont plates. Thus, caution is urged in comparing the magnitude data of different clusters. The magnitudes within a given cluster, however, should give a reasonable indication of relative luminosity.

Lastly, for each galaxy an estimate of the Hubble ellipticity

$$e = 10(a - b)/a,$$

where  $a$  and  $b$  are the major and minor axis diameters, has been made by visual comparison to a family of ellipses. These estimates are the least well determined quantities of the data.

#### *b) Classification by Morphological Type*

A simplified classification scheme based on the revised Hubble system (Sandage 1961) has been adopted. Basically, galaxies have been assigned to five categories. They are (1) ellipticals, (2) S0's, (3) spirals, (4) irregulars, or (5) unclassified.

Ellipticals, including D and cD galaxies, are characterized by smooth radial profiles, with no intensity discontinuities.

S0 galaxies usually have a clearly recognizable non-spheroidal, that is, a disk or lens, component. When viewed face-on, they are generally distinguishable from ellipticals by an intensity discontinuity between the bulge and disk.

Disk galaxies in which a clear spiral or outer ring pattern is seen have been classified as spirals. Edge-on galaxies in which a dust lane is seen to extend the length of the disk have also been assumed to be spirals. (S0 galaxies sometimes have dust lanes which are confined to their central regions.)

Irregulars are amorphous dusty objects, often of the Magellanic Cloud type.

Any galaxy whose form differs significantly from the above descriptions is considered "unclassified." This would include many objects of the type found in the *Arp Atlas of Peculiar Galaxies* (1966).

Discrimination among these basic types is very reliable except for the following transition cases, which occur with a frequency of roughly 15%. The order of the two entries in the catalog indicates the author's preference in each case.

#### *(i) E(orD)/S0 and S0/E(orD) Transitions*

There is some ambiguity between ellipticals, particularly giant D galaxies, and S0 galaxies. As mentioned earlier, intensity discontinuities often discriminate between the two. The disks of S0 galaxies also appear to

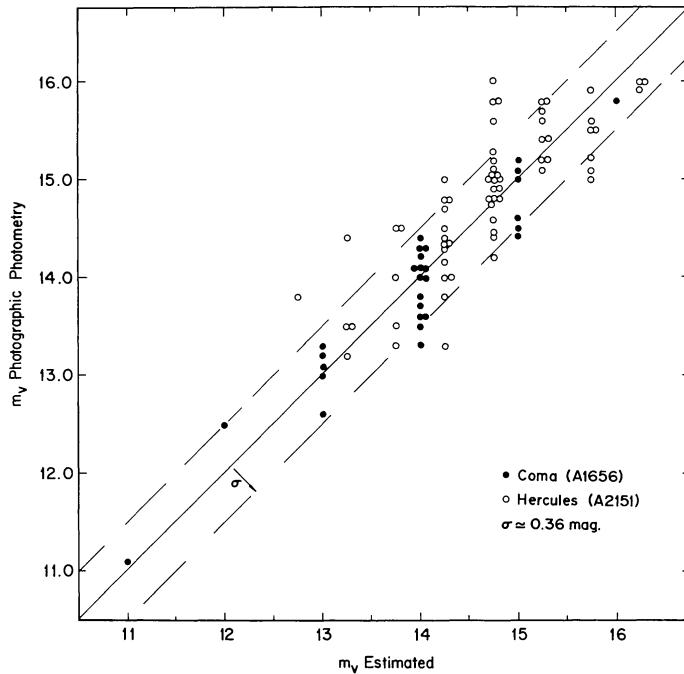


FIG. 2.—Estimated magnitudes for galaxies of all types in the Coma and Hercules clusters compared to photographic photometry by Oemler.

cut off more sharply than elliptical light profiles, which aids greatly in discrimination between S0 and D galaxies. In some cases, however, there are probably genuine transition types, not just ambiguous classifications.

#### (ii) $S0/a$ , $Sa/0$ , $S0/S$ , and $S/S0$ Transitions

The uncertain detection of very faint spiral structure or, in edge-on cases, a very faint dusty disk, gives rise to these transition cases.

#### (iii) $S/I$ and $I/S$ Transitions

This indicates a chaotic pattern of dust which may, in fact, have a marginal spiral pattern.

In addition to the major classes, some attempt has been made, if plate quality permitted, to determine subtype, that is, to discriminate between spirals and S0 galaxies with and without bars and among the various types of S0's (1, 2, 3) and spirals (a, b, c, d) as in the revised Hubble scheme. The spiral types have been separated by the visual impression of the disk/bulge ratio and spiral arm structure, but more weight has been placed on the former when the two criteria disagreed. These subclasses are intended only as guidelines.

The letter 'p' following the morphological type indicates that the galaxy is noticeably peculiar for its type.

#### c) The Measurement Procedure

Each plate was surveyed in a raster scan in the  $X$  coordinate with an increment of 2 cm in  $Y$  per pass.

For each galaxy brighter than the  $m_v \approx 16.5$  limit of the scale previously described, the  $X$  and  $Y$  positions were measured, total and bulge magnitudes and ellipticity were estimated, and a Hubble type was assigned. The average plate contains  $\sim 100$  galaxies above the magnitude limit. Typically one cluster was processed per day in two 2 hour sittings.

#### V. THE CATALOG

Table 2 contains the catalogued data previously described for the 55 clusters, and maps for the clusters are shown in Figure 4 (see page 600). The  $X$  and  $Y$  positions have been translated into right ascension and declination by measuring the positions of two stars per plate with known coordinates. The scale variation of 4 m plates has been taken from Chiu (1976), and in his notation a value of  $B_3 = -8.0 \times 10^{-8}$  and a scale of  $10.^{\circ}94 \text{ mm}^{-1}$  has been adopted for the du Pont plates. The positions have random and systematic errors, both of which are typically  $5'' - 10''$ .

In some clusters certain quantities were not measured. For example, 4 m data do not include magnitude information because the comparison scales were constructed from du Pont plates. The seeing on some plates was considered inadequate for the determination of bulge magnitudes or subtypes.

#### Column 1

Galaxy number in the cluster

#### Columns 2 and 3

The  $X$  and  $Y$  position (in mm) measured on the plate (see Fig. 4)

<i>Columns 4 and 5</i>	Right ascension and declination (1950)
<i>Column 6</i>	Morphological type (see IVb)
<i>Column 7</i>	Estimated total apparent visual magnitude
<i>Column 8</i>	Estimated bulge size (see Fig. 2) $m_V \approx 19 - mb/2$ $mb = -1 \rightarrow$ no bulge $mb = -2 \rightarrow$ indeterminate
<i>Column 9</i>	Estimated ellipticity $e = -2 \rightarrow$ indeterminate

#### VI. FIELD CONTRIBUTION

Table 1 lists the total number of galaxies counted on each plate. An estimate of the field contribution was made by carrying out the identical measurement procedures on a set of 15 1 hour du Pont plates that were photographically equivalent to the cluster plates but taken at random positions in the sky. An average of  $8 \pm 5$  field galaxies per square degree down to  $m_V = 16.5$  were found, in reasonable agreement with the work of Oemler (1974) and Rainey and Abell (1977). The same field correction has been assumed for the 4 m and P60 plates.

#### VII. RICHNESS

Finally, I present a brief discussion of the relative richesses of clusters in the sample.

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In order to place clusters of different redshift on an equal footing, corrections based on limiting magnitude and cluster size were made. The number of galaxies counted minus the estimated field contribution was corrected to simulate the number counted if the cluster were at a redshift of  $z = 0.04$  and photographed with a  $2.1 \text{ deg}^2$  field. This was accomplished by (1) applying a limiting magnitude correction, using a Schechter (1976) luminosity function, either truncating or extrapolating to a magnitude limit of  $M_V = -20.4(H_0 \equiv 50)$ , and (2) assuming each cluster followed an isothermal  $\rho$  (projected)  $\alpha r^{-1}$  density law over the range in question.

The results are plotted in Figure 3 (see page 600), where the Abell richness class is compared to the calculated number. A fair correspondence of the means of the two systems can be accomplished by multiplying the Abell richness criteria by the factor 1.5. (The ranges given by Abell multiplied by 1.5 have been indicated in Figure 3 by brackets.)

Of interest, however, is the overlap among the Abell richness classes and the broad tails that result in the fact that many clusters of Abell richness 0 or 1 are as rich as Coma! (Presumably long tails also exist toward poorer clusters for these richness classes, but these have been selected against in the present study.)

The point of this discussion is to caution users of the Abell catalog to treat the richness classes as guidelines and not as numerical data in individual cases, as a dispersion of at least one class is indicated for the poorer classes in this study and for the richer clusters as well (Mottmann and Abell 1977; Dressler 1978).

TABLE 2  
MORPHOLOGICAL TYPES IN 55 RICH CLUSTERS OF GALAXIES

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 14																	
1	154	884	00 12 28.0	-24 37 17	E				21	287	105	00 35 52.6	+06 23 07	S0	15	0	4
2	197	816	00 11 38.9	-24 33 26	S				22	890	127	00 38 24.0	+06 26 47	Sb	15	3	4
3	169	830	00 12 07.8	-24 29 48	S0/E				23	115	138	00 37 59.1	+06 28 45	SBa	15	6	3
4	185	827	00 11 46.1	-24 38 25	U				24	123	127	00 37 52.9	+06 26 46	S0	14	11	0
5	188	839	00 11 53.6	-24 26 55	S				25	125	125	00 37 51.1	+06 26 32	Sa0	16	6	5
6	196	840	00 11 32.3	-24 26 33	S				26	125	130	00 37 51.3	+06 27 27	E	16	7	0
7	217	835	00 11 05.1	-24 27 54	E				27	184	131	00 37 08.3	+06 27 42	SB0	16	5	3
8	861	853	00 14 30.1	-24 22 33	S				28	187	138	00 37 06.1	+06 28 58	S0	15	5	7
9	863	852	00 14 27.8	-24 23 03	S0				29	204	126	00 36 53.5	+06 26 51	S/I	16	-2	0
10	868	857	00 14 22.6	-24 21 24	S				30	286	145	00 36 51.8	+06 30 13	Sa0	16	4	6
11	137	862	00 12 50.5	-24 20 16	S				31	207	131	00 36 51.4	+06 27 39	E	13	12	0
12	149	855	00 12 34.9	-24 22 22	S/I				32	257	144	00 36 14.8	+06 30 15	S0	14	6	7
13	157	861	00 12 24.4	-24 20 22	S0				33	872	152	00 38 30.1	+06 31 21	S	16	1	6
14	158	856	00 12 23.0	-24 22 02	S				34	134	149	00 37 44.6	+06 30 37	Sa	16	4	5
15	163	857	00 12 16.0	-24 21 34	S0				35	178	146	00 37 18.2	+06 30 22	U	15	-2	-2
16	173	854	00 12 02.0	-24 22 30	E				36	198	157	00 36 58.3	+06 32 28	E/S0	13	12	4
17	127	871	00 13 05.1	-24 17 24	I				37	241	156	00 36 26.6	+06 35 25	Sc	15	2	1
18	113	879	00 13 23.0	-24 14 52	S/I				38	272	147	00 36 34.6	+06 39 41	S0	16	4	4
19	114	882	00 13 22.5	-24 13 55	S				39	899	169	00 38 10.9	+06 34 25	S0	15	7	3
20	117	882	00 13 17.6	-24 14 18	S				40	184	171	00 38 07.3	+06 34 54	S0	15	8	5
21	195	883	00 12 54.0	-24 13 41	S/I				41	132	168	00 37 46.5	+06 34 17	S	15	3	2
22	148	865	00 12 35.0	-24 19 22	S				42	138	188	00 37 41.9	+06 36 29	S0	15	0	3
23	169	869	00 12 08.1	-24 17 52	E				43	142	175	00 37 39.2	+06 35 48	S/I	15	1	-2
24	170	864	00 12 06.6	-24 19 28	S				44	167	169	00 37 20.9	+06 34 30	S0	14	10	1
25	201	873	00 11 24.7	-24 16 27	S0				45	171	168	00 37 18.2	+06 34 21	E	16	7	2
26	202	876	00 11 23.5	-24 15 45	S0/E				46	171	176	00 37 18.2	+06 34 41	S0	16	4	4
27	217	878	00 11 04.8	-24 14 53	S				47	205	172	00 36 53.1	+06 35 09	Sa	15	0	3
28	233	880	00 10 44.4	-24 14 19	S				48	871	195	00 38 31.4	+06 39 12	S0/S	16	2	2
29	881	892	00 14 06.1	-24 18 57	S0				49	895	203	00 38 13.7	+06 40 41	S0	16	5	5
30	884	897	00 14 02.6	-24 09 30	S0				50	120	203	00 37 55.5	+06 40 45	E	16	6	1
31	116	895	00 13 18.9	-24 10 00	S0				51	152	192	00 37 31.8	+06 38 43	E	16	7	0
32	127	894	00 13 04.4	-24 07 17	S0/S				52	160	203	00 37 26.0	+06 40 43	U	16	-2	-2
33	129	890	00 13 03.4	-24 11 26	S				53	120	192	00 37 55.7	+06 38 40	S0	14	8	4
34	133	899	00 12 56.9	-24 08 58	S/S0				54	123	224	00 37 53.4	+06 44 34	S0	16	5	5
35	135	100	00 12 53.5	-24 08 33	E				55	132	224	00 37 46.7	+06 44 36	S0	14	9	3
36	141	100	00 12 46.1	-24 08 19	E				56	135	223	00 37 45.0	+06 44 21	S0	16	6	2
37	143	890	00 12 43.3	-24 11 34	S0				57	153	207	00 37 31.6	+06 41 30	S0/a	16	5	6
38	143	898	00 12 42.8	-24 09 02	S				58	854	241	00 38 44.5	+06 47 32	E	16	7	2
39	146	896	00 12 38.4	-24 09 35	D				59	115	235	00 37 59.7	+06 41 31	S0	16	6	7
40	147	896	00 12 37.7	-24 09 42	E				60	250	234	00 36 20.8	+06 46 30	S0	16	2	7
41	146	894	00 12 38.4	-24 10 12	S0				61	251	236	00 36 19.8	+06 47 00	E	14	11	2
42	153	885	00 12 29.4	-24 13 02	E				62	251	238	00 36 19.9	+06 47 21	S	13	6	1
43	209	890	00 11 14.3	-24 11 27	E				63	254	242	00 36 17.8	+06 48 00	S0	15	8	1
44	849	110	00 14 57.3	-24 05 41	S				64	293	230	00 35 48.8	+06 45 58	S	16	0	1
45	106	110	00 13 33.3	-24 05 23	E/S0				65	830	246	00 38 56.3	+06 46 22	S0/a	16	6	2
46	108	122	00 13 30.9	-24 01 48	S				66	146	254	00 37 36.5	+06 50 05	I	16	-1	-2
47	111	114	00 13 25.8	-24 04 14	S				67	888	276	00 38 19.2	+06 53 55	E/S0	16	6	2
48	122	110	00 13 11.0	-24 05 27	S				68	144	274	00 37 38.7	+06 53 43	S0	15	5	7
49	125	110	00 13 08.1	-24 05 17	E				69	283	267	00 36 55.4	+06 52 25	S0	15	0	4
50	129	116	00 13 02.4	-24 03 29	S0				70	159	286	00 37 27.9	+06 55 51	E/S0	15	0	4
51	131	111	00 12 58.9	-24 05 05	S0				71	026	328	00 39 05.4	+07 01 49	E	16	6	1
52	143	118	00 12 43.3	-24 05 26	S				72	193	316	00 37 03.2	+07 01 19	E/S0	15	7	4
53	149	110	00 12 35.0	-24 05 15	S0				73	269	313	00 36 07.3	+07 00 56	Sa	15	6	3
ABELL 76																	
1	893	814	00 38 13.7	+06 06 20	Sc	16	1	3	1	207	021	00 53 14.3	-01 58 24	S0	16	5	3
2	120	819	00 37 53.9	+06 07 11	S0	14	7	1	2	217	028	00 53 07.3	-01 57 16	Sc	16	0	1
3	136	819	00 37 42.1	+06 07 17	S0	16	5	3	3	127	057	00 54 13.2	-01 52 00	Sb	15	4	4
4	221	822	00 36 48.1	+06 07 55	S0	15	5	8	4	148	051	00 53 57.8	-01 53 11	S0	16	2	5
5	216	837	00 36 44.1	+06 10 38	Sc	16	0	4	5	154	048	00 53 52.9	-01 53 37	S0	16	6	5
6	262	842	00 36 10.7	+06 11 36	S0	14	9	3	6	221	062	00 52 20.0	-01 50 55	Sa	15	8	4
7	275	832	00 36 08.9	+06 09 50	Sbc	16	2	3	7	262	062	00 52 20.0	-01 50 55	S0	16	5	1
8	327	838	00 35 23.2	+06 11 01	E	16	5	2	8	148	074	00 53 42.0	-01 48 07	E	16	5	0
9	188	874	00 38 09.5	+06 17 87	SBa	15	6	1	9	147	075	00 53 37.8	-01 48 07	E	16	6	0
10	211	884	00 36 48.1	+06 19 09	SBb	16	4	2	10	168	074	00 53 28.3	-01 49 15	Sbb	16	4	2
11	219	876	00 36 42.1	+06 17 48	SBb	16	2	4	11	133	126	00 54 05.1	-01 44 43	E	16	6	0
12	152	865	00 37 31.5	+06 19 18	U	16	-2	7	12	138	138	00 54 05.2	-01 37 20	S0	16	4	5
13	884	897	00 38 21.3	+06 21 17	S0	15	0	3	13	852	152	00 55 08.3	-01 34 54	U	16	2	-2
14	138	896	00 37 41.9	+06 21 11	S0	15	6	6	14	089	160	00 54 41.3	-01 32 22	Sa	16	5	4
15	116	117	00 37 58.2	+06 24 58	S0	15	6	1	15	121	164	00 54 18.0	-01 32 36	S0	14	0	0
16	193	108	00 37 01.6	+06 23 26	E	15	8	2	16	128	161	00 54 12.9	-01 33 03	U	16	-2	-2
17	221	123	00 36 41.2	+06 26 22	S0	16	2	2	17	138	156	00 54 05.5	-01 33 57	Sb	14	3	4
18	221	115</td															

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 119 (CONT.)																	
47	193	154	00 53 25.6	-01 34 17	S0	16	5	3	28	150	155	01 07 34.2	-15 58 31	S	16	1	
48	210	159	00 53 13.2	-01 33 24	I	16	-2	-2	29	247	159	01 06 20.5	-15 57 38	S	15	3	
49	212	146	00 53 11.7	-01 35 44	S0	16	5	6	30	333	156	01 05 15.6	-15 57 58	E/S0	16	4	
50	218	158	00 53 07.0	-01 35 00	Sa	15	6	3	31	390	163	01 04 32.4	-15 56 43	S	16	3	
51	239	151	00 52 51.5	-01 34 48	S0	15	8	1	32	151	183	01 07 39.3	-15 53 21	S0/E	15	2	
52	248	161	00 52 45.3	-01 32 54	E	13	12	2	33	257	171	01 06 13.5	-15 55 28	S	16	1	
53	248	148	00 52 45.8	-01 35 21	E	16	6	4	34	267	183	01 06 05.4	-15 53 14	S0	16	3	
54	221	161	00 53 04.6	-01 33 01	S0	16	5	3	35	275	175	01 05 59.4	-15 54 37	S0	16	3	
55	249	158	00 52 44.6	-01 33 25	E	16	5	2	36	088	189	01 09 21.5	-15 52 19	S	16	0	
56	269	148	00 52 30.8	-01 35 19	S0	16	4	5	37	147	203	01 07 36.9	-15 49 47	E	15	2	
57	111	169	00 54 25.1	-01 31 38	E/S0	16	5	0	38	273	198	01 06 01.2	-15 50 32	S	15	1	
58	114	184	00 54 23.4	-01 28 56	Sbc	14	2	2	39	478	201	01 03 26.2	-15 49 34	S	16	4	
59	152	179	00 53 55.7	-01 29 49	E	16	5	-2	40	230	204	01 06 34.2	-15 49 28	E/S0	16	2	
60	156	167	00 53 52.1	-01 31 59	E	13	12	1	41	815	209	01 09 16.3	-15 48 47	S+S	15	2	
61	168	184	00 53 49.3	-01 26 58	Sa	14	8	4	42	099	217	01 08 19.1	-15 47 09	S00	15	2	
62	167	174	00 53 44.5	-01 30 44	E	15	8	0	43	146	222	01 07 37.8	-15 46 11	S	15	3	
63	167	167	00 53 44.1	-01 31 57	S0	16	4	6	44	146	217	01 07 37.6	-15 47 07	S	15	3	
64	167	168	00 53 44.4	-01 31 58	E	16	6	0	45	173	207	01 07 17.8	-15 48 59	S0	16	6	
65	174	165	00 53 39.2	-01 32 24	E	16	6	3	46	218	224	01 06 42.8	-15 45 44	S	15	2	
66	178	169	00 53 42.5	-01 31 32	D	13	11	4	47	237	218	01 06 28.4	-15 48 22	S0/a	16	4	
67	178	165	00 53 36.6	-01 32 18	S0	16	5	4	48	241	228	01 06 25.6	-15 46 28	S0	16	6	
68	197	172	00 53 22.2	-01 31 05	S0	14	11	0	49	245	228	01 06 22.9	-15 46 26	S0	16	8	
69	243	183	00 52 49.3	-01 28 57	Sab	16	3	3	50	268	224	01 06 11.5	-15 45 48	S0	16	1	
70	266	176	00 52 32.0	-01 30 16	S0	15	4	0	51	393	222	01 04 30.6	-15 45 51	S0	15	4	
71	267	169	00 52 31.6	-01 31 27	Sbb	15	5	2	52	144	227	01 07 39.4	-15 45 16	S0/S	15	6	
72	128	202	00 54 19.1	-01 25 44	S0/E	15	7	1	53	163	228	01 07 24.4	-15 45 05	S0	16	5	
73	147	192	00 53 58.8	-01 27 28	E	16	6	0	54	183	244	01 07 09.8	-15 42 09	S	16	4	
74	158	197	00 53 57.1	-01 26 34	S0	15	6	4	55	195	248	01 07 08.6	-15 42 59	S0	16	5	
75	163	195	00 53 47.5	-01 26 49	S0	15	4	6	56	249	243	01 06 19.5	-15 42 15	S0	15	2	
76	204	199	00 53 17.7	-01 26 07	Sa	16	5	4	57	252	243	01 06 17.5	-15 42 23	S0	16	2	
77	038	218	00 55 18.2	-01 24 19	SBBC	15	3	2	58	285	234	01 05 52.2	-15 43 55	E	16	1	
78	139	212	00 54 04.8	-01 23 45	S0	16	3	0	59	323	244	01 05 23.6	-15 42 03	S	16	2	
79	158	206	00 53 51.0	-01 24 48	S	14	-2	9	60	243	249	01 06 24.2	-15 41 14	S	14	1	
80	166	209	00 53 45.0	-01 24 19	S0	16	5	5	61	245	254	01 06 22.8	-15 40 20	D	14	2	
81	172	206	00 53 40.7	-01 24 52	S0	16	4	5	62	246	253	01 06 22.2	-15 40 29	E	15	2	
82	178	207	00 53 36.9	-01 24 37	S0	16	4	3	63	247	255	01 06 21.3	-15 40 09	E	15	3	
83	178	215	00 53 36.9	-01 23 15	S0/E	15	7	4	64	247	248	01 06 21.3	-15 41 21	S0	16	3	
84	234	209	00 52 56.0	-01 24 14	S0	15	8	0	65	248	253	01 06 20.6	-15 40 31	E	16	0	
85	299	211	00 52 00.3	-01 23 42	Sbb	15	2	1	66	255	249	01 06 15.5	-15 41 14	S0	15	2	
86	136	242	00 54 07.4	-01 18 16	S0	15	8	4	67	257	257	01 06 13.6	-15 39 44	S0	16	5	
87	184	234	00 53 32.6	-01 19 48	S0	16	5	5	68	269	256	01 06 04.7	-15 39 51	S	15	6	
88	199	232	00 53 21.5	-01 20 05	Sba	15	6	0	69	271	257	01 06 03.1	-15 39 48	E	15	1	
89	256	228	00 52 48.1	-01 20 48	Sbc	15	2	5	70	272	254	01 06 02.2	-15 40 20	S0	16	4	
90	262	237	00 52 35.4	-01 19 01	Sa	14	7	3	71	261	265	01 06 10.4	-15 38 21	S0	16	4	
91	215	242	00 53 09.5	-01 18 15	S0/a	16	2	2	72	278	263	01 05 57.6	-15 38 42	S	16	5	
92	043	253	00 55 15.3	-01 16 26	S0	16	5	2	73	365	257	01 04 51.4	-15 39 38	S0	16	4	
93	091	250	00 54 45.0	-01 16 58	E	14	10	3	74	181	268	01 07 11.1	-15 37 47	S	15	2	
94	095	248	00 54 37.4	-01 17 28	S0/a	15	6	4	75	280	269	01 06 57.2	-15 37 41	E/S0	15	5	
95	160	258	00 53 50.1	-01 15 26	E/S0	15	8	4	76	224	284	01 06 38.5	-15 34 51	S0	15	1	
96	066	278	00 54 56.6	-01 11 51	S0	15	6	7	77	225	266	01 06 38.1	-15 38 10	E	16	0	
97	183	281	00 54 31.4	-01 11 28	S0	16	6	3	78	239	268	01 06 27.1	-15 37 43	S0	16	3	
98	115	273	00 54 23.1	-01 12 49	S0	16	4	1	79	243	277	01 06 24.7	-15 36 08	S	16	0	
99	280	279	00 53 21.1	-01 11 27	Ep	14	-2	-2	80	289	278	01 05 49.4	-15 37 17	S0/a	15	2	
100	251	280	00 52 43.5	-01 11 21	Sa	14	3	7	81	293	274	01 05 46.8	-15 36 33	E	16	2	
101	322	276	00 51 52.5	-01 11 57	S0	15	3	7	82	119	302	01 07 58.5	-15 31 44	E/S0	16	1	
102	200	279	00 53 20.7	-01 11 34	E	16	5	6	83	121	304	01 07 57.0	-15 31 19	S/a/b	15	3	
103	055	298	00 55 06.5	-01 09 46	S0	16	4	6	84	208	296	01 06 51.1	-15 32 39	S0	16	0	
104	186	296	00 54 29.4	-01 08 36	E	16	5	2	85	391	288	01 04 32.7	-15 33 55	S0/S	15	0	
105	187	295	00 54 28.4	-01 08 42	E	13	12	2	86	007	306	01 09 22.6	-15 31 06	S	16	2	
106	187	294	00 54 18.6	-01 08 55	S0	15	6	5	87	026	319	01 09 08.2	-15 28 44	S0/E	14	1	
107	129	294	00 54 13.6	-01 08 44	E	16	6	1	88	388	318	01 04 35.3	-15 29 53	S0/a	16	1	
108	132	295	00 54 18.9	-01 08 44	E	16	6	1	89	436	317	01 03 58.8	-15 28 38	E	16	1	
109	261	286	00 53 20.0	-01 10 17	S0	15	6	6	90	089	336	01 09 21.1	-15 25 42	E/S0	16	2	
110	221	294	00 53 05.9	-01 08 49	S/I	16	-1	-2	91	176	341	01 07 15.1	-15 24 35	S	15	6	
111	036	316	00 55 20.4	-01 05 04	E	14	9	1	92	301	328	01 05 40.7	-15 26 45	S0	16	3	
112	110	312	00 54 27.0	-01 05 42	S0	15	6	3	93	330	344	01 05 19.3	-15 23 47	S0	16	0	
113	155	322	00 53 53.8	-01 03 45	E	16	6	3	94	350	325	01 05 04.1	-15 27 16	S0	16	4	
114	189	318	00 53 29.4	-01 05 54	S0	14	6	6	95	354	334	01 05 08.9	-15 25 32	E	16	1	
115	260	315	00 52 37.8	-01 04 51	Sbb	16	4	2	96	118	352	01 07 59.2	-15 22 37	S0	16	7	
116	285	315	00 53 17.7	-01 05 03	E	16	5	3	97	251</							

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 154 (CONT.)																	
22	113	055	01 08 56.1	+17 12 15	U				41	113	128	01 12 22.5	-00 07 53	S			
23	117	053	01 08 50.6	+17 11 37	E				42	125	129	01 12 08.6	-00 07 47	SB0			
24	120	051	01 08 46.3	+17 11 04	S0				43	135	145	01 11 56.2	-00 02 49	S			
25	165	062	01 07 48.3	+17 14 21	S/S0				44	135	142	01 11 56.2	-00 03 32	SB			
26	117	093	01 08 51.1	+17 20 45	S0				45	142	137	01 11 47.8	-00 05 01	E			
27	130	069	01 08 34.1	+17 16 33	S				46	151	142	01 11 36.3	-00 03 38	S			
28	134	079	01 08 29.0	+17 19 40	S/I				47	150	134	01 11 37.5	-00 05 57	S			
29	135	077	01 08 27.4	+17 18 57	S0				48	171	141	01 11 13.2	-00 03 43	E/S0			
30	145	083	01 08 15.2	+17 20 53	S0/a				49	188	131	01 10 53.6	-00 06 40	S			
31	159	080	01 07 56.7	+17 19 47	S0				50	046	154	01 13 45.3	-00 00 03	S/a/0			
32	177	069	01 07 33.3	+17 16 27	S0				51	072	150	01 13 14.3	-00 01 12	S			
33	192	082	01 07 14.7	+17 20 29	S0				52	074	150	01 13 11.7	-00 01 17	SB0			
34	219	072	01 06 40.2	+17 17 35	S				53	074	149	01 13 11.1	-00 01 43	S0			
35	843	088	01 10 22.6	+17 22 18	S0				54	085	160	01 12 58.4	+00 01 42	SB			
36	121	096	01 08 46.6	+17 24 44	S0				55	086	161	01 12 57.2	+00 02 16	S0			
37	132	101	01 08 31.3	+17 26 22	S				56	086	146	01 12 56.6	-00 02 22	E			
38	133	099	01 08 30.6	+17 25 42	S0				57	091	158	01 12 51.1	+00 01 10	E			
39	135	086	01 08 27.3	+17 21 48	S/S0				58	091	152	01 12 50.5	-00 00 38	S			
40	137	090	01 08 25.4	+17 23 02	S0				59	094	153	01 12 47.0	-00 00 11	S			
41	138	094	01 08 24.3	+17 24 19	E				60	098	149	01 12 42.4	-00 01 34	S			
42	138	098	01 08 23.4	+17 23 03	E				61	100	159	01 12 48.0	+00 01 41	S0/S			
43	138	091	01 08 23.4	+17 23 14	D				62	104	155	01 12 34.9	+00 00 12	S			
44	139	093	01 08 22.8	+17 23 51	D				63	104	147	01 12 34.7	-00 02 03	S			
45	140	092	01 08 21.7	+17 23 40	E				64	104	161	01 12 35.1	+00 02 07	SB			
46	140	086	01 08 21.3	+17 21 48	S0				65	104	162	01 12 34.7	+00 02 28	S0			
47	142	086	01 08 18.4	+17 21 41	S0				66	109	154	01 12 28.4	+00 00 00	S0/a			
48	142	089	01 08 18.5	+17 22 37	S0				67	109	163	01 12 28.5	+00 02 41	S0			
49	142	094	01 08 18.2	+17 24 17	E/S0				68	111	153	01 12 25.5	-00 00 11	E			
50	149	091	01 08 09.1	+17 23 09	S0				69	114	160	01 12 22.4	+00 01 46	S0			
51	151	093	01 08 06.7	+17 23 56	S0				70	115	162	01 12 20.6	+00 02 27	E			
52	154	097	01 08 03.9	+17 25 07	E				71	120	148	01 12 15.1	-00 01 56	S0			
53	156	101	01 08 00.8	+17 26 23	S/S0				72	124	158	01 12 10.2	+00 01 25	S			
54	173	092	01 07 38.3	+17 23 46	S/S0				73	172	162	01 11 12.6	+00 02 35	S			
55	844	106	01 10 21.3	+17 27 38	S				74	011	168	01 14 26.0	+00 04 01	E			
56	855	105	01 10 08.8	+17 27 16	S0				75	012	168	01 14 25.5	+00 03 56	E			
57	105	122	01 09 06.1	+17 32 49	S				76	022	165	01 14 13.8	+00 03 04	S			
58	118	114	01 08 50.0	+17 30 17	S0				77	061	178	01 13 28.0	+00 07 08	S			
59	157	112	01 07 59.8	+17 29 40	S				78	075	168	01 13 18.9	+00 04 14	S			
60	160	113	01 07 56.0	+17 30 05	S0/a				79	099	169	01 12 40.5	+00 04 35	S			
61	174	122	01 07 37.6	+17 32 46	S0p				80	100	169	01 12 39.2	+00 04 46	S0			
62	181	123	01 07 28.2	+17 33 17	S				81	106	166	01 12 31.8	+00 03 48	S0			
63	118	142	01 09 06.3	+17 38 47	E				82	108	182	01 12 30.0	+00 08 33	S			
64	134	129	01 08 29.0	+17 35 04	E/S0				83	114	179	01 12 22.1	+00 07 44	SB			
65	138	138	01 08 23.9	+17 37 45	S0				84	148	182	01 11 51.2	+00 08 39	S0			
66	138	134	01 08 24.0	+17 36 32	E				85	163	175	01 11 23.5	+00 06 28	S0			
67	150	135	01 08 09.1	+17 36 48	S0				86	164	183	01 11 21.7	+00 08 54	S			
68	172	141	01 07 48.5	+17 38 33	S				87	180	182	01 11 03.0	+00 08 36	S0/E			
69	283	137	01 07 01.1	+17 37 15	S0				88	042	191	01 13 49.8	+00 11 04	S			
70	206	129	01 06 56.7	+17 34 54	S0				89	105	194	01 12 39.3	+00 12 10	S0			
71	119	149	01 08 48.1	+17 40 56	S				90	114	187	01 12 22.7	+00 10 09	E			
72	132	159	01 08 32.1	+17 43 55	S				91	116	202	01 12 20.6	+00 14 38	S0/E			
73	135	150	01 08 27.4	+17 41 25	S				92	129	194	01 12 06.0	+00 12 21	S			
74	144	158	01 08 17.1	+17 43 50	S				93	136	194	01 11 55.7	+00 12 24	E			
75	150	163	01 08 08.4	+17 45 12	S				94	141	194	01 11 50.3	+00 12 23	S0			
76	152	157	01 08 06.4	+17 43 33	E				95	100	199	01 12 39.5	+00 13 39	I			
77	134	169	01 08 29.9	+17 47 03	S0				96	088	204	01 12 54.8	+00 15 12	S			
78	140	171	01 08 22.3	+17 47 38	S0/a				97	184	216	01 12 34.8	+00 18 46	S0			
79	150	165	01 08 08.6	+17 45 42	S0				98	119	211	01 12 17.1	+00 17 18	S0			
80	151	188	01 08 07.5	+17 52 31	S0				99	122	206	01 12 13.3	+00 15 46	S0			
ABELL 168 (CONT.)																	
1	100	063	01 12 39.1	-00 27 37	S/I				1	073	023	01 25 22.2	-02 17 51	Sa	14	9	4
2	040	076	01 13 51.3	-00 23 42	E				2	451	040	01 20 48.3	-02 14 13	Sb	14	2	4
3	044	082	01 13 46.9	-00 21 59	S				3	049	064	01 25 40.1	-02 10 23	S0	14	7	6
4	058	081	01 13 39.4	-00 22 10	E				4	114	065	01 24 52.6	-02 10 17	S0p	13	12	8
5	058	080	01 13 29.8	-00 22 33	S				5	127	045	01 24 43.4	-02 13 45	S0	14	8	4
6	076	075	01 13 07.4	-00 24 09	E+E				6	083	076	01 25 15.4	-02 08 15	E	13	13	2
7	082	084	01 13 00.8	-00 21 19	S				7	387	079	01 21 34.6	-02 07 15	S0	14	11	7
8	092	071	01 12 46.5	-00 25 10	E				8	159	103	01 24 28.2	-02 03 19	I	16	-1	-2
9	181	080	01 12 37.3	-00 22 43	S0				9	191	089	01 23 57.2	-02 05 51	S	16	-2	7
10	185	088	01 12 32.3	-00 22 37	S0				10	269	097	01 23 00.4	-02 04 18	S	16	3	3
11	122	084	01 12 12.5	-00 21 22	S				11	424	089	01 21 07.0	-02 05 28	S0	15	7	3
12	176	080	01 11 08.3	-00 21 57	S/S0				12	371	117	01 21 46.5	-02 08 25	Sa	14	12	5
13	049	090	01 13 41.3	-00 19 42	S0				14	016	125	01 26 03.8	-01 59 21	Sb	15	5	5
14	058	100	01 13 30.8	-00 16 36	S				15	327	136	01 22 18.0	-01 57 07	S0/a	16	3	4
15	087	092	01 12 54.5	-00 19 05	S0/E				16	074	155	01 25 22.2	-01 53 56	S0ab	1		

TABLE 2—Continued

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 488 (CONT.)																	
37	127	232	02 56 25.3	+05 47 17	S0/E	15	6	2	44	133	173	04 31 48.0	-13 21 21	S0	16	4	1
38	195	227	02 55 35.7	+05 46 21	S0/a	15	5	1	45	154	174	04 31 32.1	-13 21 04	E/S0	15	8	3
39	232	230	02 55 08.4	+05 47 05	S0	16	3	0	46	172	170	04 31 18.8	-13 21 52	cD	13	8	2
40	234	227	02 55 07.1	+05 46 32	S0	16	5	2	47	174	178	04 31 16.8	-13 20 20	E	16	5	0
41	232	244	02 55 08.8	+05 49 39	E	15	9	1	48	194	183	04 31 02.3	-13 19 27	E	15	7	2
42	248	244	02 55 03.0	+05 49 38	E	14	11	2	49	197	165	04 31 08.0	-13 22 47	S0	16	4	1
43	248	243	02 55 03.1	+05 49 20	S0	15	5	0	50	223	168	04 30 48.7	-13 22 14	S0	15	6	5
44	258	227	02 55 55.2	+05 46 36	S0	14	11	4	51	266	168	04 30 07.9	-13 22 12	S0	15	8	4
45	259	239	02 54 48.9	+05 48 46	S0	16	3	5	52	276	177	04 30 08.9	-13 20 30	Sb	16	1	4
46	264	229	02 54 45.2	+05 46 54	S0	16	4	4	53	306	165	04 29 38.4	-13 22 35	E	15	8	4
47	272	228	02 54 39.3	+05 46 47	S0	15	7	4	54	304	197	04 32 46.7	-13 16 54	U	16	-2	-2
48	321	232	02 54 03.5	+05 47 35	E	16	4	0	55	308	194	04 32 36.3	-13 17 33	Sa	15	6	3
49	098	247	02 56 46.9	+05 49 59	S	16	-1	0	56	167	208	04 31 22.2	-13 16 22	S0	14	9	2
50	184	249	02 56 42.2	+05 50 17	S0	16	5	5	57	180	199	04 31 12.9	-13 16 28	E	14	9	1
51	228	253	02 55 12.8	+05 51 09	S0	15	4	4	58	243	193	04 30 25.4	-13 17 40	S0	15	7	2
52	246	251	02 54 58.0	+05 50 48	E	15	7	1	59	254	198	04 30 17.2	-13 18 12	S0	14	9	8
53	316	252	02 54 07.3	+05 51 14	I	15	-1	-2	60	261	187	04 30 12.3	-13 18 42	S0	15	3	2
54	884	269	02 56 56.9	+05 53 51	Sa/b	14	8	2	61	297	198	04 29 45.4	-13 16 37	S0a	15	7	2
55	189	283	02 56 39.1	+05 56 24	S0	16	4	4	62	199	213	04 30 58.4	-13 14 03	S0/a	16	2	5
56	111	281	02 56 37.3	+05 56 04	Sc	14	1	0	63	200	206	04 30 57.4	-13 15 17	S0	14	7	7
57	141	275	02 56 15.7	+05 55 03	S0	15	4	1	64	302	220	04 29 41.8	-13 12 40	S0	16	2	2
58	186	267	02 55 42.3	+05 53 42	E/S0	14	9	2	65	208	211	04 29 52.1	-13 14 12	S0	16	2	0
59	222	281	02 55 16.0	+05 56 20	S0	16	5	3	66	171	238	04 31 19.3	-13 09 21	S0/a	15	5	6
60	246	293	02 54 58.5	+05 56 39	E	16	6	2	67	281	233	04 30 56.7	-13 10 17	S0	16	3	0
61	361	271	02 53 34.1	+05 54 45	S0bc	16	2	-2	68	288	234	04 30 51.5	-13 18 10	S0a	15	8	2
62	434	274	02 52 48.9	+05 55 28	Sc	14	8	2	69	050	260	04 32 50.1	-13 05 33	S0	15	2	6
63	148	300	02 56 16.5	+05 59 37	S/S0	16	3	8	70	174	258	04 31 17.5	-13 07 11	E/S0	16	5	4
64	142	288	02 56 14.8	+05 57 31	Sb	16	2	3	71	173	256	04 31 17.9	-13 06 06	S0	15	6	4
65	164	294	02 55 59.1	+05 58 34	Sa/b	15	4	3	72	200	261	04 30 57.7	-13 05 14	Sb	15	2	6
66	176	304	02 55 49.9	+06 00 23	S0/a	15	5	6	73	231	261	04 30 34.9	-13 05 09	S0	15	6	7
67	382	302	02 54 17.8	+06 00 18	Sap	15	5	-2	74	175	267	04 31 16.8	-13 04 14	S0	15	7	8
68	339	298	02 53 58.5	+05 59 38	S0	15	5	4	75	329	279	04 29 21.8	-13 01 58	S0bc	14	0	3
69	348	285	02 53 44.0	+05 57 15	Sc	15	6	6	76	059	291	04 32 43.5	-12 59 53	S0bab	15	4	3
70	441	291	02 52 36.0	+05 58 31	S0	15	6	2	77	236	285	04 30 30.9	-13 00 49	E/S0	14	10	4
71	294	309	02 54 23.4	+06 01 35	S0	15	5	4	78	307	315	04 29 38.0	-12 55 24	Sa	14	7	4
72	398	305	02 53 07.9	+06 00 57	Sc	15	1	0	79	077	329	04 32 30.1	-12 53 00	Sc	16	1	3
73	139	331	02 56 17.3	+06 05 14	S	16	2	0	80	117	323	04 32 08.0	-12 54 04	S0	15	6	3
74	175	337	02 55 58.9	+06 06 24	S0bc	14	2	4	81	229	329	04 30 36.7	-12 52 54	S0bc	15	2	3
75	348	339	02 53 49.9	+06 07 02	S0	14	8	7	82	272	328	04 30 04.1	-12 53 04	S0a	15	6	5
76	140	353	02 56 17.0	+06 09 15	S0b	16	2	3	83	326	334	04 29 24.6	-12 51 56	S0b	15	5	0
77	146	360	02 56 12.2	+06 10 29	Sc	16	1	5	84	325	336	04 29 25.1	-12 51 30	S0	16	4	5
78	147	357	02 56 11.9	+06 09 59	E/S0	16	5	1	85	333	325	04 29 19.3	-12 53 29	Sc	16	0	5
79	169	350	02 55 55.6	+06 08 42	S0b	15	7	0									
80	227	354	02 55 13.2	+06 09 37	S0	16	4	6									
81	246	361	02 54 59.0	+06 10 58	S0/a	16	4	4									
82	371	358	02 53 27.8	+06 10 31	S0/E	15	6	2									
83	484	348	02 53 03.8	+06 08 49	S0	14	9	6									
84	155	376	02 56 05.7	+06 13 26	S	15	4	3									
85	384	397	02 53 18.6	+06 17 36	Sc	14	2	5									
86	602	414	02 57 13.6	+06 20 06	Sab	15	4	1									
87	238	424	02 55 05.4	+06 22 23	Sc	16	0	2									
88	299	411	02 54 21.0	+06 20 00	S0	16	4	6									
89	183	431	02 55 45.8	+06 23 34	S0	14	6	9									
90	051	494	02 57 21.7	+06 34 31	S0	16	4	3									
91	243	499	02 55 02.5	+06 35 47	Sc	16	-1	9									
92	132	325	02 56 22.1	+06 04 09	Sa	15	7	2									
ABELL 496 (CONT.)																	
1	056	041	04 32 44.9	-13 45 23	Sa	16	3	4	1	013	012	05 16 36.2	+05 42 32	S0	16	4	2
2	187	030	04 31 06.8	-13 47 21	Sc	16	0	4	2	305	011	05 13 03.7	+05 42 17	Sc	16	0	6
3	170	060	04 31 19.8	-13 41 57	I	16	-1	-2	3	320	016	05 12 52.5	+05 43 18	S0	16	4	5
4	289	050	04 30 58.3	-13 43 35	S0	16	2	5	4	139	028	05 15 04.5	+05 45 22	S0/a	16	3	3
5	213	058	04 30 47.8	-13 42 12	S/S0	15	4	8	5	395	045	05 11 58.4	+05 48 26	S0/a	16	2	4
6	227	054	04 30 37.2	-13 42 53	Sc	15	1	8	6	284	147	05 14 17.8	+06 06 51	S0/S	16	-1	4
7	018	074	04 33 13.7	-13 39 22	S0a	16	3	2	7	224	163	05 14 03.1	+06 09 51	S0/S	16	2	8
8	077	070	04 32 29.5	-13 48 06	S0	16	3	3	8	298	163	05 13 14.7	+06 09 51	S0	16	5	7
9	162	070	04 31 26.0	-13 40 00	I	16	-1	-2	9	302	154	05 13 05.9	+06 08 10	S0	16	6	5
10	170	082	04 31 19.7	-13 37 47	S0	16	2	5	10	333	150	05 12 43.5	+06 07 26	S0	16	5	2
11	197	075	04 30 59.9	-13 39 18	S0	15	5	4	11	450	145	05 11 17.6	+06 06 37	E/S0	15	8	1
12	054	182	04 32 47.0	-13 34 17	S0	15	4	6	12	052	173	05 16 09.0	+06 11 38	S0	16	3	7
13	079	057	04 32 27.8	-13 35 09	E	14	9	2	13	121	167	05 15 18.6	+06 10 30	S0	16	3	4
14	137	184	04 31 44.8	-13 33 57	E	16	6	1	14	152	165	05 14 55.6	+06 10 09	S0b	16	6	2
15	146	184	04 31 38.1	-13 33 55	E	15	8	0	16	248	171	05 13 51.6	+06 11 13	S0b	16	4	-2
16	187	0															

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 539 (CONT.)																	
58	201	257	05 14 28.2	+06 26 54	S	16	-1	5	58	211	153	05 45 32.7	-25 54 53	S0	16	4	6
59	220	256	05 14 05.8	+06 26 42	S0	16	4	2	59	256	161	05 44 56.8	-25 53 28	Sbc	16	2	0
60	228	254	05 14 00.3	+06 26 22	S0/a	15	6	4	60	312	156	05 44 10.8	-25 54 11	E	16	5	1
61	232	260	05 13 57.5	+06 27 28	S0	16	6	5	61	312	151	05 44 18.6	-25 55 07	E	16	4	0
62	235	252	05 13 55.1	+06 26 05	S0	15	5	3	62	312	163	05 44 18.9	-25 53 05	S	16	-1	9
63	236	257	05 13 54.5	+06 26 59	E	14	11	2	63	315	156	05 44 09.0	-25 54 13	E	16	5	3
64	239	257	05 13 52.4	+06 27 00	S0	16	3	3	64	330	145	05 43 56.5	-25 56 11	S0	15	6	4
65	248	247	05 13 45.7	+06 25 06	Sb	15	4	2	65	336	154	05 43 51.5	-25 54 33	S0	14	5	9
66	339	247	05 12 38.5	+06 25 05	Sc	15	1	3	66	349	147	05 43 40.9	-25 55 50	S0	16	5	5
67	448	261	05 11 25.4	+06 27 45	Sbc	14	1	2	67	350	145	05 43 48.1	-25 56 17	E	16	5	2
68	209	274	05 14 13.9	+06 29 57	E	14	11	0	68	368	151	05 43 25.6	-25 55 08	S0	15	7	0
69	224	268	05 14 03.3	+06 28 55	S0	16	6	3	69	390	151	05 43 08.0	-25 55 03	S	16	-1	9
70	233	278	05 13 56.8	+06 30 43	Sb	15	4	4	70	395	158	05 43 04.2	-25 55 00	S0	16	5	7
71	345	274	05 12 34.4	+06 30 04	S0/S	16	2	7	71	396	164	05 43 03.5	-25 52 45	S0	15	6	6
72	369	270	05 12 17.2	+06 29 23	Sbab	16	4	2	72	420	168	05 42 43.5	-25 53 22	S0	15	8	8
73	155	288	05 14 54.1	+06 32 32	S	15	-2	0	73	430	152	05 42 35.8	-25 54 51	Sbc	14	3	3
74	191	291	05 14 27.3	+06 33 04	S0	16	4	6	74	439	158	05 42 48.2	-25 55 02	S	16	-1	6
75	218	296	05 14 13.2	+06 34 01	E	16	5	1	75	457	146	05 42 34.2	-25 55 47	S0	16	6	2
76	222	296	05 14 04.7	+06 34 07	S	15	-	7	76	481	156	05 41 55.1	-25 53 56	Sab	15	4	7
77	286	290	05 13 17.5	+06 32 55	I	16	-1	-2	77	234	178	05 45 14.4	-25 55 19	S0	15	5	4
78	298	290	05 13 08.7	+06 33 00	S0	15	6	6	78	266	184	05 44 48.5	-25 49 19	E2 <sup>3</sup>	14	9	2
79	628	305	05 16 32.1	+06 35 36	S0/a	16	4	2	79	303	167	05 44 18.7	-25 52 19	S0	16	6	5
80	482	307	05 10 54.4	+06 36 06	Sc	16	0	1	80	305	170	05 44 17.1	-25 51 46	S0/a	15	1	0
81	668	344	05 15 57.7	+06 42 45	S0	16	6	3	81	339	184	05 43 49.1	-25 49 03	Sba	16	6	1
82	132	354	05 15 10.8	+06 44 32	S0/a	16	4	3	82	397	170	05 43 02.8	-25 51 39	Sa/0	15	5	4
83	137	358	05 15 06.8	+06 45 20	S	16	3	7	83	396	185	05 43 03.0	-25 48 56	S0 <sub>3</sub> D	14	7	2
84	149	349	05 14 58.4	+06 43 39	S	16	1	7	84	427	165	05 42 38.6	-25 52 21	Sa	15	4	5
85	152	356	05 14 55.8	+06 44 51	Sbc	15	1	2	85	450	171	05 42 28.2	-25 51 16	S0	16	5	0
86	268	349	05 13 16.5	+06 43 38	Sbab	15	6	2	86	228	196	05 48 08.5	-25 47 06	S0	14	4	2
87	382	347	05 13 06.8	+06 43 22	S	16	-2	8	87	255	185	05 47 39.1	-25 49 11	Sc	16	1	10
88	366	346	05 12 19.5	+06 43 08	S0	15	6	5	88	129	200	05 46 39.6	-25 46 30	S0 <sub>3</sub>	14	6	6
89	172	381	05 14 41.2	+06 49 32	Sa	15	7	0	89	138	199	05 46 32.3	-25 46 36	S0 <sub>3</sub>	16	4	8
90	249	371	05 13 45.1	+06 47 38	Sc	16	1	3	90	150	203	05 46 22.7	-25 45 55	S0	16	5	5
91	198	397	05 14 28.8	+06 52 27	Sbc	14	3	7	91	195	203	05 45 46.1	-25 45 46	Eb	14	4	0
92	348	394	05 12 38.2	+06 51 51	Sc	16	-1	5	92	218	196	05 45 27.7	-25 47 08	E	16	6	3
93	158	426	05 14 57.3	+06 57 48	Sa/0	16	4	6	93	249	194	05 45 02.5	-25 47 23	Sbc	16	2	8
94	385	436	05 12 05.9	+06 59 29	S0	15	4	7	94	313	200	05 44 18.4	-25 46 17	Sp	14	1	5
95	289	452	05 14 14.5	+07 02 25	Sc	16	0	3	95	333	204	05 43 54.6	-25 45 27	S0	16	2	10
96	272	462	05 13 27.9	+07 04 14	S	16	1	2	96	332	198	05 43 54.9	-25 46 35	S	16	-1	10
97	292	469	05 13 13.9	+07 05 30	Sa	15	6	3	97	361	197	05 43 32.0	-25 46 40	E	16	6	2
98	295	477	05 13 11.5	+07 06 52	Sc	15	1	2	98	375	186	05 43 20.3	-25 48 44	Sab	13	5	2
99	318	486	05 12 54.4	+07 08 34	Sc	15	-1	4	99	390	199	05 43 08.4	-25 46 19	S0/a	15	5	3
ABELL 548																	
1	297	012	05 44 22.7	-26 20 23	Sbc	16	2	2	100	032	207	05 47 57.7	-25 45 11	E	13	11	1
2	380	038	05 43 15.9	-26 15 27	Sc	14	1	1	101	211	287	05 45 39.3	-25 45 09	S0	15	4	8
3	412	035	05 42 50.8	-26 16 03	Sb	15	2	4	102	321	223	05 44 04.3	-25 42 02	Sba	15	5	9
4	380	064	05 43 15.7	-26 16 44	E	16	5	2	103	329	214	05 43 58.0	-25 43 44	Sba	16	5	2
5	399	052	05 43 00.4	-26 12 55	Sab	14	4	5	104	338	217	05 43 58.6	-25 43 08	Sa	16	6	4
6	422	051	05 42 41.4	-26 13 07	S0/a	16	3	1	105	346	214	05 43 44.1	-25 43 35	Sba	15	5	3
7	436	053	05 42 30.3	-26 12 44	E	16	8	1	106	369	212	05 43 25.1	-25 44 00	Sa	16	4	8
8	474	058	05 42 00.2	-26 11 40	S0	15	5	8	107	312	230	05 48 13.7	-25 40 56	Sa	16	6	3
9	449	070	05 42 27.5	-26 09 32	S0	16	1	9	108	332	233	05 47 57.4	-25 48 22	S0	15	6	5
10	454	077	05 42 16.2	-26 08 16	S0	16	1	9	109	368	241	05 47 28.9	-25 38 56	S0	15	5	6
11	145	095	05 46 25.7	-26 05 25	Sba/0	14	5	2	110	100	234	05 47 02.7	-25 48 16	S0	16	5	7
12	268	098	05 44 46.0	-26 06 14	E	16	5	4	111	114	241	05 46 51.3	-25 39 01	I	14	-1	2
13	276	103	05 44 40.8	-26 04 00	E	16	5	6	112	114	241	05 46 51.9	-25 38 53	E <sub>p</sub>	15	5	2
14	382	102	05 43 14.4	-26 03 57	E	16	5	4	113	155	248	05 46 18.1	-25 39 07	Sbc	15	2	3
15	392	086	05 43 06.4	-26 06 48	Sbc	16	1	2	114	170	240	05 46 06.0	-25 39 12	S0	16	2	9
16	393	091	05 43 05.6	-26 05 56	E	16	6	0	115	183	235	05 46 56.2	-25 39 58	E	16	5	4
17	433	087	05 42 33.2	-26 06 34	Ep	15	7	5	116	188	243	05 45 51.4	-25 38 31	S0	15	6	5
18	436	099	05 42 30.5	-26 04 19	S0	16	5	2	117	221	236	05 45 25.1	-25 39 50	S0	16	5	5
19	439	096	05 42 28.4	-26 04 49	E	16	11	4	118	259	239	05 44 54.0	-25 39 14	S0	13	7	3
20	444	090	05 42 24.6	-26 05 59	E	15	7	1	119	266	237	05 44 48.5	-25 39 36	Sba	15	5	0
21	452	081	05 42 17.4	-26 07 35	Sa	15	6	-2	120	374	232	05 43 21.6	-25 40 25	S	16	-1	10
22	462	089	05 42 09.8	-26 06 01	Sa	15	4	7	121	374	260	05 47 43.3	-25 35 29	Sd/I	16	-1	7
23	481	095	05 41 54.4	-26 04 53	Sa	16	3	3	122	389	249	05 45 59.7	-25 37 31	S0	15	4	1
24	829	119	05 47 59.7	-26 01 02	Sc	16	1	5	123	223	260	05 45 23.4	-25 35 24	S0	13	9	4
25	219	112	05 45 26.4	-26 02 25	S0	16	5	5	124	225	252	05 44 58.0	-25 36 53	Sa	15	5	6
26	296	109	05 44 31.9	-26 02 47	E</												

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e									
ABELL 548 (CONT.)																										
161	142	298	05 46 29.3	-25 30 06	E	15	7	1	25	106	285	07 41 37.4	+09 22 17	S0	16	4	3									
162	281	286	05 45 41.5	-25 30 45	S0	16	4	4	26	208	212	07 40 22.7	+09 23 35	Sa	16	3	2									
163	332	300	05 43 56.1	-25 27 58	Sb	16	2	0	27	226	215	07 40 09.2	+09 24 05	E/S0	15	0	1									
164	356	303	05 43 36.6	-25 27 28	S0	16	3	2	28	443	218	07 37 29.0	+09 24 51	S0	16	4	2									
165	371	293	05 43 24.0	-25 29 17	S0/a	15	3	5	29	185	241	07 40 39.9	+09 28 50	S	15	2	6									
166	379	289	05 43 18.0	-25 29 55	S0	15	3	8	30	191	242	07 40 35.5	+09 29 01	S0	16	4	7									
167	344	293	05 43 46.3	-25 29 12	E	16	6	2	31	221	237	07 40 13.2	+09 28 07	Sb	15	4	0									
168	089	316	05 47 11.8	-25 25 19	S0	15	9	6	32	227	239	07 40 08.4	+09 28 32	S0	16	5	3									
169	099	308	05 47 03.9	-25 26 49	Sbb	15	1	2	33	239	243	07 39 59.5	+09 29 16	E	15	7	2									
170	181	306	05 47 02.2	-25 27 11	Sbb	14	3	0	34	243	245	07 39 56.6	+09 29 34	D	15	3	0									
171	185	307	05 45 59.0	-25 26 54	S0B	15	7	1	35	267	229	07 39 39.1	+09 26 47	S0	15	6	7									
172	188	313	05 46 56.8	-25 25 55	Sa/0	14	6	7	36	049	251	07 42 19.9	+09 30 34	S0	16	5	0									
173	122	306	05 46 44.9	-25 27 13	S0	15	6	6	37	129	262	07 41 20.8	+09 32 41	Sb	16	2	3									
174	132	309	05 46 36.9	-25 26 31	S0	16	5	8	38	229	263	07 40 07.2	+09 32 53	Sbab	16	3	0									
175	287	322	05 44 31.9	-25 24 00	S0	15	5	5	39	279	255	07 39 38.3	+09 31 25	S0	16	4	4									
176	321	312	05 44 04.4	-25 25 52	S/I	16	1	4	40	288	252	07 39 23.5	+09 30 57	S0	15	6	0									
177	409	309	05 42 53.7	-25 26 14	S0	16	5	4	41	447	256	07 37 26.2	+09 31 51	Sa	16	4	3									
178	059	339	05 47 35.7	-25 21 12	E	16	6	3	42	267	271	07 39 39.4	+09 34 28	E	16	6	2									
179	064	336	05 47 32.1	-25 21 38	SBa	15	5	2	43	057	298	07 42 13.9	+09 37 11	Sa	16	4	4									
180	073	335	05 47 24.8	-25 21 55	S0	16	5	5	44	112	296	07 41 33.8	+09 38 52	S0	16	2	3									
181	074	333	05 47 23.4	-25 22 17	S	16	2	9	45	166	292	07 40 54.2	+09 38 06	I	16	-1	-2									
182	079	336	05 47 19.9	-25 21 39	S0/D	12	0	4	46	197	302	07 40 31.3	+09 39 58	S0	16	2	3									
183	139	338	05 46 31.2	-25 22 48	E	16	5	1	47	197	298	07 40 30.8	+09 39 19	S0	15	2	0									
184	140	330	05 46 30.9	-25 22 50	E	16	4	2	48	422	314	07 37 44.7	+09 42 19	Sb	16	2	2									
185	273	336	05 44 43.3	-25 21 32	S	16	0	9	49	446	324	07 37 27.7	+09 44 13	Sb	16	2	0									
186	275	342	05 44 42.2	-25 26 28	S0	15	5	7	50	040	341	07 42 26.8	+09 46 48	Sbb	16	2	1									
187	034	355	05 47 55.8	-25 18 19	S0	15	4	8	51	100	329	07 41 42.4	+09 44 44	S0	15	5	2									
188	036	347	05 47 54.3	-25 19 46	S0	16	3	6	52	231	331	07 40 05.9	+09 45 17	S/I	16	-1	2									
189	055	347	05 47 39.0	-25 19 48	Sa	16	2	5	53	259	335	07 39 45.2	+09 46 02	S0	16	4	2									
190	068	355	05 47 28.6	-25 18 14	Sb	15	2	1	54	450	337	07 37 24.2	+09 46 27	Sa	16	5	2									
191	122	354	05 46 45.6	-25 18 26	Sa	15	5	7	55	102	351	07 41 41.3	+09 48 51	S0/a	15	5	4									
192	136	354	05 46 34.3	-25 18 25	Sc	16	1	3	56	450	368	07 37 24.9	+09 50 39	S0	16	4	5									
193	157	357	05 46 17.5	-25 17 52	S0 <sub>3</sub> /a	14	7	7	57	473	372	07 37 08.2	+09 52 55	S0 <sub>3</sub> /a	16	5	6									
194	149	350	05 46 23.8	-25 19 02	SBB	14	6	2	58	101	448	07 41 42.2	+10 04 48	Sc	15	-1	5									
195	199	353	05 45 43.4	-25 18 28	Sa	14	3	7	59	470	457	07 37 18.4	+10 08 08	S0	16	4	6									
196	212	351	05 45 33.2	-25 18 57	S0	14	9	9	60	447	476	07 37 27.5	+10 11 43	E	16	5	1									
197	218	349	05 45 27.7	-25 19 15	S0	16	5	9	61	232	249	07 40 05.0	+09 30 19	S0	16	5	5									
198	224	356	05 45 22.9	-25 17 54	Sa	16	4	3	ABELL 592 (CONT.)																	
199	235	348	05 45 14.0	-25 19 20	E	16	6	2	1	266	015	09 06 06.5	-10 08 47	E	16	5	2									
200	285	355	05 44 34.1	-25 18 01	Sa	14	4	7	2	310	012	09 05 34.2	-10 09 15	S0	16	3	3									
201	292	354	05 44 28.5	-25 18 11	S0/E	16	5	2	3	377	007	09 04 45.0	-10 09 59	Sc	16	0	4									
202	309	359	05 44 14.6	-25 17 20	Sb	15	2	3	4	274	028	09 06 00.4	-10 06 26	S0/a	16	4	4									
203	351	359	05 43 41.1	-25 17 18	S0	15	4	8	5	336	034	09 05 14.7	-10 05 10	SBBc	16	1	3									
204	148	300	05 46 24.5	-25 13 44	Sd/I	16	-1	7	6	385	033	09 04 38.8	-10 05 17	Sc	16	0	2									
205	171	373	05 46 05.7	-25 14 58	S0	16	1	9	7	448	030	09 03 52.4	-10 05 35	S/I	16	-1	2									
206	188	367	05 45 51.9	-25 16 81	S0	16	5	7	8	225	045	09 06 37.2	-10 03 22	S0	15	4	2									
207	222	368	05 44 24.4	-25 15 51	E/S0	14	10	0	9	290	058	09 05 48.6	-10 00 54	S0	16	2	7									
208	225	365	05 45 22.3	-25 16 23	E	15	9	1	10	336	072	09 05 15.3	-09 58 24	S0	16	4	3									
209	221	308	05 45 25.9	-25 13 32	SBB	16	5	-2	11	385	075	09 04 39.4	-09 57 43	Sb	15	3	6									
210	228	366	05 45 20.2	-25 16 09	E	16	6	3	12	416	069	09 04 16.4	-09 58 39	E	16	5	3									
211	292	374	05 44 28.6	-25 14 39	SBa	16	3	4	13	415	082	09 04 17.1	-09 56 26	Sbc	16	1	3									
212	032	403	05 47 56.8	-25 09 39	S0	15	5	0	14	486	080	09 03 25.3	-09 56 33	E	15	6	3									
213	064	388	05 47 31.3	-25 12 22	Sb	15	5	4	15	017	090	09 09 10.4	-09 55 27	I	16	-1	-2									
214	177	481	05 46 81.5	-25 09 50	E	15	9	2	16	081	100	09 08 23.4	-09 53 37	Sc	16	1	4									
215	184	391	05 45 55.2	-25 11 40	Sa	16	5	6	17	323	095	09 05 24.6	-09 54 14	Sb	15	3	2									
216	198	408	05 45 58.7	-25 18 01	Sb	13	4	1	18	306	187	09 05 37.7	-09 52 08	Sc	16	0	0									
217	195	394	05 45 46.3	-25 11 00	SBa	15	4	5	19	306	118	09 05 37.4	-09 50 00	S0	16	3	3									
218	271	399	05 44 45.2	-25 18 08	S0	16	2	8	20	314	122	09 05 31.3	-09 49 21	Sab	15	3	1									
219	298	389	05 44 24.1	-25 11 54	Sa	16	2	6	21	084	131	09 08 21.3	-09 48 04	S0	16	3	0									
220	362	401	05 43 32.7	-25 09 33	E/S0	16	6	5	22	177	128	09 07 13.0	-09 49 26	S0	16	3	5									
221	367	403	05 43 28.5	-25 09 20	E	16	5	1	23	196	142	09 06 59.0	-09 45 54	S0	16	3	5									
222	114	413	05 46 51.9	-25 07 44	Sa	15	5	1	24	296	130	09 05 45.3	-09 47 52	Sa	15	5	3									
223	205	414	05 45 39.0	-25 07 29	S	16	-1	9	25	307	133	09 05 36.5	-09 47 26	E	15	0	4									
224	213	422	05 45 32.4	-25 05 58	S0	16	5	6	26	313	137	09 05 32.6	-09 46 39	SBa	16	4	1									
225	218	408	05 45 28.2	-25 08 26	SBC	13	2	0	27	403	128	09 04 26.4	-09 48 07	S0	16	4	3									
226	223	414	05 45 24.5	-25 07 21	Sbc	14	1	4	28	449	136	09 03 52.7	-09 46 34	Sbb	16	2	1									
227	389	406	05 43 18.5	-25 08 39	Sa	16	2	4	29	132	148	09 07 46.3	-09 44 49	Sbc	16	1	-2									
228	417	415	05 42 48.7	-25 07 05	Sa	14	9	3	30	153																

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e									
ABELL 754 (CONT.)																										
63	171	228	09 07 18.0	-09 30 11	S0	16	4	4	12	477	126	09 31 47.4	-05 07 55	Sb	15	3	2									
64	189	231	09 07 08.9	-09 29 44	S0	15	5	4	13	226	156	09 34 50.9	-05 02 39	Sb	16	2	0									
65	192	235	09 07 02.1	-09 28 54	S0/a	16	4	0	14	253	158	09 34 38.8	-05 02 21	S0	15	6	3									
66	197	230	09 06 59.1	-09 29 47	S0	16	4	4	15	073	177	09 36 42.2	-04 58 47	SBBc	16	1	2									
67	205	231	09 06 53.1	-09 29 41	D/S0	14	6	1	16	253	178	09 34 30.6	-04 58 40	S0	15	5	5									
68	215	232	09 06 45.5	-09 29 29	S0	16	4	3	17	299	181	09 33 57.5	-04 58 06	S0/a	15	-2	4									
69	237	237	09 06 29.3	-09 28 28	E	15	7	2	18	252	188	09 34 31.7	-04 58 18	S0	16	4	3									
70	254	230	09 06 16.3	-09 29 48	Sa	16	4	-2	19	162	192	09 35 37.6	-04 56 07	Sa	16	3	-2									
71	298	232	09 05 44.4	-09 29 22	S0	16	3	3	20	257	265	09 34 26.1	-04 53 48	Sa	15	7	1									
72	331	239	09 05 19.5	-09 27 57	S0	16	3	4	21	313	216	09 33 47.1	-04 52 51	S0	16	5	1									
73	346	229	09 05 08.9	-09 29 49	S0	15	5	2	22	322	287	09 33 48.2	-04 53 17	E	16	5	1									
74	361	239	09 04 57.9	-09 27 55	S0	16	4	2	23	324	289	09 33 38.9	-04 52 55	Sa/0	16	4	3									
75	396	244	09 04 32.1	-09 27 01	S0	16	3	5	24	422	222	09 32 27.8	-04 50 41	I	16	-1	-2									
76	475	242	09 03 33.8	-09 27 15	Sc	16	-1	5	25	241	233	09 34 39.4	-04 48 41	Ep	14	9	8									
77	121	251	09 07 54.7	-09 26 04	S0	16	2	0	26	243	232	09 34 38.4	-04 48 43	E/S0	15	7	1									
78	126	258	09 07 51.4	-09 24 46	E/S0	14	8	0	27	248	232	09 34 34.4	-04 48 52	E	15	7	2									
79	151	251	09 07 33.0	-09 26 03	S0p	16	4	-2	28	295	233	09 33 59.9	-04 48 32	E	16	5	2									
80	170	250	09 07 18.0	-09 26 17	S0	16	2	7	29	256	253	09 34 28.7	-04 44 57	Sc	15	2	2									
81	191	257	09 07 03.0	-09 24 58	S0	16	3	4	30	367	248	09 33 07.2	-04 45 55	Sa	16	3	4									
82	194	253	09 07 01.3	-09 25 37	E/S0	15	7	3	31	368	248	09 33 06.8	-04 45 51	S0	16	4	5									
83	195	246	09 07 08.6	-09 26 58	I	16	-1	-2	32	212	269	09 35 00.7	-04 42 06	S0	16	3	8									
84	212	251	09 06 47.5	-09 26 08	S0	16	3	7	33	226	271	09 34 50.7	-04 41 38	S0/S	16	2	9									
85	227	248	09 06 36.0	-09 26 29	S0	15	3	8	34	266	269	09 34 21.0	-04 42 01	S	16	1	6									
86	233	257	09 06 32.5	-09 24 55	S0/E	16	3	3	35	350	266	09 33 28.1	-04 42 33	SBB	15	3	3									
87	233	263	09 06 32.1	-09 23 44	E	15	8	3	36	010	381	09 37 27.9	-04 36 15	U	16	5	-2									
88	236	264	09 06 30.1	-09 23 38	S0	15	4	4	37	121	295	09 36 07.4	-04 37 19	S0	15	6	7									
89	253	262	09 06 17.7	-09 23 54	SBB	16	2	0	38	254	292	09 34 38.3	-04 37 52	I	16	-1	-2									
90	259	258	09 06 12.8	-09 26 12	E	16	5	1	39	364	291	09 33 10.8	-04 37 59	U	16	-2	-2									
91	268	253	09 06 06.3	-09 25 35	D	13	6	3	40	300	387	09 33 56.7	-04 35 04	Sa	15	6	0									
92	270	258	09 06 05.2	-09 26 11	E/S0	15	6	3	41	365	323	09 33 08.7	-04 32 09	E	15	8	1									
93	276	254	09 06 00.4	-09 25 23	E	16	5	1	42	373	315	09 33 03.2	-04 33 37	Sa	15	5	7									
94	281	250	09 05 57.1	-09 26 08	S0	15	5	8	43	382	322	09 32 56.3	-04 32 23	SBB	14	5	3									
95	281	251	09 05 56.9	-09 25 56	E	16	5	2	44	404	320	09 32 48.8	-04 32 44	E	14	10	2									
96	291	257	09 05 49.6	-09 24 58	S0	15	5	3	45	486	320	09 32 39.4	-04 32 50	Sc	16	1	1									
97	375	256	09 04 47.2	-09 24 47	S0 <sub>3</sub> /a	15	4	5	46	357	328	09 33 14.6	-04 31 23	S0/D	14	9	1									
98	386	260	09 04 39.5	-09 24 08	S0 <sub>3</sub> a	16	3	6	47	008	360	09 37 29.3	-04 25 36	Sc	15	1	2									
99	464	259	09 03 42.4	-09 24 13	S0 <sub>3</sub> /a	15	5	3	48	342	361	09 33 25.9	-04 25 20	Sab	16	2	5									
100	117	282	09 07 58.3	-09 28 25	S0	16	4	5	49	022	381	09 37 19.0	-04 21 47	S	16	-2	5									
101	118	283	09 07 57.5	-09 29 20	S0	15	3	4	50	164	375	09 35 35.6	-04 22 46	Sc	16	1	2									
102	150	266	09 07 34.0	-09 23 23	E	15	7	3	51	021	387	09 37 19.7	-04 20 42	Sb	15	4	1									
103	284	277	09 06 53.9	-09 21 18	S0	16	4	7	52	025	396	09 37 16.8	-04 18 56	SBB/a	15	0	1									
104	287	275	09 06 51.4	-09 21 43	S0/S	15	3	7	53	041	399	09 37 05.3	-04 18 26	Sc	15	2	5									
105	243	266	09 06 25.0	-09 23 18	SBB	15	3	-2	54	056	398	09 36 54.1	-04 18 42	S0	16	5	4									
106	256	271	09 06 15.3	-09 22 22	S0	16	2	6	55	214	392	09 34 59.4	-04 19 34	Sc	16	1	3									
107	270	272	09 06 05.1	-09 22 03	S0	16	3	6	56	052	410	09 36 57.1	-04 16 29	Sc	15	2	3									
108	275	276	09 06 01.1	-09 21 24	E	15	5	3	57	093	449	09 36 27.1	-04 09 28	S0	16	5	7									
109	289	277	09 05 50.8	-09 21 06	S0	16	3	0	58	383	454	09 32 56.5	-04 08 32	E	16	5	2									
110	298	285	09 05 44.2	-09 19 45	S0	16	3	8	59	020	477	09 37 28.0	-04 04 28	S0/ap	15	6	3									
111	346	273	09 05 09.1	-09 21 48	S0	16	4	5	60	028	469	09 37 13.9	-04 05 47	S0	16	2	7									
112	364	272	09 04 56.0	-09 21 53	S0	16	4	0	61	125	467	09 36 04.2	-04 06 10	E/S0	15	7	0									
113	384	277	09 04 40.6	-09 21 01	S0	16	3	7	62	174	481	09 35 28.0	-04 03 32	Sab	16	3	7									
114	428	276	09 04 08.7	-09 21 03	S0	15	5	4	ABELL 957																	
115	099	297	09 04 11.4	-09 17 49	S0	16	3	4	ABELL 957																	
116	230	294	09 06 34.4	-09 18 11	SBB/a	16	2	3	1	051	843	10 13 47.3	-01 15 46	SBC	16	0	2									
117	242	286	09 06 26.1	-09 19 35	E	15	8	3	2	131	045	10 12 49.8	-01 15 41	Sc	16	-1	6									
118	253	294	09 06 17.5	-09 18 06	U	15	4	-2	3	436	062	10 09 08.4	-01 13 00	S/I	16	-1	2									
119	253	293	09 06 17.4	-09 18 12	U	16	2	-2	4	136	070	10 12 45.8	-01 11 11	Sd	15	0	5									
120	253	291	09 06 17.4	-09 18 36	S0	16	4	1	5	288	066	10 10 55.7	-01 12 05	S0	16	3	6									
121	283	289	09 05 55.3	-09 18 58	SBB/a	16	4	-2	6	398	076	10 09 35.6	-01 10 20	S	16	1	4									
122	292	294	09 05 48.6	-09 18 08	S0	15	5	6	7	411	072	10 09 25.9	-01 11 04	S/S0	15	4	3									
123	286	266	09 05 51.6	-09 23 11	S0	16	4	1	8	006	087	10 14 19.9	-01 07 51	S0/a	15	2	2									
124	299	290	09 05 43.5	-09 18 50	S0	16	3	3	9	039	102	10 13 56.0	-01 05 13	SBC	16	1	0									
125	366	295	09 04 58.9	-09 17 43	E	15	8	2	10	175	087	10 12 17.3	-01 00 10	SBB	14	3	0									
126	134	319	09 07 45.8	-09 13 49	Sa/0	16	4	2	11	165	122	10 12 24.2	-01 01 45	Sc	16	4	3									
127	240	308	09 06 27.5	-09 15 37	S0	15	6	6	12	176	114	10 12 16.7	-01 03 12	S0/a	16	2	4									
128	277	303	09 06 00.4	-09 16 23	Sa	16	1	1	13	285	119	10 11 55.6	-01 02 26	Sb	15	3	4									
129	340	311	09 05 13.3	-09 14 54	S/S0	15	2	0	14	285	121	10 11 55.6	-01 02 03	S0	15	6	-2									
130	341	317	09 0																							

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e									
ABELL 957 (CONT.)																										
49	268	245	18 11 08.7	-00 39 28	S0	16	2	7	64	308	447	18 17 14.6	-05 38 34	S/I	16	2	-2									
50	271	260	18 11 06.8	-00 36 53	S0	16	3	6	65	418	446	18 15 54.7	-05 38 46	Sc	16	-1	4									
51	266	250	18 10 55.4	-00 38 36	S0	16	4	4	66	162	464	18 19 01.2	-05 35 51	E	16	6	0									
52	294	247	18 10 50.1	-00 39 10	S0	16	5	5	67	312	498	18 17 12.2	-05 30 57	S0	16	5	3									
53	323	249	18 10 29.1	-00 38 54	S/I	16	-1	10	68	350	488	18 16 43.9	-05 31 11	Sab	16	2	2									
54	327	250	18 10 25.7	-00 38 39	S00	15	6	2	69	413	308	10 15 56.7	-06 03 38	S00	14	2	2									
55	287	281	18 14 18.6	-00 32 36	E	16	6	0	ABELL 978 (CONT.)																	
56	198	278	18 12 06.0	-00 34 58	S0b	14	4	1	1	041	012	18 20 25.5	-08 20 37	Sa	16	2	0									
57	196	278	18 12 01.2	-00 34 50	S0	16	3	2	2	075	011	18 20 00.8	-08 20 46	Sa/0	16	4	3									
58	197	268	18 12 00.8	-00 35 12	S0	16	4	3	3	227	017	18 18 10.0	-08 19 37	S0/a	15	2	0									
59	293	266	18 10 50.9	-00 35 40	S00	16	7	0	4	233	012	18 18 05.0	-08 20 27	E/S0	15	7	2									
60	301	270	18 10 44.7	-00 35 04	Sc	16	0	0	5	256	007	18 17 48.3	-08 21 19	S0b	15	2	0									
61	886	288	18 14 19.2	-00 31 21	Sc	16	0	-2	6	258	017	18 17 47.0	-08 19 30	Sc	16	1	3									
62	888	290	18 13 19.8	-00 31 04	Sb	16	2	3	7	272	008	18 17 36.5	-08 21 02	Sa	15	4	3									
63	178	292	18 12 14.6	-00 38 49	Sa	15	4	6	8	381	024	18 16 16.7	-08 18 00	S0	16	2	4									
64	306	288	18 10 40.8	-00 31 47	S0	16	6	1	9	496	008	18 14 53.1	-08 20 18	Sc	15	-	7									
65	378	311	18 09 54.7	-00 27 44	S0	16	5	1	10	241	032	18 17 59.8	-08 16 47	S0	15	5	0									
66	212	338	18 11 49.2	-00 22 30	Sbc	15	2	1	11	318	039	18 17 03.4	-08 15 26	S0	15	5	4									
67	276	339	18 11 02.4	-00 22 27	S0	16	4	2	12	342	039	18 16 45.8	-08 15 24	S	16	-1	8									
68	330	391	18 10 22.9	-00 13 03	S/I	16	-1	-2	13	284	055	18 17 28.2	-08 12 41	SBC	16	0	0									
69	330	389	18 10 23.0	-00 13 28	S/I	16	-1	-2	14	291	058	18 17 22.9	-08 12 05	S0	16	3	4									
70	879	412	18 13 25.7	-00 08 58	S0/a	16	3	6	15	394	063	18 16 07.9	-08 18 53	Sd/I	16	-1	-2									
71	898	411	18 13 19.0	-00 09 08	E/S0	15	8	2	16	437	048	18 15 36.1	-08 13 30	S0b	15	2	2									
72	359	410	18 10 01.9	-00 09 37	I	16	-1	-2	17	444	079	18 15 31.3	-08 07 53	S0	16	2	7									
73	478	413	18 08 35.8	-00 09 18	S0b	16	2	4	18	308	088	18 17 6.9	-08 06 33	Sbc	16	1	0									
74	884	431	18 13 21.3	-00 05 31	E	16	5	3	19	256	128	18 17 49.0	-08 59 22	S0	16	3	3									
75	188	432	18 12 12.2	-00 05 23	E/S0	14	9	3	20	187	153	18 18 48.1	-08 54 59	Sab	15	4	1									
76	252	439	18 11 19.4	-00 04 12	Sc	16	0	2	21	287	163	18 17 26.7	-08 53 05	Sbc	15	1	1									
77	183	429	18 13 08.2	-00 05 52	S0	16	3	2	22	307	164	18 17 11.8	-08 52 45	Sba	15	6	3									
78	198	461	18 13 10.1	-00 08 06	Sc	16	0	1	23	172	173	18 18 51.6	-08 51 28	E	16	6	1									
79	319	482	18 10 31.1	+00 03 21	Sd	15	-1	6	24	206	169	18 18 26.2	-08 52 81	S0	15	5	3									
80	193	493	18 12 01.9	+00 05 38	Sb	16	2	3	25	233	174	18 18 06.8	-08 51 09	E	16	6	3									
81	260	487	18 11 13.9	+00 04 24	S0	16	1	3	26	254	198	18 17 51.6	-08 48 12	E	15	7	2									
82	415	495	18 09 21.3	+00 05 34	E	16	6	3	27	457	203	18 15 22.3	-08 45 14	Sa	15	6	5									
83	462	498	18 08 47.2	+00 04 34	S0b	15	3	2	28	661	210	18 20 13.2	-08 44 55	Sab	16	2	4									
84	871	244	18 13 32.5	-00 39 29	Sc	16	0	3	29	269	214	18 17 40.7	-08 43 47	Sb	16	1	5									
ABELL 978																										
1	254	835	18 17 58.9	-06 53 34	Sa	16	5	1	31	427	217	18 15 44.7	-07 42 53	Sbc	16	1	0									
2	384	839	18 17 14.6	-06 52 48	Sb	16	2	4	32	479	222	18 15 07.0	-07 41 45	Sc	16	1	1									
3	234	846	18 18 05.6	-06 51 42	Sbc	16	1	3	33	487	228	18 15 08.8	-07 42 09	S/I	16	-1	5									
4	899	881	18 19 45.1	-06 45 24	I	16	-1	-2	34	555	227	18 17 17.6	-07 41 51	S0	16	0	3									
5	292	872	18 17 30.6	-06 46 54	S/I	16	-1	0	35	164	230	18 16 57.6	-07 41 01	E	15	8	0									
6	378	882	18 16 20.8	-06 44 46	S	16	-2	0	36	166	235	18 16 56.7	-07 40 10	Sab	15	4	3									
7	866	887	18 20 08.5	-06 44 19	Sc	16	0	2	37	208	228	18 18 25.1	-07 41 24	SBC	15	0	2									
8	214	891	18 18 20.6	-06 43 27	Sbc	15	2	3	38	218	233	18 18 17.8	-07 40 27	S/S0	16	1	0									
9	257	898	18 17 49.6	-06 42 13	Sb	15	3	2	39	257	243	18 17 49.0	-07 38 30	D	14	7	0									
10	873	914	18 20 04.2	-06 39 33	Sd	15	-1	5	40	292	238	18 17 23.8	-07 39 25	S0	16	4	4									
11	232	120	18 18 08.1	-06 38 16	Sc	15	0	5	41	196	247	18 18 34.3	-07 37 54	S0	16	3	5									
12	253	121	18 17 52.6	-06 38 04	S0	16	5	0	42	216	254	18 18 19.8	-07 36 39	S0b	15	2	4									
13	257	119	18 17 49.2	-06 38 21	E	16	5	4	43	252	246	18 17 53.6	-07 38 01	S0	16	3	6									
14	262	115	18 17 45.9	-06 39 06	E	16	5	0	44	263	245	18 17 45.2	-07 38 06	Sba/0	15	3	4									
15	311	124	18 17 09.7	-06 37 18	S0	16	3	2	45	268	258	18 17 41.5	-07 35 47	E	15	0	1									
16	218	142	18 18 18.5	-06 34 16	S0bc	15	2	3	46	295	259	18 17 21.7	-07 35 35	E	16	6	0									
17	223	130	18 18 14.5	-06 36 28	Sbc	15	2	0	47	315	252	18 17 07.3	-07 36 41	S0	15	5	0									
18	224	143	18 18 13.5	-06 34 06	E/S0	16	6	1	48	105	274	18 19 11.2	-07 33 13	I	16	-1	-2									
19	309	126	18 17 11.8	-06 36 56	Sc	16	0	2	49	197	281	18 18 34.3	-07 31 38	E	15	8	0									
20	323	142	18 17 01.5	-06 34 02	S0	16	4	3	50	198	277	18 18 33.0	-07 32 24	S0	16	1	2									
21	345	143	18 16 44.8	-06 33 52	S	16	1	0	51	259	275	18 17 48.7	-07 32 38	S	16	2	8									
22	408	132	18 15 59.2	-06 35 43	Sc	16	1	1	52	273	280	18 17 38.4	-07 31 44	Sa	15	6	4									
23	412	132	18 15 55.9	-06 35 42	S/I	16	-1	-2	53	277	269	18 17 34.9	-07 33 47	S/I	16	-1	1									
24	232	147	18 18 07.8	-06 33 18	Sc	16	0	2	54	297	283	18 17 20.5	-07 31 03	S0/a	16	3	2									
25	265	148	18 17 44.1	-06 33 01	S	16	-2	0	55	321	280	18 17 03.1	-07 31 34	E	16	5	2									
26	164	174	18 18 58.1	-06 28 26	S0	15	3	8	56	455	272	18 15 24.3	-07 32 45	S	16	-2	4									
27	208	177	18 18 26.8	-06 27 49	Sbc	15	2	3	57	173	293	18 18 52.0	-07 29 34	Sa/0	15	6	4									
28	262	171	18 17 45.9	-06 28 58	Sc	16	1	2	58	208	381	18 18 25.7	-07 28 04	S/S0	16	8	0									
29	881	191	18 19 58.6	-06 25 31	S0/a	15	6	2	59	235	293	18 18 06.3	-07 29 30	E/S0	15	7	0									
30	185	203	18 18 43.1	-06 23 13	S0	16	5	2	60	290	299	18 17 26.1	-07 28 09	Sa	15	-2	5									
31	199	193	18 18 32.7	-06 24 57	S0	16	5	7	61	147	315	18 19 11.3	-07 25 33	S0/a	15	7	6									
32	2																									

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	a	mb	e	#	X	Y	R.A.	DEC.	TYPE	a	mb	e									
ABELL 993 (CONT.)																										
3	366	818	18 17 55.2	-05 24 07	S0p	16	4	3	2	126	872	18 39 51.0	-08 52 48	S0c	15	1	0									
4	437	818	18 17 54.3	-05 24 04	SBa/0	16	4	2	3	438	866	18 35 01.8	-08 53 20	S0	16	2	0									
5	449	818	18 16 55.4	-05 25 28	Sb	16	1	3	4	173	115	18 35 16.8	-08 45 02	S	14	-2	0									
6	451	816	18 16 54.0	-05 24 19	Sa	13	8	0	5	204	108	18 37 53.9	-08 46 12	Sc	16	0	0									
7	863	828	18 21 36.0	-05 22 36	Sc	14	1	0	6	361	110	18 35 58.3	-08 45 41	S	16	-2	0									
8	121	844	18 20 54.2	-05 19 45	S0	16	4	1	7	166	139	18 38 22.2	-08 40 41	S0c	15	2	0									
9	190	831	18 20 53.4	-05 21 57	S0	14	6	7	8	204	127	18 37 54.0	-08 42 49	S0b	15	2	0									
10	225	834	18 19 58.4	-05 21 29	Sb	15	2	5	9	243	129	18 37 24.9	-08 42 28	E/S0	15	7	0									
11	344	832	18 18 11.4	-05 21 41	S0	16	3	4	10	360	128	18 35 59.2	-08 42 24	S0c	16	0	0									
12	378	825	18 17 52.3	-05 22 55	Sc	16	8	0	11	163	156	18 38 24.4	-08 37 39	S0c	15	2	0									
13	468	825	18 16 41.9	-05 22 41	SBa	13	9	0	12	165	157	18 39 22.6	-08 37 28	S0	16	3	0									
14	475	827	18 16 36.5	-05 22 12	SBab	15	4	2	13	195	155	18 38 01.0	-08 37 39	Sa	16	4	0									
15	395	864	18 17 34.5	-05 15 50	Sbb	15	3	0	14	165	168	18 38 23.0	-08 35 21	S0	16	4	0									
16	410	850	18 17 23.3	-05 18 15	Sb	16	2	0	15	203	172	18 37 55.1	-08 34 34	S0	16	5	1									
17	248	876	18 19 21.3	-05 13 52	Sc	16	0	1	16	204	165	18 37 53.8	-08 35 56	S0	16	1	0									
18	276	865	18 19 01.1	-05 15 47	E	16	5	2	17	179	189	18 38 12.8	-08 31 34	Sa	14	6	0									
19	289	881	18 18 51.5	-05 12 56	S0	16	3	5	18	239	187	18 37 28.5	-08 31 46	S0/a	16	3	0									
20	445	875	18 16 56.5	-05 13 45	S0	16	1	4	19	247	225	18 37 23.1	-08 24 58	E/S0	16	6	0									
21	847	885	18 21 48.5	-05 08 48	E	16	5	0	20	251	222	18 37 20.1	-08 25 28	S0/a	16	4	0									
22	288	887	18 19 56.8	-05 08 13	Sa	16	3	3	21	260	221	18 37 15.3	-08 25 32	S0p	15	6	0									
23	132	827	18 28 46.9	-05 04 46	S0	16	4	2	22	238	236	18 37 29.8	-08 22 51	Sab	15	4	2									
24	220	826	18 19 42.7	-05 04 45	S	16	-1	0	23	437	232	18 38 03.5	-08 23 15	S0c	16	-1	0									
25	410	144	18 17 23.9	-05 01 20	S0	16	2	0	24	241	255	18 37 27.1	-08 19 24	S	15	4	2									
26	481	133	18 16 32.3	-05 03 10	Sc	16	1	5	25	259	255	18 37 14.3	-08 20 20	E	16	5	0									
27	260	150	18 19 13.3	-05 08 27	Sb	16	2	6	26	132	278	18 38 47.5	-08 15 20	S0p	16	2	3									
28	398	147	18 17 32.5	-05 08 46	S0	16	2	2	27	134	278	18 38 46.5	-08 15 23	S0p	15	-1	2									
29	407	153	18 17 26.2	-04 59 35	Sc	16	1	3	28	262	269	18 37 12.3	-08 16 51	Sc	15	0	2									
30	884	174	18 21 22.0	-04 56 18	Sc	16	0	2	29	268	269	18 37 07.5	-08 16 52	S0	15	5	0									
31	368	171	18 17 48.0	-04 56 21	E/S0	16	6	2	30	276	281	18 37 81.6	-08 14 41	S0	16	4	7									
32	878	193	18 21 32.2	-04 52 44	S0p	15	3	-2	31	316	286	18 36 32.0	-08 14 48	S0	16	0	2									
33	227	212	18 19 37.5	-04 49 13	SBa	15	6	5	32	280	302	18 36 59.3	-08 18 53	S	16	-2	0									
34	388	213	18 18 38.7	-04 48 57	E	16	6	3	33	097	310	18 39 13.8	-08 09 41	I	16	-1	-2									
35	411	216	18 17 22.9	-04 48 10	S0p	16	2	-2	34	245	344	18 37 25.3	-08 03 09	E	16	6	0									
36	413	217	18 17 21.6	-04 47 59	S0	16	5	2	35	457	337	18 34 49.4	-08 04 14	S/I	15	-1	3									
37	249	236	18 19 21.4	-04 44 49	S0/E	15	6	0	36	201	362	18 37 57.4	-08 00 00	S0	16	0	0									
38	252	240	18 19 19.5	-04 44 01	S0	16	4	3	37	203	360	18 37 55.9	-08 00 19	S0	16	0	3									
39	260	233	18 19 13.9	-04 45 22	Sc	16	0	0	40	085	381	18 39 22.7	-08 56 47	S0	15	4	0									
40	368	242	18 17 54.4	-04 43 36	S0p	16	2	4	41	095	368	18 39 15.3	-08 59 11	S0	16	4	7									
41	372	239	18 17 51.9	-04 44 05	Sbb	16	2	3	42	357	384	18 36 03.3	-08 55 45	S0	16	5	6									
42	374	234	18 17 58.1	-04 45 00	Sc	15	0	6	43	099	376	18 39 12.1	-08 57 35	S0	16	4	3									
43	382	229	18 17 44.5	-04 45 52	S0	16	2	6	44	318	397	18 36 31.5	-08 53 38	S0	16	1	1									
44	423	242	18 17 14.8	-04 43 32	S0	16	2	4	45	386	390	18 35 42.0	-08 54 48	Sb	16	2	7									
45	186	264	18 20 08.1	-04 39 43	Sc	16	0	0	46	198	418	18 38 05.7	-08 49 54	Sab	16	2	-1									
46	237	264	18 19 39.0	-04 39 41	S0	16	4	0	47	197	460	18 38 00.7	-08 42 21	S0b	15	2	0									
50	399	254	18 17 32.2	-04 41 21	U	16	4	3	48	150	491	18 38 35.2	-08 36 43	S/I	16	-1	-2									
51	265	267	18 19 53.8	-04 39 10	Sa/0 <sub>3</sub>	15	5	6	ABELL 1139																	
52	245	272	18 19 24.5	-04 38 15	S0/D <sub>3</sub>	14	7	1	ABELL 1139																	
53	271	267	18 19 06.0	-04 39 01	S0	16	5	1	1	171	014	18 56 47.3	+01 04 38	S0/E	16	5	2									
54	282	279	18 18 57.0	-04 36 54	Sa	16	4	3	2	239	045	18 55 57.6	+01 10 22	S0	16	2	0									
55	292	273	18 18 50.6	-04 37 59	Sbb	16	2	0	3	384	050	18 54 13.0	+01 11 21	Sa	16	2	3									
56	312	265	18 19 36.1	-04 39 22	S0	16	4	7	4	407	071	18 53 55.8	+01 15 13	Sc	16	1	0									
57	898	288	18 21 11.9	-04 35 28	Sbb	15	4	0	5	464	078	18 53 14.6	+01 16 36	S0	16	0	0									
58	107	285	18 21 05.3	-04 35 59	Sa	14	9	4	6	418	091	18 53 47.8	+01 18 51	S0c	16	1	1									
59	287	286	18 19 52.3	-04 35 43	S0	16	2	0	7	117	115	18 57 27.3	+01 22 52	Sb	16	2	4									
60	249	289	18 19 21.9	-04 35 06	S0	16	5	3	8	255	124	18 55 43.9	+01 24 34	S0c	16	-1	0									
61	298	288	18 18 51.9	-04 35 15	S0	14	8	0	9	177	128	18 56 43.7	+01 25 26	S0 <sub>2</sub>	15	8	0									
62	326	292	18 19 25.7	-04 34 32	Sc	16	1	5	10	193	138	18 56 31.8	+01 27 03	S0 <sub>2</sub>	14	1	3									
63	466	298	18 16 44.0	-04 34 33	S0	15	5	0	11	302	160	18 55 12.6	+01 31 14	S0 <sub>3</sub>	15	5	0									
64	184	306	18 21 07.9	-04 32 08	Sa	16	4	2	12	121	172	18 57 24.5	+01 33 15	S0 <sub>3</sub>	16	3	4									
65	340	321	18 18 15.6	-04 29 09	Sbb	15	4	2	13	434	176	18 53 37.0	+01 34 17	Sa	16	4	4									
66	358	317	18 18 02.5	-04 29 52	Sb	16	2	3	14	201	196	18 58 36.6	+01 37 36	S0	16	2	5									
67	362	324	18 17 59.6	-04 28 41	Sba/0	14	8	3	15	189	204	18 56 35.3	+01 39 09	Sc	16	1	2									
68	460	312	18 16 48.3	-04 38 42	Sa	16	3	3	16	231	203	18 56 04.7	+01 39 00	S0	16	3	1									
69	322	331	18 18 29.0	-04 22 01	S0	16	5	2	17	247	203	18 55 52.5	+01 39 05	S0/E	14	7	0									
70	333	344	18 18 20.7	-04 24 58	Sbb	16	2	2	18	146	227	18 57 06.3	+01 43 21	Sbc	16	1	3									
71	408	333	18 17 26.2	-04 26 58	S0/a	15	4	6	19	178	229	18 56 49.0	+01 43 44	S0	16	2	7									
72	412	336	18 17 23.3	-04 26 27	Sa/0	16	3	0	20	185	223	18 56 37.8	+01 42 31	S0	16	4	2									
73	197	346	18 20 08.2	-04 24 45	S0	16	4	3	21	200	213	18 56 27.2	+01 40 50	S0	16	0	4									
74	264	364	18 19 11.3	-04 21 21	Sb	14	-2	0	22	206	222	18 56 22.9	+01 42 21	Sab	14	4	2									
75	292	348	18 18 50.3	-04 24 19	S/I	16	-1	5	23	234	212	18 56 02.6	+01 40 43	S0	16	5	4									
76	357	360	18 18 03.6	-04 22 01	S0	16	5	2	24	233	216	18 56 02.7	+01 41 25	S	16	-2	0									
77	841	365	18 21 53.7	-04 21 33	S0	15	5	3	25	376	219	18 54 19.2	+01 42 07	I	16	-1	-2									
78	181	369	18 20 12.1	-04 28 33	Sa	16	4	3	26	372	234	18 54 22.0	+01 44 51	Sc	16	0	0									
79	345	378	18 18 11.9	-04 18 48	E/S0	15	7	4	27	381	227	18 54 15.3	+01 43 30	S0	16	2	7									
80	346	380	18 18 1																							

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e			
ABELL 1139 (CONT.)																				
53	118	334	10 57 27.6	+02 02 43	S0/a	15	5	1	24	115	161	11 08 55.7	+29 01 05	S						
54	187	344	10 56 36.9	+02 04 41	S0b	15	4	1	25	125	159	11 08 44.2	+29 00 12	S0						
55	421	328	10 53 46.6	+02 01 54	Sc	16	0	-2	26	130	148	11 08 39.5	+28 57 12	Sp						
56	479	334	10 53 04.8	+02 03 00	S0	16	2	8	27	135	155	11 08 33.5	+28 59 05	S						
57	296	363	10 55 18.1	+02 08 10	Sa	16	2	5	28	135	152	11 08 33.7	+28 58 11	S0						
58	828	365	10 58 32.2	+02 08 16	S/I	16	-1	5	29	148	148	11 08 19.1	+28 57 01	S0						
59	192	372	10 56 33.8	+02 09 42	Sc	15	0	6	30	146	164	11 08 19.6	+29 01 04	S0						
60	194	368	10 56 32.4	+02 09 03	Sa	14	5	3	31	153	155	11 08 12.0	+28 58 31	S0						
61	197	368	10 56 30.1	+02 09 02	I	16	-1	-2	32	157	145	11 08 07.9	+28 55 55	E						
62	308	417	10 55 09.1	+02 17 57	Sc	16	-2	4	33	161	153	11 08 03.0	+28 57 54	D/S0						
63	436	427	10 53 36.6	+02 19 50	S0	16	3	4	34	164	163	11 07 57.9	+29 00 19	S0						
64	876	447	10 57 58.2	+02 23 05	S0b	14	2	2	35	174	155	11 07 47.5	+28 58 03	S0						
ABELL 1142																				
1	266	023	10 58 03.2	+10 08 44	Sbc	14	2	5	40	115	164	11 08 55.9	+29 01 43	S0						
2	273	008	10 57 58.3	+10 06 06	Sb	16	2	3	41	080	178	11 09 35.8	+29 06 12	I						
3	288	011	10 57 47.2	+10 06 32	Sc	16	0	7	42	200	221	11 07 10.4	+29 14 35	S0						
4	364	008	10 56 58.8	+10 06 17	S0	16	2	4	43	208	209	11 07 01.6	+29 11 15	S0						
5	406	007	10 56 28.4	+10 06 03	S0	16	2	8	44	176	236	11 07 37.1	+29 19 02	S						
6	288	041	10 57 52.9	+10 11 54	E	15	0	3	ABELL 1185 (CONT.)											
7	119	059	10 59 52.2	+10 15 00	Sc	16	0	3	ABELL 1377											
8	274	050	10 57 57.8	+10 19 31	Sc	14	0	7	1	033	082	11 47 55.4	+55 46 12	S						
9	284	048	10 57 50.2	+10 13 18	S0b	16	2	1	2	069	064	11 46 52.3	+55 40 54	S						
10	324	061	10 57 28.8	+10 15 39	S0	16	4	3	3	126	067	11 45 07.4	+55 40 08	S0						
11	295	079	10 57 42.4	+10 18 56	I	14	-1	-2	4	155	069	11 44 13.5	+55 40 00	S						
12	359	073	10 56 55.2	+10 17 52	E/S0	16	5	1	5	196	048	11 43 03.0	+55 33 34	S0/S						
13	388	070	10 56 33.9	+10 17 22	S/I	16	-1	8	6	199	076	11 42 52.9	+55 40 43	S0						
14	392	067	10 56 30.4	+10 16 49	Sc	15	1	3	7	183	079	11 43 22.1	+55 41 58	S0/S						
15	260	088	10 58 07.8	+10 20 24	E	16	6	1	8	089	098	11 46 18.3	+55 49 84	S0						
16	328	094	10 57 18.0	+10 21 35	S0a	15	4	3	9	106	118	11 45 36.2	+55 53 45	S						
17	337	105	10 57 11.4	+10 23 35	S0b	16	2	2	10	113	112	11 45 23.0	+55 52 06	S0						
18	342	087	10 57 07.8	+10 28 28	Sa	15	5	0	11	151	105	11 44 16.0	+55 49 18	S						
19	285	141	10 58 49.2	+10 29 54	S0/a	14	8	6	12	144	121	11 44 25.9	+55 53 40	S0						
20	138	146	10 59 44.5	+10 30 45	E/S0	14	8	2	13	200	106	11 42 46.1	+55 48 23	U						
21	162	163	10 59 21.4	+10 33 50	S0	15	7	5	14	229	121	11 41 48.9	+55 51 22	S0/S						
22	164	161	10 59 19.9	+10 33 36	Sc	15	1	3	15	230	133	11 41 45.7	+55 54 37	S/S0						
23	287	162	10 58 48.2	+10 33 45	S0	16	6	3	16	228	138	11 41 48.1	+55 55 51	S						
24	318	148	10 57 31.2	+10 31 26	Sc	16	1	4	17	072	134	11 46 35.9	+55 58 50	S						
25	376	152	10 56 46.9	+10 32 14	Sc	16	1	5	18	074	134	11 46 31.3	+55 58 42	S						
26	127	179	10 59 47.4	+10 36 45	Sc	16	0	4	19	110	152	11 45 21.5	+55 02 29	S0						
27	155	175	10 59 26.8	+10 36 08	I	16	-1	-2	20	121	142	11 45 04.1	+55 59 39	S0						
28	178	174	10 59 09.9	+10 35 55	Sa	15	6	3	21	124	143	11 44 58.4	+55 59 49	S						
29	248	168	10 58 23.2	+10 35 01	S0	14	9	6	22	128	147	11 44 58.0	+56 00 40	S0						
30	290	171	10 57 46.7	+10 35 32	S0	15	8	2	23	132	147	11 44 42.0	+56 00 33	S0						
31	283	185	10 58 51.0	+10 37 57	S0	16	4	4	24	134	136	11 44 40.3	+55 57 45	S0						
32	388	186	10 57 33.4	+10 38 19	S0bc	15	2	1	25	136	144	11 44 36.0	+55 59 48	E						
33	323	191	10 57 22.0	+10 39 19	S0	16	4	2	26	140	150	11 44 26.6	+56 01 14	S0						
34	341	202	10 57 09.1	+10 41 21	S0b	16	3	3	27	145	158	11 44 15.2	+56 03 14	S0						
35	221	223	10 58 30.3	+10 45 00	U	14	-2	-2	28	153	156	11 44 02.3	+56 02 32	E						
36	271	208	10 58 08.9	+10 42 21	S0	15	5	3	29	156	157	11 43 56.9	+56 02 37	S0						
37	344	216	10 57 06.5	+10 43 58	Sa	15	6	2	30	159	161	11 43 51.2	+56 03 30	S						
38	137	233	10 59 48.6	+10 46 35	S	16	-2	5	31	150	143	11 44 09.7	+55 59 10	S0						
39	139	236	10 59 39.1	+10 47 12	S0	15	6	2	32	153	146	11 44 03.8	+55 59 50	S0						
40	244	231	10 58 20.9	+10 46 27	E/D	15	7	-2	33	156	148	11 43 58.8	+56 00 25	E						
41	244	232	10 58 20.9	+10 46 34	E	14	8	-2	34	168	151	11 43 51.2	+56 00 57	S0						
42	245	231	10 58 20.4	+10 46 22	E	15	8	0	35	157	144	11 43 58.0	+55 59 11	S0						
43	368	238	10 56 49.0	+10 47 57	I	16	-1	-2	36	155	142	11 44 02.0	+55 58 48	E						
44	432	231	10 56 01.5	+10 46 39	Sb	16	2	1	37	174	166	11 43 21.1	+56 04 29	S						
45	250	247	10 58 08.8	+10 49 18	D/S0	14	0	2	38	183	168	11 43 05.1	+56 04 45	S0/S						
46	257	260	10 58 11.3	+10 51 48	Ep	15	0	3	39	136	176	11 44 38.4	+56 07 59	S0						
47	442	251	10 55 54.0	+10 50 22	Sc	16	1	1	40	085	183	11 46 02.7	+56 11 07	S						
48	243	264	10 58 22.0	+10 52 23	S0	15	6	7	41	048	231	11 47 04.6	+56 24 14	S						
49	288	291	10 58 48.4	+10 57 14	S0	16	4	4	42	043	236	11 47 13.2	+56 25 38	E						
50	249	298	10 58 17.8	+10 57 15	S0	16	2	8	43	072	259	11 46 14.1	+56 30 48	S0						
51	250	304	10 58 11.4	+10 59 49	S0b	14	7	8	44	110	271	11 45 01.8	+56 33 04	I						
52	343	327	10 57 07.9	+11 04 05	E	16	6	0	45	112	213	11 45 08.6	+56 18 07	S0						
53	347	338	10 57 05.2	+11 06 06	S0ab	15	4	4	46	111	205	11 45 11.6	+56 16 08	S0						
54	271	359	10 58 01.5	+11 09 45	S0p	16	2	2	47	127	217	11 44 39.8	+56 18 54	E						
55	489	359	10 55 20.9	+11 10 04	Sa	15	6	5	48	197	263	11 42 21.0	+56 28 45	I						
56	253	398	10 58 15.3	+11 16 54	S0a	15	5	1	49	197	257	11 42 22.5	+56 27 14	S						
57	427	396	10 56 06.3	+11 16 41	S	16	2	8	50	217	243	11 41 48.3	+56 23 15	S0						
58	124	413	10 59 50.8	+11 19 22	I	16	-1	-2	51	210	231	11 42 02.5	+56 20 11	S						
59	240	418	10 58 25.1	+11 1																

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e									
ABELL 1631 (CONT.)																										
23	200	151	12 50 47.2	-15 27 09	S0	16	5	3	126	485	486	12 48 12.9	-14 48 50	Sab	15	4	0									
24	238	170	12 50 18.5	-15 23 36	S0/E	15	0	2	127	457	413	12 47 34.1	-14 39 37	SBa	16	3	2									
25	281	192	12 49 46.0	-15 21 36	E/S0	16	5	0	128	466	433	12 47 27.2	-14 35 57	Sc	16	1	2									
26	392	166	12 48 22.5	-15 24 29	S0	16	4	5	129	106	459	12 51 57.1	-14 31 05	S0	15	5	3									
27	894	200	12 52 06.9	-15 18 09	S0	16	3	6	130	120	461	12 51 46.1	-14 30 45	Sb	16	2	1									
28	248	196	12 50 18.9	-15 19 02	S0	15	-2	4	131	148	446	12 51 25.7	-14 33 25	SBa	16	3	3									
29	295	191	12 49 35.3	-15 19 54	S	16	1	7	132	320	457	12 49 16.1	-14 31 37	S0	16	4	2									
30	294	200	12 49 36.0	-15 18 15	E	15	0	2	133	323	468	12 49 14.4	-14 30 58	Sc	15	1	0									
31	479	201	12 47 17.1	-15 17 57	Sc	16	0	2	134	368	465	12 48 40.6	-14 30 09	I	16	-1	-2									
32	289	197	12 49 40.0	-15 18 44	S0	16	3	0	135	393	473	12 48 22.0	-14 28 47	U	16	-2	6									
33	231	204	12 50 24.0	-15 17 27	S0	16	4	4	136	115	488	12 51 49.7	-14 25 57	S0/a	14	6	6									
34	896	201	12 52 05.8	-15 17 55	S0	16	3	3	137	359	497	12 48 47.3	-14 24 22	Sc	16	0	1									
35	195	214	12 50 51.1	-15 15 41	S0	14	6	3	138	265	289	12 49 58.2	-15 02 05	S0	14	8	4									
36	195	222	12 50 56.6	-15 14 09	S/S0	16	2	0	139	270	286	12 49 53.8	-15 02 30	S0	15	6	2									
37	205	218	12 50 43.6	-15 16 20	S0	15	5	1	ABELL 1631 (CONT.)																	
38	287	222	12 50 41.8	-15 14 13	S0	16	3	-2	ABELL 1644																	
39	209	214	12 50 40.4	-15 15 42	S0/D	13	9	3	1	137	015	12 55 57.0	-17 48 00	SBa	16	5	1									
40	216	223	12 50 35.2	-15 14 06	S	15	2	7	2	328	040	12 53 31.6	-17 43 32	SB/a	16	3	0									
41	221	222	12 50 31.0	-15 14 16	S0	14	6	0	3	122	055	12 56 08.5	-17 40 47	SBa	16	4	8									
42	259	214	12 50 02.8	-15 15 45	E/S0	16	5	2	4	200	060	12 55 09.6	-17 39 54	S0	16	4	8									
43	266	222	12 49 57.4	-15 14 10	S0	16	5	5	5	225	059	12 54 50.3	-17 40 00	S0	14	7	3									
44	269	228	12 49 55.2	-15 14 39	S0/a	13	8	3	6	270	056	12 54 15.7	-17 40 40	Sc	15	1	3									
45	276	219	12 49 49.7	-15 14 48	S0	13	12	2	7	327	045	12 53 32.8	-17 42 41	E	15	7	1									
46	278	219	12 49 47.8	-15 14 41	Sb	14	4	3	8	431	047	12 52 13.1	-17 42 13	Sc	15	1	2									
47	363	222	12 48 44.0	-15 14 15	S0/S	16	2	7	9	421	064	12 52 20.9	-17 39 16	Sb	15	4	8									
48	177	233	12 51 04.3	-15 12 12	S0/S	16	2	6	10	049	066	12 57 04.0	-17 38 35	S	16	-1	3									
49	228	241	12 50 26.8	-15 18 41	E	15	0	2	11	228	084	12 54 47.5	-17 35 37	S/I	16	-1	3									
50	245	229	12 50 13.1	-15 13 09	Sab	15	3	5	12	236	080	12 54 41.9	-17 36 26	SBb	16	2	2									
51	268	242	12 49 55.7	-15 16 36	E	16	5	5	13	296	081	12 53 56.1	-17 36 16	S0	15	6	7									
52	273	225	12 49 51.6	-15 13 38	Sba	15	5	2	14	119	088	12 56 11.1	-17 34 49	E	14	9	3									
53	295	232	12 49 35.6	-15 12 24	S0	16	4	6	15	126	100	12 56 05.5	-17 32 34	S0	16	3	3									
54	304	239	12 49 28.6	-15 11 09	Sb	13	5	4	16	150	086	12 55 47.5	-17 35 15	S0	15	6	3									
55	123	257	12 51 45.0	-15 07 43	Sba	16	3	2	17	158	086	12 55 41.4	-17 35 13	S0	16	4	1									
56	172	261	12 51 08.4	-15 07 04	S0	16	4	6	18	398	096	12 52 44.0	-17 33 32	Sc	16	1	1									
57	227	247	12 50 26.4	-15 09 36	Sb	16	2	5	19	411	100	12 52 28.7	-17 32 40	Sp	16	-2	0									
58	231	257	12 50 23.7	-15 07 52	S0	16	4	4	20	211	105	12 55 00.5	-17 31 47	S0	16	5	5									
59	243	254	12 50 14.6	-15 08 27	E/D	11	12	3	21	378	120	12 52 53.0	-17 29 12	Ep	14	11	1									
60	298	260	12 49 40.8	-15 07 19	S0	16	4	3	22	478	112	12 51 37.4	-17 30 26	S0	16	4	5									
61	331	263	12 49 08.2	-15 06 47	Sc	16	0	0	23	229	139	12 54 47.2	-17 25 40	SB0/a	15	5	3									
62	414	261	12 48 05.8	-15 07 05	S	16	2	7	24	278	138	12 54 15.4	-17 25 53	S0	14	6	4									
63	815	273	12 53 05.7	-15 04 49	Sba	15	5	1	25	412	136	12 52 25.7	-17 26 10	E	16	6	0									
64	829	284	12 52 55.5	-15 02 50	S0	14	9	0	26	078	155	12 56 41.8	-17 22 38	S	16	-2	8									
65	152	277	12 51 23.4	-15 04 11	E/S0	15	7	0	27	097	160	12 56 27.3	-17 21 45	Sab	14	6	3									
66	224	266	12 50 29.1	-15 06 08	S0	16	4	3	28	179	160	12 55 24.8	-17 21 43	S0	16	3	8									
67	226	277	12 50 27.0	-15 04 12	S0	16	2	4	29	198	149	12 55 11.8	-17 23 45	I	16	-1	-2									
68	238	272	12 50 24.6	-15 05 03	S0/E	15	7	0	30	226	155	12 54 49.4	-17 22 44	SB0/S	16	2	7									
69	234	269	12 50 21.6	-15 05 35	SBd/I	16	-1	-2	31	226	164	12 54 49.2	-17 21 07	S0	16	5	7									
70	236	275	12 50 20.8	-15 04 30	E	15	7	1	32	229	152	12 54 46.9	-17 23 15	S0	16	4	3									
71	238	277	12 50 18.3	-15 04 13	E	15	8	1	33	242	153	12 54 36.8	-17 23 09	I	16	-1	-2									
72	243	275	12 50 14.1	-15 04 32	S0	16	4	3	34	263	160	12 54 21.3	-17 21 48	SB0/S	16	3	5									
73	345	283	12 49 57.5	-15 03 04	S/I	16	-1	7	35	375	164	12 52 55.3	-17 21 05	SB0/E	15	5	3									
74	481	283	12 47 15.7	-15 03 09	S	16	1	3	36	423	157	12 52 18.9	-17 22 19	SBc	14	2	2									
75	176	296	12 51 04.7	-15 00 38	S0	14	5	3	37	129	175	12 56 03.3	-17 19 02	S0	16	5	3									
76	261	303	12 50 00.6	-14 59 27	S/I	16	0	5	38	142	169	12 55 53.6	-17 20 12	E	16	5	1									
77	263	308	12 49 59.7	-15 00 05	S0	16	4	4	39	178	174	12 55 25.6	-17 19 17	S0	16	3	6									
78	308	299	12 49 25.4	-15 00 13	S	16	-2	7	40	184	174	12 55 21.3	-17 19 12	Sd	16	-1	4									
79	338	297	12 49 02.5	-15 00 39	Sbc	16	1	2	41	217	181	12 54 56.4	-17 18 02	S0	16	6	7									
80	170	308	12 51 09.4	-14 58 27	SBb	15	4	2	42	305	176	12 53 48.7	-17 18 54	S0	16	4	-2									
81	234	306	12 50 21.5	-14 58 53	Sc	16	1	4	43	370	183	12 52 59.7	-17 17 41	E	15	7	1									
82	254	309	12 48 19.5	-14 58 27	SBb	16	1	5	44	418	181	12 52 22.8	-17 18 04	Sc	16	1	7									
83	357	337	12 48 48.8	-14 53 15	Sab	16	2	4	45	465	182	12 51 47.6	-17 17 54	I	16	-1	-2									
84	278	323	12 49 53.8	-14 55 37	S0	15	5	3	46	099	192	12 56 26.3	-17 15 53	Sap	15	7	1									
85	295	324	12 49 35.0	-14 55 37	S0	15	3	5	47	124	189	12 56 07.1	-17 16 23	I	15	-1	-2									
86	311	323	12 49 22.0	-14 55 46	S0	16	4	6	48	163	189	12 55 37.6	-17 16 34	S0	16	3	4									
87	372	324	12 49 37.4	-14 55 39	S0	14	6	2	49	183	194	12 55 22.2	-17 15 33	S0	16	5	4									
88	373	323	12 49 49.2	-14 53 21	S0	15	6	3	50	198	189	12 55 10.7	-17 16 33	E	14	9	6									
89	396	309	12 48 19.5	-14 58 27	S0	16	2	2	51	201	203	12 55 09.0	-17 14 01	Sc	15	8	6									
90	478	320	12 47 24.1	-14 49 51	S0																					

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 1644 (CONT.)																	
86	197	282	12 55 11.4	-16 59 39	E	16	5	2	40	219	120	12 57 45.8	+27 51 53	S0	16	3	
87	197	279	12 55 10.8	-17 00 10	D/S0	15	6	0	41	256	114	12 57 14.8	+27 50 49	I	16	-1	
88	221	274	12 54 52.5	-17 01 08	E	15	8	1	42	307	119	12 56 39.5	+27 51 57	S0	15	5	
89	225	273	12 54 50.1	-17 01 11	S0	16	5	5	43	335	120	12 56 10.3	+27 52 01	S0/p	13	8	
90	265	277	12 54 19.2	-17 00 33	S0	15	6	7	44	343	108	12 56 03.6	+27 49 51	S0	15	4	
91	274	277	12 54 12.6	-17 00 33	S0	16	4	4	45	382	115	12 55 31.2	+27 51 11	Sa	16	4	
92	264	267	12 54 05.1	-17 02 17	S0	15	8	0	46	411	124	12 55 07.5	+27 52 55	E/S0	14	10	
93	368	275	12 53 01.1	-17 00 57	S0	16	3	5	47	076	139	12 59 43.7	+27 55 06	Sa	14	5	
94	368	278	12 52 45.9	-17 00 20	S0	16	2	0	48	084	141	12 59 36.6	+27 55 22	S0	15	4	
95	440	275	12 52 06.1	-17 00 57	S0	16	5	3	49	093	131	12 59 29.5	+27 53 38	E	13	12	
96	482	284	12 51 34.2	-16 59 15	S0	16	4	6	50	161	140	12 58 34.0	+27 55 20	S0a	16	2	
97	166	294	12 55 34.7	-16 57 24	E	16	5	1	51	191	135	12 58 09.2	+27 54 31	Sb	15	4	
98	238	288	12 54 39.9	-16 58 25	E	15	8	1	52	254	141	12 57 16.6	+27 55 50	Sb	16	4	
99	244	308	12 54 35.3	-16 56 21	S0	16	5	4	53	292	128	12 56 45.7	+27 53 28	E	15	7	
100	247	290	12 54 33.3	-16 56 05	E	16	5	2	54	298	136	12 56 40.4	+27 54 55	Sb	14	5	
101	361	294	12 53 06.2	-16 57 25	S	14	-2	3	55	384	126	12 55 29.6	+27 53 18	E	15	5	
102	466	287	12 51 46.3	-16 58 48	S0	16	3	0	56	430	128	12 54 51.9	+27 53 37	E	15	7	
103	125	318	12 56 06.0	-16 52 59	Sbc	15	2	4	57	247	158	12 57 23.0	+27 58 51	S0/a	14	8	
104	196	324	12 55 11.5	-16 51 56	Sd	15	-1	0	58	320	146	12 56 22.4	+27 56 45	S0	14	6	
105	213	307	12 54 58.7	-16 55 06	Sa	16	3	6	59	339	145	12 56 06.6	+27 56 37	E	16	5	
106	219	312	12 54 54.5	-16 54 09	S0	16	2	7	60	483	149	12 54 08.7	+27 57 35	E	16	4	
107	240	313	12 54 38.5	-16 54 02	Sa	16	3	3	61	086	183	12 59 35.9	+28 03 07	S0	14	5	
108	246	318	12 54 33.8	-16 53 05	S0	15	6	2	62	167	183	12 58 29.5	+28 03 12	S0	15	5	
109	247	318	12 54 33.2	-16 53 07	S0	16	2	7	63	193	177	12 58 07.7	+28 02 10	S0/a	16	4	
110	340	305	12 53 22.2	-16 55 26	S0	16	3	3	64	217	182	12 57 47.9	+28 03 07	E	16	5	
111	378	319	12 52 59.4	-16 52 56	S0	16	4	7	65	225	180	12 57 41.6	+28 02 46	S0	15	5	
112	010	337	12 57 32.4	-16 49 23	S0	16	5	5	66	237	170	12 57 31.4	+28 01 01	S0/a	16	3	
113	284	337	12 55 05.7	-16 49 31	S0	16	4	6	67	275	168	12 57 00.2	+28 00 46	S0	15	6	
114	234	325	12 54 42.5	-16 51 48	S0	15	5	3	68	289	179	12 56 48.6	+28 02 43	S0	15	7	
115	235	326	12 54 41.8	-16 51 37	S0	15	0	3	69	295	182	12 56 43.5	+28 03 16	E	14	11	
116	335	328	12 53 26.2	-16 51 20	E	14	11	2	70	296	177	12 56 42.8	+28 02 21	E	15	8	
117	334	337	12 53 26.3	-16 49 41	I	16	-1	-2	71	308	182	12 56 32.8	+28 03 22	S0	15	4	
118	393	338	12 52 42.2	-16 49 33	S0	15	7	4	72	315	183	12 56 27.2	+28 03 33	E	14	9	
119	032	350	12 57 16.0	-16 47 03	E	16	6	2	73	355	175	12 55 54.3	+28 02 02	E	16	5	
120	186	354	12 56 20.2	-16 46 25	S/S0	16	2	8	74	393	177	12 55 22.0	+28 02 28	E	16	4	
121	110	363	12 56 16.6	-16 44 42	S	16	1	7	75	395	173	12 55 21.1	+28 01 44	S0	15	3	
122	186	346	12 56 19.8	-16 47 54	S0	15	8	0	76	423	176	12 54 58.2	+28 02 19	S0a	16	4	
123	194	346	12 55 13.3	-16 47 52	E	15	8	2	77	446	178	12 54 39.5	+28 02 44	S0/a	16	1	
124	201	362	12 55 07.6	-16 45 03	S0	15	6	7	78	121	204	12 59 07.4	+28 07 02	E	14	11	
125	265	360	12 54 03.7	-16 45 22	S0	14	8	3	79	138	192	12 58 53.2	+28 04 44	S0	14	9	
126	291	354	12 53 59.6	-16 45 28	S0	15	1	1	80	146	189	12 58 46.4	+28 04 20	S0	15	5	
127	299	358	12 53 53.3	-16 45 50	E	16	5	1	81	148	194	12 58 44.7	+28 05 16	E	15	5	
128	317	371	12 53 39.9	-16 43 29	S0	16	3	6	82	164	185	12 58 31.8	+28 03 40	Sb	13	5	
129	355	383	12 53 11.0	-16 41 18	S0/E	14	8	2	83	192	196	12 58 08.8	+28 05 40	S0	16	4	
130	081	393	12 56 38.7	-16 39 23	Sa	15	5	0	84	226	190	12 57 40.9	+28 04 42	S0	15	5	
131	331	386	12 53 26.8	-16 40 39	S0	14	9	-2	85	238	186	12 57 30.3	+28 03 58	E	16	5	
132	317	398	12 53 39.2	-16 38 28	S0	16	2	7	86	260	196	12 57 12.1	+28 05 47	E	16	5	
133	349	392	12 53 15.0	-16 39 40	S	16	1	7	87	268	185	12 57 05.9	+28 03 45	E	16	5	
134	443	401	12 52 04.4	-16 38 01	Sa	15	6	6	88	269	204	12 57 04.7	+28 07 15	S0	15	7	
135	036	407	12 57 12.7	-16 36 47	Sbb	16	2	3	89	310	198	12 56 31.5	+28 06 18	S	14	-2	
136	195	418	12 55 12.5	-16 36 19	S	14	-2	0	90	314	192	12 56 28.2	+28 05 04	S0	16	4	
137	329	418	12 53 30.6	-16 36 24	S/I	16	2	3	91	319	190	12 56 23.9	+28 04 53	S0	14	10	
138	137	433	12 55 56.3	-16 32 09	S0	15	-1	4	92	374	193	12 55 38.4	+28 05 20	S0	15	5	
139	182	450	12 55 21.6	-16 29 02	S	16	1	8	93	394	198	12 55 22.3	+28 06 20	S0	15	5	
140	259	463	12 54 23.8	-16 26 46	I	16	-1	-2	94	430	198	12 54 52.7	+28 04 57	S0	15	3	
141	415	453	12 52 25.3	-16 28 37	S0	16	1	6	95	022	212	13 00 28.0	+28 08 10	S0	15	5	
142	341	465	12 53 21.5	-16 26 31	S	16	-2	5	96	098	220	12 59 26.2	+28 09 47	E	15	8	
143	033	469	12 57 13.9	-16 25 34	S0	16	2	7	97	128	217	12 59 01.8	+28 09 19	Sbb	12	8	
144	242	113	12 54 37.4	-17 30 24	S0	16	3	1	98	160	221	12 58 35.0	+28 10 13	S0/a	15	5	
145	340	305	12 53 21.9	-16 55 25	S0	16	3	3	99	220	209	12 57 45.9	+28 08 06	S0	16	3	
ABELL 1656																	
1	044	023	13 00 07.9	+27 33 59	S0	16	4		100	259	223	12 57 15.4	+28 07 34	S0	16	4	
2	078	023	12 59 48.3	+27 34 02	S0	16	4		101	268	215	12 57 21.5	+28 07 42	S0	15	7	
3	214	016	12 57 49.0	+27 33 06	S	15	2		102	277	224	12 57 13.2	+28 08 43	S0/a	14	9	
4	224	023	12 57 40.4	+27 34 17	S0/a	15	2		103	278	219	12 56 58.7	+28 10 59	E	14	8	
5	335	010	12 56 09.4	+27 32 10	Sap	14	5		104	281	216	12 56 55.6	+28 09 25	E	15	6	
6	259	034	12 57 11.7	+27 36 27	S0	16	3		105	300	274	12 56 40.3	+28 09 05	S0	15	5	
7	329	035	12 56 14.8	+27 36 44	E	15	5		106	390	213	12 55 25.5	+28 09 05	S0/E	15	5	
8	338	043	12 56 07.5	+27 38 09	Sba	15	4		107	393	214	12 55 22.7	+28 09 19	S0	15	8	
9	356	025	12 55 52.9	+27 34 59	I												

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 1656 (CONT.)																	
143	167	257	12 58 30.1	+28 16 42	E	13	11		246	132	479	12 59 00.9	+28 56 55	Sbc	15	1	
144	161	245	12 58 16.3	+28 14 32	S0/a	14	8		247	369	488	12 55 44.6	+28 58 51	Sc	14	1	
145	183	253	12 58 16.4	+28 16 06	S0	15	6										
146	186	259	12 58 14.6	+28 17 08	S0/a	15	6										
147	198	245	12 58 03.8	+28 14 36	S0	15	5										
148	223	246	12 57 43.7	+28 14 54	D	11	12										
149	225	247	12 57 41.9	+28 14 59	S0	15	3		1	042	018	13 26 48.9	-27 34 33	Sb	16	2	3
150	225	255	12 57 42.0	+28 16 33	E	15	6		2	117	021	13 25 48.4	-27 34 01	Sb	15	3	3
151	227	258	12 57 40.0	+28 15 32	E	14	8		3	269	010	13 23 43.8	-27 35 38	S0	16	5	7
152	248	245	12 57 22.5	+28 14 46	S0	15	5		4	370	020	13 22 21.4	-27 33 33	Sc	16	-1	
153	252	252	12 57 19.2	+28 15 57	E	15	7		5	151	038	13 25 21.0	-27 30 56	E	16	5	0
154	259	250	12 57 13.0	+28 15 33	S0	16	3		6	197	052	13 24 43.1	-27 28 13	Sc	16	0	3
155	266	248	12 57 00.1	+28 15 19	S0	14	7		7	205	045	13 24 36.3	-27 29 33	S0	15	6	2
156	273	253	12 57 01.0	+28 16 15	E/S0	15	5		8	253	046	13 23 57.6	-27 29 12	Sbc	16	1	
157	274	245	12 57 00.9	+28 14 42	S0	15	5		9	097	080	13 26 05.1	-27 23 26	SBb	16	2	3
158	280	245	12 56 56.6	+28 14 43	S0	16	3		10	103	078	13 26 00.0	-27 23 48	Sc	16	0	2
159	298	246	12 56 48.4	+28 14 54	E	14	10		11	256	083	13 23 54.9	-27 22 28	S	15	3	0
160	298	252	12 56 41.1	+28 16 06	S0	14	8		12	295	078	13 23 22.9	-27 23 14	S0	16	4	0
161	342	258	12 56 05.4	+28 17 13	E	14	10		13	318	085	13 23 04.7	-27 22 03	E/S0	14	9	2
162	383	250	12 55 31.5	+28 15 51	I	16	-1		14	472	071	13 28 59.0	-27 23 55	U	15	-2	-2
163	473	268	12 54 17.6	+28 17 38	S0	15	8		15	339	099	13 22 47.5	-27 19 24	SB0	15	5	4
164	813	267	13 00 37.0	+28 18 07	S0	13	9		16	134	107	13 25 35.6	-27 18 28	SBbc	15	2	-2
165	818	279	13 00 32.7	+28 20 24	S0	15	4		17	152	107	13 25 20.4	-27 18 28	S0	16	3	4
166	833	271	13 00 20.5	+28 18 54	S0/E	14	8		18	206	104	13 24 36.8	-27 18 52	S0/a	16	4	4
167	170	268	12 58 27.2	+28 18 48	S0/E	14	9		19	223	112	13 24 22.9	-27 17 18	S/I	16	-1	4
168	174	284	12 58 24.5	+28 21 40	E	14	11		20	246	115	13 24 04.0	-27 16 46	S0	16	6	7
169	187	273	12 58 13.6	+28 19 42	Scd	14	-1		21	266	116	13 23 47.6	-27 16 32	Sb	16	2	2
170	286	269	12 57 57.7	+28 19 04	S0	15	5		22	355	121	13 22 34.6	-27 15 21	E	16	6	1
171	212	275	12 57 52.7	+28 20 06	S0	15	5		23	384	111	13 22 11.2	-27 16 57	Sc	16	0	4
172	215	268	12 57 50.3	+28 18 45	E	15	8		24	403	120	13 21 55.7	-27 15 23	S	15	-2	7
173	217	279	12 57 48.4	+28 20 48	S0	15	7		25	008	133	13 27 18.4	-27 13 52	I	14	-1	-2
174	223	280	12 57 43.4	+28 20 59	E	15	9		26	013	141	13 27 14.0	-27 12 26	S/I	15	-2	9
175	238	265	12 57 31.5	+28 18 24	S0	14	7		27	194	138	13 24 47.0	-27 12 45	S0/a	14	6	7
176	267	269	12 57 06.9	+28 19 05	S0	15	7		28	201	131	13 24 41.0	-27 13 54	S0	14	8	2
177	271	267	12 57 04.1	+28 18 43	S0	16	4		29	221	133	13 24 24.4	-27 13 37	E	16	4	0
178	271	282	12 57 04.0	+28 21 24	S0	16	3		30	252	125	13 23 58.0	-27 14 55	SBa	16	5	0
179	281	281	12 55 55.3	+28 21 22	S0	13	12		31	292	140	13 23 26.4	-27 12 05	S	16	-2	10
180	289	279	12 56 49.3	+28 20 53	S0	16	4		32	279	136	13 23 37.2	-27 12 53	S0	16	2	5
181	317	281	12 56 26.3	+28 21 21	S0	15	7		33	311	132	13 23 10.9	-27 13 25	S0/a	16	4	2
182	348	270	12 56 07.2	+28 19 19	S0	16	7		34	351	144	13 22 38.2	-27 11 05	S0	16	4	3
183	381	273	12 55 32.7	+28 20 02	I	16	-1		35	008	160	13 27 18.7	-27 09 02	Sc	16	-1	1
184	487	278	12 55 11.4	+28 20 59	S0	16	2		36	012	157	13 27 14.8	-27 09 27	S0	16	4	2
185	469	270	12 54 20.6	+28 19 30	E	16	4		37	170	160	13 25 06.9	-27 08 46	E	16	6	3
186	478	280	12 54 13.6	+28 21 17	S0	16	3		38	194	150	13 24 47.1	-27 18 27	Sb	16	2	0
187	498	280	12 54 03.2	+28 21 23	E/S0	16	4		39	231	149	13 24 16.6	-27 18 35	S0	15	6	2
188	848	294	13 00 14.6	+28 23 05	SBa/0	15	4		40	244	152	13 24 05.6	-27 18 04	S0	16	5	4
189	869	289	12 59 50.8	+28 22 19	S0	16	2		41	254	147	13 23 57.8	-27 18 50	E	13	12	3
190	183	287	12 59 23.2	+28 21 57	S0	14	8		42	271	161	13 23 43.6	-27 08 21	S0	16	2	5
191	179	287	12 58 20.4	+28 22 08	S0	15	4		43	279	145	13 23 37.2	-27 11 09	S0	15	5	5
192	198	302	12 58 11.1	+28 25 02	S0	14	3		44	288	150	13 23 30.8	-27 10 12	Sa	16	3	7
193	239	296	12 57 30.8	+28 24 00	E	15	7		45	295	151	13 23 24.4	-27 10 06	E/S0	14	8	3
194	301	294	12 56 39.3	+28 23 47	E	13	12		46	436	156	13 21 29.5	-27 08 37	Sc	16	0	1
195	384	291	12 56 36.9	+28 23 14	Sbc	14	2		47	176	159	13 23 01.8	-27 08 55	SBa	16	4	3
196	314	295	12 56 28.7	+28 23 54	E	15	6		48	074	183	13 26 25.2	-27 04 46	SBa	15	0	2
197	335	291	12 56 11.4	+28 23 08	S0/a	14	8		49	149	184	13 25 23.6	-27 04 27	Sc	15	1	2
198	352	303	12 55 57.3	+28 25 30	S0	16	4		50	152	183	13 25 21.2	-27 04 39	Sab	16	3	2
199	353	302	12 55 56.6	+28 25 14	S0	15	6		51	158	175	13 25 16.9	-27 05 59	S0/E	15	5	-1
200	368	295	12 55 58.1	+28 23 54	S0	15	6		52	162	176	13 25 13.6	-27 05 48	E	12	13	0
201	395	299	12 55 21.7	+28 24 48	S0	16	3		53	228	166	13 24 19.5	-27 07 33	E	16	5	0
202	874	313	12 59 47.2	+28 26 36	Sd/I	16	-1		54	234	179	13 24 14.7	-27 05 05	SBa	16	3	2
203	876	318	12 59 45.6	+28 27 33	E/S0	16	4		55	333	177	13 22 53.1	-27 05 09	S	16	-1	0
204	134	319	12 58 57.6	+28 27 59	E	15	7		56	336	182	13 22 51.1	-27 04 14	Sbc	14	2	6
205	175	307	12 58 23.6	+28 25 48	SBb	14	4		57	348	177	13 22 41.4	-27 05 07	Sap	15	6	-2
206	213	321	12 57 52.8	+28 28 27	S0	13	11		58	022	195	13 27 07.5	-27 02 36	Sc	16	-1	0
207	223	310	12 57 43.8	+28 26 31	E	15	8		59	123	194	13 25 45.5	-27 02 40	S0	16	3	4
208	293	319	12 56 54.7	+28 28 12	S0	16	4		60	155	191	13 25 19.0	-27 03 10	Sap	15	7	-2
209	363	313	12 55 48.3	+28 27 20	S0	15	4		61	161	195	13 25 14.2	-27 02 22	SBab	15	4	2
210	393	313	12 55 22.9	+28 27 12	Ep	15	6		62	177	203	13 25 01.6	-27 00 56	Sc	16	1	
211	416	315	12 55 04.0	+28 27 40	Sa	14	5		63	183	185	13 24 56.4	-27 04 10	Sa	16	4	5
212	418	311	12 55 02.6	+28 26 59	S0	14	5		64	196	187	13 24 45.3	-27 03 45	SB0/a	16	5	1
213	862	332															

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 1736 (CONT.)																	
98	237	257	13 24 12.6	-26 50 56	E	15	4	1	27	217	219	14 24 53.0	+16 48 40	S/S0	16	1	1
99	242	261	13 24 09.0	-26 50 12	S0/a	16	4	2	28	221	224	14 24 50.2	+16 49 41	S0/S	16	3	1
100	245	262	13 24 06.2	-26 50 00	SB0	16	2	3	29	240	223	14 24 35.8	+16 49 34	S0	16	3	1
101	249	245	13 24 02.6	-26 53 05	D/S0	14	9	0	30	459	206	14 21 49.6	+16 46 43	SBbc	16	1	2
102	249	252	13 24 02.9	-26 51 52	S0	16	5	5	31	183	230	14 25 19.8	+16 50 40	S0	16	4	3
103	252	253	13 24 00.5	-26 51 37	E	15	8	2	32	257	234	14 24 22.8	+16 51 36	S0	15	2	3
104	282	256	13 23 36.1	-26 50 55	S0/S	16	2	4	33	277	225	14 24 07.9	+16 49 55	E/S0	15	6	3
105	300	253	13 23 21.6	-26 51 24	S0	16	4	5	34	275	242	14 24 09.3	+16 53 02	SB0	16	3	-2
106	351	248	13 22 39.9	-26 52 15	SBc	16	-1	0	35	324	233	14 23 32.2	+16 51 32	Sb	16	2	2
107	467	248	13 21 05.5	-26 51 54	Sbc	16	1	-2	36	448	235	14 22 04.2	+16 51 58	Sb	15	3	6
108	468	247	13 21 04.2	-26 52 02	S0c	16	1	-2	37	150	254	14 25 44.8	+16 54 54	SB0/a	15	4	8
109	042	277	13 26 51.9	-26 47 37	S0	16	3	7	38	219	256	14 24 52.0	+16 55 29	S	16	2	6
110	192	279	13 24 49.6	-26 47 05	S0/E	14	10	5	39	249	248	14 24 29.0	+16 54 04	S0c	16	1	4
111	209	273	13 24 36.8	-26 48 01	S	16	-1	4	40	253	249	14 24 26.2	+16 54 17	S0	16	3	1
112	223	283	13 24 24.9	-26 46 17	S0	16	4	0	41	265	252	14 24 17.3	+16 54 46	E	15	8	1
113	223	284	13 24 24.8	-26 46 00	S0	16	3	6	42	276	254	14 24 08.4	+16 55 16	E	16	6	8
114	420	268	13 21 44.1	-26 48 21	Sbc	15	2	2	43	287	252	14 23 59.9	+16 54 56	SBa	16	4	2
115	432	275	13 21 34.5	-26 47 01	Sc	16	1	3	44	289	252	14 23 58.4	+16 54 56	S0	16	4	6
116	061	298	13 26 36.9	-26 43 55	SBbc	15	2	3	45	299	263	14 23 50.9	+16 56 53	Sc	16	0	0
117	154	286	13 25 21.2	-26 45 47	Sc	16	0	3	46	098	265	14 26 30.0	+16 56 51	SBb	14	6	2
118	176	302	13 25 03.4	-26 42 48	Sa/0	15	4	1	47	175	283	14 25 26.0	+17 00 19	S/I	16	1	1
119	219	292	13 24 28.0	-26 44 31	S0	16	4	4	48	273	275	14 24 11.3	+16 59 06	E	14	8	3
120	220	266	13 24 27.2	-26 45 36	S0	16	4	6	49	272	280	14 24 11.8	+16 59 57	S0	16	3	6
121	227	298	13 24 21.8	-26 43 33	S0	16	3	3	50	278	276	14 24 07.2	+16 59 19	E	16	6	6
122	230	295	13 24 18.8	-26 44 05	S0	14	6	0	51	282	270	14 24 04.3	+16 58 12	S0	16	4	3
123	233	296	13 24 16.9	-26 43 46	E	16	6	0	52	339	270	14 23 20.5	+16 58 18	S0/E	15	6	3
124	315	288	13 23 09.7	-26 45 02	S0	16	4	7	53	168	299	14 25 31.6	+17 03 09	Sc	15	1	1
125	138	313	13 25 33.9	-26 40 59	S0	16	5	5	54	216	299	14 24 55.8	+17 03 23	E	14	9	1
126	164	365	13 25 12.6	-26 42 23	Sb	16	2	2	55	271	295	14 24 12.4	+17 02 48	S0/E	15	6	4
127	215	319	13 24 31.2	-26 39 43	Sc	16	1	1	56	278	294	14 24 07.4	+17 02 36	SB0	15	6	2
128	278	385	13 23 39.7	-26 41 59	Sc	16	-1	5	57	286	288	14 24 01.0	+17 01 30	E	15	7	0
129	185	318	13 24 56.0	-26 39 57	S0	15	4	0	58	273	304	14 24 10.9	+17 04 20	E	16	4	2
130	257	340	13 23 57.8	-26 35 48	S0	16	5	5	59	291	288	14 23 57.7	+17 01 23	SBab	15	4	4
131	295	329	13 23 26.7	-26 37 39	SB0	15	5	4	60	189	322	14 25 15.2	+17 07 29	E	14	8	3
132	439	329	13 21 29.7	-26 37 16	S	16	-2	4	61	278	387	14 24 07.1	+17 04 52	Sp	16	2	2
133	487	333	13 20 58.9	-26 36 22	S	16	-2	9	62	306	322	14 23 46.2	+17 07 43	Sb	15	4	4
134	326	341	13 23 01.0	-26 35 26	I	16	-1	-2	63	089	344	14 26 31.3	+17 11 00	S0/a	15	5	1
135	130	358	13 25 48.7	-26 32 44	S	16	-2	7	64	298	338	14 23 58.6	+17 10 30	S0	16	5	5
136	260	349	13 23 55.5	-26 34 07	S0/S	14	6	7	65	172	347	14 25 28.7	+17 11 53	Sc	16	0	2
137	297	349	13 23 25.1	-26 34 01	E	14	9	1	66	197	357	14 25 09.4	+17 13 47	Sc	16	0	1
138	337	358	13 22 52.3	-26 32 17	S0	15	6	7	67	187	365	14 26 18.3	+17 14 59	Sc	15	1	4
139	052	365	13 26 44.2	-26 31 42	Sbc	15	2	4	68	288	384	14 24 00.6	+17 18 58	SB0	16	4	5
140	058	375	13 26 39.5	-26 29 54	SB0	16	3	5	69	336	368	14 23 24.0	+17 16 03	S0	16	4	2
141	178	375	13 25 82.2	-26 29 30	Sa	15	5	6	70	405	367	14 22 31.4	+17 15 54	S0/D	14	5	2
142	195	368	13 24 47.9	-26 30 58	Sa/0	15	4	3	71	134	410	14 25 58.2	+17 23 19	I	16	-1	2
143	267	377	13 23 49.5	-26 28 56	SBb	14	8	0	72	146	405	14 25 48.9	+17 22 25	Sc	16	0	3
144	322	374	13 23 05.3	-26 29 28	E	15	7	3	73	312	406	14 23 42.6	+17 22 55	Sb	16	2	8
145	348	366	13 22 50.3	-26 30 52	SBab	16	3	2	74	119	438	14 26 09.6	+17 28 24	SBb	15	4	0
146	425	384	13 21 42.0	-26 27 19	Sb	15	3	6	75	154	427	14 25 43.2	+17 26 24	S/S0	16	2	3
147	472	377	13 21 03.7	-26 28 27	Sc	15	1	2	76	435	438	14 22 09.5	+17 28 45	S/I	16	0	0
148	046	396	13 26 49.4	-26 26 11	S0	14	8	3	77	056	448	14 26 57.7	+17 29 51	S0	16	3	6
149	063	402	13 26 35.2	-26 25 00	S0	15	8	2	78	059	455	14 26 55.0	+17 31 12	S0	16	2	0
150	309	398	13 23 15.8	-26 25 09	U	14	-2	-2	79	082	463	14 26 37.9	+17 32 37	S0p	15	5	3
151	312	398	13 23 13.6	-26 25 08	U	14	-2	-2	80	208	456	14 25 02.3	+17 31 48	S0p	16	3	3
152	326	387	13 23 02.1	-26 26 59	Sc	16	1	1	81	267	446	14 24 16.9	+17 30 05	S0/E	16	4	5
153	344	398	13 22 47.3	-26 25 02	S0	16	5	3	82	368	450	14 23 00.3	+17 31 00	S0	15	6	3
154	389	403	13 22 11.5	-26 23 55	Scd	15	1	3	83	382	452	14 22 49.8	+17 31 20	Sc	16	0	0
155	275	416	13 23 43.8	-26 21 55	Sbc	15	2	2	84	395	463	14 22 39.8	+17 33 17	S0	16	4	5
156	383	418	13 22 16.1	-26 22 38	Sbc	15	2	0	85	102	467	14 26 22.6	+17 33 32	S0	16	3	3
157	385	422	13 22 14.9	-26 20 28	S0	16	5	4	86	115	467	14 26 12.9	+17 33 30	Sbc	16	1	2
158	466	487	13 21 09.5	-26 22 58	S0/S	16	1	7	87	266	484	14 24 18.2	+17 37 00	S0	16	4	3
159	487	417	13 20 52.8	-26 21 10	E/S0	15	7	1	88	408	486	14 22 36.0	+17 37 30	Sa	16	3	4
160	086	433	13 26 17.1	-26 19 20	I	16	-1	-2	89	086	095	14 52 25.6	+16 27 10	S0	16	3	2
161	199	425	13 24 45.5	-26 28 29	S0	16	3	6	90	093	085	14 52 20.4	+16 25 26	E	15	7	6
162	276	431	13 23 43.5	-26 19 10	E	16	4	3	91	107	091	14 52 10.0	+16 26 28	S0	16	2	4
163	366	457	13 22 31.8	-26 14 18	I	15	-1	-2	92	119	095	14 52 00.4	+16 27 20	S0	16	6	6
164	420	450	13 21 46.7	-26 15 28	Sc	16	0	0	93	232	125	14 50 35.0	+16 33 00	E	16	6	6
165	272	478	13 23 47.1	-26 10 47	SBC	16	0	1	94	268	124	14 50 08.4	+16 32 56	SBbc	16	1	3
166	335	468	13 22 55.6	-26 12 18	SBb	14	7	2	95	362	064	14 48 56.3	+16 22 26	E	16	4	1
167	364	468	13 22 32.8	-26 12 14	E	15	6	5	96	309	082	14 49 36.5	+16 25 35	Sc	15	0	2
168	397	467	13 22 05.7	-26 12 19	I	16	-1	2	97	314	082	14 49 33.0	+16 25 30	S	15	-2	0
169	397	484	13 22 06.3	-26 09 21	SBbc	16	1	4	98	455	079	14 47 46.5	+16 25 26	S0	15	8	4
170	403	492	13 22 01.6	-26 07 35	Sbc	15	2	5	99	039	103	14 53 00.7	+16 28 33	Sbc	16	1	6
171	198	257	13 24 57.5	-26 16 35	Sb	15	3	1	100	238	128	14 50 38.6	+16 33 07	S0	16	4	7
172	209	161	13 24 58.7	-26 16 07	S0	16	4	7	101	311	140	14 49 35.7	+16 36 01	Sc	16	8	

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 1983 (CONT.)																	
38	203	221	14 50 58.7	+16 50 31	S0	15	7	5	13	417	086	14 49 58.8	+18 21 05	Sb	15	3	3
39	218	205	14 50 47.5	+16 47 33	Ep	14	10	2	14	159	134	14 53 16.5	+18 29 02	S/I	16	-2	7
40	233	216	14 50 35.7	+16 49 43	SBbc	15	2	6	15	231	133	14 52 21.2	+18 29 04	S0	16	2	6
41	235	220	14 50 34.3	+16 50 18	S0/E	16	5	5	16	091	164	14 54 09.5	+18 34 19	Sa	16	4	6
42	291	211	14 49 51.4	+16 48 59	S/I	16	1	1	17	327	163	14 51 08.2	+18 34 45	S0	16	3	6
43	309	212	14 49 37.8	+16 49 08	Sa	16	1	2	18	091	166	14 54 09.4	+18 34 38	S0	16	4	6
44	320	219	14 49 29.9	+16 50 25	Sa	16	3	3	19	216	180	14 52 33.5	+18 37 32	S	16	2	6
45	338	210	14 49 15.6	+16 48 57	E	16	6	0	20	261	178	14 51 59.2	+18 37 22	Sa	16	4	2
46	170	241	14 51 24.6	+16 53 58	S0	15	5	7	21	277	182	14 51 46.7	+18 38 06	E	16	6	2
47	196	228	14 51 04.5	+16 51 41	E	16	5	1	22	228	195	14 52 24.9	+18 40 25	Sc	16	0	1
48	206	237	14 50 57.0	+16 53 18	Sa	15	6	5	23	229	202	14 52 23.8	+18 41 39	Sa	16	3	3
49	209	244	14 50 54.8	+16 54 44	Sa	15	2	0	24	278	187	14 51 45.9	+18 39 01	Sa	16	3	4
50	216	230	14 50 49.3	+16 52 10	S0	16	4	5	25	285	196	14 51 40.4	+18 40 42	Sa	16	4	2
51	221	227	14 50 45.4	+16 51 39	S0	16	4	4	26	288	195	14 51 38.1	+18 40 28	Sbc	15	2	4
52	223	241	14 50 44.2	+16 54 09	Sa	15	5	4	27	331	200	14 51 05.6	+18 41 37	E/S0	15	8	4
53	227	235	14 50 40.9	+16 53 00	E	16	6	1	28	182	213	14 53 00.3	+18 43 27	S0	16	3	6
54	231	239	14 50 37.9	+16 53 54	E	14	9	2	29	261	221	14 51 59.6	+18 45 16	Sa	15	4	2
55	234	237	14 50 35.1	+16 53 31	S	16	2	3	30	222	225	14 52 29.5	+18 45 53	SBbc	15	3	3
56	234	241	14 50 35.2	+16 54 14	D	15	4	1	31	249	244	14 52 16.2	+18 49 16	S0	16	1	1
57	235	238	14 50 35.0	+16 53 38	E	16	4	1	32	272	243	14 51 50.9	+18 49 12	Sc	16	1	1
58	246	243	14 50 26.1	+16 54 34	S0	14	8	4	33	384	226	14 51 26.6	+18 46 14	Sa/0	16	3	2
59	262	238	14 50 13.9	+16 53 40	Sbc	16	1	3	34	106	262	14 53 59.3	+18 52 12	Sb	16	2	3
60	284	229	14 49 57.0	+16 52 09	Sa	15	5	-2	35	243	251	14 52 13.4	+18 50 33	D	14	4	3
61	367	238	14 48 54.4	+16 54 02	Sp	13	-2	1	36	278	256	14 51 46.4	+18 51 33	S0	16	3	8
62	161	247	14 51 31.5	+16 54 58	Sa	15	7	3	37	295	254	14 51 33.4	+18 51 14	Sc	15	1	7
63	233	249	14 50 36.7	+16 55 43	Sba	15	5	3	38	210	282	14 52 39.8	+18 56 10	S0	16	5	7
64	236	257	14 50 34.0	+16 57 04	S0	16	5	6	39	237	266	14 52 18.1	+18 53 18	S0/E	15	8	3
65	237	257	14 50 33.1	+16 57 10	S0/E	16	5	1	40	260	281	14 52 00.6	+18 56 12	Sba	16	4	2
66	255	262	14 50 19.7	+16 58 01	SBab	16	3	2	41	214	268	14 52 36.5	+18 53 38	SB0	16	3	3
67	284	246	14 49 57.7	+16 55 17	S0	15	6	6	42	215	289	14 52 35.3	+18 57 28	S	16	-1	1
68	327	246	14 49 24.8	+16 55 23	S0	16	3	5	43	234	293	14 52 21.3	+18 58 19	E	16	6	4
69	345	258	14 49 11.5	+16 57 42	Sbc	16	1	6	44	168	316	14 53 12.1	+19 02 19	SBab	16	2	3
70	430	253	14 48 86.4	+16 57 03	Sc	14	1	6	45	176	315	14 53 06.0	+19 02 06	Sa	15	5	0
71	444	245	14 47 56.1	+16 55 33	Sc	14	1	3	46	183	324	14 53 00.8	+19 03 43	Sc	16	0	3
72	466	251	14 47 39.2	+16 56 41	Sc	16	0	5	47	215	315	14 52 36.3	+19 02 13	Sa/0	16	3	2
73	479	251	14 47 29.5	+16 56 40	E/S0	16	6	1	48	033	325	14 54 55.8	+19 03 28	S0/E	15	6	1
74	168	273	14 51 26.5	+16 59 48	Sba	15	5	0	49	486	338	14 49 08.0	+19 06 56	Sc	16	0	0
75	248	280	14 50 25.7	+17 01 25	Sc	16	1	5	50	472	343	14 49 18.9	+19 07 47	SBb	16	2	4
76	284	271	14 49 57.6	+16 59 54	S0	16	6	5	51	264	357	14 51 58.4	+19 09 57	S0	15	5	4
77	467	275	14 47 39.6	+17 01 03	S0	16	4	4	52	302	355	14 51 29.1	+19 09 44	SBbc	15	2	3
78	470	274	14 47 36.9	+17 00 57	E/S0	15	7	2	53	181	401	14 54 05.0	+19 17 31	S0	16	1	2
79	206	301	14 50 57.6	+17 04 58	Sa	15	6	2	54	361	395	14 50 44.3	+19 17 02	Sc	16	0	3
80	275	288	14 50 05.2	+17 02 57	S0	15	8	3	55	184	465	14 54 03.1	+19 28 56	S0	16	3	5
81	130	313	14 51 56.1	+17 06 54	S0	15	6	6	56	155	463	14 53 24.1	+19 28 46	E	16	5	1
82	211	318	14 50 53.9	+17 08 07	S0	16	3	5	57	099	467	14 54 07.1	+19 29 24	Sc	16	1	5
83	213	314	14 50 52.4	+17 07 25	Sab	15	3	7	58	157	466	14 53 22.3	+19 29 21	Sc	16	1	2
84	251	307	14 50 23.6	+17 06 20	E	14	9	3	59	137	481	14 53 37.5	+19 32 05	Sa	16	3	7
85	285	319	14 49 57.6	+17 08 38	Sb	15	3	2	60	129	488	14 53 44.0	+19 33 15	S0/a	16	1	6
86	298	307	14 49 47.3	+17 06 24	S0	16	4	4	61	131	206	14 53 39.3	+18 42 04	Sc	16	2	0
87	303	318	14 49 44.0	+17 08 32	S/I	16	-1	-2									
88	453	322	14 47 50.2	+17 09 32	S0/a	15	4	3									
89	211	344	14 50 54.6	+17 12 51	S0	16	5	3									
90	215	338	14 50 51.2	+17 11 53	Sa	15	6	7									
91	276	335	14 50 05.1	+17 11 31	Sc	15	1	3									
92	284	327	14 49 58.7	+17 10 01	SBab	15	3	0									
93	200	360	14 51 02.9	+17 15 42	S	16	-1	2									
94	218	354	14 50 49.6	+17 14 41	S0	15	5	5									
95	252	355	14 50 23.1	+17 15 00	S0	16	3	7									
96	255	350	14 50 21.2	+17 14 04	S0	16	4	0									
97	266	360	14 50 13.1	+17 15 54	Sa	14	10	5									
98	283	364	14 50 00.2	+17 16 46	E/S0	16	4	1									
99	288	347	14 49 55.4	+17 13 44	Sbc	16	-1	4									
100	292	352	14 49 53.1	+17 14 32	Sb	16	2	2									
101	435	355	14 48 03.9	+17 15 34	Sbb	16	2	0									
102	464	353	14 47 41.9	+17 15 12	S0b	14	5	2									
103	478	364	14 47 32.0	+17 17 12	S0	15	4	4									
104	198	375	14 51 04.5	+17 18 32	S0/a	16	5	2									
105	278	379	14 50 03.9	+17 19 27	S0	14	8	2									
106	282	374	14 50 00.4	+17 18 30	Sb	15	2	2									
107	330	373	14 49 24.5	+17 18 36	S0/S	16	1	7									
108	456	381	14 47 48.9	+17 20 17	S0	15	4	7									
109	129	403	14 51 58.0	+17 23 21	S	16	-2	9									
110	180	389	14 51 18.4	+17 20 56	Sc	16	1	3									
111	258	398	14 50 19.7	+17 22 50	E/S0	16	5	0									
112	278	387	14 50 04.3	+17 20 55	S0	16	3	4									
113	293	386	14 49 52.8	+17 20 50	S0	15	7	8									
114	374	408	14 48 51.1	+17 23 35	Sc	14	2	2									
115	150	412	14 51 42.0	+17 25 03	S0/S	15	2	7									
116	292	421	14 49 54.1	+17 27 06	S0	14	6	3									
117	441	425	14 48 00.1	+17 28 07	S0b	16	2	3									
118	190	435	14 51 11.6	+17 29 22	S	15	-2	5									
119	298	443	14 49 55.9	+17 31 01	S0	16	5	5									
120	230	459	14 50 41.3	+17 33 52	Sbab	15	4	2									
121	445	460	14 47 58.2	+17 34 29	Sbc	16	1	8									
122	166	488	14 51 30.8														

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 2040 (CONT.)																	
51	245	251	15 10 20.5	+07 37 16	D	14	8	4	39	421	182	15 18 28.5	+08 37 27	S0	15	5	3
52	246	257	15 10 20.1	+07 38 25	S0	16	6	7	40	082	200	15 22 37.9	+08 39 58	I/S	16	-1	-2
53	251	255	15 10 16.3	+07 38 04	S0/E	16	4	2	41	192	189	15 21 17.2	+08 38 07	S0	16	5	7
54	259	256	15 10 10.5	+07 38 28	S0	16	3	3	42	246	188	15 20 37.2	+08 39 04	S0	15	6	7
55	263	250	15 10 07.4	+07 37 08	Ep	15	8	3	43	250	191	15 20 34.2	+08 38 35	S0b	16	4	2
56	358	261	15 08 57.4	+07 39 24	S0	16	4	6	44	282	193	15 20 11.2	+08 39 01	S0	16	6	0
57	020	266	15 13 05.2	+07 39 37	Sa/0	15	5	6	45	289	200	15 20 86.0	+08 40 27	S0	16	5	5
58	185	280	15 11 05.1	+07 42 27	S0	16	5	7	46	236	204	15 20 44.6	+08 40 59	S0	15	6	3
59	230	280	15 10 31.5	+07 42 48	E	16	5	2	47	125	218	15 22 07.1	+08 43 15	Sc/I	16	2	5
60	233	275	15 10 29.6	+07 41 43	S0	16	5	2	48	152	218	15 21 46.6	+08 43 16	Sab	14	7	3
61	256	279	15 10 12.5	+07 42 24	E/S0	16	6	1	49	234	219	15 20 46.6	+08 43 41	Sb	15	3	4
62	262	270	15 10 08.2	+07 40 48	S0	15	6	1	50	241	212	15 20 41.6	+08 42 23	S0	15	5	0
63	272	276	15 10 08.5	+07 42 01	S0	16	5	0	51	252	216	15 20 33.0	+08 43 18	S0	16	4	4
64	278	270	15 09 56.4	+07 40 52	S	16	1	8	52	256	209	15 20 29.9	+08 41 57	Sb	15	2	2
65	314	278	15 09 30.2	+07 42 22	Sa	16	3	3	53	262	214	15 20 25.6	+08 42 48	S0	16	5	1
66	333	269	15 09 16.0	+07 40 53	SBa	15	4	5	54	267	212	15 20 22.2	+08 42 29	Sbc	16	1	6
67	378	268	15 08 48.9	+07 40 36	E	14	9	1	55	265	222	15 20 23.4	+08 44 19	S0	15	6	0
68	387	282	15 08 36.1	+07 43 13	Sc	16	1	1	56	322	218	15 19 41.8	+08 43 40	S0	16	4	0
69	078	384	15 12 23.2	+07 46 34	Sab	16	2	6	57	279	215	15 20 13.5	+08 43 09	S0	16	2	5
70	250	292	15 10 17.0	+07 44 49	S0	15	5	5	58	224	241	15 20 54.5	+08 47 46	S0/a	15	6	4
71	266	291	15 10 05.6	+07 44 48	S0	16	3	4	59	231	226	15 20 49.1	+08 45 03	S0	15	7	3
72	295	293	15 09 44.3	+07 45 06	S	16	2	0	60	244	238	15 20 39.5	+08 47 14	D	13	5	2
73	113	311	15 11 58.0	+07 48 03	I	16	-1	-2	61	245	239	15 20 38.9	+08 47 24	S0	16	5	4
74	106	305	15 12 03.3	+07 46 57	S0/E	14	9	3	62	247	236	15 20 36.8	+08 46 52	E	16	6	0
75	213	313	15 10 44.6	+07 48 33	S0	15	5	4	63	269	244	15 20 20.8	+08 48 19	S0	16	4	2
76	253	307	15 10 14.6	+07 47 34	S/I	16	-1	-2	64	283	228	15 20 10.8	+08 45 28	S0	16	5	3
77	392	319	15 08 40.1	+07 49 59	Sc	16	-1	3	65	308	228	15 19 52.4	+08 45 30	S0	16	4	4
78	398	317	15 08 36.2	+07 49 41	S0/S	16	1	7	66	426	241	15 18 25.7	+08 48 13	Sc	16	0	3
79	424	321	15 08 09.8	+07 50 27	Sc	16	0	2	67	072	249	15 22 45.9	+08 48 45	S0	16	2	6
80	444	322	15 07 54.8	+07 50 37	S0	16	3	7	68	140	248	15 21 56.1	+08 48 45	Sb	16	2	5
81	459	313	15 07 43.7	+07 49 84	Sbc	15	2	0	69	157	262	15 21 43.9	+08 51 26	S0	16	4	2
82	046	335	15 12 46.8	+07 52 16	S	16	-2	8	70	188	251	15 21 20.9	+08 49 29	S0/S	16	5	2
83	322	342	15 09 24.8	+07 54 00	S0	15	6	5	71	231	256	15 20 49.4	+08 50 26	E	16	5	3
84	379	328	15 08 42.9	+07 51 37	Sb	16	2	7	72	232	258	15 20 48.2	+08 49 22	E	15	7	1
85	443	343	15 07 55.6	+07 54 23	S0	15	7	6	73	236	246	15 20 45.1	+08 48 43	S0	15	7	2
86	458	339	15 07 51.1	+07 53 40	Sc	14	6	3	74	243	260	15 20 40.6	+08 51 17	S0	16	6	3
87	460	339	15 07 43.2	+07 53 47	S0	16	3	2	75	246	249	15 20 37.9	+08 49 14	S	16	5	-2
88	469	329	15 07 36.7	+07 51 55	S0/a	16	4	4	76	249	252	15 20 35.4	+08 49 44	S	16	3	0
89	192	356	15 11 00.6	+07 56 17	S	15	-2	7	77	256	251	15 20 30.9	+08 49 40	S0	15	7	6
90	264	358	15 10 07.6	+07 56 57	S0	14	8	4	78	261	260	15 20 27.3	+08 51 20	E/S0	16	6	4
91	280	347	15 09 55.8	+07 54 52	Sa	16	3	5	79	270	261	15 20 26.3	+08 51 25	S	16	-1	3
92	430	362	15 08 05.9	+07 57 47	Sc	16	-1	4	80	292	268	15 20 04.5	+08 51 23	E	16	5	0
93	047	367	15 10 46.7	+07 57 58	SBa	15	7	2	81	302	247	15 19 56.6	+08 48 57	S	16	-2	9
94	111	403	15 11 59.7	+08 04 37	S0/E	15	7	4	82	302	248	15 19 56.7	+08 49 09	S0	16	3	2
95	216	393	15 10 43.2	+08 03 05	Sb	14	4	1	83	302	249	15 19 56.6	+08 49 24	S0	16	2	6
96	278	402	15 09 57.7	+08 04 58	E	14	9	2	84	417	255	15 18 32.0	+08 50 45	S	16	2	5
97	480	397	15 07 29.7	+08 04 12	S0	6	5	5	85	031	276	15 23 16.0	+08 53 37	S/I	16	2	4
98	318	406	15 09 28.3	+08 05 45	I	16	-1	-2	86	035	271	15 23 13.5	+08 52 39	Sb	16	1	4
99	191	438	15 11 01.6	+08 11 10	Sb	16	2	2	87	083	276	15 22 38.2	+08 53 38	S0	14	9	5
100	272	428	15 10 01.8	+08 09 38	S0/E	16	4	1	88	223	276	15 20 55.0	+08 54 03	S/I	15	-2	9
101	325	433	15 09 23.4	+08 08 16	S0	15	6	3	89	230	284	15 20 50.5	+08 55 33	S0	15	6	0
102	397	433	15 09 23.4	+08 08 16	S0	15	6	3	90	261	283	15 20 27.3	+08 55 22	S0	15	6	0
103	397	434	15 08 30.1	+08 10 56	S0	14	7	8	91	268	274	15 20 22.3	+08 53 47	Sba	14	6	1
104	127	458	15 11 48.5	+08 14 42	S/I	16	-1	5	92	168	300	15 21 42.0	+08 58 21	S0	16	3	4
105	210	453	15 10 47.7	+08 13 58	Sc	15	1	3	93	198	288	15 21 13.7	+08 56 10	E/S0	14	9	1
106	300	460	15 09 42.0	+08 15 20	Sp	16	-2	5	94	251	286	15 20 34.5	+08 55 59	Sba	14	6	2
107	432	450	15 08 05.1	+08 13 48	S0	16	3	5	95	290	297	15 20 06.3	+08 58 03	E	16	6	3
108	180	466	15 11 18.0	+08 16 19	Sa	14	8	4	96	316	289	15 19 47.0	+08 56 44	Sbcb	16	2	5
109	258	474	15 10 12.3	+08 17 51	Sc	16	-1	3	97	143	313	15 21 54.9	+08 00 38	S0	16	3	0
110	385	481	15 08 40.0	+08 19 17	Sb	16	2	3	98	161	323	15 21 41.1	+08 02 28	Sc	16	0	1
111	483	482	15 07 28.6	+08 19 27	S0	16	4	7	99	182	315	15 21 26.0	+08 01 09	Sb	16	2	3
112	440	498	15 08 00.1	+08 22 27	Sa	16	3	4	100	228	305	15 20 51.7	+08 59 27	Sb	16	2	4
113	285	097	15 21 06.7	+08 21 25	Sbcb	16	1	1	101	250	317	15 20 35.8	+08 01 40	S0	16	3	3
114	197	093	15 21 12.9	+08 20 38	Sp	16	1	5	102	272	311	15 20 19.6	+08 00 39	I	16	-1	-2
115	397	099	15 18 45.7	+08 22 23	E	16	5	2	103	193	339	15 21 18.1	+08 05 27	S0/a	15	6	2
116	022	114	15 23 21.0	+08 24 08	S0/a	16	5	5	104	187	363	15 21 11.9	+08 09 52	S0/b/a	16	5	2
117	026	140	15 23 18.4	+08 28 56	Sb	16	2	0	105	282	363	15 21 17.6	+08 07 18	S	14	-2	0
118	166	142	15 21 36.8	+08 29 30	Sc	16	1	7	106	438	346	15 18 17.6	+08 08 20	S0p	14	6	7
119	300	130	15 19 57.4	+08 27 45	S0	16	4	2									

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 2151 (CONT.)																	
23	406	118	16 00 58.5	+17 30 15	S0	15	7		126	170	388	16 04 00.8	+18 18 59	Sa	14	8	
24	250	137	16 02 57.0	+17 33 25	Sbc	14	3		127	189	392	16 03 46.1	+18 19 47	Sbc	14	2	
25	319	141	16 02 04.8	+17 34 19	S	16	1		128	199	400	16 03 38.4	+18 21 16	Sb	13	4	
26	387	139	16 01 12.4	+17 34 11	SBa	16	4		129	269	389	16 02 44.5	+18 19 22	S	16	-1	
27	125	168	16 04 33.1	+17 37 31	S <sub>c</sub>	14	2		130	309	395	16 02 14.3	+18 20 43	S0/a	16	1	
28	178	149	16 03 52.0	+17 35 38	Sa	15	5		131	078	489	16 05 11.2	+18 22 37	E	16	5	
29	281	156	16 03 34.8	+17 36 49	E	16	5		132	158	416	16 04 15.7	+18 24 06	S0/p	16	4	
30	286	145	16 02 30.0	+17 34 59	Sb	14	5		133	152	416	16 04 14.8	+18 24 08	S	15	-1	
31	305	152	16 02 15.1	+17 36 16	S <sub>c</sub>	15	1		134	168	418	16 04 02.0	+18 23 01	S0/E	14	8	
32	381	155	16 01 17.1	+17 36 59	Sbc	15	3		135	220	417	16 03 22.6	+18 24 27	Sbb	15	3	
33	247	175	16 03 00.2	+17 40 28	S	15	1		136	352	424	16 01 41.5	+18 25 48	S0	16	2	
34	327	183	16 01 58.7	+17 41 55	E	16	5		137	472	415	16 08 18.0	+18 24 13	S0/E	14	5	
35	345	188	16 01 45.1	+17 41 26	Sa	16	2		138	039	427	16 05 48.3	+18 25 39	Sb	16	1	
36	135	193	16 04 25.6	+17 43 31	Sd/I	16	-1		139	155	432	16 04 12.6	+18 26 55	S0	16	1	
37	179	196	16 03 52.3	+17 44 07	Sb	16	3		140	174	436	16 03 57.6	+18 27 45	S	16	-1	
38	287	190	16 03 30.3	+17 42 59	S <sub>c</sub>	16	0		141	196	438	16 03 41.0	+18 26 46	S0	15	5	
39	223	193	16 03 18.7	+17 43 33	Sba	15	5		142	232	448	16 03 13.4	+18 28 31	Sc	15	1	
40	224	196	16 03 17.9	+17 44 06	Ep	13	11		143	242	431	16 03 05.8	+18 26 59	S0/a	15	4	
41	336	189	16 01 52.1	+17 43 04	S0	15	4		144	301	431	16 02 28.5	+18 27 02	S	16	0	
42	395	198	16 01 07.0	+17 43 18	Sc	16	0		145	316	434	16 02 09.2	+18 27 43	Sa	16	4	
43	066	210	16 05 18.0	+17 46 21	Sc	15	1		146	345	436	16 01 46.9	+18 27 59	S0	16	3	
44	078	217	16 05 09.2	+17 47 39	Sab	14	5		147	165	447	16 04 04.5	+18 29 43	Sa	16	4	
45	125	212	16 04 33.2	+17 46 53	S/I	15	-1		148	171	465	16 04 00.6	+18 32 53	Sb	15	3	
46	223	224	16 03 18.2	+17 49 21	Sba	16	2		149	247	448	16 03 02.2	+18 30 05	Ep	16	4	
47	228	222	16 03 14.7	+17 48 56	Sa	15	5		150	068	488	16 05 25.0	+18 36 43	S0/p	15	4	
48	242	214	16 03 03.6	+17 47 25	S0/E	16	5		151	095	478	16 04 58.2	+18 35 07	Sc	15	1	
49	258	211	16 02 52.0	+17 47 02	Sc	16	2		152	200	481	16 03 38.5	+18 35 55	I	16	-1	
50	281	210	16 02 34.0	+17 46 46	S0/a	16	4		153	349	477	16 01 45.0	+18 35 26	Sbc	15	1	
51	289	208	16 02 27.7	+17 46 27	S0/b/a	16	4		154	439	474	16 00 35.6	+18 34 55	S/I	16	0	
52	308	211	16 02 13.7	+17 47 03	S0	16	4		155	236	247	16 03 08.9	+17 53 30	Sbc	15	3	
53	088	228	16 05 02.1	+17 49 44	S0	15	5		156	238	246	16 03 07.6	+17 53 20	Sc	15	1	
54	141	228	16 04 21.0	+17 49 47	Sc	16	1		157	214	363	16 03 26.4	+18 14 33	E	15	7	
55	142	236	16 04 21.0	+17 51 22	S0	15	4										
56	146	233	16 04 17.2	+17 50 51	Sa/∅ <sub>3</sub> p	15	4										
57	185	229	16 03 48.1	+17 50 08	E	16	5										
58	193	226	16 03 41.3	+17 49 40	S0	16	4										
59	209	234	16 03 29.7	+17 51 07	Sa	14	6										
60	232	227	16 03 11.4	+17 49 54	Sc	15	0										
61	246	231	16 03 00.8	+17 50 35	S0	15	3										
62	256	238	16 02 53.8	+17 51 56	S0/E	13	0										
63	294	228	16 02 24.6	+17 50 10	E	14	9										
64	299	235	16 02 20.8	+17 51 25	S∅ <sub>3</sub>	14	0										
65	300	234	16 02 20.0	+17 51 10	Ep	15	5										
66	304	235	16 02 16.8	+17 51 25	E/S0	15	6										
67	311	244	16 02 11.7	+17 53 09	Sc	14	3										
68	311	242	16 02 11.3	+17 52 39	Sa	14	8										
69	488	238	16 01 03.2	+17 52 10	E	15	6										
70	086	263	16 05 04.0	+17 56 04	E	16	4										
71	126	258	16 04 33.1	+17 55 22	E	15	5										
72	137	249	16 04 24.5	+17 53 39	S0	14	9										
73	138	256	16 04 23.9	+17 55 01	Sa	16	3										
74	145	254	16 04 18.3	+17 54 34	Sb	14	5										
75	141	260	16 04 21.5	+17 55 45	E	16	5										
76	162	258	16 04 05.9	+17 55 17	S0	15	5										
77	217	251	16 03 23.4	+17 54 07	S0	14	9										
78	219	262	16 03 22.1	+17 56 10	S0/p	14	7										
79	223	251	16 03 19.1	+17 54 17	E	16	7										
80	227	251	16 03 15.9	+17 54 10	Sc	14	2										
81	254	247	16 02 55.4	+17 53 36	S0	16	2										
82	257	247	16 02 53.1	+17 53 31	Sbc	13	3										
83	265	253	16 02 46.5	+17 54 36	E	14	10										
84	403	259	16 01 01.1	+17 56 00	Sap	15	0										
85	102	278	16 04 51.3	+17 58 55	S0	15	7										
86	108	279	16 04 47.2	+17 59 06	E	16	4										
87	114	281	16 04 42.2	+17 59 22	Sb	16	2										
88	109	268	16 04 46.3	+17 57 08	Sa	16	1										
89	139	278	16 04 23.5	+17 59 00	E	16	5										
90	231	271	16 03 12.8	+17 57 53	S	15	-1										
91	238	279	16 03 07.8	+17 59 22	Sa/SB0	15	5										
92	265	271	16 02 47.0	+17 57 57	S0	15	5										
93	268	284	16 02 44.9	+18 00 19	S0	14	10										
94	296	273	16 02 22.9	+17 58 16	Sb	15	3										
95	143	292	16 04 20.6	+18 01 32	Sa	14	3										
96	160	304	16 04 07.8	+18 03 45	S0	15	6										
97	229	303	16 03 14.6	+18 03 47	Sa/0	15	4										
98	233	297	16 03 11.8	+18 02 41	SBB	15	5										
99	316	286	16 02 06.1	+18 00 50	S0/a	15	5										
100	171	312	16 03 59.2	+18 05 17	Sc	15	1										
101	226	315	16 03 16.7	+18 05 51	Sba	13	4										
102	239	317	16 03 07.3	+18 05 18	S0	16	4										
103	311	323	16 02 11.5	+18 07 24	Sa/0	15	2										
104	332	320	16 01 55.4	+18 07 02	S0	16	5										
105	435	317	16 00 37.1	+18 06 31	Sap	16	0										

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
ABELL 2256 (CONT.)																	
68	118	086	17 03 44.4	+78 54 02	S0				3	093	060	23 35 59.1	+26 19 15	S			
69	117	078	17 03 50.0	+78 49 11	S				4	186	054	23 35 41.0	+26 17 35	S			
70	123	078	17 03 15.0	+78 51 30	S				5	111	060	23 35 34.1	+26 19 14	S/I			
71	123	082	17 03 13.1	+78 52 52	S				6	114	056	23 35 29.0	+26 18 12	S			
72	158	077	16 59 37.5	+78 51 26	S				7	107	065	23 35 40.0	+26 20 32	S			
73	166	075	16 58 49.1	+78 50 50	S0				8	036	079	23 37 15.1	+26 24 39	S0			
74	040	094	17 12 06.0	+78 56 07	S				9	064	080	23 36 38.7	+26 24 59	S			
75	042	087	17 11 53.7	+78 53 56	S0				10	059	065	23 36 44.0	+26 20 42	S0			
76	058	096	17 10 11.3	+78 57 00	S0				11	066	068	23 36 35.7	+26 21 21	S			
77	074	090	17 08 29.0	+78 55 09	S				12	127	083	23 35 13.4	+26 26 03	S			
78	093	089	17 06 29.0	+78 54 56	S/I				13	148	083	23 34 55.3	+26 26 09	S			
79	100	092	17 05 42.4	+78 55 50	S0				14	139	067	23 34 56.4	+26 21 20	S0			
80	162	104	16 59 09.6	+78 59 42	S				15	181	084	23 35 48.5	+26 26 09	E			
81	121	106	17 03 28.9	+79 00 26	S				16	023	105	23 37 33.0	+26 32 21	S			
82	124	119	17 03 10.8	+79 04 28	E				17	056	092	23 36 49.3	+26 28 30	S0			
83	078	140	17 09 06.1	+79 10 28	S0				18	079	101	23 36 19.0	+26 31 11	S0			
84	114	137	17 04 13.6	+79 09 43	S0				19	084	096	23 36 11.3	+26 29 51	S			
85	116	135	17 04 01.0	+79 09 21	I				20	036	086	23 35 55.7	+26 26 44	S0/a			
86	123	130	17 03 14.0	+79 07 48	S0				21	112	095	23 35 33.9	+26 29 33	S			
87	131	136	17 02 27.0	+79 09 29	S00				22	125	098	23 35 15.7	+26 30 23	S			
88	167	138	16 58 37.0	+79 09 45	E/S0				23	131	105	23 35 06.0	+26 32 32	E			
ABELL 2589																	
1	156	018	23 21 06.0	+16 09 23	E				24	133	104	23 35 04.3	+26 32 18	S/I			
2	162	009	23 20 58.7	+16 06 54	S0				25	137	094	23 34 59.0	+26 29 21	S			
3	176	018	23 20 40.3	+16 09 29	S0/E				26	139	091	23 34 56.3	+26 28 28	S			
4	111	037	23 22 03.2	+16 15 06	I				27	155	103	23 34 35.2	+26 32 11	U			
5	122	043	23 21 49.5	+16 16 40	S00				28	016	113	23 37 43.0	+26 34 58	S/I			
6	129	039	23 21 40.1	+16 15 38	E				29	018	123	23 37 41.1	+26 37 49	E/S0			
7	132	041	23 21 35.7	+16 16 09	S0/a				30	021	121	23 37 37.5	+26 37 21	S			
8	156	045	23 21 06.0	+16 17 22	S0				31	028	108	23 37 27.5	+26 33 27	S0			
9	134	064	23 21 34.6	+16 23 15	S				32	047	120	23 37 03.3	+26 37 84	I			
10	144	061	23 21 20.8	+16 22 14	S				33	059	118	23 36 46.5	+26 34 02	S			
11	124	047	23 21 46.0	+16 17 57	S0				34	067	119	23 36 35.7	+26 36 40	S0			
12	149	060	23 21 15.3	+16 21 56	S0				35	064	111	23 36 39.3	+26 34 08	S0			
13	156	063	23 21 06.0	+16 23 01	S0				36	083	112	23 36 13.6	+26 34 28	S0			
14	174	050	23 20 43.0	+16 18 55	S				37	092	123	23 36 01.1	+26 37 58	S0			
15	125	078	23 21 48.9	+16 27 25	S00				38	102	118	23 35 47.5	+26 36 35	E			
16	126	079	23 21 44.1	+16 27 39	S0				39	103	115	23 35 45.5	+26 35 27	S/I			
17	140	081	23 21 26.0	+16 28 28	S0				40	102	105	23 35 46.0	+26 32 27	S0			
18	142	068	23 21 23.4	+16 24 22	E				41	118	120	23 35 24.7	+26 37 14	S			
19	145	071	23 21 20.1	+16 25 27	S0				42	136	108	23 35 00.6	+26 33 41	S0/E			
20	147	073	23 21 17.7	+16 25 55	S0				43	144	116	23 34 49.3	+26 36 03	S0			
21	139	083	23 21 27.0	+16 29 01	E				44	150	121	23 34 42.2	+26 37 36	E			
22	204	072	23 20 04.5	+16 25 59	S0/a				45	175	122	23 34 08.2	+26 37 57	S0			
23	225	065	23 19 39.1	+16 23 55	S				46	192	107	23 33 47.3	+26 33 42	S0			
24	086	095	23 22 43.0	+16 32 42	S				47	032	133	23 37 23.6	+26 40 57	S			
25	086	085	23 22 35.9	+16 29 34	S				48	036	139	23 37 18.5	+26 42 52	E/S0			
26	114	104	23 22 00.7	+16 35 34	S				49	059	134	23 36 46.5	+26 41 16	S/I			
27	120	091	23 21 52.6	+16 31 35	S0				50	067	143	23 36 35.7	+26 44 00	S0			
28	126	088	23 21 45.1	+16 30 38	S				51	071	133	23 36 30.3	+26 40 57	S00			
29	133	090	23 21 35.2	+16 31 03	S0				52	075	131	23 36 25.4	+26 40 23	S0			
30	135	087	23 21 32.6	+16 30 21	S0				53	079	144	23 36 19.0	+26 44 21	S0/E			
31	138	095	23 21 29.7	+16 32 46	E				54	078	129	23 36 21.3	+26 39 46	S0			
32	138	093	23 21 28.7	+16 32 13	S0				55	088	143	23 36 07.7	+26 44 03	E			
33	139	091	23 21 28.0	+16 31 32	E				56	091	136	23 36 03.4	+26 42 06	S0			
34	140	087	23 21 26.7	+16 30 14	D				57	094	136	23 36 35.7	+26 42 05	E			
35	147	085	23 21 17.0	+16 29 38	S0/a				58	096	137	23 35 56.1	+26 42 28	S0/D			
36	151	095	23 21 12.7	+16 32 44	S				59	103	126	23 35 46.2	+26 39 03	S			
37	147	101	23 21 17.4	+16 34 42	S0/E				60	105	134	23 35 43.0	+26 41 28	S0/E			
38	162	103	23 20 58.0	+16 35 19	S0				61	125	136	23 35 15.4	+26 42 13	S0			
39	184	091	23 20 30.5	+16 31 26	S/I				62	152	133	23 34 22.9	+26 46 05	S0			
40	185	096	23 20 28.6	+16 33 06	S0				63	146	144	23 34 47.1	+26 44 45	S			
41	201	103	23 20 09.0	+16 35 14	S				64	194	137	23 33 44.2	+26 42 46	S0/E			
42	181	119	23 22 17.0	+16 40 00	S0/S				65	089	149	23 37 53.6	+26 45 38	S0			
43	125	116	23 21 46.6	+16 39 18	S0				66	050	147	23 36 59.5	+26 45 23	S0/a			
44	134	105	23 21 34.7	+16 35 44	E				67	064	163	23 36 05.4	+26 45 12	S0			
45	138	105	23 21 29.0	+16 35 43	E				68	094	147	23 36 02.1	+26 45 27	E			
46	139	105	23 21 28.5	+16 35 59	E				69	094	147	23 35 58.3	+26 45 31	E			
47	143	107	23 21 23.4	+16 36 28	S0				70	095	146	23 35 58.1	+26 45 15	D			
48	144	105	23 21 22.0	+16 35 49	S0				71	080	165	23 36 18.1	+26 50 49	S0			
49	141	114	23 21 25.6	+16 39 30	S0				72	085	149	23 36 11.9	+26 45 53	S			
50	145	110	23 21 20.5	+16 37 22	S0				73	085	164	23 36 18.9	+26 50 32	S0			
51	143	105	23 21 22.2	+16 35 51	S0/E				74	089	146	23 36 05.4	+26 45 12	S0			
52	161	112	23 20 59.1	+16 38 08	S				75	092	147	23 36 02.1	+26 45 27	E			
53	168	119	23 20 51.0	+16 40 18	S0				76	094	147	23 35 25.2	+26 47 33	E			
54	176	113	23 20 48.7	+16 38 19	S00				77	095	14						

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e			
ABELL 2634 (CONT.)																				
106	086	182	23 36 10.7	+26 56 16	S0				73	156	157	23 41 25.1	+08 59 44	S0						
107	099	171	23 35 51.6	+26 52 50	E				74	161	153	23 41 19.0	+08 58 23	S						
108	099	181	23 35 51.8	+26 55 52	S0				75	017	171	23 44 15.6	+09 03 36	S						
109	189	180	23 35 39.8	+26 55 32	I				76	053	178	23 43 33.1	+09 05 53	S0/a						
110	114	179	23 35 31.2	+26 55 29	E				77	088	172	23 42 49.3	+09 04 18	S/1						
111	119	176	23 35 24.9	+26 54 34	S0				78	129	169	23 41 58.4	+09 03 27	S0						
112	145	168	23 34 49.1	+26 52 07	E/S0				79	174	171	23 41 03.9	+09 03 50	S						
113	188	184	23 33 53.2	+26 56 42	S				80	189	170	23 40 46.0	+09 03 23	E						
114	052	200	23 36 57.4	+27 01 14	S0				81	030	193	23 44 00.7	+09 10 20	S						
115	058	189	23 36 48.3	+26 58 06	S				82	114	193	23 42 17.1	+09 10 44	S						
116	066	201	23 36 38.4	+27 01 54	S/S0				83	085	213	23 42 52.9	+09 16 30	S0						
117	071	199	23 36 38.6	+27 01 23	S0				84	112	211	23 42 20.4	+09 15 54	E/S0						
118	073	191	23 36 28.8	+26 58 43	S0				DC 0003-50											
119	079	193	23 36 19.8	+26 59 25	E				1	277	013	00 02 22.9	-51 36 26	S8ab	16	2	3			
120	100	198	23 35 51.9	+27 01 12	S				2	367	088	00 00 37.0	-51 37 05	E	15	0	2			
121	101	200	23 35 49.9	+27 01 39	S80				3	056	062	00 06 40.0	-51 27 42	S0	16	5	0			
122	118	192	23 35 27.0	+26 59 17	S80				4	131	045	00 05 13.7	-51 30 43	S0	14	9	7			
123	163	200	23 34 26.1	+27 01 42	S				5	133	059	00 05 11.1	-51 28 10	S0c	16	2	4			
124	174	198	23 34 11.8	+27 00 52	S				6	313	047	00 01 41.3	-51 30 07	S0	15	8	5			
125	177	201	23 34 08.4	+27 01 49	S0/E				7	432	049	23 59 22.0	-51 29 18	E	15	9	2			
126	173	185	23 34 12.4	+26 57 10	E				8	178	071	00 04 19.2	-51 26 05	S0	16	7	5			
127	035	217	23 37 18.5	+27 06 04	S0				9	268	069	00 02 34.0	-51 26 22	S0	16	2	2			
128	090	209	23 36 05.4	+27 04 24	E				10	180	089	00 04 16.3	-51 22 53	S0	15	9	3			
129	093	218	23 36 00.8	+27 04 30	S				11	351	142	00 00 58.3	-51 12 53	Sb	14	4	8			
130	106	222	23 35 43.1	+27 08 14	S0				12	172	176	00 04 26.8	-51 06 59	S8b	14	6	3			
131	117	215	23 35 28.3	+27 06 13	S				13	221	182	00 03 29.3	-51 05 51	E	16	6	0			
132	047	207	23 37 03.0	+27 03 19	S0				14	268	181	00 02 35.1	-51 06 00	E	13	12	3			
ABELL 2657																				
1	039	081	23 43 48.5	+08 36 29	S80				15	270	176	00 02 32.3	-51 06 49	S8b	16	2	1			
2	056	079	23 43 27.9	+08 35 48	S				16	275	181	00 02 27.2	-51 06 02	S8a	15	9	2			
3	063	068	23 43 18.6	+08 32 29	S0				17	322	173	00 01 32.8	-51 07 22	E	16	6	6			
4	128	066	23 42 09.0	+08 32 42	S				18	443	169	23 59 12.4	-51 07 32	E	16	7	2			
5	128	078	23 41 59.9	+08 33 12	S/S0				19	248	185	00 02 57.9	-51 05 18	S8ab	15	6	3			
6	142	074	23 41 42.2	+08 34 23	S				20	247	199	00 02 59.5	-51 02 47	S8b	16	2	4			
7	153	070	23 41 29.2	+08 33 32	S/I				21	334	198	00 01 18.6	-51 02 42	S8c	15	2	5			
8	032	096	23 43 57.2	+08 41 04	S0				22	374	194	00 00 32.1	-51 03 21	E	16	6	0			
9	034	093	23 43 54.9	+08 39 59	I				23	478	186	23 58 41.4	-51 04 19	S0	16	5	6			
10	036	104	23 43 53.1	+08 43 26	S0				24	214	222	00 03 38.6	-50 58 38	Sa	15	4	4			
11	058	096	23 43 26.0	+08 48 48	S				25	213	228	00 03 39.1	-50 58 53	S0	16	4	6			
12	110	093	23 42 21.6	+08 48 06	S0				26	332	209	00 01 21.2	-51 00 48	E/S0	16	5	0			
13	133	087	23 41 52.8	+08 38 12	S0/E				27	118	241	00 05 28.7	-50 55 14	S	16	-2	9			
14	136	099	23 41 50.0	+08 41 45	S0				28	160	225	00 04 41.1	-50 56 00	S8p	16	5	-2			
15	169	102	23 41 09.3	+08 42 52	E/S0				29	162	244	00 04 38.9	-50 54 43	S0	15	8	7			
16	091	184	23 42 45.4	+08 43 08	S				30	175	228	00 04 23.4	-50 57 34	S0	16	2	9			
17	028	118	23 44 12.0	+08 47 36	S/S0				31	210	237	00 03 42.5	-50 55 51	S0	16	2	6			
18	041	118	23 43 46.6	+08 45 13	I				32	214	241	00 03 38.3	-50 55 07	S0	16	5	7			
19	056	108	23 43 29.1	+08 44 27	S80				33	216	239	00 03 36.5	-50 55 31	S0	14	9	4			
20	065	115	23 43 18.2	+08 46 34	S0				34	232	235	00 03 17.3	-50 56 13	E	14	12	2			
21	071	186	23 43 09.9	+08 43 57	E				35	248	234	00 02 59.2	-50 56 20	S0	16	5	4			
22	100	187	23 42 34.1	+08 44 09	S				36	314	238	00 01 42.2	-50 55 26	S8b	14	6	3			
23	098	121	23 42 36.3	+08 48 33	S0				37	175	234	00 04 22.9	-50 56 23	S8p	16	6	3			
24	100	116	23 42 33.6	+08 46 58	S				38	083	248	00 06 09.0	-50 53 51	S	15	3	8			
25	104	113	23 42 28.7	+08 46 07	S				39	251	260	00 02 55.3	-50 51 38	E	14	11	1			
26	108	122	23 42 24.3	+08 48 53	S				40	303	247	00 01 55.7	-50 53 54	Sc	13	-2	0			
27	118	113	23 42 11.9	+08 46 03	S				41	477	255	23 58 35.9	-50 51 49	Sa	15	8	4			
28	117	125	23 42 13.2	+08 49 38	E				42	173	278	00 04 25.8	-50 48 28	E	16	6	0			
29	129	125	23 41 57.5	+08 49 42	E				43	194	281	00 04 02.0	-50 47 52	S0	13	12	5			
30	135	116	23 41 58.2	+08 46 58	S03				44	219	273	00 03 32.4	-50 49 22	S8b	16	2	2			
31	141	114	23 41 43.3	+08 46 19	E/S0				45	202	291	00 03 53.0	-50 45 58	S0	15	3	3			
32	141	106	23 41 42.9	+08 43 57	S0/E				46	295	301	00 02 06.0	-50 43 59	E	16	7	1			
33	168	109	23 41 11.2	+08 44 57	S0				47	448	292	23 59 18.5	-50 45 20	Sab	15	4	1			
34	180	116	23 40 56.4	+08 47 17	S				48	121	307	00 05 25.9	-50 43 07	Sc	16	1	0			
35	191	115	23 40 54.8	+08 47 03	S				49	177	309	00 04 21.9	-50 42 51	Sb	15	3	4			
36	181	106	23 40 55.4	+08 44 25	S				50	177	316	00 04 20.9	-50 41 35	E	13	13	3			
37	170	121	23 41 08.6	+08 48 35	S				51	193	323	00 04 03.5	-50 40 10	S0	15	7	5			
38	055	142	23 43 29.8	+08 54 46	S				52	177	331	00 04 22.0	-50 38 42	S0	14	7	3			
39	104	138	23 42 29.4	+08 53 49	S0				53	267	337	00 02 38.7	-50 37 36	E	13	13	4			
40	106	142	23 42 27.0	+08 55 00	S0				54	247	345	00 03 01.5	-50 36 05	S0	14	9	6			
41	108	144	23 42 24.0	+08 55 34	S				55	247	352	00 03 01.6	-50 34 56	E	15	8	3			
42	108	142	23 42 24.3	+08 54 56	S0				56	251	363	00 02 56.8	-50 32 54	S8b	13	8	2			
43	109	138	23 42 23.4	+08 51 14	S0/E				57	314	359	00 01 44.7	-50 33 26	I	15	-1	-2			
44	120	149	23 42 08.9	+08 54 21	S0				58	481	361	23 58 33.9	-50 32 32	E	16	7	1			
45																				

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0107-46 (CONT.)																	
4	461	058	01 04 00.1	-46 46 10	Sc	16	3	2	46	321	379	01 02 36.4	-46 41 25	Sa/0	15	4	4
5	319	070	01 06 30.9	-46 44 35	Sp	14	1	3	47	274	400	01 03 26.9	-46 37 38	S0	15	8	7
6	096	104	01 10 26.9	-46 38 37	S0	15	3	5	48	300	397	01 02 58.7	-46 38 09	Scp	16	1	2
7	381	100	01 05 25.7	-46 38 58	S0	15	7	2	49	302	402	01 02 57.0	-46 37 19	S0	13	12	5
8	814	145	01 11 53.6	-46 31 08	E	15	8	0	50	310	392	01 02 48.5	-46 39 05	Sa	14	8	0
9	214	154	01 08 23.3	-46 29 26	SBa	16	6	0	51	329	410	01 02 29.0	-46 35 42	S0	15	4	6
10	256	149	01 07 38.0	-46 30 16	S	16	3	3	52	300	433	01 03 08.0	-46 31 34	Sb	15	3	1
11	258	160	01 07 36.6	-46 28 24	S0	15	6	4	53	367	443	01 01 49.4	-46 29 41	S	16	-2	0
12	420	151	01 04 44.8	-46 29 26	S0	15	7	5	54	314	494	01 02 45.5	-46 20 39	S0	13	11	4
13	423	154	01 04 41.9	-46 29 01	S0	14	9	4									
14	228	170	01 08 16.3	-46 26 30	Sbp	15	5	-2									
15	336	169	01 06 13.6	-46 26 35	S0	16	3	4									
16	222	204	01 14 14.5	-46 20 27	S0	14	8	8									
17	254	196	01 07 41.1	-46 21 51	SBa	15	2	1									
18	306	198	01 06 46.2	-46 21 17	S0	15	8	0									
19	353	195	01 05 56.9	-46 21 40	Sbc	12	3	7									
20	098	206	01 10 25.3	-46 20 06	S0	14	9	4									
21	273	210	01 07 20.8	-46 19 16	S0	15	6	7									
22	187	235	01 08 51.6	-46 14 43	E	15	8	0									
23	165	249	01 09 14.9	-46 12 14	S0	14	6	8									
24	173	251	01 09 06.5	-46 11 53	Sb	14	3	3									
25	243	250	01 07 53.4	-46 11 55	S0	16	5	2									
26	253	250	01 07 42.3	-46 11 53	D	12	13	1									
27	244	259	01 07 51.7	-46 10 15	S0/a	15	4	8									
28	278	261	01 07 24.4	-46 09 54	S0	14	9	2									
29	400	247	01 05 07.6	-46 12 02	E	16	7	3									
30	208	272	01 08 39.0	-46 07 56	E	16	6	0									
31	116	265	01 10 06.4	-46 09 17	Scd	16	-1	6									
32	168	273	01 09 12.7	-46 07 54	S0	16	3	4									
33	231	276	01 08 06.4	-46 07 16	S0	15	4	5									
34	261	275	01 07 34.6	-46 07 26	S0	16	1	0									
35	262	268	01 07 33.7	-46 08 40	E	15	7	3									
36	315	282	01 06 38.0	-46 05 57	S0	13	4	4									
37	359	274	01 05 50.9	-46 07 21	S0	15	6	6									
38	432	283	01 04 34.8	-46 05 31	E	13	12	2									
39	142	289	01 09 40.0	-46 04 59	S0	15	6	4									
40	204	300	01 08 34.7	-46 02 58	S0	15	6	0									
41	213	294	01 08 25.3	-46 04 00	E	16	5	0									
42	218	296	01 08 20.3	-46 03 39	S0	14	7	4									
43	263	299	01 07 33.0	-46 02 56	S0	15	4	3									
44	303	302	01 06 51.1	-46 02 26	E/S0	13	11	1									
45	204	308	01 08 34.2	-46 01 22	S0	15	8	2									
46	192	339	01 08 47.8	-45 55 52	S0	14	8	7									
47	196	342	01 08 42.7	-45 55 17	U	16	-2	-2									
48	288	332	01 07 07.2	-45 55 57	S0	15	8	3									
49	307	342	01 06 46.6	-45 55 03	S0	16	6	3									
50	050	368	01 11 15.0	-45 58 37	S0/a	15	6	4									
51	304	402	01 06 51.2	-45 44 12	Sbb	16	1	1									
52	019	423	01 11 46.6	-45 40 47	E	16	6	1									
53	027	424	01 11 39.0	-45 40 30	E	15	8	2									
54	309	442	01 06 46.5	-45 36 55	Sbb	15	4	2									
55	040	449	01 11 24.7	-45 36 06	Sbp	15	6	2									
56	314	457	01 06 41.0	-45 34 17	Sbb	15	7	0									
57	397	497	01 05 16.0	-45 26 53	S0	14	8	7									
DC 0103-47 (CONT.)																	
1	265	039	01 03 33.0	-47 43 22	S0	16	-2	B	1	131	022	02 49 09.3	-32 04 40	I	16	-1	-2
2	269	059	01 03 29.4	-47 39 41	S	15	3	6	2	052	041	02 50 16.7	-32 01 14	S0	13	12	1
3	472	052	00 59 51.0	-47 40 22	S0	15	4	?	3	399	038	02 45 20.6	-32 01 26	U	15	-2	4
4	074	072	01 06 59.5	-47 37 16	S0	15	6	0	4	455	043	02 44 32.5	-32 00 21	E	14	11	3
5	212	078	01 04 31.3	-47 36 20	S/I	16	-1	0	5	248	059	02 47 29.4	-31 57 56	E	15	9	4
6	258	066	01 03 40.8	-47 38 22	Sd/I	16	-1	6	6	324	047	02 46 24.2	-32 00 03	S0	16	1	5
7	291	122	01 03 06.4	-47 28 09	SBa	14	9	2	7	323	076	02 46 25.5	-31 54 47	S0/a	15	1	5
8	893	141	01 06 39.4	-47 24 47	SBbc	15	3	1	8	280	085	02 46 33.7	-31 52 44	Sb	12	3	2
9	433	125	01 06 34.0	-47 27 18	S0p	15	-2	-2	9	250	080	02 47 29.2	-31 17 49	Sa/0	14	6	3
10	128	157	01 06 09.8	-47 21 59	Sb	14	2	3	10	253	070	02 47 27.2	-31 19 38	S0	15	6	4
11	131	145	01 05 58.5	-47 24 11	S0/a	14	0	1	11	296	055	02 46 58.0	-31 19 07	E	15	8	3
12	138	149	01 05 51.0	-47 23 21	S0/a	15	3	5	12	287	053	02 46 57.3	-31 22 44	Sb	12	3	2
13	181	146	01 05 04.2	-47 23 35	Sb	15	6	2	13	316	057	02 46 33.0	-31 21 55	S0	16	4	5
14	267	148	01 03 31.6	-47 23 36	Sb	16	2	2	14	311	072	03 16 29.8	-54 34 49	Sbb	15	3	2
15	309	153	01 01 20.9	-47 22 18	E	16	5	1	15	318	078	03 16 20.7	-54 33 43	S/I	16	-1	3
16	853	173	01 07 21.3	-47 18 57	E	16	5	3	16	327	086	03 16 09.0	-54 32 22	S0	14	6	0
17	124	166	01 06 05.6	-47 20 21	SBa	14	8	3	17	086	113	03 21 11.2	-54 27 07	E	15	8	1
18	187	168	01 04 57.8	-47 19 59	E	16	7	1	19	178	108	03 19 16.4	-54 28 33	Sab	14	9	4
19	191	171	01 04 53.9	-47 19 22	S0	15	7	2	20	190	118	03 19 10.5	-54 28 07	S0	16	3	0
20	275	165	01 03 24.0	-47 20 23	S	13	-2	9	21	193	115	03 18 58.0	-54 27 09	S0/E	14	10	1
21	393	179	01 01 16.7	-47 17 32	SBa	14	7	2	22	202	123	03 18 46.8	-54 25 46	Sc	15	2	2
22	454	167	01 00 12.1	-47 19 36	I	16	-1	3	23	272	124	03 17 18.3	-54 25 30	Ep	15	8	2
23	033	192	01 07 42.6	-47 15 29	Sbb	15	4	2	24	284	145	03 22 48.0	-54 21 33	Sc	16	-1	2
24	175	192	01 05 10.9	-47 15 37	S	16	-2	8	25	294	131	03 21 24.1	-54 24 13	Sc	16	1	3
25	236	188	01 04 06.0	-47 16 19	Sb	16	1	0	26	176	139	03 19 18.4	-54 22 47	S0/a	16	3	4
26	315	189	01														

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0317-54 (CONT.)																	
39	258	250	03 17 36.7	-54 02 32	Sc	16	1	2	72	352	275	03 24 16.0	-53 29 49	S	16	-2	6
40	272	250	03 17 19.8	-54 02 35	Sab	16	3	5	73	363	277	03 24 02.4	-53 29 33	Sa	16	7	4
41	015	273	03 22 37.8	-53 58 18	S	16	-2	8	74	424	267	03 22 47.8	-53 31 08	Sa	14	7	3
42	215	278	03 18 30.2	-53 57 35	Sa/a	15	4	0	75	430	276	03 22 40.5	-53 29 31	Sa	16	5	5
43	243	279	03 17 56.4	-53 57 20	Sa	15	0	2	76	441	275	03 22 27.0	-53 29 44	Sa	15	8	4
44	248	281	03 17 49.1	-53 56 58	Sa/E	16	5	3	77	447	283	03 22 20.1	-53 28 11	Sa	14	-2	2
45	251	270	03 17 46.1	-53 59 01	Sa	16	6	4	78	447	265	03 22 20.4	-53 31 27	Sa	15	9	4
46	039	285	03 22 08.2	-53 56 10	Sbc	16	2	3	79	117	295	03 29 03.6	-53 26 21	Sbb	14	7	1
47	214	313	03 18 31.6	-53 51 13	S	16	0	3	80	287	288	03 25 35.6	-53 27 38	E	16	6	4
48	225	318	03 18 18.9	-53 53 09	S/a/Sa	15	3	7	81	324	303	03 24 50.9	-53 24 48	Sa/a	16	5	7
49	276	306	03 17 15.1	-53 52 19	S	16	1	1	82	383	301	03 23 38.9	-53 25 08	E	16	6	1
50	291	321	03 16 56.9	-53 49 41	S	16	1	3	83	448	286	03 22 19.8	-53 27 45	Sa	16	4	7
51	303	305	03 15 03.2	-53 52 21	Sa	16	3	4	84	448	295	03 22 19.8	-53 26 06	Sa	16	5	6
52	289	357	03 17 08.2	-53 42 59	S	16	0	2	85	453	304	03 22 13.6	-53 24 28	Sa	15	4	3
53	354	354	03 15 39.3	-53 43 34	S	16	1	1	86	162	306	03 28 09.0	-53 24 16	E	15	9	1
54	153	380	03 19 46.6	-53 39 03	Sa	16	5	5	87	226	308	03 26 55.0	-53 23 58	Sa	16	3	3
55	377	379	03 15 12.5	-53 38 59	Sa	16	3	7	88	255	322	03 26 15.2	-53 21 30	E	14	11	0
56	093	388	03 21 00.5	-53 37 32	E	15	7	0	89	653	332	03 30 09.3	-53 19 31	Sa	15	5	3
57	207	387	03 18 41.2	-53 37 38	Sa	16	5	1	90	892	343	03 29 39.5	-53 17 36	S	16	0	7
58	251	398	03 17 46.6	-53 37 09	Sa	16	4	2	91	141	334	03 28 34.0	-53 19 09	Sp	16	5	2
59	297	387	03 16 49.9	-53 37 33	Sbc	15	2	2	92	249	342	03 26 22.3	-53 17 48	Sa	16	5	7
60	429	398	03 14 08.5	-53 35 17	Sb	15	2	3	93	267	337	03 26 08.8	-53 18 46	Sa	15	8	7
61	027	422	03 22 20.2	-53 31 21	Sa	16	5	4	94	269	333	03 25 57.5	-53 19 24	Sa/p/a	15	7	-2
62	114	413	03 20 34.7	-53 33 01	Sa	16	4	2	95	269	328	03 25 58.5	-53 20 24	E	16	8	7
63	191	410	03 18 59.9	-53 33 36	S	15	-2	3	96	384	337	03 25 14.9	-53 18 42	Sa	14	8	7
64	476	414	03 13 12.4	-53 32 21	Sa/a	16	4	3	97	435	334	03 22 36.6	-53 18 57	E	14	10	3
65	344	473	03 15 54.1	-53 21 55	Sa	16	4	7	98	234	363	03 26 40.3	-53 13 54	E	15	9	0
66	297	485	03 16 52.0	-53 19 54	Sa	16	4	5	99	246	351	03 26 25.8	-53 16 11	Sba	16	5	2
DC 0326-53 (some overlap with 0329-53)																	
1	017	034	03 31 09.4	-54 13 15	Sa	15	0	3	103	478	351	03 21 45.1	-53 15 51	Sa	15	7	6
2	216	036	03 27 02.4	-54 13 22	Sa	16	2	4	104	488	353	03 21 32.3	-53 15 22	E	14	9	2
3	291	027	03 25 29.7	-54 15 05	Sa/a	16	5	3	105	857	383	03 30 15.1	-53 10 14	Sa	16	5	5
4	121	053	03 29 00.5	-54 10 11	U	16	-2	2	106	144	374	03 28 29.7	-53 12 01	E	16	7	1
5	174	061	03 27 55.0	-54 08 55	Sa	16	6	5	107	200	371	03 27 22.2	-53 12 32	Sa/p	15	8	3
6	058	099	03 30 18.5	-54 01 44	Sb	15	3	6	109	239	367	03 26 34.7	-53 13 11	Sa	15	7	-2
7	090	091	03 29 38.6	-54 03 15	E	15	0	0	110	240	372	03 26 33.3	-53 12 24	E	16	5	0
8	117	098	03 29 04.9	-54 02 07	Sa	16	6	4	111	279	380	03 25 46.1	-53 10 54	Sb	15	3	2
9	289	085	03 25 32.7	-54 04 31	E	15	0	1	112	398	368	03 23 22.0	-53 12 57	Sa	16	5	4
10	076	118	03 29 55.2	-53 58 27	Sbab	15	7	1	113	628	403	03 30 49.7	-53 06 36	Sa	15	5	5
11	313	121	03 25 03.0	-53 57 59	E+p+E	14	12	-2	114	843	402	03 30 31.3	-53 06 48	E	15	8	1
12	337	120	03 24 33.4	-53 58 06	E	15	9	2	115	169	401	03 27 59.1	-53 07 00	E	16	6	0
13	092	132	03 29 36.0	-53 55 53	Sa	16	4	4	116	200	390	03 27 22.5	-53 09 03	E	15	8	0
14	127	126	03 28 25.5	-53 57 07	S/I	15	-2	7	117	126	397	03 28 51.0	-53 07 48	E	16	7	4
15	160	132	03 28 12.6	-53 55 59	Sa	16	2	5	118	217	392	03 27 01.0	-53 08 36	Sa	16	6	5
16	356	133	03 24 09.3	-53 55 46	E	16	7	0	119	211	399	03 27 08.8	-53 07 22	E	15	8	1
17	455	128	03 22 08.5	-53 56 17	Sa	15	-2	3	120	332	388	03 24 42.3	-53 09 18	Sa/p/a	16	7	1
18	477	133	03 21 40.6	-53 55 21	E	16	6	0	121	880	408	03 29 47.2	-53 05 41	Sa	16	2	2
19	098	154	03 29 38.7	-53 51 55	E	16	6	0	122	171	406	03 27 57.1	-53 06 14	Sa/p	16	6	4
20	133	150	03 28 45.3	-53 52 43	Sa/a	14	7	0	123	248	405	03 26 24.3	-53 06 24	Sa	16	3	0
21	263	151	03 26 05.1	-53 52 35	Sa	16	6	5	124	253	407	03 26 18.0	-53 06 00	E	15	8	0
22	257	163	03 26 12.5	-53 50 26	Sa	16	6	5	125	298	420	03 25 32.5	-53 03 39	Sa	15	8	0
23	276	164	03 25 49.8	-53 50 08	Sp	15	2	3	126	306	422	03 25 14.1	-53 03 10	S	16	0	5
24	033	178	03 38 48.2	-53 47 25	Sbc	15	1	0	127	475	414	03 21 50.2	-53 04 26	E	15	8	1
25	194	180	03 27 29.5	-53 47 15	Sb	15	2	4	128	867	443	03 29 37.4	-53 05 22	E	16	7	2
26	250	172	03 26 20.6	-53 48 41	E	15	8	2	129	091	432	03 29 29.8	-53 01 20	Sa	15	7	0
27	278	177	03 25 46.6	-53 47 47	Sa/a	16	4	4	130	181	434	03 29 21.4	-53 01 04	E	14	10	2
28	303	184	03 25 16.0	-53 46 35	Sbb	15	0	0	131	120	440	03 28 58.8	-53 59 58	Sa/p/a	15	5	4
29	308	168	03 25 09.8	-53 49 29	Sbb	16	1	1	132	144	429	03 28 29.2	-53 02 01	Sa	15	6	5
30	309	176	03 25 08.6	-53 48 02	E	15	9	5	133	155	441	03 28 15.8	-52 59 54	E	15	8	0
31	380	174	03 23 40.8	-53 48 15	Sa/a	16	4	3	134	168	434	03 28 10.5	-53 01 09	Sa	15	7	4
32	386	168	03 23 32.7	-53 49 23	S	16	4	8	135	323	442	03 24 53.2	-52 59 33	Sa/p	15	6	1
33	159	202	03 28 13.1	-53 43 12	Sa	16	5	5	136	374	427	03 23 52.1	-53 02 17	Sbb	16	1	2
34	217	194	03 27 01.2	-53 44 50	Sa	15	4	5	137	451	433	03 22 19.7	-53 01 08	Sa	16	4	6
35	250	194	03 26 20.6	-53 44 41	E	15	9	0	138	058	457	03 30 12.1	-52 56 48	Sa/p/a	15	7	5
36	270	196	03 25 55.8	-53 44 24	Sa	15	6	3	139	082	461	03 29 43.1	-52 56 13	Sa	16	4	5
37	277	194	03 25 48.1	-53 44 44	Sa	15	5	8	140	084	446	03 29 41.7	-52 58 49	E	14	10	3
38	294	186	03 25 26.6	-53 46 08	E	16	7	0	141	189	456	03 29 11.5	-52 57 02	E	16	7	3
39	319	202	03 24 55.9	-53 43 14	Sa/a	14	5	4	142	115	457	03 29 08.8	-52 56 57	Sa	16	7	4
40	015	218	03 31 08.4	-53 40 00</													

TABLE 2—Continued .

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0329-52 (CONT.)																	
7	445	017	03 25 18.1	-53 17 02	E/S0	16	6	2	110	251	212	03 29 14.5	-52 42 16	S0	16	2	7
8	448	008	03 25 14.2	-53 18 39	S0	16	5	0	111	252	207	03 29 12.7	-52 43 06	E/S0	16	6	1
9	132	040	03 31 37.0	-53 13 33	S0b	16	1	3	112	259	207	03 29 05.1	-52 43 05	S0	15	7	9
10	343	043	03 27 21.5	-53 12 41	S0/a	15	0	3	113	266	217	03 28 56.5	-52 41 22	S0	16	4	2
11	343	038	03 27 20.6	-53 13 43	E	16	6	2	114	268	217	03 28 54.1	-52 41 19	S/I	16	1	2
12	377	035	03 26 48.0	-53 14 02	E	15	0	1	115	270	215	03 28 51.6	-52 41 44	S0	16	6	3
13	382	039	03 26 34.1	-53 13 16	S	16	-2	-2	116	287	209	03 28 31.2	-52 42 47	S0	15	3	2
14	407	029	03 26 03.3	-53 15 00	S	16	-2	-2	117	290	218	03 28 27.9	-52 41 08	E	13	12	2
15	017	063	03 33 55.0	-53 09 15	S0	16	4	0	118	312	220	03 28 01.1	-52 40 44	S0	16	5	3
16	026	054	03 33 45.2	-53 10 46	S0	16	2	4	119	312	208	03 28 01.2	-52 42 57	S0	16	6	2
17	208	057	03 30 14.3	-53 10 25	Sa	16	5	4	120	463	217	03 24 59.9	-52 40 49	E	16	6	1
18	202	058	03 30 12.8	-53 10 22	E	16	5	1	121	412	224	03 26 01.6	-52 39 36	Sb	16	2	3
19	287	047	03 28 29.3	-53 12 11	E	16	6	1	122	117	232	03 31 55.8	-52 38 43	E	16	6	5
20	343	063	03 27 21.9	-53 09 08	E	15	0	0	123	118	236	03 31 54.5	-52 38 00	E	16	7	0
21	422	051	03 25 45.7	-53 10 56	Sc	15	2	2	124	172	239	03 30 48.9	-52 37 26	S	15	-2	9
22	172	077	03 30 49.0	-53 06 48	Sb	16	2	4	125	202	227	03 30 13.1	-52 39 31	E	16	7	0
23	187	076	03 30 30.5	-53 06 59	E	16	7	2	126	213	234	03 30 00.7	-52 38 15	E	14	11	1
24	224	082	03 29 46.3	-53 05 51	S	16	1	8	127	246	239	03 29 20.4	-52 37 17	E	15	8	3
25	312	075	03 27 58.6	-53 07 07	E	16	5	0	128	251	243	03 29 14.7	-52 36 39	E	16	5	6
26	314	079	03 27 56.2	-53 06 19	Sa	16	5	-2	129	253	235	03 29 12.2	-52 38 07	S0	16	6	4
27	354	072	03 27 08.1	-53 07 28	E	16	7	1	130	266	245	03 28 57.0	-52 36 18	S0	16	6	5
28	391	077	03 26 23.7	-53 06 28	S0/S	16	3	0	131	264	231	03 28 59.1	-52 38 52	S	16	-1	8
29	396	079	03 26 17.2	-53 06 04	E	15	0	0	132	269	229	03 28 53.3	-52 39 05	Sa	15	8	2
30	412	076	03 25 58.8	-53 06 31	E	16	6	2	133	281	243	03 28 38.6	-52 36 38	E	16	6	1
31	288	102	03 28 28.6	-53 02 10	S0	16	6	5	134	308	239	03 28 09.3	-52 37 12	Sa	16	5	3
32	434	091	03 25 31.7	-53 03 43	S0	15	7	9	135	308	238	03 28 06.0	-52 37 30	S0	16	3	0
33	450	094	03 25 13.5	-53 03 10	Sc	16	0	3	136	315	244	03 27 57.8	-52 36 15	S0	16	5	6
34	228	121	03 29 41.3	-52 58 56	E	15	0	3	137	322	225	03 27 49.6	-52 39 42	S0	16	5	3
35	231	117	03 29 37.1	-52 59 30	E	16	6	1	138	349	226	03 27 16.9	-52 39 35	E	16	6	4
36	235	106	03 29 32.3	-53 01 30	Sa	15	7	0	139	475	226	03 24 46.7	-52 39 04	E	15	8	3
37	245	108	03 29 21.1	-53 01 14	E	15	9	2	140	162	263	03 31 01.9	-52 32 59	U	16	5	-2
38	264	114	03 28 58.1	-53 00 06	S	16	0	3	141	169	249	03 30 53.3	-52 35 31	Sc	16	0	2
39	271	121	03 28 49.2	-52 58 49	Sb	15	5	4	142	199	251	03 30 17.2	-52 35 17	Sb	16	2	3
40	299	114	03 28 15.4	-53 00 01	E	15	7	0	143	225	248	03 29 46.1	-52 35 40	S0	16	4	6
41	303	107	03 28 10.0	-53 01 14	S0	16	6	4	144	227	251	03 29 43.1	-52 35 12	S0	15	7	8
42	333	107	03 27 33.6	-53 01 14	S0	16	5	3	145	233	259	03 29 35.9	-52 33 42	E	16	5	1
43	468	113	03 24 52.3	-52 59 36	S0	16	4	1	146	237	255	03 29 31.5	-52 34 29	Sab	15	6	3
44	203	132	03 30 11.6	-52 56 57	Sa/0	16	4	5	147	239	250	03 29 29.1	-52 35 19	S0	15	3	7
45	253	130	03 29 11.3	-52 57 13	E/S0	16	6	3	148	246	258	03 29 20.6	-52 33 50	E/S0	15	8	3
46	259	131	03 29 03.4	-52 57 02	S0	16	6	4	149	279	246	03 28 49.6	-52 35 57	I	16	-1	-2
47	304	131	03 28 09.0	-52 56 50	S0	16	5	5	150	398	259	03 26 27.7	-52 33 23	S0	16	5	0
48	309	139	03 28 04.0	-52 55 25	S	16	2	4	151	394	253	03 26 23.0	-52 34 29	Sa	15	5	3
49	391	137	03 26 24.7	-52 55 38	S0	16	6	5	152	146	267	03 31 20.4	-52 32 19	Sc	16	1	3
50	172	149	03 30 48.7	-52 53 53	S0	16	5	6	153	155	273	03 31 10.1	-52 31 18	S0	15	7	4
51	205	146	03 30 09.7	-52 54 23	Sc	16	2	2	154	162	279	03 31 09.9	-52 30 12	I	16	-1	-2
52	286	151	03 30 07.6	-52 53 30	E/S0	16	6	3	155	208	275	03 30 06.2	-52 30 51	Sbp	16	2	3
53	221	159	03 29 50.5	-52 51 56	E	15	8	2	156	221	265	03 29 50.3	-52 32 35	S0	15	-2	6
54	226	156	03 29 44.4	-52 52 32	S0	16	6	7	157	233	265	03 29 36.1	-52 32 33	E	16	5	2
55	239	155	03 29 28.0	-52 52 44	S0	16	3	3	158	157	296	03 31 07.1	-52 27 06	Sa	15	6	3
56	240	154	03 29 26.7	-52 52 46	E	15	7	1	159	178	303	03 30 42.7	-52 25 42	Sc	16	1	4
57	242	164	03 29 24.5	-52 51 04	Sa	15	7	3	160	185	286	03 30 33.5	-52 28 47	Sc	16	1	0
58	265	153	03 28 57.3	-52 52 57	Sba	15	7	1	161	190	288	03 30 27.5	-52 28 30	S0	16	6	5
59	290	164	03 28 27.3	-52 50 58	S	16	4	2	162	191	298	03 30 26.7	-52 28 11	E	15	9	8
60	301	157	03 28 12.9	-52 52 08	S0	16	2	2	163	213	288	03 30 00.6	-52 28 24	S0	16	5	1
61	330	158	03 27 38.0	-52 51 55	Ep	15	8	0	164	252	297	03 29 13.4	-52 26 46	Sb	16	2	1
62	388	163	03 26 28.3	-52 50 52	E	14	9	-2	165	281	287	03 28 39.0	-52 28 36	S0	16	5	5
63	388	162	03 26 28.1	-52 50 59	E	15	7	-2	166	281	304	03 28 38.8	-52 25 25	Sa	15	6	2
64	391	155	03 26 24.6	-52 52 22	Sa/0	16	5	5	167	310	289	03 28 04.1	-52 28 12	E	15	8	2
65	407	161	03 26 05.7	-52 51 04	E	16	6	1	168	312	295	03 28 02.4	-52 27 04	S0	16	4	3
66	408	157	03 26 04.9	-52 51 48	S0	16	5	4	169	359	299	03 27 06.4	-52 26 16	S0/a	16	5	2
67	031	164	03 33 37.9	-52 50 58	E	16	5	0	170	381	303	03 26 48.2	-52 25 22	Sbbp	16	4	4
68	251	184	03 29 13.8	-52 47 23	D/E	14	11	2	171	101	324	03 32 13.8	-52 22 01	S0/a	15	6	2
69	272	182	03 28 49.2	-52 47 43	E	14	10	3	172	125	313	03 31 45.9	-52 23 59	Sc	16	1	7
70	314	181	03 27 58.3	-52 47 43	S0/S	16	3	0	173	343	310	03 27 25.8	-52 24 09	Sa	15	7	5
71	315	183	03 27 57.4	-52 47 23	Sbab	14	8	3	174	321	309	03 27 52.1	-52 24 29	S	16	-1	6
72	328	181	03 27 51.3	-52 47 51	Sa	15	6	6	175	433	317	03 25 39.0	-52 22 43	Sa	15	6	4
73	388	182	03 26 29.6	-52 47 22	S0	16	6	7	176	264	332	03 28 59.4	-52 20 25	S0	16	5	3
74	394	172	03 26 22.0	-52 49 09	S	15	7	7	177	323	326	03 27 49.7	-52 21 28	E	15	7	3
75	423	182	03 25 46.7	-52 47 18	S												

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0410-62 (CONT.)																	
13	269	135	04 09 31.8	-63 09 51	Sa	16	5	5	45	248	214	04 27 59.8	-53 56 11	D	13	11	-2
14	269	140	04 09 31.8	-63 08 59	Sb	14	4	2	46	249	214	04 27 58.6	-53 56 07	E	15	8	-2
15	272	138	04 09 26.0	-63 09 15	I	16	-1	-2	47	271	209	04 27 31.3	-53 57 02	S0	15	8	-2
16	138	183	04 13 01.8	-63 01 08	Sd	15	-1	2	48	303	214	04 26 45.7	-53 56 01	S0b	16	3	3
17	281	183	04 09 13.0	-63 01 04	S0	15	5	6	49	328	219	04 26 30.1	-53 55 14	I	16	-1	-2
18	376	177	04 06 40.0	-63 01 51	S0	12	11	6	50	468	220	04 23 28.1	-53 54 27	S0	16	5	5
19	273	204	04 09 25.5	-62 57 15	S0p	15	5	7	51	278	224	04 27 23.0	-53 54 23	E/S0	16	4	5
20	318	188	04 08 13.2	-63 00 05	S0/S	15	-2	8	52	023	233	04 32 37.0	-53 52 35	E	15	8	0
21	329	194	04 07 56.7	-62 58 56	S	16	-1	7	53	023	231	04 32 36.7	-53 52 57	Sb	15	4	7
22	111	210	04 13 45.7	-62 56 16	Sc	13	0	2	54	105	235	04 30 56.5	-53 52 25	E	15	8	1
23	322	213	04 08 07.5	-62 55 35	Sa	12	-2	4	55	208	239	04 28 48.0	-53 51 41	U	16	-2	-2
24	428	224	04 05 18.5	-62 53 12	E	16	6	0	56	211	241	04 28 45.1	-53 51 21	S0	15	9	5
25	285	225	04 11 14.5	-62 53 35	Sc	16	0	2	57	219	239	04 28 35.7	-53 51 43	Sb	16	3	3
26	398	231	04 06 20.3	-62 52 05	S0b	16	-1	0	58	237	234	04 28 13.4	-53 52 29	E	16	6	1
27	304	225	04 08 37.0	-62 53 21	Sb	16	1	2	59	252	241	04 27 54.2	-53 51 17	I	16	-1	-2
28	259	224	04 09 48.4	-62 53 43	S0	16	3	0	60	258	225	04 27 46.9	-53 54 07	E	14	11	0
29	102	245	04 13 58.8	-62 49 52	Sa	16	4	2	61	265	228	04 27 39.1	-53 53 34	S0	14	6	3
30	213	246	04 11 01.8	-62 49 42	Sd/I	16	-2	-2	62	279	243	04 27 21.7	-53 50 50	Sb	13	5	0
31	211	242	04 11 05.0	-62 50 29	Sc	16	1	1	63	354	225	04 25 49.1	-53 53 56	E	15	8	2
32	230	242	04 10 35.2	-62 50 27	E/S0	13	11	5	64	172	255	04 29 34.0	-53 48 40	E	14	12	1
33	239	241	04 10 21.2	-62 50 38	S0	14	-2	9	65	172	257	04 29 33.3	-53 48 20	E	16	6	3
34	252	238	04 10 00.4	-62 51 11	Sba	14	6	2	66	234	255	04 28 17.6	-53 48 45	E/S0	15	9	2
35	389	263	04 06 22.5	-62 46 16	Sb	14	2	3	67	240	247	04 28 09.3	-53 50 12	S0	16	6	4
36	077	259	04 14 39.8	-62 47 11	S0	16	4	3	68	253	259	04 27 53.6	-53 47 56	E	15	9	2
37	681	259	04 14 33.0	-62 47 18	S0	16	3	7	69	262	260	04 27 43.1	-53 47 48	S0	16	6	4
38	363	272	04 07 03.5	-62 44 37	S0	14	6	8	70	276	252	04 27 25.5	-53 49 14	Sb	15	6	2
39	070	292	04 14 48.5	-62 41 12	Sc	16	0	3	71	283	248	04 27 17.0	-53 49 52	S	16	-2	0
40	158	298	04 12 42.0	-62 40 10	Sa/0 <sub>3</sub>	16	2	4	72	357	245	04 25 44.7	-53 50 22	S0a	16	6	0
41	383	293	04 06 33.0	-62 40 51	S0	14	6	6	73	103	276	04 30 58.7	-53 44 54	S0	16	5	3
42	459	303	04 04 33.0	-62 38 35	Sc	16	0	2	74	123	276	04 30 33.4	-53 44 56	S0	16	4	4
43	026	321	04 15 57.1	-62 35 48	Sbc	16	8	3	75	132	274	04 30 23.4	-53 45 11	E	14	9	0
44	343	321	04 07 37.6	-62 35 49	Sb	16	1	3	76	145	265	04 30 06.9	-53 46 56	E	14	10	2
45	047	332	04 15 25.5	-62 34 00	Sc	16	-1	0	77	174	285	04 29 30.8	-53 43 20	Ep	14	10	0
46	078	344	04 14 35.2	-62 31 49	S0	16	4	1	78	189	267	04 29 23.0	-53 46 34	Sab	15	7	7
47	233	357	04 10 30.0	-62 29 24	I	16	-1	-2	79	247	273	04 28 09.9	-53 45 29	E	15	8	1
48	661	398	04 15 01.1	-62 22 01	Sb	16	1	3	80	249	283	04 27 58.4	-53 43 40	E	16	7	0
49	273	395	04 09 28.2	-62 22 28	Sbc	16	0	0	81	255	284	04 27 51.5	-53 43 20	D	13	11	1
50	299	386	04 08 48.5	-62 24 08	Sb	15	3	3	82	264	276	04 27 40.4	-53 44 52	S0	16	6	5
51	321	401	04 08 13.0	-62 21 20	S0b	16	2	4	83	265	274	04 27 39.1	-53 45 15	Sc	16	2	1
52	368	397	04 07 13.1	-62 22 01	S0b	14	7	2	84	144	286	04 30 07.6	-53 43 06	S0	16	5	5
53	483	390	04 06 05.6	-62 23 11	Sc	16	-1	2	85	232	297	04 28 20.3	-53 40 59	Sa	16	6	3
54	089	413	04 16 20.8	-62 19 13	S0	16	3	7	86	247	298	04 28 01.8	-53 42 21	S0	16	6	5
55	411	437	04 05 53.9	-62 14 36	S0	16	5	3	87	247	289	04 28 01.5	-53 42 33	S0	16	6	4
56	249	453	04 10 07.7	-62 11 59	I	16	-1	-2	88	248	291	04 27 59.9	-53 42 05	E	15	10	3
57	244	461	04 18 10.5	-62 10 38	S0	16	3	6	89	252	291	04 27 54.6	-53 42 05	S0	15	6	3
58	376	458	04 06 50.3	-62 10 56	S	16	-2	9	90	301	297	04 26 54.7	-53 40 55	S0	15	7	5
59	430	455	04 05 25.5	-62 11 16	S0	15	6	2	91	344	298	04 26 02.3	-53 40 44	Sa	16	1	2
60	163	475	04 12 21.2	-62 08 08	Sc	16	0	2	92	379	301	04 25 18.7	-53 40 09	S0	15	8	2
61	170	469	04 12 10.2	-62 09 16	S0a	15	4	2	93	061	314	04 31 49.5	-53 37 57	S0	16	5	4
62	486	466	04 03 59.7	-62 09 03	Sc	16	0	1	94	189	324	04 30 50.8	-53 36 10	E	16	5	1
63	281	491	04 11 22.1	-62 05 13	S	16	0	2	95	237	321	04 28 13.9	-53 36 42	S0	15	4	3
64	238	487	04 10 24.1	-62 05 53	S0c	16	0	1	96	247	319	04 28 02.0	-53 37 06	Sc	16	0	0
65	326	495	04 08 08.6	-62 04 19	I	16	-1	-2	97	314	308	04 26 39.5	-53 38 06	E	16	5	2
66	482	490	04 06 11.0	-62 05 03	S0	15	6	3	98	364	312	04 25 38.0	-53 38 06	E	16	5	2
67	348	486	04 07 33.4	-62 05 52	Sb	16	2	2	99	105	330	04 26 56.1	-53 35 06	S0	15	6	9
DC 0424-53																	
1	137	020	04 30 17.1	-54 31 22	S	12	-2	7	100	288	329	04 27 10.7	-53 35 12	S0	16	5	5
2	356	022	04 25 42.6	-54 30 51	S	16	1	5	101	357	332	04 25 47.1	-53 34 34	S0	16	3	6
3	125	061	04 30 31.5	-54 23 56	E	15	0	2	102	276	358	04 27 26.7	-53 29 59	E	15	8	0
4	049	000	04 32 05.7	-54 20 18	Scd	16	1	4	103	276	351	04 27 26.6	-53 31 07	Sb	14	5	3
5	212	074	04 28 43.4	-54 21 33	E	15	8	1	104	301	357	04 26 55.1	-53 29 59	S0	15	8	7
6	012	102	04 32 51.8	-54 16 18	S0	15	4	3	105	329	346	04 26 28.9	-53 31 56	S0	16	2	3
7	324	091	04 26 24.2	-54 18 27	S0 <sub>3</sub>	12	7	4	106	276	358	04 26 54.7	-53 32 10	E/S0	16	7	0
8	184	119	04 29 18.4	-54 13 26	S0 <sub>3</sub>	15	7	3	107	276	351	04 27 26.6	-53 31 07	Sb	14	5	3
9	264	110	04 27 38.4	-54 15 06	S0	15	7	4	108	301	357	04 26 55.1	-53 31 56	S0	16	2	3
10	370	119	04 25 27.4	-54 13 10	S0p	14	4	4	109	348	345	04 25 58.0	-53 32 10	E/S0	16	5	5
11	469	120	04 23 24.1	-54 12 35	E	14	12	5	111	356	360	04 25 48.9	-53 29 27	I	16	-1	-2
12	184	136	04 29 19.2	-54 10 26	U	16	-2	4	112	448	347	04 24 06.2	-53 31 36	Sa	15	6	3
13	283	144	04 28 54.7	-54 08 55	S0	16	6</td										

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0559-40 (CONT.)																	
13	130	182	06 01 03.9	-40 14 47	I	16	-1	-2	116	363	497	05 57 24.4	-39 17 25	S0	14	8	7
14	313	175	05 58 08.6	-40 15 52	SBb	14	5	3	1	307	013	06 07 13.4	-34 22 46	S0	16	4	0
15	330	181	05 57 52.4	-40 14 45	E/S0	16	6	2	2	847	061	06 11 02.0	-34 14 09	S	16	-2	9
16	378	178	05 57 07.2	-40 15 19	S0	16	3	5	3	350	048	06 06 35.5	-34 16 19	Sa	16	2	5
17	243	203	05 59 15.6	-40 10 55	S0	16	3	5	4	424	072	06 05 31.0	-34 11 49	I	13	-1	-2
18	358	197	05 57 25.9	-40 11 46	Sc	16	0	3	5	447	163	06 05 12.2	-33 55 15	I	16	-1	-2
19	081	206	06 01 49.9	-40 10 22	Sc	16	1	4	6	171	090	06 09 13.8	-34 08 56	SBb	16	1	-2
20	084	215	06 01 47.0	-40 09 41	S0	16	4	5	7	296	101	06 07 23.8	-34 06 53	U	16	-2	-2
21	104	223	06 01 28.0	-40 07 13	E	14	9	2	8	316	117	06 07 06.3	-34 03 48	Sa	16	2	5
22	169	218	06 00 26.2	-40 08 15	Sa	15	6	1	9	447	163	06 05 12.2	-33 55 15	I	16	-1	-2
23	173	222	06 00 22.9	-40 07 31	E	15	0	3	10	184	182	06 09 02.6	-33 52 09	Sab	12	11	-2
24	325	221	05 57 58.0	-40 07 30	S0	16	5	3	11	224	167	06 08 27.6	-33 54 52	Sc	16	-1	2
25	042	234	06 02 26.9	-40 05 13	Sa	14	6	4	12	257	184	06 07 58.1	-33 51 46	Sa	15	3	2
26	148	242	06 00 46.8	-40 03 45	S	16	-2	5	13	322	167	06 07 01.5	-33 54 48	S0	15	-2	5
27	228	241	05 59 30.7	-40 03 54	E/S0	15	0	0	14	326	169	06 06 57.3	-33 54 26	Sb	13	-2	1
28	260	240	05 58 59.5	-40 04 11	S0	15	6	1	15	409	172	06 05 44.7	-33 53 41	S0	16	4	3
29	263	236	05 58 56.7	-40 04 48	Sc	16	5	4	16	417	182	06 05 38.4	-33 51 56	I	16	-1	-2
30	265	229	05 58 55.2	-40 06 09	S0	16	5	3	17	038	204	06 11 09.8	-33 48 14	I	15	-1	-2
31	283	243	05 58 38.1	-40 03 36	SBa	15	6	2	18	048	188	06 11 08.5	-33 51 00	S	16	-1	0
32	283	226	05 58 37.6	-40 06 41	S0	16	3	4	19	216	194	06 08 34.5	-33 49 56	S0	16	3	7
33	306	227	05 58 15.5	-40 06 29	Sa	14	6	7	20	257	184	06 07 58.1	-33 51 44	Sb	15	2	3
34	307	235	05 58 15.4	-40 05 04	SBb	15	3	3	21	273	194	06 07 44.0	-33 49 53	S0	15	6	1
35	358	233	05 57 26.5	-40 05 14	S0/S	15	5	0	22	310	193	06 07 11.5	-33 50 81	Sa	14	8	2
36	113	248	06 01 20.1	-40 02 39	Sc	16	0	2	23	324	188	06 06 59.4	-33 50 56	S0/E	16	5	2
37	133	258	06 01 01.1	-40 00 55	S0	14	-2	6	24	458	204	06 05 02.4	-33 47 44	S0	16	1	4
38	154	255	06 00 40.4	-40 01 22	S0	16	3	1	25	463	200	06 04 58.5	-33 48 29	E/S0	13	10	1
39	181	250	06 00 14.9	-40 02 22	S0	15	5	3	26	468	189	06 05 01.0	-33 50 32	S0	16	2	3
40	187	251	06 00 09.8	-40 02 09	S0	16	4	4	27	023	206	06 11 23.0	-33 47 52	Sa	16	2	1
41	189	257	06 00 07.1	-40 01 04	S0	16	4	4	28	287	221	06 07 32.6	-33 44 56	S0/a	15	8	6
42	202	258	05 59 55.2	-40 00 53	E/S0	14	9	2	29	328	216	06 06 56.3	-33 45 53	Sc	16	0	4
43	210	263	05 59 47.7	-39 59 58	SB0	16	4	2	30	199	224	06 08 49.2	-33 44 29	S	16	2	9
44	214	254	05 59 44.1	-40 01 37	S0	15	3	8	31	034	230	06 11 13.6	-33 43 32	S0	16	4	4
45	229	253	05 59 29.8	-40 01 44	S0/a	16	4	2	32	158	234	06 09 25.5	-33 42 44	SBb	16	1	3
46	229	251	05 59 29.1	-40 02 07	Sa	14	7	6	33	180	230	06 09 06.2	-33 43 30	S0	14	8	7
47	243	246	05 59 16.2	-40 03 05	S0	14	9	8	34	187	232	06 09 00.1	-33 43 06	S0	15	6	4
48	257	248	05 59 03.1	-40 02 41	D	12	12	3	35	170	431	06 09 15.5	-33 07 00	S/S0	16	2	0
49	258	262	05 59 01.6	-40 00 03	Sa	16	4	5	36	212	237	06 08 39.2	-33 42 10	S0	16	4	2
50	270	249	05 58 50.8	-40 02 39	E	16	5	1	37	251	245	06 08 05.3	-33 40 44	S0	15	2	7
51	298	253	05 58 24.1	-40 01 41	E	16	6	4	38	307	237	06 07 15.1	-33 41 59	Sb	14	4	3
52	307	253	05 58 15.2	-40 01 48	S0	15	6	6	39	469	230	06 04 53.7	-33 43 02	Sp	15	2	5
53	044	262	06 02 25.2	-39 56 33	S	16	-1	4	40	012	249	06 11 32.6	-33 39 57	E	13	11	0
54	111	274	06 01 22.0	-39 57 59	S0	15	4	7	41	047	262	06 11 23.0	-33 37 36	SBbc	16	1	1
55	141	280	06 00 53.3	-39 56 50	S0	15	6	0	42	057	258	06 10 53.1	-33 39 53	SBa	15	5	2
56	144	283	06 00 50.7	-39 56 21	Sa	16	4	6	43	176	246	06 09 09.9	-33 40 29	I/S	15	-1	-2
57	156	283	06 00 39.1	-39 56 25	E	15	8	3	44	189	259	06 08 58.0	-33 38 10	S	15	-2	2
58	157	282	06 00 37.6	-39 56 28	E	14	9	0	45	192	264	06 08 55.3	-33 37 17	Sb	15	-2	8
59	161	274	06 00 34.5	-39 58 08	S0	16	5	1	46	218	245	06 08 33.0	-33 40 43	Sbc	14	2	2
60	164	280	06 00 31.5	-39 56 58	E	14	8	1	47	242	261	06 08 12.0	-33 37 48	S/I	13	5	-2
61	165	282	06 00 30.1	-39 56 36	E	16	6	3	48	248	258	06 08 06.7	-33 38 17	Sb	12	6	3
62	173	278	06 00 22.9	-39 57 19	Sb	16	2	0	49	249	247	06 08 05.0	-33 40 14	SBb	15	2	1
63	192	282	06 00 04.8	-39 56 34	S	16	-2	3	50	278	265	06 07 40.7	-33 37 05	S	14	3	6
64	198	272	05 59 58.7	-39 58 16	S0	15	5	5	51	013	265	06 11 31.7	-33 37 05	S	15	-1	9
65	289	267	05 59 48.4	-39 59 17	E/S0	15	7	2	52	045	282	06 11 04.1	-33 33 57	Sb	16	-2	6
66	214	284	05 59 44.0	-39 56 13	S0	16	4	6	53	049	276	06 11 19.7	-33 35 17	Sbc	16	0	2
67	244	275	05 59 14.9	-39 57 50	S	15	-2	2	54	250	277	06 08 05.1	-33 34 54	D/S0	14	8	1
68	274	272	05 58 47.1	-39 58 14	S0	16	4	4	55	256	275	06 07 09.9	-33 35 09	S0	15	7	1
69	302	271	05 58 20.2	-39 56 23	SB0	16	5	1	56	277	288	06 07 49.6	-33 34 36	SBab	14	6	3
70	210	285	05 59 48.0	-39 56 02	S0 <sub>3</sub>	14	6	4	57	278	265	06 07 40.5	-33 37 03	Sb	15	4	5
71	097	299	06 01 34.4	-39 55 00	S0 <sub>3</sub>	15	3	3	58	278	265	06 07 04.1	-33 33 57	Sb	16	-2	6
72	103	293	06 01 28.9	-39 54 35	S	15	0	2	59	272	310	06 08 44.8	-33 30 55	S0	15	6	6
73	140	298	06 00 53.8	-39 53 40	S0	16	4	5	60	222	300	06 08 29.7	-33 30 38	S0	16	-2	6
74	148	288	06 00 46.4	-39 55 26	S0	16	4	5	61	325	314	06 08 17.9	-33 35 47	S0	16	0	6
75	156	287	06 00 39.0	-39 55 40	E/S0	15	0	0	62	027	287	06 11 19.7	-33 33 08	S0	16	1	2
76	230	298	05 59 28.6	-39 54 59	Sc	14	0	2	63	165	291	06 08 09.6	-33 32 19	E/S0	16	6	4
77	250	298	05 59 09.7	-39 55 03	S/I	15	-2	7	64	284	299	06 08 08.9	-33 32 29	E	15	9	1
78	065	323	06 02 05.2	-39 54 47	S0	16	1	6	65	277	290	06 07 41.1	-33 32 30	Sbc	15	2	6
79	067	309	06 02 02.9	-39 51 31	S	16	-1	6	66	308	304	06 05 56.3	-33 29 43	S0/a	15	4	4
80	156	312	06 00 39.2	-39 50 59	S0	16	2	2	67	220	310	06 08 31.7	-33 28 52	U	16	-2	-2
81	169	317	06 00 26.8	-39 50 11	S0	16	5	7	68	2							

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 0608-33 (CONT.)																	
99	345	356	06 06 42.1	-33 20 24	S0	15	6	0	73	258	308	06 21 30.8	-64 46 01	SBa	15	5	2
100	167	372	06 09 17.4	-33 17 39	S0	14	8	0	74	260	310	06 21 27.4	-64 45 37	S0	16	4	4
101	169	374	06 09 16.3	-33 17 14	Sb	15	2	6	75	271	319	06 21 08.0	-64 43 59	E	16	6	3
102	140	369	06 09 41.4	-33 14 28	E/S0	16	5	2	76	271	312	06 21 08.2	-64 45 15	Sc	16	-1	5
103	279	397	06 07 40.2	-33 12 55	S/I	16	-2	9	77	289	323	06 20 36.3	-64 43 21	S0/S	16	5	0
104	413	403	06 05 44.1	-33 11 45	SBB	15	3	2	78	240	329	06 22 01.2	-64 42 06	Sa	14	7	1
105	814	409	06 11 29.7	-33 10 57	S0	16	3	7	79	254	331	06 21 36.1	-64 41 46	SBB	15	3	4
106	187	414	06 10 18.0	-33 09 59	S0/E	16	4	2	80	280	331	06 20 52.3	-64 41 53	Sc	16	-1	0
107	118	415	06 18 07.5	-33 09 55	S0	16	4	1	81	134	371	06 24 59.7	-64 34 18	Sa	16	4	1
108	298	422	06 07 36.6	-33 08 22	S/I	16	-1	2	82	192	379	06 23 21.8	-64 33 00	D/S0	13	9	2
109	636	438	06 11 15.9	-33 07 18	E	16	5	2	83	197	381	06 23 12.7	-64 32 39	E	15	7	1
110	642	428	06 11 05.6	-33 07 35	SBB	16	2	4	84	218	380	06 22 37.7	-64 32 49	Sb	14	4	6
111	691	426	06 10 23.6	-33 07 51	E	16	5	1	85	230	381	06 22 16.7	-64 32 39	Sc	16	2	4
112	129	433	06 09 50.3	-33 06 40	E/S0p	13	-2	3	86	161	399	06 24 13.0	-64 29 15	Sa	16	4	0
113	174	426	06 09 11.9	-33 07 45	Sc	16	-1	2	87	345	397	06 19 01.5	-64 29 54	Sc	15	1	0
114	175	433	06 09 18.6	-33 06 29	E	16	5	2	88	406	394	06 17 18.6	-64 30 30	I	15	-1	-2
115	221	430	06 08 30.6	-33 07 07	S0	15	6	7	89	275	418	06 21 00.8	-64 26 05	SB0	12	7	0
116	101	458	06 10 15.0	-33 03 29	Sb	16	1	6	90	288	489	06 20 37.8	-64 27 40	S0	15	5	2
117	128	451	06 09 51.1	-33 03 20	SBB	15	2	2	91	142	428	06 24 43.8	-64 23 55	E	16	6	0
118	138	463	06 09 43.2	-33 01 12	E	16	5	3	92	249	443	06 21 42.9	-64 21 31	S0	14	5	5
119	298	460	06 07 23.9	-33 01 38	Sc	14	1	2	93	298	432	06 20 22.0	-64 23 32	Sa/0	15	4	3
120	474	457	06 04 52.4	-33 01 57	E/S0	14	9	3	94	331	438	06 19 26.0	-64 24 00	SB0/a	15	4	5
121	674	477	06 10 37.7	-32 58 39	S/I	16	-1	3	95	164	468	06 24 06.1	-64 18 13	Sa	16	3	2
122	105	468	06 10 11.0	-33 00 16	S	16	1	7	96	164	463	06 24 05.8	-64 17 40	Sb	16	2	2
123	103	487	06 10 13.3	-32 56 58	S0	14	6	2	97	215	452	06 22 39.9	-64 19 45	SBB	16	2	1
124	332	489	06 06 55.3	-32 56 21	Sa	16	2	4	98	257	478	06 21 30.1	-64 15 17	Sc	16	-1	5
125	368	494	06 06 23.7	-32 55 19	I	16	-1	-2									
DC 0622-64																	
1	335	015	06 19 19.2	-65 39 20	S0	15	5	6	1	236	033	18 40 40.4	-63 48 17	E	16	5	1
2	431	030	06 16 30.5	-65 36 27	S0	16	5	0	2	253	053	18 40 13.1	-63 44 33	S	14	-2	7
3	164	049	06 24 19.5	-65 32 58	Sb	14	4	1	3	059	075	18 45 33.1	-63 40 58	I	16	-1	-2
4	877	079	06 26 50.1	-65 27 03	S/I	15	2	2	4	142	093	18 43 16.0	-63 39 27	S0	14	9	2
5	112	078	06 25 48.7	-65 27 29	Sab	15	5	3	5	171	067	18 42 28.7	-63 42 13	S	15	-2	7
6	116	079	06 25 42.2	-65 27 17	Sc	15	1	3	6	307	077	18 38 45.8	-63 39 57	Sb	16	2	0
7	116	079	06 25 40.8	-65 27 13	Sc	15	1	4	7	009	114	18 46 55.0	-63 33 52	S0	16	2	2
8	168	074	06 24 11.5	-65 28 28	Sc	16	0	5	8	175	120	18 42 22.6	-63 32 48	Sa	13	6	5
9	127	104	06 23 21.8	-65 22 51	Sc	15	-1	5	9	252	110	18 40 16.2	-63 34 05	S0	13	9	9
10	264	103	06 21 22.5	-65 23 26	Sc	14	3	1	10	137	155	18 43 26.4	-63 26 18	Sc	14	2	2
11	321	096	06 19 42.0	-65 25 42	Sab	14	6	7	11	136	163	18 43 27.8	-63 24 48	E	16	6	4
12	342	103	06 19 06.4	-65 23 20	E	16	6	1	12	155	148	18 42 57.2	-63 27 36	S0p	12	10	5
13	208	117	06 23 14.0	-65 20 43	I	16	-1	-2	13	169	163	18 42 34.4	-63 24 49	E	11	13	2
14	215	119	06 22 48.3	-65 20 18	Sbc	15	2	3	14	184	162	18 42 09.9	-63 24 51	S0	14	8	4
15	198	122	06 23 16.7	-65 19 45	S0/S	16	2	5	15	211	156	18 41 24.6	-63 25 56	S/I	16	-2	0
16	186	131	06 23 37.7	-65 18 09	Sb	14	6	3	16	150	167	18 43 05.4	-63 24 07	I	16	-1	-2
17	281	125	06 23 11.4	-65 19 14	S0 <sub>3</sub>	14	6	1	17	166	179	18 42 39.2	-63 21 52	S0	14	4	5
18	269	128	06 21 12.8	-65 18 51	S0 <sub>3</sub> E	15	7	1	18	166	172	18 42 38.8	-63 23 11	E	14	11	1
19	321	140	06 19 41.9	-65 16 37	S0B	14	6	3	19	169	172	18 42 34.6	-63 23 04	D	11	13	3
20	425	130	06 16 42.7	-65 18 25	E/S0	15	7	0	20	185	178	18 42 07.7	-63 22 05	E/S0	14	10	5
21	191	148	06 23 29.5	-65 15 05	Sb	14	4	5	21	282	174	18 41 40.9	-63 22 42	S0B	14	9	2
22	286	164	06 23 01.6	-65 12 06	S0	16	4	3	22	275	175	18 39 42.5	-63 22 09	I	16	-1	-2
23	272	152	06 21 08.1	-65 14 30	S/S0	15	3	6	23	284	179	18 39 27.6	-63 21 28	E	16	6	0
24	924	169	06 28 16.3	-65 10 32	E	16	5	2	24	128	199	18 43 46.6	-63 18 14	Sc	14	-1	3
25	258	181	06 21 31.1	-65 09 13	S0B	14	9	1	25	158	185	18 42 52.5	-63 20 48	Sa	14	9	5
26	287	175	06 20 42.0	-65 10 15	S0	15	3	3	26	157	192	18 42 53.6	-63 19 28	S0	16	4	4
27	335	178	06 19 18.9	-65 09 44	S	14	-1	2	27	167	195	18 42 37.9	-63 18 59	S0	16	1	5
28	221	185	06 22 35.7	-65 08 20	Sb	14	4	2	29	223	203	18 41 37.1	-63 17 15	E	15	8	2
29	115	205	06 25 38.5	-65 04 19	S0	16	5	-2	30	229	198	18 40 57.6	-63 19 40	S0	16	2	2
30	128	209	06 25 15.6	-65 03 47	Sba	15	5	2	31	093	217	18 44 39.0	-63 15 10	Sc	16	1	3
31	219	223	06 22 37.9	-65 01 27	Sb	16	3	1	32	113	223	18 44 06.7	-63 14 00	S0	16	-2	4
32	258	210	06 21 32.1	-65 03 53	Sb	15	5	3	33	129	210	18 43 39.3	-63 16 23	S	15	3	0
33	322	288	06 19 41.2	-65 04 18	S0 <sub>2</sub>	14	8	7	34	138	212	18 43 25.0	-63 15 53	S0	16	3	1
34	364	217	06 18 26.5	-65 02 38	Sc	16	-1	4	35	142	219	18 43 18.3	-63 14 39	Sp	14	1	5
35	100	238	06 26 02.7	-64 58 16	Sb	16	2	2	36	145	221	18 43 13.4	-63 14 19	S0	15	4	7
36	146	240	06 24 43.7	-64 58 12	S0/a	15	5	3	37	157	208	18 42 54.2	-63 16 33	E	16	6	0
37	178	228	06 23 49.7	-64 50 31	S/S0	15	4	7	38	188	214	18 42 05.1	-63 15 23	Sb	15	5	0
38	195	243	06 23 20.2	-64 57 41	S	16	-1	0	39	153	230	18 43 01.0	-63 12 39	SBC	12	4	1
39	287	234	06 22 59.7	-64 59 30	S0	14	8	2	40	168	231	18 42 36.4	-63 12 25	I	16	-1	-2
40	248	243	06 21 48.9	-64 57 48	S0	13	8	6	41	263	226	18 40 04.2	-63 12 56	S0	16	3	5
41	259	229	06 21 28.9	-65 08 29	S0	13	9	7	42	036</td							

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 2048-52 (CONT.)																	
15	287	028	20 46 45.2	-53 21 58	S	16	-1	8	118	257	198	20 47 24.3	-52 51 12	Sc	15	1	6
16	420	034	20 44 04.5	-53 20 23	Sb	15	2	0	119	311	199	20 46 18.5	-52 50 59	SBb	15	5	3
17	171	063	20 49 06.8	-53 15 57	Sc	16	-1	4	120	457	204	20 49 23.1	-52 49 28	Sa	15	3	5
18	200	058	20 48 32.0	-53 16 43	Sc	16	-1	9	121	065	209	20 51 14.8	-52 49 19	SBa	15	6	2
19	202	056	20 48 29.3	-53 17 03	S0	15	5	0	122	206	207	20 49 25.2	-52 49 43	S0	16	6	4
20	221	047	20 48 05.9	-53 18 47	SB	16	3	1	123	209	218	20 49 21.8	-52 47 42	S0	16	5	5
21	259	047	20 47 19.8	-53 18 41	Sd	15	-1	7	124	212	211	20 49 18.3	-52 49 00	S0/D	13	8	4
22	328	060	20 45 55.7	-53 16 08	S0	14	6	4	125	226	228	20 48 02.0	-52 47 15	Sb	13	7	4
23	399	061	20 44 41.9	-53 15 44	SBB	16	1	0	126	223	210	20 49 04.6	-52 49 12	S0	16	4	7
24	200	072	20 48 32.2	-53 14 09	SBB	14	5	5	127	230	212	20 47 56.3	-52 48 40	S0	16	5	4
25	252	074	20 47 28.6	-53 13 50	I/S	16	-1	8	128	234	211	20 47 51.6	-52 49 00	S0	16	6	8
26	314	071	20 46 13.3	-53 14 09	S0	15	8	4	129	243	209	20 47 40.6	-52 49 21	S0	13	11	1
27	351	070	20 45 28.1	-53 14 11	S0 <sub>3</sub>	14	7	3	130	246	205	20 47 37.6	-52 49 56	S0	16	4	6
28	364	074	20 45 12.7	-53 13 30	S0 <sub>3</sub>	14	9	7	131	302	222	20 46 29.5	-52 46 46	S0/a	15	6	6
29	405	078	20 44 23.3	-53 12 30	S0p	14	10	0	132	340	218	20 45 44.0	-52 47 25	S0p	15	5	7
30	033	095	20 51 53.9	-53 09 57	S0	16	3	9	133	366	219	20 45 12.6	-52 47 10	S/I	16	0	7
31	121	093	20 50 07.7	-53 10 30	Sbc	14	1	4	134	131	231	20 49 56.3	-52 45 22	S0	16	4	4
32	154	103	20 49 27.6	-53 08 41	Sa	15	2	5	135	156	225	20 49 25.7	-52 46 30	E	14	11	2
33	288	104	20 48 21.7	-53 08 22	S0	15	6	5	136	156	232	20 49 26.6	-52 45 08	S0	16	6	5
34	245	089	20 47 37.2	-53 11 04	Sa	14	8	5	137	158	241	20 49 24.2	-52 43 36	S0	16	3	8
35	256	087	20 47 23.7	-53 11 25	S0	15	6	2	138	185	244	20 48 51.8	-52 42 59	E	16	5	2
36	269	103	20 47 08.4	-53 08 31	Sa	15	5	3	139	186	243	20 48 47.2	-52 43 06	E	16	7	1
37	284	100	20 46 50.1	-53 09 05	S0	16	3	9	140	207	243	20 48 24.2	-52 43 10	Sc	16	1	1
38	394	085	20 46 25.6	-53 11 39	S0	15	6	7	141	218	226	20 48 20.7	-52 46 18	S0	15	6	6
39	397	088	20 46 21.3	-53 11 08	S0	16	4	0	142	226	227	20 48 01.3	-52 46 06	S0	15	6	4
40	325	103	20 46 00.8	-53 08 24	S0	16	5	1	143	231	230	20 47 56.1	-52 45 29	SBa	15	5	4
41	329	096	20 45 54.9	-53 09 32	E	15	9	5	144	241	237	20 47 43.2	-52 44 12	Sa	13	8	6
42	359	098	20 45 19.2	-53 09 18	Ep	14	-1	1	145	244	242	20 47 40.8	-52 43 12	E	16	6	2
43	408	097	20 44 20.2	-53 09 11	Sb	14	3	4	146	254	237	20 47 27.8	-52 44 11	S0	16	1	5
44	151	117	20 49 31.6	-53 06 11	S0/a	15	4	8	147	311	232	20 46 19.5	-52 44 54	Sa	15	3	3
45	201	118	20 49 31.0	-53 07 25	S0	16	5	7	148	348	231	20 45 34.5	-52 44 57	S0	16	1	4
46	233	105	20 47 52.3	-53 06 13	E/S0	16	6	6	149	385	235	20 44 51.1	-52 44 11	S0/a	15	8	4
47	240	117	20 47 43.9	-53 06 05	S0	16	6	6	150	481	232	20 42 55.5	-52 44 18	SBa	16	4	2
48	244	114	20 47 39.2	-53 06 38	Sab	15	8	6	151	471	229	20 43 07.4	-52 44 48	E	16	7	1
49	265	118	20 47 13.8	-53 05 50	S0	16	5	8	152	088	250	20 50 47.2	-52 41 58	S0	15	7	3
50	268	118	20 47 09.4	-53 07 18	Sd	16	-1	8	153	185	247	20 50 27.6	-52 42 25	Sb	16	4	0
51	284	121	20 46 50.3	-53 05 13	S0	14	9	5	154	257	245	20 47 24.1	-52 42 38	Sa/0	15	5	6
52	316	114	20 46 10.9	-53 06 24	Sd/I	15	-1	8	155	277	248	20 47 00.1	-52 42 02	S	13	-1	0
53	443	116	20 43 38.6	-53 05 33	S0	16	2	9	156	391	248	20 44 43.6	-52 41 40	S0	16	6	5
54	349	124	20 45 31.2	-53 04 26	Ep	16	5	-2	157	401	258	20 44 31.5	-52 39 56	E	14	11	1
55	039	139	20 51 46.0	-53 02 02	S0 <sub>3</sub>	16	4	8	158	402	254	20 44 30.5	-52 40 34	Sc	16	1	3
56	046	128	20 51 38.4	-53 04 08	Ep	16	6	2	159	434	258	20 43 51.9	-52 41 18	I/S	16	2	-2
57	049	133	20 51 34.0	-53 03 10	E	16	5	1	160	215	280	20 48 15.3	-52 36 19	S0	16	3	4
58	096	143	20 50 38.4	-53 01 19	S0 <sub>3</sub> /a	14	8	9	161	234	272	20 47 52.3	-52 37 51	S0/a	16	4	3
59	161	139	20 49 19.2	-53 02 08	S0 <sub>3</sub>	16	5	0	162	283	268	20 46 53.9	-52 38 31	S	14	-1	9
60	177	136	20 49 00.6	-53 02 36	Sa	15	5	4	163	368	272	20 45 12.0	-52 37 29	I	16	-1	-2
61	181	139	20 48 55.3	-53 02 02	S0	16	4	5	164	388	280	20 44 47.5	-52 35 51	E	16	7	0
62	185	140	20 48 51.0	-53 01 54	S0	16	6	9	165	125	308	20 58 04.8	-52 32 45	S0	16	1	0
63	197	134	20 48 35.4	-53 02 56	Sa	15	5	4	166	234	202	20 47 53.4	-52 32 25	S0	16	4	0
64	203	133	20 48 28.9	-53 03 09	S0	15	7	6	167	287	296	20 46 48.8	-52 33 22	E/S0	16	7	6
65	216	144	20 48 19.4	-53 01 06	S0	13	12	5	168	371	288	20 45 08.6	-52 34 35	Sb	15	3	5
66	222	136	20 49 05.3	-53 02 37	E	16	6	0	169	096	312	20 50 37.5	-52 30 40	S0	15	5	9
67	230	134	20 47 55.5	-53 02 58	Ep	16	6	1	170	286	316	20 46 50.4	-52 29 43	S0/Ep	16	6	2
68	244	130	20 47 39.4	-53 03 35	S0	15	9	6	171	121	340	20 50 08.4	-52 25 34	E/S0	15	8	2
69	255	130	20 47 25.6	-53 03 39	S0	15	6	6	172	167	339	20 49 13.9	-52 25 44	S0/a	16	2	7
70	267	131	20 47 11.3	-53 03 26	E	15	8	4	173	178	343	20 49 00.6	-52 25 01	Sa	14	6	3
71	268	130	20 47 10.3	-53 03 33	S0	15	6	2	174	222	329	20 48 08.1	-52 27 22	E	16	5	4
72	310	125	20 46 19.4	-53 04 24	Sa	15	5	5	175	349	326	20 45 36.1	-52 27 42	Sb	15	3	2
73	318	130	20 46 09.5	-53 03 33	Sp	14	4	2	176	148	353	20 49 36.1	-52 23 10	I	16	-1	-2
74	356	145	20 45 23.5	-53 00 42	Sab	15	1	3	177	152	347	20 49 31.8	-52 24 17	Sa/0	15	3	8
75	031	145	20 51 55.5	-53 00 58	E	16	6	4	178	171	364	20 49 08.3	-52 21 05	Sb	13	4	3
76	125	158	20 50 03.2	-52 58 42	Sc	16	1	5	179	196	347	20 48 30.3	-52 24 09	Sb	16	4	0
77	164	157	20 49 15.8	-52 58 46	S0	16	5	7	180	206	364	20 48 26.9	-52 21 10	E	15	0	1
78	202	156	20 48 30.4	-52 59 01	E	13	12	0	181	268	360	20 47 22.3	-52 21 41	S0/a	15	0	0
79	203	160	20 48 29.4	-52 59 17	S0	16	6	5	182	422	347	20 44 09.1	-52 23 43	S0	15	6	6
80	212	154	20 48 18.4	-52 59 21	D	13	12	1	183	073	376	20 51 05.3	-52 18 58	Sb	14	-1	2
81	217	156	20 48 12.1	-52 58 55	S0	15	7	2	184	189	373	20 50 23.8	-52 19 33	S0	15	7	0
82	219	149	20 48 09.6	-53 00 10	Sa	15	4	0	185	127	381	20 50 01.1	-52 18 11	Sa	16	2	

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 204B-52 (CONT.)																	
221	285	449	20 46 54.3	-52 05 31	E	15	7	6	87	116	329	21 05 24.3	-39 34 23	Sa	16	5	3
222	306	451	20 46 29.1	-52 05 10	E	13	11	0	88	145	334	21 04 57.6	-39 33 25	S0	15	9	3
223	090	475	20 50 43.9	-52 01 12	Sb	15	3	3	89	213	329	21 03 53.2	-39 34 12	S0	16	6	4
224	091	496	20 50 43.3	-51 57 24	Sa	16	2	5	90	244	343	21 03 23.8	-39 31 27	S0	15	?	5
225	153	486	20 49 29.9	-51 59 11	Sbb	15	2	2	91	203	351	21 04 03.4	-39 30 14	E	15	8	2
226	189	485	20 48 48.2	-51 59 15	Sbb	16	2	3	92	222	368	21 03 45.1	-39 28 31	S0	16	1	1
227	196	498	20 48 39.7	-51 56 51	Sb	16	3	3	93	276	346	21 02 53.7	-39 30 48	I	16	-1	-1
228	214	477	20 48 18.2	-52 00 40	Sc	15	1	4	94	105	372	21 05 35.8	-39 26 38	E	16	-1	-1
229	241	482	20 47 46.9	-51 59 36	E	16	7	0	95	088	396	21 05 51.6	-39 22 12	S0	16	6	4
230	248	487	20 47 38.7	-51 58 49	E	15	8	2	96	157	388	21 04 46.4	-39 23 29	S0	16	6	4
231	227	499	20 48 03.5	-51 56 35	S0	15	5	7	97	214	469	21 03 53.7	-39 19 33	S	16	1	6
232	272	496	20 47 10.4	-51 57 04	Sa	16	4	5	98	216	408	21 03 51.8	-39 19 43	I	16	-1	-1
233	328	498	20 46 04.7	-51 56 40	S0	16	4	6	99	214	420	21 03 53.3	-39 17 39	S0	16	5	5
DC 2103-39 (CONT.)																	
100	477	412	20 59 47.3	-39 18 13	S0	16	1	3	101	244	439	21 03 25.2	-39 14 08	E	16	6	0
102	246	438	21 03 24.0	-39 14 13	E	14	10	1	103	342	425	21 01 53.4	-39 16 25	S0	15	8	7
104	200	425	21 04 06.8	-39 16 42	E	16	7	5	105	246	448	21 03 23.6	-39 12 27	U	16	-1	-1
106	247	447	21 03 22.4	-39 12 34	U	16	-1	-1	107	031	490	21 06 44.9	-39 05 29	U	16	-1	-1
108	099	476	21 05 41.8	-39 07 45	Sbb	15	5	5	109	153	458	21 04 50.9	-39 18 50	S0	16	4	2
110	176	493	21 04 29.7	-39 04 30	E	16	6	2	111	206	495	21 04 02.1	-39 04 03	E	16	6	3
112	235	487	21 03 34.9	-39 05 30	S0	16	4	3	113	488	472	20 59 38.7	-39 07 26	E	15	7	1
DC 2103-39 (CONT.)																	
1	059	014	23 46 26.6	-28 52 18	I	16	-1	-2	2	063	015	23 46 23.3	-28 52 10	S0	15	6	2
3	134	024	23 45 24.5	-28 50 25	S0	16	4	4	4	157	010	23 45 05.9	-28 52 55	Sc	16	0	1
5	280	025	23 43 23.9	-28 49 58	Sb	16	2	3	6	286	011	23 43 18.8	-28 52 26	Sbb	15	6	4
7	037	032	23 45 45.0	-28 49 06	S0	14	8	8	8	047	036	23 46 37.2	-28 48 23	I	16	-1	-2
9	086	064	23 46 04.7	-28 43 16	S0	15	6	2	10	158	051	23 45 05.4	-28 45 32	S	16	-2	0
11	074	068	23 46 15.0	-28 42 24	SBa	16	2	3	12	085	066	23 46 86.2	-28 42 46	S0	16	2	5
13	119	073	23 45 37.6	-28 41 28	Sc	15	1	4	14	073	102	23 46 15.6	-28 36 17	S/I	16	-1	0
15	079	090	23 46 18.6	-28 38 29	S	16	-2	0	16	141	184	23 45 19.3	-28 35 52	S0p	14	8	2
17	215	090	23 44 18.2	-28 38 12	Sab	14	0	2	18	229	099	23 44 06.6	-28 36 30	Sa	15	6	2
19	256	099	23 43 44.1	-28 36 31	S0	16	5	6	20	256	099	23 43 43.7	-28 36 36	E	15	8	2
21	271	099	23 43 32.1	-28 36 30	S0	16	4	5	22	289	184	23 43 17.0	-28 35 34	S0	15	5	4
23	047	124	23 46 37.4	-28 32 21	E	15	0	3	24	074	187	23 46 15.1	-28 35 19	S0	15	6	4
25	087	198	23 46 04.5	-28 35 18	S0	13	11	6	26	105	118	23 45 49.9	-28 33 18	S0	14	11	2
27	175	120	23 44 51.7	-28 32 50	S0/a	15	7	5	28	245	121	23 43 53.7	-28 32 35	S0	16	4	3
29	372	199	21 01 20.4	-39 57 19	Sa	16	2	5	30	079	090	23 46 18.6	-28 38 29	S	16	-2	0
30	181	209	21 05 38.2	-39 56 18	Sb	14	9	9	31	141	184	23 45 19.3	-28 35 52	S0p	14	8	2
31	175	223	21 04 28.2	-39 53 34	Sba	15	0	2	32	074	068	23 46 15.0	-28 42 24	SBa	16	2	3
32	189	224	21 04 14.8	-39 53 20	Sba	15	0	2	33	256	099	23 43 44.1	-28 36 31	S0	16	5	6
33	190	217	21 04 13.5	-39 54 32	Sab	15	6	2	34	256	099	23 43 43.7	-28 36 36	E	15	8	2
34	362	215	21 01 30.3	-39 54 26	Sbb	14	-1	4	35	271	099	23 43 32.1	-28 36 35	S0	16	4	5
35	092	240	21 05 46.4	-39 50 37	S0/a	15	4	6	36	291	124	23 43 15.6	-28 31 49	S0	16	6	5
36	288	233	21 04 04.0	-39 51 37	Sb	16	2	0	37	027	137	23 46 53.9	-28 29 58	S0	16	1	7
37	266	229	21 03 01.7	-39 52 15	S0/E	16	6	3	38	047	124	23 46 37.4	-28 32 21	E	15	0	3
38	275	242	21 02 53.5	-39 49 51	E	14	10	1	39	074	187	23 46 15.1	-28 35 19	S0	15	6	4
39	278	241	21 02 50.1	-39 50 00	E	15	15	3	40	087	198	23 46 04.5	-28 35 18	S0	13	11	6
40	279	227	21 02 48.9	-39 52 35	E	15	10	2	41	105	118	23 45 49.9	-28 33 18	S0	14	11	2
41	289	248	21 02 39.6	-39 50 05	Sba	16	5	3	42	175	120	23 44 51.7	-28 32 50	S0/a	15	7	5
42	381	240	21 02 28.5	-39 50 06	S0	15	8	2	43	291	124	23 43 15.6	-28 31 49	S0	16	4	5
43	459	233	20 59 58.7	-39 50 48	E	16	6	4	44	154	156	23 45 09.1	-28 26 22	E	15	8	4
44	071	253	21 06 01.7	-39 48 18	Sbb	16	3	0	45	157	153	23 45 49.6	-28 27 57	S0	14	8	5
45	162	261	21 04 40.9	-39 46 43	I	15	-1	-1	46	191	146	23 45 44.3	-28 30 29	E	15	6	1
46	162	261	21 04 40.3	-39 46 39	Ep	16	7	4	47	222	154	23 45 13.2	-28 28 46	S0	16	4	3
47	165	259	21 04 37.8	-39 46 56	S0	16	5	4	48	090	173	23 45 42.1	-28 23 24	Sbb	16	2	2
48	220	249	21 03 45.6	-39 48 42	Sb	15	3	3	49	104	174	23 45 50.6	-28 23 13	S0	16	7	0
49	226	259	21 03 40.1	-39 46 48	S0	15	8	4	50	111	172	23 45 44.9	-28 23 33	S0/a	14	9	3
50	233	264	21 03 33.9	-39 46 00	E	16	5	4	51	104	161	23 45 51.1	-28 25 33	S0	15	4	6
51	234	263	21 03 32.7	-39 46 11	E	16	6	1	52	149	181	23 45 13.4	-28 21 44	E	16	5	1
52	247	261	21 03 20.5	-39 46 29	E	16	5	0	53	154	174	23 45 09.6	-28 23 08	S0	16	5	3
53	247	256	21 03 19.7	-39 47 17	E1+E1	15	7	1	54	166	168	23 44 59.3	-28 24 03	E	16	6	-2
54	279	245	21 02 49.9	-39 49 20	S0	16	7	4	55	171	174	23 44 55.7	-28 22 58	E	14	11	4
55	284	247	21 02 45.2	-39 48 55	E1/S0	15	6	3	56	175	174	23 44 52.3	-28 23 03	D	13	11	1
56	467	252	20 59 51.9	-39 47 14	S	16	3	7	57	173	166	23 44 53.3	-28 24 32	S	16	2	2
57	482	259	20 58 40.4	-39 45 53	I	16	-1	-1	58	175	165	23 44 52.0	-28 24 42	E	15	8	4
58	104	275	21 05 36.1	-39 44 17	S0a	16	3	8	59	181	170	23 44 47.0	-28 23 41	S0	15	8	2
59	119	280	21 05 22.0	-39 43 12	Sbb	15	3	2	60	189	169	23 44 48.4	-28 23 58	E	14	10	2
60	145	279	21 04 57.4	-39 43 21	E	15	8	1	61	232	175	23 44 04.6	-28 22 39	Sbc	15	1	2
61	173	276	21 04 30.8	-39 43 49	S0												

TABLE 2—Continued

#	X	Y	R.A.	DEC.	TYPE	m	mb	e	#	X	Y	R.A.	DEC.	TYPE	m	mb	e
DC 2345-28 (CONT.)																	
73	045	218	23 46 40.0	-28 15 12	Sb	15	4	4	5	291	025	12 47 59.2	-41 37 19	S0	14	8	5
74	162	206	23 45 03.4	-28 17 15	S0	15	6	6	6	394	044	12 46 19.6	-41 33 35	S0	14	7	4
75	175	208	23 44 52.3	-28 16 47	Sc	16	1	1	7	074	050	12 51 30.4	-41 33 04	Sc	14	2	6
76	182	218	23 44 46.5	-28 15 04	S0	15	8	5	8	212	054	12 49 16.4	-41 32 19	Sc	15	8	2
77	192	223	23 44 38.5	-28 13 59	S0	13	12	1	9	277	082	12 48 13.8	-41 27 06	E	14	8	1
78	239	211	23 43 59.4	-28 16 12	S0c	15	2	2	10	441	083	12 45 34.7	-41 26 27	S0	11	9	7
79	254	208	23 43 47.1	-28 16 38	E	15	8	2	11	034	096	12 52 09.2	-41 24 44	Sc	15	1	8
80	255	207	23 43 46.4	-28 16 48	S0	13	10	8	12	037	102	12 52 06.2	-41 23 41	Sa	16	5	2
81	135	236	23 45 25.8	-28 11 50	E/S0	15	3	3	13	134	111	12 50 32.8	-41 21 57	Sa	14	12	3
82	141	225	23 45 28.2	-28 13 46	S0	16	2	7	14	419	107	12 45 56.9	-41 22 14	S0	15	5	5
83	195	233	23 44 36.0	-28 12 19	S0	14	8	1	15	220	143	12 49 09.2	-41 16 05	S0	15	8	2
84	282	244	23 43 24.5	-28 10 08	S0	16	6	2	16	280	127	12 48 11.6	-41 18 53	S0	16	3	3
85	306	254	23 43 04.2	-28 08 12	Sd/I	16	-2	7	17	390	140	12 46 25.3	-41 16 19	S0	15	1	5
86	053	283	23 46 33.5	-28 03 21	S	16	-2	3	18	482	143	12 44 56.1	-41 15 19	S0	13	12	6
87	070	270	23 46 19.2	-28 05 40	Sap	15	7	2	19	328	150	12 47 25.4	-41 14 36	S0	12	13	7
88	306	272	23 43 05.1	-28 04 51	S0	16	2	6	20	375	158	12 46 39.8	-41 13 00	S0	14	11	3
89	007	309	23 47 11.7	-27 58 43	S0a	15	5	3	21	213	169	12 49 16.7	-41 11 22	Sa	13	12	4
90	144	311	23 45 19.0	-27 58 13	S0c	15	1	3	22	296	178	12 47 56.3	-41 09 34	S0	14	10	9
91	173	321	23 44 54.6	-27 56 12	S0a	15	8	1	23	304	165	12 47 47.9	-41 11 57	S0	14	11	5
92	260	320	23 43 42.9	-27 56 20	Sb	15	-2	5	24	375	167	12 46 40.1	-41 11 28	S0p	14	5	5
93	070	334	23 46 28.0	-27 54 09	Sb	15	2	4	25	200	192	12 49 29.0	-41 07 10	S0	12	11	5
94	078	343	23 46 12.8	-27 52 31	U	15	-2	-2	26	281	190	12 48 18.9	-41 07 31	S0	15	4	0
95	174	332	23 44 53.9	-27 54 12	I	15	-1	-2	27	332	189	12 47 21.4	-41 07 33	E	14	10	2
DC 2349-28																	
1	071	019	23 51 04.2	-28 56 35	U	16	-2	4	31	165	210	12 50 03.2	-41 04 01	S0a	14	8	3
2	152	012	23 49 57.0	-28 57 48	E	16	6	0	32	204	209	12 49 26.0	-41 04 05	Sc	14	2	0
3	186	043	23 50 35.4	-28 52 09	S	16	-2	9	33	240	221	12 48 50.7	-41 01 56	S0	14	9	0
4	151	029	23 49 58.5	-28 54 27	S0/S	16	2	3	34	269	215	12 48 22.9	-41 02 54	S	16	3	4
5	159	037	23 49 51.6	-28 53 05	Sa	16	4	4	35	328	222	12 47 25.4	-41 01 37	E	16	5	0
6	217	041	23 49 03.1	-28 52 05	S	15	2	3	36	383	209	12 46 32.3	-41 03 46	E	15	7	1
7	138	042	23 50 09.5	-28 52 13	E	16	6	0	37	398	208	12 46 17.8	-41 03 58	S	16	-1	5
8	139	049	23 50 08.3	-28 58 57	S0	14	9	3	38	409	214	12 46 07.9	-41 02 43	E	16	6	0
9	147	058	23 50 02.2	-28 49 20	Sb	16	4	4	39	414	216	12 46 02.7	-41 02 18	S0 <sub>2</sub>	11	9	1
10	240	061	23 48 45.0	-28 48 25	Sc	16	1	3	40	433	218	12 45 44.9	-41 02 00	E	16	6	5
11	140	075	23 50 07.7	-28 46 16	E	14	10	1	41	194	228	12 49 35.8	-41 00 42	S0	14	12	-2
12	196	074	23 49 21.6	-28 46 15	Sb	16	2	0	42	201	235	12 49 28.9	-40 59 20	S0	16	1	0
13	234	078	23 48 50.0	-28 45 26	S0b	16	2	2	43	216	229	12 49 14.3	-41 00 31	S	14	4	4
14	270	076	23 48 20.1	-28 45 31	E/S0	15	7	1	44	347	228	12 47 08.0	-41 00 26	S0	12	12	5
15	120	097	23 50 24.5	-28 42 19	E	15	8	1	45	128	254	12 50 39.3	-40 56 03	E	11	13	4
16	259	090	23 48 29.5	-28 43 07	S0	16	2	4	46	175	245	12 49 54.2	-40 57 33	S0	15	7	7
17	292	092	23 48 02.1	-28 42 37	Sa	14	9	2	47	226	259	12 49 04.3	-40 54 56	E	16	5	3
18	294	092	23 48 06.5	-28 42 31	S	16	-2	10	48	245	246	12 48 46.3	-40 57 23	Sb	14	4	7
19	301	094	23 47 54.5	-28 42 14	E	16	6	1	49	329	247	12 47 25.3	-40 56 57	E	14	8	1
20	306	092	23 47 50.5	-28 42 30	Sc	16	0	3	50	349	245	12 47 05.4	-40 57 15	E	14	11	1
21	117	121	23 50 28.0	-28 37 51	I	15	-1	-2	51	461	248	12 45 18.6	-40 56 29	I	16	-1	-2
22	157	124	23 49 54.6	-28 37 10	Sb	14	7	5	52	466	246	12 45 13.6	-40 56 48	S0	16	3	4
23	288	110	23 49 18.2	-28 39 41	Sc	16	1	1	53	063	269	12 51 41.9	-40 53 15	Sc	16	1	4
24	222	116	23 49 00.7	-28 38 28	E	12	13	1	54	217	272	12 49 13.9	-40 52 33	S0 <sub>2</sub>	13	11	0
25	248	123	23 48 36.9	-28 37 04	Sb	16	1	4	55	231	277	12 48 59.7	-40 51 40	E/S0	12	12	1
26	262	121	23 48 27.6	-28 37 31	Sb	15	2	4	56	442	278	12 45 36.8	-40 51 01	E	15	9	0
27	300	109	23 47 55.8	-28 39 28	Sc	16	0	3	57	197	301	12 49 33.1	-40 47 25	Sa	13	5	4
28	088	140	23 51 59.4	-28 34 42	SBC	16	1	1	58	368	302	12 46 48.6	-40 46 57	S0	14	8	4
29	015	141	23 51 52.1	-28 34 29	S	16	-2	0	59	230	323	12 49 01.7	-40 43 22	S0	15	7	2
30	178	141	23 49 43.7	-28 34 08	Sb	15	2	4	60	434	312	12 45 44.9	-40 44 56	S0	16	5	5
31	205	140	23 49 14.7	-28 34 11	S0	16	1	5	61	028	331	12 52 14.3	-40 42 06	Sc	13	2	4
32	208	193	23 49 12.3	-28 35 22	Sb	16	1	4	62	440	340	12 45 48.6	-40 39 47	S0/a	14	3	6
33	223	142	23 49 00.1	-28 33 47	E	15	9	3	63	088	354	12 51 19.3	-40 37 53	E	15	7	6
34	252	134	23 48 36.1	-28 35 11	S0	15	6	3	64	149	379	12 50 18.9	-40 33 16	S0	16	4	7
35	256	139	23 48 32.7	-28 34 13	S0	16	5	3	65	261	381	12 48 31.7	-40 32 46	S0	14	11	1
36	256	139	23 48 32.5	-28 34 18	S0	16	5	4	66	317	372	12 47 38.4	-40 34 20	Sa	14	5	2
37	089	151	23 51 57.7	-28 32 48	S0	16	4	7	67	465	379	12 45 17.5	-40 32 43	S	14	-1	9
38	077	155	23 51 01.4	-28 31 47	S0c	16	1	2	68	269	391	12 48 24.2	-40 30 51	S0b	16	3	3
39	102	153	23 48 46.4	-28 32 04	Sb	16	2	4	69	198	418	12 49 48.0	-40 26 13	S0	13	12	2
40	164	145	23 49 49.3	-28 33 27	I	16	-2	-2	70	362	423	12 46 56.3	-40 24 51	Sb	16	2	3
41	174	162	23 49 40.9	-28 30 17	S0b	15	2	5	71	324	433	12 47 32.7	-40 23 16	I	16	-1	-2
42	191	173	23 49 26.7	-28 29 07	S0	16	5	3	72	388	436	12 46 31.9	-40 22 36	Sa	16	2	0
43	187	185	23 49 30.1	-28 26 58	E	15	8	3	73	411	458	12 46 18.0	-40 18 33	S0	14	6	8
44	274	181	23 48 18.6	-28 26 25	SBC	16	8	1	74	467	453	12 45 16.8	-40 19 12	Sd/I	16	-1	-2
45	296	193	23 47 59.9	-28 24 11	E	15	9	0</									

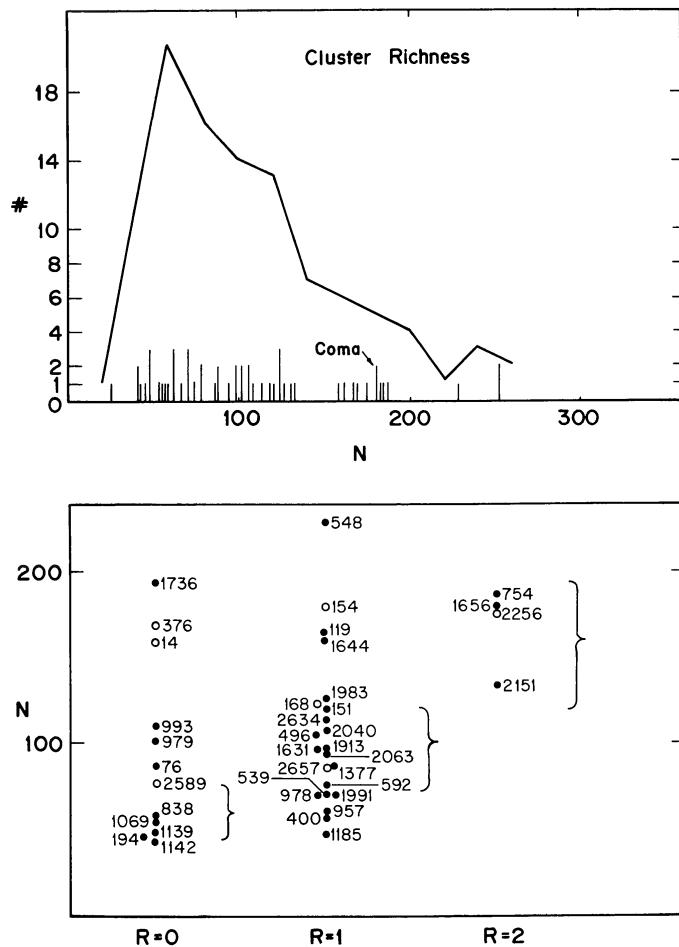


FIG. 3.—Total numbers of galaxies counted (corrected for field contamination) for the Abell clusters in richness classes 0, 1, and 2. The ranges defined by Abell, multiplied by 1.5 to bring the means into approximate agreement, are indicated by the brackets. Also shown is the smoothed richness distribution for all 55 clusters. The cut-off on the poor end is a selection effect. The Coma cluster lies on the long tail of very rich clusters.

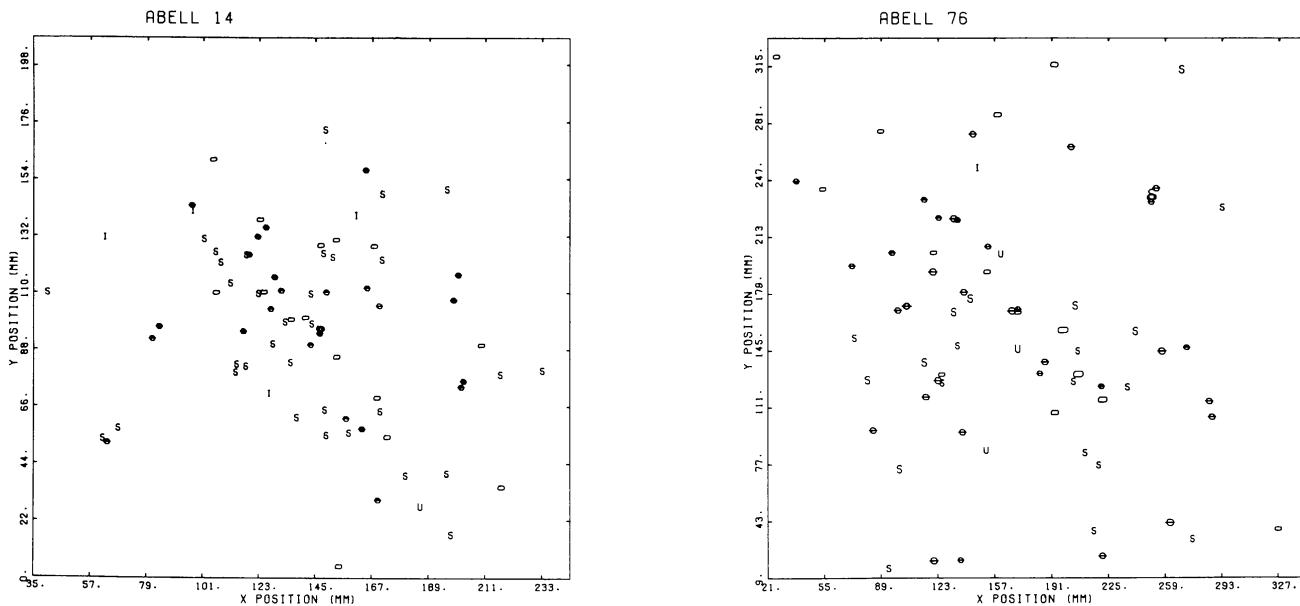


FIG. 4.—Cluster maps. Key: Open oval, elliptical; crossed oval, S0; S, spiral, I, irregular, U, unclassified. Symbol size indicates galaxy brightness.

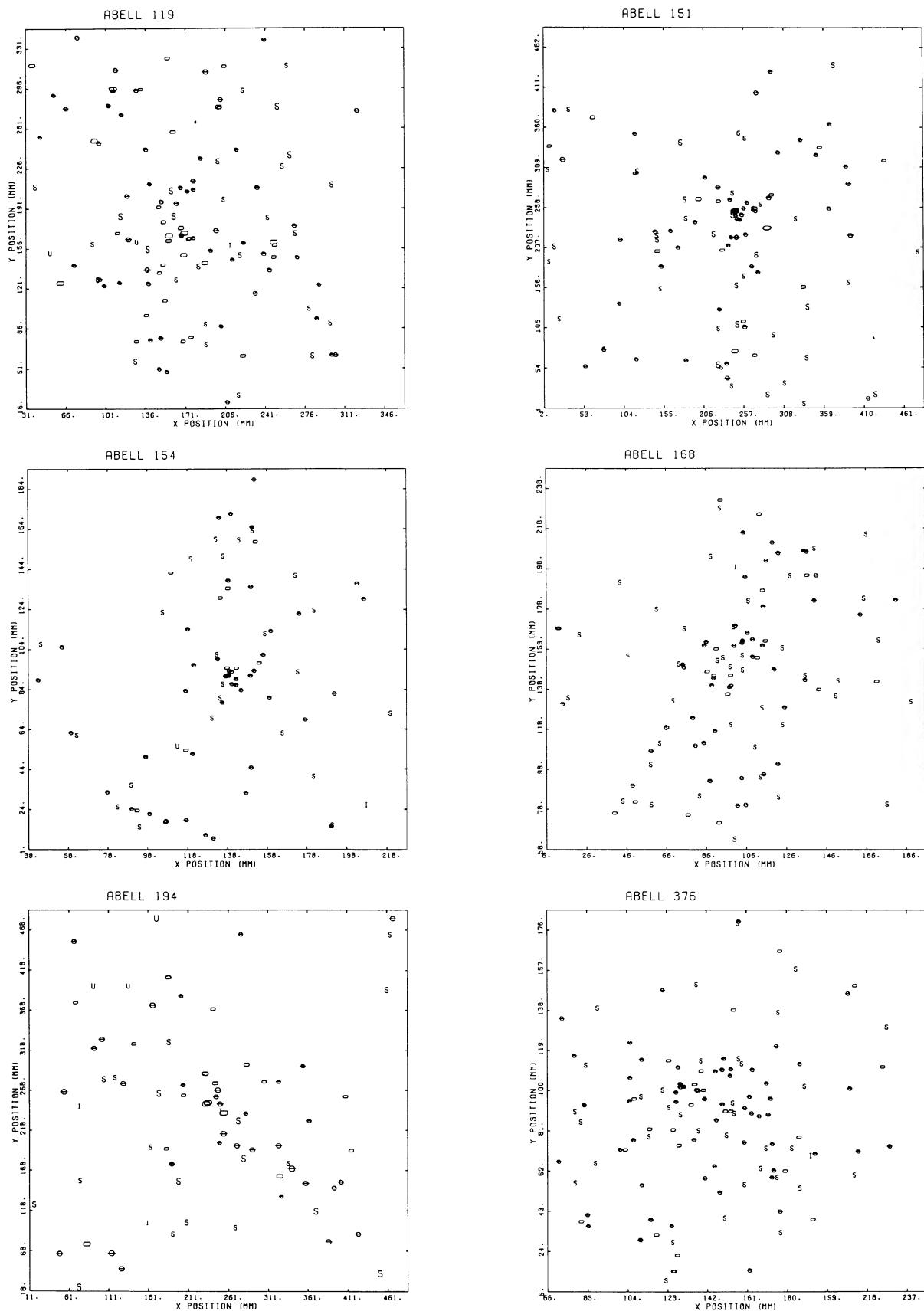


FIG. 4—Continued

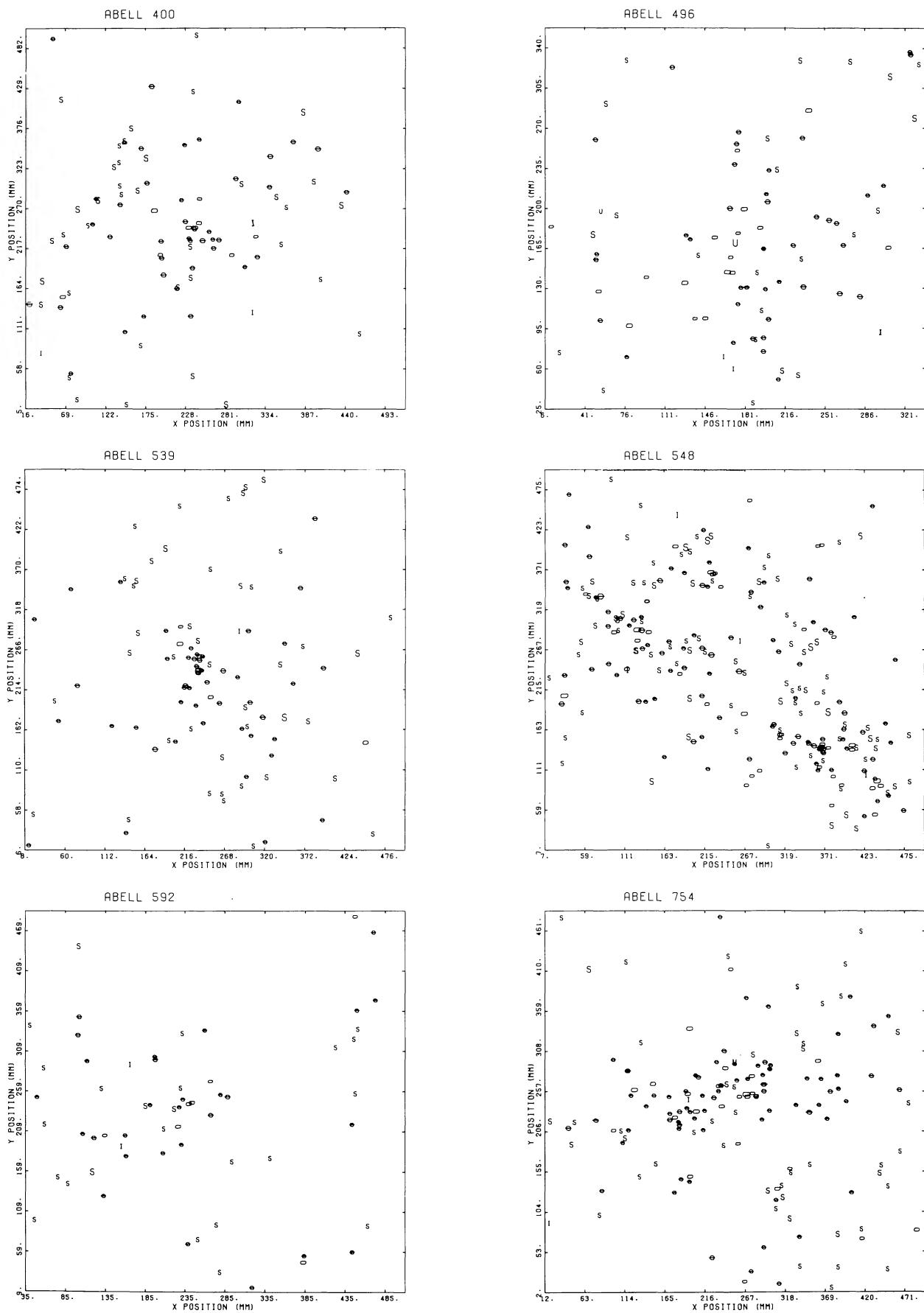


FIG. 4—Continued

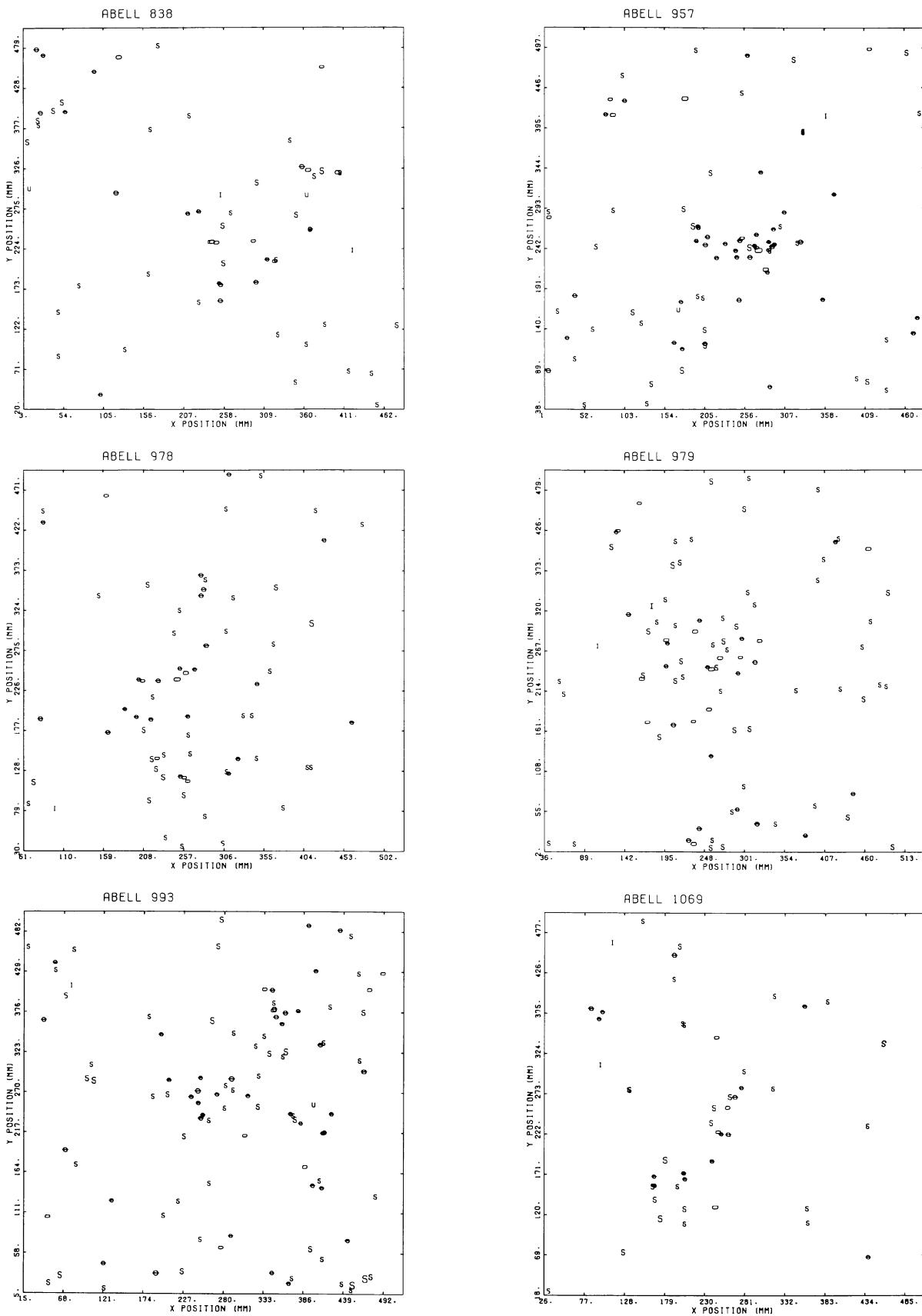


FIG. 4—Continued

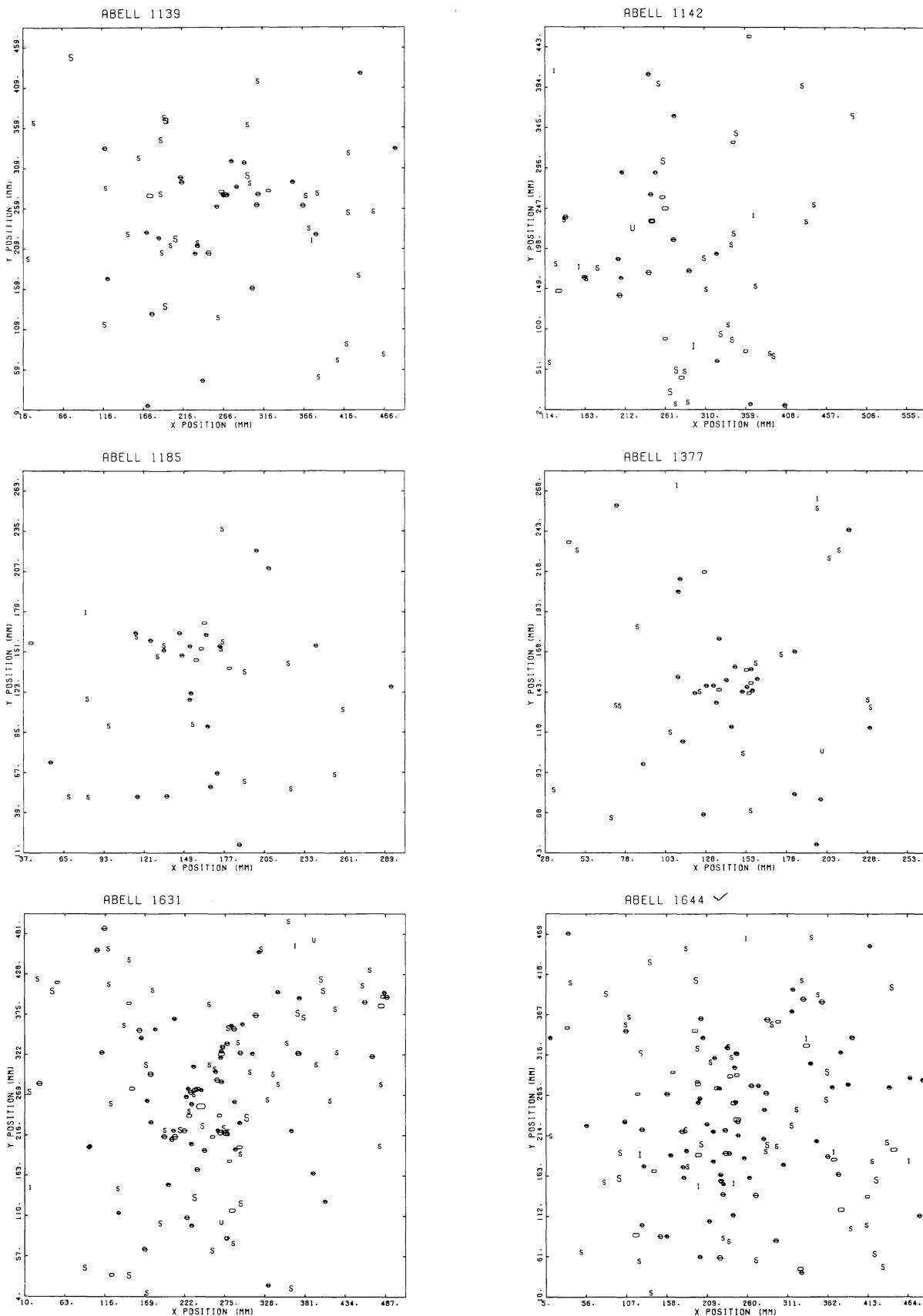


FIG. 4—Continued

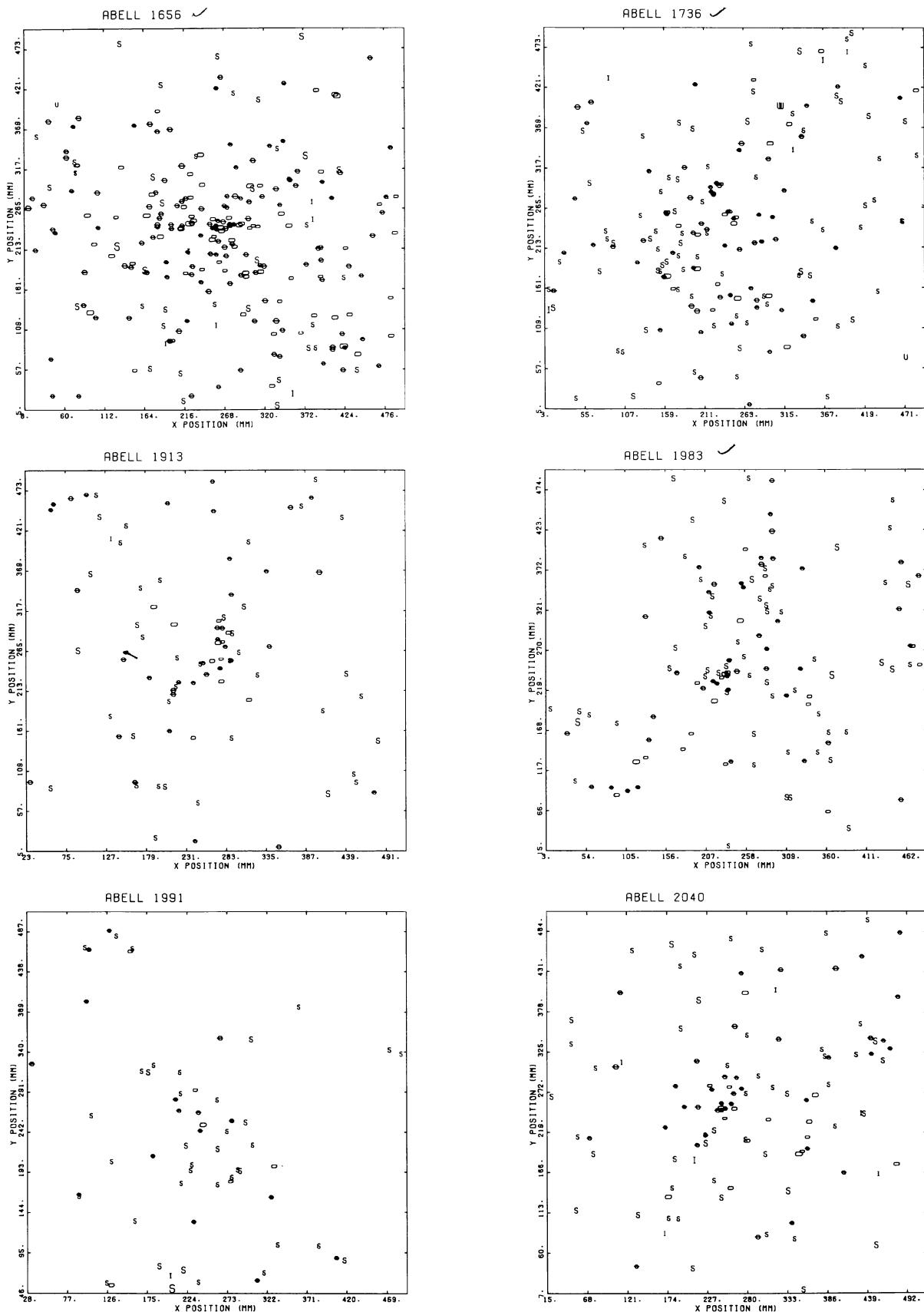


FIG. 4—Continued

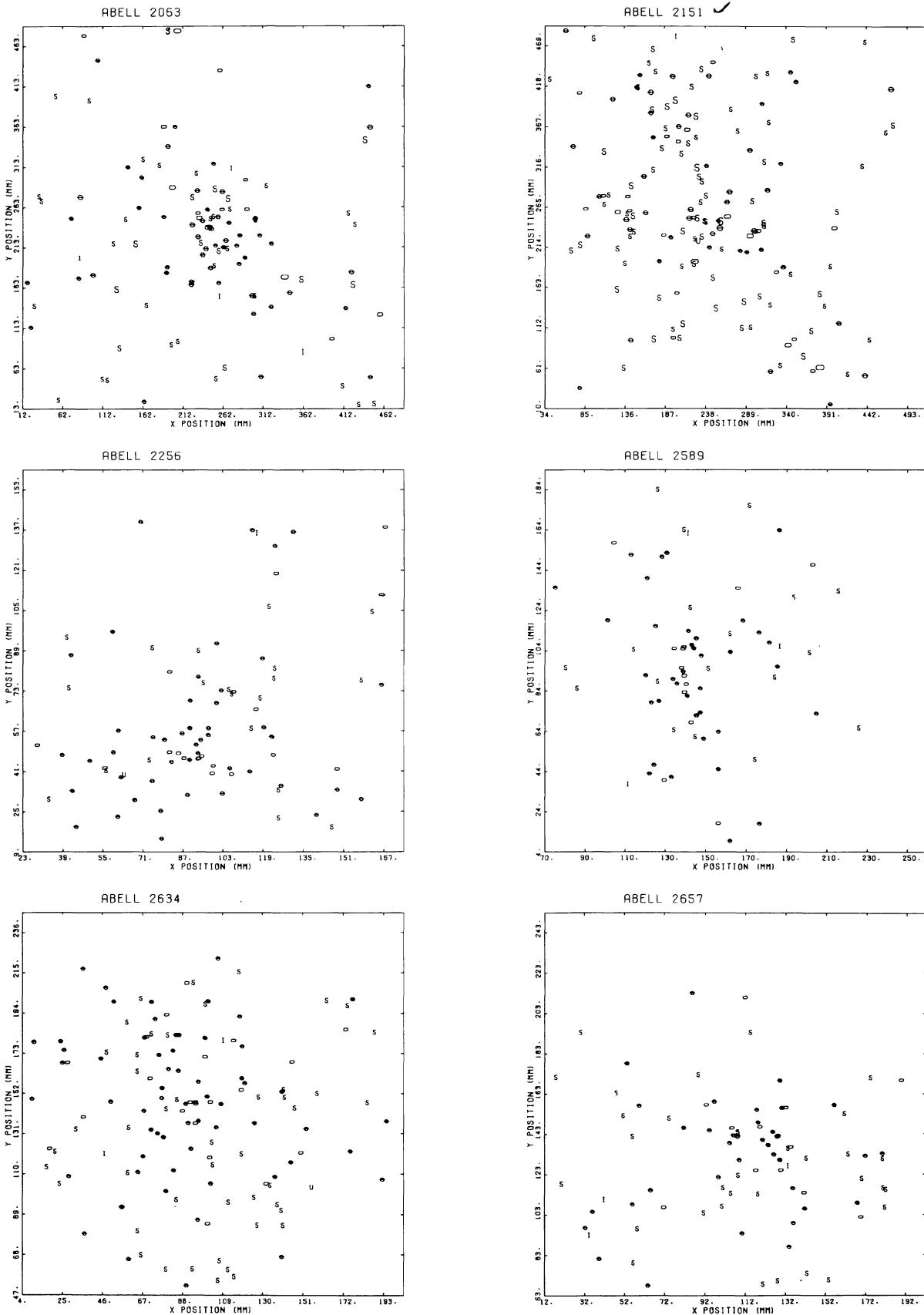


FIG. 4—Continued

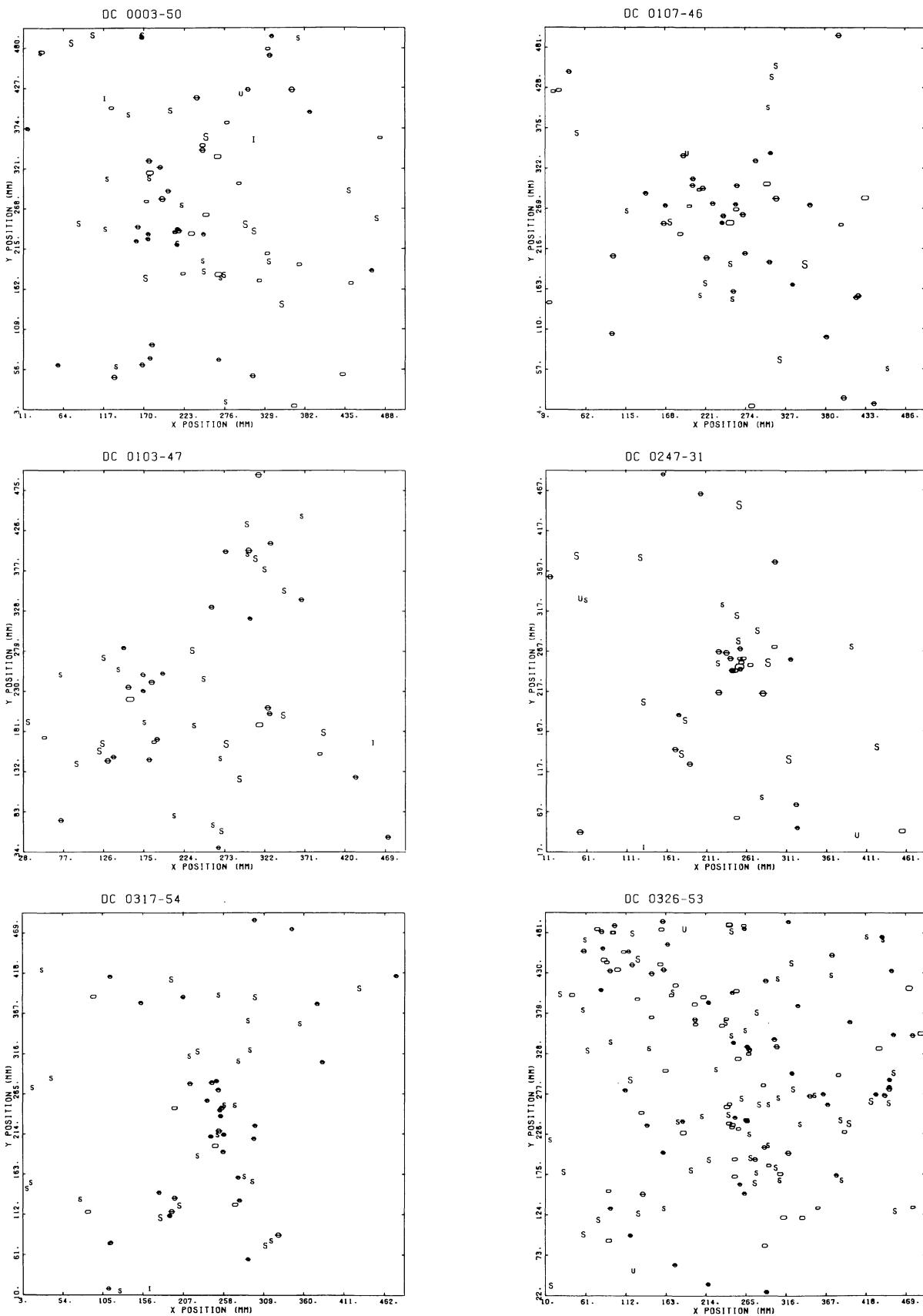


FIG. 4—Continued

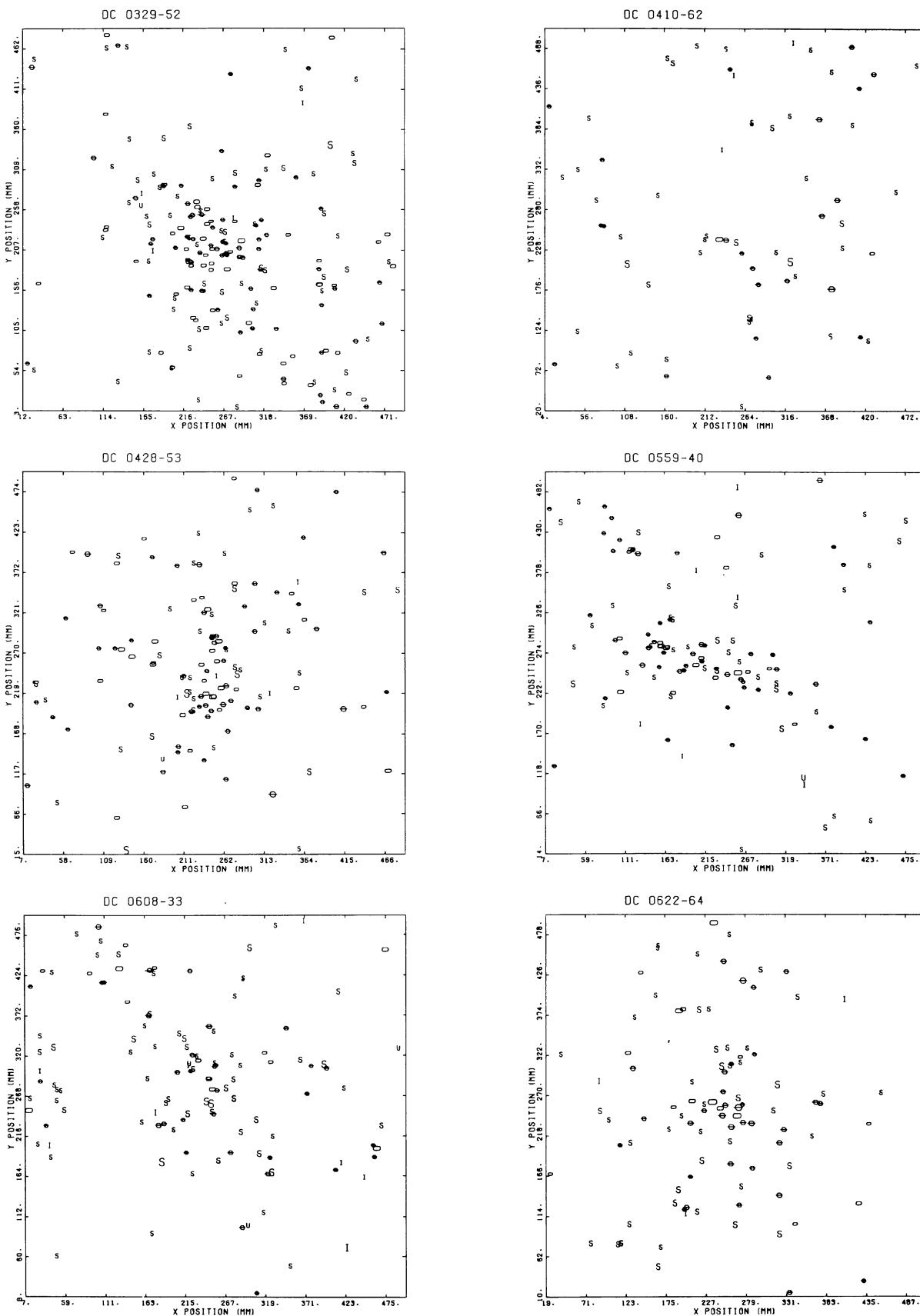


FIG. 4—Continued

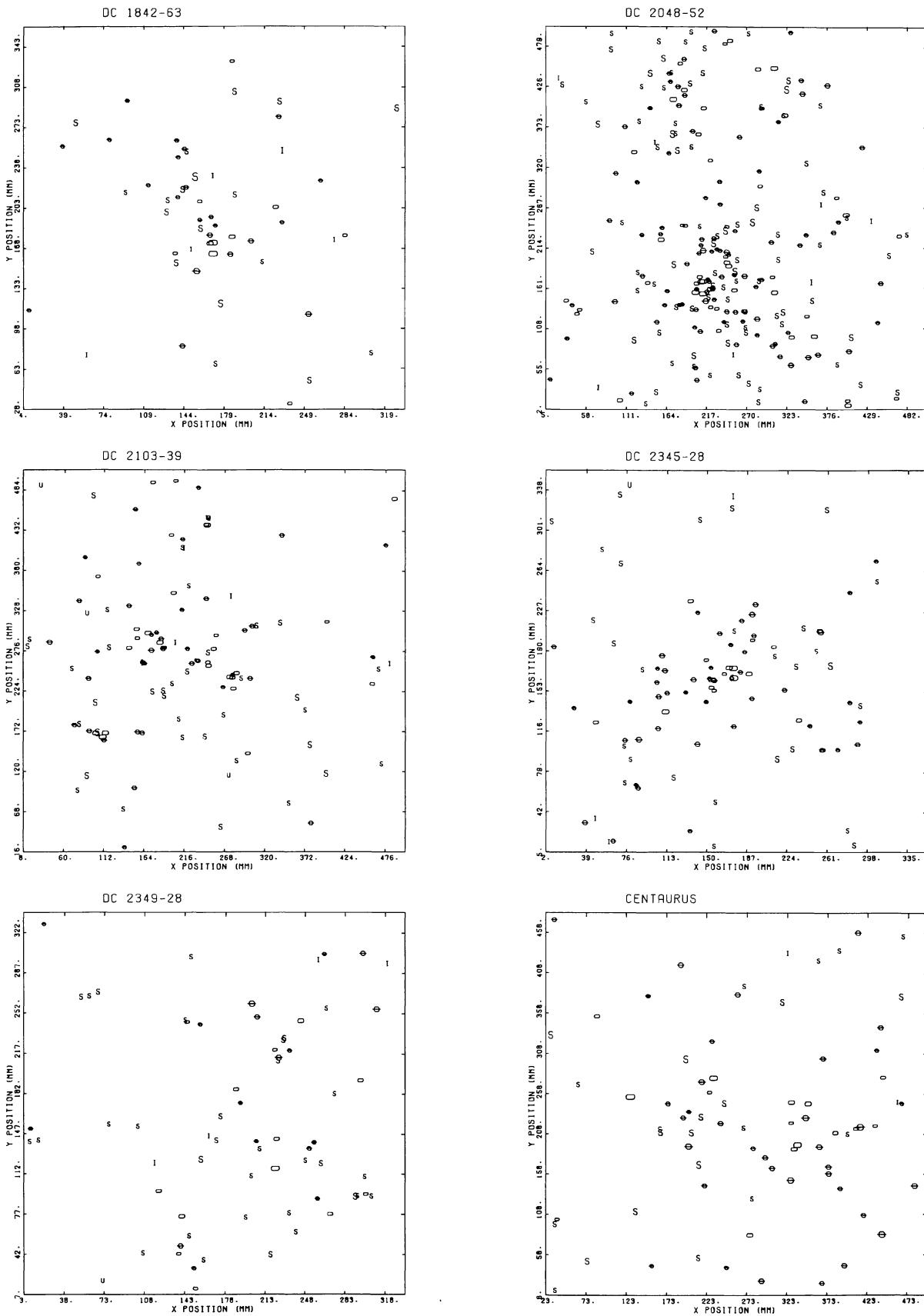


FIG. 4—Continued