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INTERSTELLAR MATTER IN EARLY-TYPE GALAXIES. I. THE CATALOG

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ABSTRACT

A catalog is given of the currently available measurements of interstellar matter in the 467 early-type galaxies listed in the second edition of the Revised Shapley-Ames Catalog of Bright Galaxies. The morphological type range is E, SO, and Sa. The ISM tracers are emission in the following bands: *IRAS* 100 μm, X-ray, radio, neutral hydrogen, and carbon monoxide. Nearly two-thirds of the E's and SO's have been detected in one or more of these tracers. Additional observed quantities that are tabulated include: magnitude, colors, radial velocity, central velocity dispersion, maximum of the rotation curve, angular size, 60 μm flux, and supernovae. Qualitative statements as to the presence of dust or emission lines, when available in the literature, are given. Quantities derivative from the observed values are also listed and include masses of H I, CO, X-ray gas, and dust as well as an estimate of the total mass and mass-to-luminosity ratio of the individual galaxies.

Subject headings: galaxies: interstellar matter — galaxies: photometry — galaxies: X-rays — infrared: sources — radio sources: 21 cm radiation

I. INTRODUCTION

Our view of the interstellar content of early-type galaxies has radically changed over this past decade. Where we thought these systems to be essentially devoid of dust and gas, we now know that many contain hot (10^7 K) X-ray gas, warm (10^4 K) ionized gas, and cool ($\lesssim 10^2$ K) gas and dust. In some instances, where the gas and stellar kinematics differ, the origin of the former is attributed to capture. In other instances, the material is most likely intrinsic, as for the X-ray gas.

In all cases this interstellar component, ranging from a few percent of the total mass to values much smaller, holds clues to the past and future development of the parent galaxy. To search for systematics in this nonstellar component, we draw together results from the now extensive literature supplemented by new data from our X-ray, H I, and CO measurements. The sample is well-defined, specifically those galaxies classified Sa or earlier in the second edition of the Revised Shapley-Ames Catalog of Bright Galaxies, or RSA (Sandage and Tammann 1987). Further, the use of only this one source for morphological types ensures a homogeneous type assignment based on large-scale plates. All but three of the 467 galaxies in the Catalog, NGC 4756, NGC 4880, and NGC 5444, have a classification assigned from plates taken with one of the following telescopes: Las Campanas 100″, Mt. Wilson 60″, Mt. Wilson 100″, or Mt. Palomar 200″.

We are interested primarily in elliptical and S0 galaxies. Types Sa are included to bracket the intermediate classification, S0/Sa. We also want to probe the question of the transition, if any, from SO to these earliest spirals and of course that from S0 to E. This catalog tabulates observed and derived parameters which can be used to test the significance of the eye-assigned morphological classification. We will ask if types E and S0 are distinguishable by parameters other than the morphology sensed in photographic images. We know of some already, e.g., the more common occurrence of H I in S0's than in E's, and the kinematic distinction of the ratio: maximum of rotation velocity to central velocity dispersion. These as well as other relations will be discussed in a later paper in this series. Here we tabulate the data available to us through mid-1989.

II. GALAXY SELECTION

The classification of early-type galaxies can often be ambiguous. This is well-illustrated by Knapp *et al.* (1989) where they tabulate the type classification from five different sources for the ~1150 galaxies in their sample. Though these various type assignments often agree, ranges of S0 to Sa and E to S0 to Sap for the same galaxy can be found in their tabulation. Such lack of consistency could easily mask or create trends in small samples, e.g., the CO or X-ray data set currently available. To minimize this possibility, we have chosen a homogeneous data set, the RSA, which has the added advantage that the incompleteness for the entire sample has been studied. Sandage and Tammann (1987) note that the magnitude incompleteness sets in "at about $B_T \simeq 12^{\rm m}$ and becomes severe by $B_T = 12^{\rm m}\!.5$."

A few galaxies have uncertain type assignment in the RSA, e.g., NGC 2968 is "amorphous or $S0_3$ pec" and NGC 7679 is

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"Sc(s)/Sa(tides?)." In our selection we were guided by the type binning in Part III (p. 71) of the RSA. Only three such galaxies with uncertain type are included here: NGC 3390, 4425, and 4760. For each we have assigned a numerical type corresponding to "peculiar."

Although we feel that our sample is consistently typed, a fundamental question can be raised regarding the classification itself. Specifically, are the galaxies arranged and typed in such a way that unintentionally reflects their interstellar content? For early-type galaxies, the only obvious mechanism that could operate in the visual inspection of photographic material is through dust extinction. We feel that this is unlikely, even though many of the *peculiar* E's and S0's do display an unusual and striking dust morphology, e.g., NGC 1275 and 5128. However, only 10% of the early-type galaxies, E and SO, are classified peculiar (see Table 3). Of the remaining galaxies, the $S0_3$ systems are defined by an "absorption lane" (Sandage 1961) and the $S0_2$ systems with a suggestion of this. Thus the $S0_1$ and E galaxies are viewed as essentially dust-free. The reports of dust in these systems (column [35], Table 1) are generally based on special, sensitive techniques designed to locate small and faint extinction features. The *IRAS* detection rates are similar, about one-third, for both E's and $S0_1$'s. The dust masses computed from the *IRAS* data are in the range 10^5–10^7 $M_\odot$ for *both* E's and S0's.

We conclude that it is unlikely that dust extinction has somehow biased the classification of early-type galaxies. In this context it is worth noting that the detection rate of optically invisible H I is significantly higher within the $S0_1$ category than among ellipticals. Rather than dust extinction, it would appear that the prominent stellar disk component of S0's, the distinguishing feature of these galaxies, carries an interstellar component with it.

III. CATALOG

The material is divided into two sections: the observed values, Table 1 and their derivative quantities, Table 2. The latter are generally distinguished as being distance-dependent and/or model-dependent.

The entries in Table 1, the observed values, are the following:

Columns (1)–(3): the galaxy name and 1950 coordinates.

Columns (4)–(5): the morphological type taken from the RSA and a numerical coding of these types. The latter provide a convenient basis for handling and sorting the data. The coding together with the number of galaxies within each type is given in Table 3.

Column (6): the corrected apparent *B*-magnitude, $B_T^{o,i}$, from Column (15) of the RSA. It is designated here as *Bo*.

Columns (7)–(8): the total corrected color indices from Column (23) of the "Second Reference Catalogue of Bright Galaxies" (de Vaucouleurs *et al.* 1976), RC2. Additional values are from Sadler (1984*a*) where effective rather than total color indices are given. No adjustments have been made. Average differences are "0.01–0.02 mag. in $B - V$ and 0.04 mag. in $U - B$."

Column (9): the heliocentric radial velocity, V_H, primarily from Huchra (1987). Some entries are from the H I reference in Column (21).

Column (10): the central velocity dispersion from the compilation by Whitmore *et al.* (1985). Additional values are from Davies *et al.* (1987).

Columns (11)–(12): the optically determined peak rotation curve value and its reference. The latter use the reference numbering system in the kinematic Atlas prepared by Busarello *et al.* (1989) with extensions as required. The key to these references follows Table 1.

Columns (13)–(14): logarithm of the apparent isophotal major diameter at a surface brightness of 25.0 mag arcsec^{-2}. *D* is in units of 0′.1. The ratio of major to minor axes is given as R25. Values are taken from columns (10) and (11) of RC2.

Columns (15)–(16): the X-ray flux (15) measured in the energy range 0.5–4.5 kev in units of 10^{-14} ergs cm^{-2} s^{-1} and the statistical uncertainty (16) of these values in the same units. These data are derived from Einstein IPC and HRI observations and assume a 1 kev thermal spectrum for converting observed counts to flux. Correction for Galactic H I column density is included. Both source and background uncertainties are included in Column (16). Further details on the derivation of these values are given elsewhere (Forman and Jones 1990). The flux for NGC 5128 is from Forman *et al.* (1985).

Column (17): a code indicating the presence of emission lines, with a number giving the reference. The letter E denotes that emission lines have been detected, the letter N indicates that no lines have been found, though other objects in the same catalog have been detected, and U means that the situation is uncertain. Included in the U sources are ones for which photoelectric data suggest the possible presence of a line, but with a signal-to-noise ratio of less than 3. Another category of U source is an object having an upper limit higher than detections achieved in that same catalog. The key to the references follows Table 1.

Columns (18)–(21): H I data: the line integral, Jy km s^{-1}, for detections (18) and the line width (20). Uncertainties in both quantities could easily be ~20%. The tabulated widths (20) are not uniform in that they are measured at differing positions of the line profile. If a choice is available, 50% of the peak value is taken. H I nondetections are noted in Column (19) and are given as the rms of the observations. The entries here are very heterogeneous in that differing filter (channel) widths are used by the various authors to compute an rms. This reflects the individual observer's evaluation of their null results. The reference numbering system (21) follows that of Huchtmeier and Richter (1989), with additions as required. The key to these references is given at the end of the table.

Columns (22)–(24): the CO flux integral (22), in Jy km s^{-1}. It is taken directly from the reference, Column (24), if given. If the reference gives the CO intensity ICO, the CO flux integral is derived from the equation

$$\mathrm{SCO} = G \times (\mathrm{ICO})\,, \qquad (1)$$

where *G* is the antenna gain expressed in Jy K^{-1}. We adopt for the quantity *G* the values 41.7, 113, 67, and 34 for the FCRAO, BTL, NRAO 36 ft, and NRAO 12 m, respectively. No correction is made for the source-beam coupling. If the reference gives an intensity in K only, ICO is obtained by integration over the line profile. If only an upper limit is given, the integration is made over 300 km s^{-1}, and assumes that the noise decreases as the square root of the number of channels used in the integration. For those references which give only mass, M, or for which the telescope gain is not available, an equivalent flux integral was computed from the mass using the relationship

$$S = A \times M \times D^{-2}\,, \qquad (2)$$

where D is the distance and A is the constant relating the emission and the surface density of molecular hydrogen. The rms of the CO flux integral, in Jy km s^{-1}, or the upper limit to the CO flux integral is listed in Column (23).

Columns (25)–(27): continuum radio parameters at 21 cm: Column (25) gives the flux density in mJy. Column (26) gives the one-sigma uncertainty in the flux density, or the upper limit if the source is not detected; again, the units are mJy. Note that we give both rms's and upper limits in the same column. Column (27) gives the source of the data, using the reference key listed at the bottom of the table.

Columns (28)–(30): the quantities are similar to those in the preceding columns, but are for a wavelength of either 13 or 11 cm.

Columns (31)–(33): the quantities are similar to those in the preceding columns, but are for a wavelength of 6 cm.

Column (34): the number of supernovae reported for each galaxy as tabulated in the Asiago Supernova Catalogue (Barbon *et al.* 1989). Further details of these supernovae are given in the Asiago Catalogue and references therein.

Column (35): a coded designation on the presence or absence of visible dust. The letter D indicates that a dust feature has been noted, N that no dust feature was seen by the technique used and to the sensitivity employed. The letter U indicates uncertainty. Numbers in this column are references to the source of these dust designations.

Columns (36)–(37): the flux density, in mJy, at the 60 μm *IRAS* band, and its error. The data are drawn primarily from Knapp *et al.* (1989) supplemented with data from Fullmer and Lonsdale (1989).

Columns (38)–(39): similar to the preceding, but for the 100 μm *IRAS* band.

Column (40): the ratio of the *IRAS* fluxes at 12 and 25 μm. An entry is given only if both the 12 and 25 μm fluxes have a signal-to-noise ratio greater than 3.

Comments are given in a Notes section at the end of this table. *The reader is urged to consult these notes for further information on specific sources.* Instances are noted where confusion could affect the tabulated value or has prevented our listing an unambiguous value.

The entries in Table 2, Derivative Quantities, are:

Columns (2)–(3): the distance in megaparsecs. These are computed from V_0/H_0 where V_0 is the radial velocity corrected to the rest frame of the local group using the expression

$$V_0 = V_H + 300 \sin l \cos b\,. \qquad (3)$$

The heliocentric velocity V_H is from Column (9), Table 1; l and b are galactic longitude and latitude, respectively. Note that this correction is slightly different from that adopted in the RSA. No corrections for a Virgocentric flow or that due to the "great attractor" are made. H_0 = 50 km s^{-1} mpc^{-1} is used throughout. The group/cluster membership as assigned in the RSA is adopted here and so designated in Column (3) where L = Local group, F = Fornax, V = Virgo, and C = Centaurus. The corresponding distances are from Table 2 in the second edition of the RSA.

Columns (4)–(5): the corrected absolute B-magnitude and the corresponding logarithm of the luminosity in solar units with $M_B(\mathrm{sun}) = 5.48$.

Columns (6)–(7): the logarithm of the 6 cm luminosity (6) or its upper limit (7), both in units of watts Hz^{-1}. These are from the 6 cm flux densities of Column (16) below.

Columns (8)–(9): the logarithm of the X-ray gas mass (8) or its upper limit (9). In computing these masses we follow Canizares *et al.* (1987), equation (9), which invokes a number of assumptions and becomes

$$\log(\text{X-ray gas-mass}) = -20.5 + 0.5 \log L_x(\text{watts}) + 1.2 \log(L_B/L_\odot)\,. \qquad (4)$$

Upper limits are computed for those instances where the X-ray flux is less than 3 rms.

Columns (10)–(11): the log of the H I mass (10) or its upper limit (11). We use

$$M(\text{H I}) = 2.36 \times 10^5 \times (\text{flux-line integral}) \times D^2\,. \qquad (5)$$

Here the flux-line integral is in Jy km s^{-1} and the distance, D, is in Mpc, the former from Table 1, Column (18). For upper limits we take three times the rms (mJy), Column (19), and *assume* a rectangular profile of width 300 km s^{-1}. Thus the algorithm becomes $2.12 \times 10^5 \times \text{rms} \times D^2$ for upper limits.

Column (12): the logarithm of the mass of molecular hydrogen, in solar masses, using the relationship (see Thronson *et al.* 1989)

$$M(H_2) = 1.1 \times 10^4 \times D^2 \times (\text{SCO})\,, \qquad (6)$$

where D is in Mpc and SCO is in Jy km s^{-1}. The calculation is made only for those objects for which SCO is measured with a signal-to-noise ratio greater than 3.

Column (13): the upper limit to the mass of molecular hydrogen, calculated as above and using a flux equal to the upper limit.

Column (14): the estimated mass of cool dust, M(dust), inferred from the 100 μm flux, using the relationship

$$M(\text{dust}) = 0.00478\, F(100\,\mu) \times D^2 \{\exp[2.94(F100/F60)^{0.4}] - 1\}\,, \qquad (7)$$

with M in solar masses, D in Mpc, and the flux in mJy. This expression is taken from Young *et al.* (1989), using as an approximation for the dust temperature $T_d \sim 49(F_{60}/F_{100})^{0.4}$ appropriate for an emissivity exponent of 1. If the 60 μm flux is lacking, we assume a dust temperature of 30 K. Then the dust mass is given by

$$M(\text{dust}) = 2.60\, F(100) \times D^2\,. \qquad (8)$$

TABLE 1A

OBSERVED VALUES

NAME (1)	RA h m (2)	DEC d m (3)	Type (RSA) (4)	Type KEY (5)	Bo (6)	(B-V)o (7)	(U-B)o (8)	V helio km s^{-1} (9)	Vel. Disp. km s^{-1} (10)	Vmax Rot. km s^{-1} (11)	Vmax Ref. (12)	log D25 (13)	log R25 (14)	XRay Flux 10^{-14}erg cm^{-2}s^{-1} (15)	XRay rms (16)
N 16	0 6	27 27	SB01(4)	25	12.88	0.88	0.26	3041	182	160	76	1.32	0.25		
N 128	0 26	2 35	S02(8) pec	27	12.63	0.87	0.51	4227		140	76	1.53	0.51	5.6	7.6
N 147	0 30	48 13	dE5	10	9.96			-188				2.11	0.20		
N 148	0 31	-32 3	S02(r)6	22	13.04	0.86	0.36	1897				1.38	0.29		
N 185	0 36	48 3	dE3 pec	17	9.73	0.78		-227				2.06	0.07		
N 205	0 37	41 24	S0/E5 pec	37	8.60	0.75		-271	97			2.24	0.25	12.9	11.7
N 221	0 39	40 35	E2	10	8.79	0.85	0.38	-200	79	50	119	1.88	0.12	44.8	5.5
N 227	0 40	-1 48	E5	10	13.35	0.95		5297	268			1.32	0.09	8.0	5.6
N 254	0 45	-31 41	RS01(6)/Sa	40	12.66			1629				1.32	0.27		
N 274	0 48	-7 19	S01(0)	21	12.98			1729	75			1.24	0.03		
N 357	1 0	-6 36	SBa	50	12.59	1.01	0.54	2406				1.42	0.13		
N 404	1 6	35 27	S03(0)	23	10.96	0.86	0.17	-36	55			1.64	0.02		
N 439	1 11	-32 0	E5	10	13.00	0.97		5803				1.42	0.21		
N 474	1 17	3 9	RS0/a	40	12.35	0.86	0.31	2333	171			1.90	0.04		
N 524	1 22	9 16	S02/Sa	40	11.62	0.88		2416	270			1.51	0.01	41.8	6.3
N 533	1 22	1 30	E3	10	12.75	1.00		5544	296			1.57	0.15	233.4	43.1
N 584	1 28	-7 7	S01(3,5)	21	11.20	0.89	0.47	1875	234	150	76	1.58	0.20	17.7	6.8
N 596	1 30	-7 17	E0/S0(disk)	30	11.88	0.84	0.40	1817	171	73	77	1.54	0.20	5.3	4.2
N 636	1 36	-7 45	E1	10	12.25	0.90	0.40	1805	173	74	501	1.37	0.09		
N 718	1 50	3 57	SaI	50	12.50	0.74		1756	128			1.45	0.05		
N 720	1 50	-13 59	E5	10	11.15	0.86	0.47	1716	224	76	77	1.64	0.20	76.7	8.3
N 741	1 53	5 23	E0	10	12.54	0.92		5553	300	300	42	1.51	0.01		
N 750	1 54	32 58	E0	10	13.17	0.89		5130	198			1.20	0.09		
N 777	1 57	31 11	E1	10	12.23	0.99		5040	335	35	506	1.47	0.08		
N 788	1 58	-7 3	Sa	50	13.00	0.62		4078				1.26	0.08		
N 821	2 5	10 45	E6	10	11.89	0.88		1716	215	110	76	1.54	0.19		
N 890	2 19	33 2	S01(5)	21	12.26			3994	231	<100	76	1.46	0.19		
N 936	2 25	-1 22	SB02/3/SBa	40	11.19	0.88	0.49	1434	193	180	63	1.72	0.08	26.3	5.4
N 1022	2 36	-6 53	SBa(r) pec	57	11.66	0.67	0.17	1503				1.40	0.08		
N 1023	2 37	38 50	SB01(5)	25	10.09	0.86	0.42	648	218	240	76	1.94	0.42		
N 1052	2 38	-8 28	E3/S0	30	11.53	0.89	0.44	1475	204	90	76	1.46	0.16	56.1	5.0
N 1079	2 41	-29 12	Sa(s)	50	12.22	0.83	0.33	1465				1.49	0.20		
N 1169	3 0	46 11	SBa(r)I	50	11.60			2397				1.64	0.16		
N 1172	2 59	-15 1	S01(0,3)	21	13.00	0.81	0.29	1669	98			1.35	0.04	7.8	4.4
N 1175	3 1	42 8	S02(8)	22	13.40			5458	244	160	76	1.39	0.48		
N 1199	3 1	-15 48	E2	10	12.42	0.95	0.39	2705	210			1.35	0.07		
N 1201	3 1	-26 15	S01(6)	21	11.56	0.86		1720	167			1.64	0.20	19.4	9.8
N 1209	3 3	-15 48	E6	10	12.26	0.90	0.40	2619	258	175	76	1.42	0.25		
N 1275	3 16	41 19	E pec	17	11.91	0.52	-0.01	5268				1.41	0.12		
N 1291	3 15	-41 18	SBa	50	9.17	0.86	0.39	839				2.02	0.06		
N 1297	3 16	-19 17	S02/3(0)	23	12.61			1550				1.37	0.07		
N 1302	3 17	-26 14	Sa	50	11.38			1698				1.64	0.02		
N 1316	3 20	-37 23	Sa p merger?	57	9.32	0.83	0.44	1780	252	135	504	1.85	0.11	105.6	9.1
N 1317	3 20	-37 16	Sa	50	12.04	0.85	0.25	1909				1.50	0.06		
N 1326	3 22	-36 38	RSBa	50	11.34	0.74	0.22	1363				1.60	0.12		
N 1332	3 24	-21 30	S01(6)	21	11.29	0.81		1469	306	225	76	1.66	0.42	47.5	4.2
N 1339	3 26	-32 27	E4	10	12.37	0.93		1329	161			1.36	0.08		
N 1344	3 26	-31 14	E5/S01(5)	30	11.28	0.87	0.41	1148	187	90	504	1.59	0.22		

TABLE 1A—*Continued*

NAME	RA	DEC	Type	Type	Bo	(B-V)o	(U-B)o	V	Vel.	Vmax		log	log	XRay	
			(RSA)	KEY				helio	Disp.	Rot.	Ref.	D25	R25	Flux	rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg cm^{-2}s^{-1}	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 1350	3 29	-33 47	Sa(r)	50	11.02	0.77	0.30	1786				1.63	0.25	14.2	6.7
N 1351	3 28	-35 2	S01(6)/E6	30	12.65	0.84	0.35	1527	144			1.26	0.18		
N 1357	3 30	-13 50	Sa(s)	50	11.99			2022	120			1.39	0.14		
N 1358	3 31	-5 15	SBa(s)I	50	12.95			4013	160			1.45	0.12	21.4	5.6
N 1366	3 31	-31 21	E7/S01(7)	30	12.81			1310				1.43	0.34		
N 1371	3 32	-25 6	Sa(s)	50	11.50			1472				1.73	0.13		
N 1374	3 33	-35 23	E0	10	12.30	0.90	0.41	1352	187			1.26	0.01		
N 1379	3 34	-35 36	E0	10	12.07	0.85	0.38	1352	133	23	501	1.30	0.02		
N 1380	3 34	-35 8	S03(7)/Sa	40	11.10	0.90	0.44	1844	227	200	76	1.69	0.41	57.1	13.0
N 1381	3 34	-35 27	S01(10)	21	12.34	0.85	0.41	1751	169	160	76	1.46	0.54	-4.5	16.4
N 1386	3 34	-36 9	Sa	50	11.08			924	183	150	76	1.54	0.37		
N 1387	3 35	-35 40	SB02(pec)	27	11.83			1302				1.38	0.03	36.5	18.2
N 1389	3 35	-35 54	S01(5)/SB01	25	12.39	0.89	0.39	986				1.33	0.17	-1.4	12.9
N 1395	3 36	-23 11	E2	10	11.18	0.97		1664	249	93	501	1.51	0.11	69.0	5.0
N 1399	3 36	-35 36	E1	10	10.79	0.89	0.46	1422	310	26	501	1.51	0.02	532.4	23.3
N 1400	3 37	-18 50	S03(1)	23	12.08	0.90	0.50	549	269			1.28	0.05	19.4	7.9
N 1404	3 36	-35 45	E2	10	11.06	0.88	0.51	1942	225	90	501	1.39	0.03	268.1	18.6
N 1407	3 37	-18 44	E0/S01(0)	30	10.93	0.89		1766	274	53	501	1.39	0.00	111.2	11.1
N 1411	3 37	-44 15	S02(4)	22	11.70	0.83	0.35	997				1.45	0.09		
N 1415	3 38	-22 43	Sa/SBa late	50	11.80			1566				1.56	0.24		
N 1426	3 40	-22 16	E4	10	12.37	0.80	0.34	1443	157			1.33	0.15		
N 1427	3 40	-35 33	E5	10	11.94	0.86	0.39	1395	156			1.45	0.14		
N 1439	3 42	-22 4	E1	10	12.58	0.90		1670	186	21	501	1.37	0.03		
N 1440	3 42	-18 25	SB01/2/a	40	12.65			1534				1.36	0.08		
N 1452	3 43	-18 47	SBa(r)	50	13.03			1904				1.24	0.06		
N 1453	3 43	-4 7	E0	10	12.59	0.92	0.56	3906	290			1.33	0.12		
N 1461	3 46	-16 32	S01/2(7)	22	12.85			1450	205	140	76	1.52	0.46		
N 1521	4 6	-21 11	E3	10	12.58	0.86	0.42	4165	212			1.46	0.17		
N 1527	4 6	-48 1	S02(6)	22	11.65			1165				1.53	0.40		
N 1533	4 8	-56 15	SB02(2)/SBa	40	11.65	0.89	0.46	773				1.46	0.06	18.6	3.7
N 1537	4 11	-31 46	E6	10	11.57	0.93		1381	159			1.62	0.18		
N 1543	4 11	-57 52	RSB02/3(0)/a	40	11.43	0.87	0.39	1088				1.59	0.26		
N 1549	4 14	-55 42	E2	10	10.70	0.86	0.39	1247	205	44	501	1.57	0.06		
N 1553	4 15	-55 54	S01/2(5)pec	27	10.36	0.85	0.41	1280		190	92	1.61	0.17	86.0	24.5
N 1574	4 20	-57 5	SB02(3)	25	11.13	0.74	0.30	1042				1.31	0.02	32.1	10.8
N 1596	4 26	-55 8	S01(7)	21	11.96	0.80	0.28	1523				1.59	0.51		
N 1600	4 29	-5 11	E4	10	12.01	0.85	0.47	4687	323	2	506	1.39	0.13	75.3	14.4
N 1617	4 30	-54 42	Sa(s)	50	10.48	0.82	0.30	1000				1.67	0.29		
N 1638	4 39	-1 54	Sa	50	12.64			3306				1.39	0.11		
N 1700	4 54	-4 56	E3	10	11.81	0.81	0.41	3881	234	80	501	1.46	0.15		
N 1726	4 57	-7 49	E4/S02(4)	30	12.84	0.95		4072	240	<75	76	1.16	0.12		
N 1947	5 26	-63 48	S03(0)pec	27	11.75	0.93	0.44	1100		60	138	1.47	0.06	22.1	11.2
N 2179	6 5	-21 44	Sa	50	12.82			2761				1.17	0.15		
N 2217	6 19	-27 12	SBa(s)	50	11.06	0.90	0.43	1600	247			1.68	0.04		
N 2300	7 15	85 48	E3	10	11.99	0.91	0.55	1923	260			1.49	0.07	80.9	14.8
N 2310	6 52	-40 48	S02/3(8)	23	12.16	0.77	0.24	1217				1.70	0.61		
N 2314	7 3	75 24	E3	10	12.83	0.85	0.48	3872	301			1.32	0.07	12.3	5.8
N 2325	7 0	-28 37	E4	10	11.78	0.95		2158	134			1.36	0.19		

TABLE 1A—*Continued*

NAME	RA	DEC	Type	Type	Bo	(B-V)o	(U-B)o	V	Vel.	Vmax		log	log	XRay	
			(RSA)	KEY				helio	Disp.	Rot.	Ref.	D25	R25	Flux	rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg cm^{-2}s^{-1}	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 2434	7 35	-69 10	E0	10	12.07	0.92	0.42	1399	205			1.40	0.00		
N 2549	8 14	57 57	S01/2(7)	22	12.06	0.82	0.45	1056	170	115	76	1.62	0.45		
N 2639	8 40	50 23	Sa	50	11.90	0.77	0.29	3226	191			1.30	0.18		
N 2646	8 45	73 38	SB02	25	12.85	0.88		3728	226			1.24	0.03		
N 2655	8 49	78 24	Sa pec	57	10.32	0.75		1389	159			1.71	0.07		
N 2672	8 46	19 15	E2(tides)	17	12.51	0.88	0.53	3983	281			1.41	0.03		
N 2681	8 49	51 30	Sa	50	10.54	0.72	0.27	715	111			1.58	0.04		
N 2685	8 51	58 55	S03(7) pec	27	11.86	0.76		881	102	<100	76	1.72	0.24	5.6	8.2
N 2693	8 53	51 32	E2	10	12.70	0.88	0.50	4865	387			1.34	0.11	8.6	8.1
N 2732	9 6	79 23	S01(8)	21	12.72	0.83		1957	170	126	76	1.36	0.41		
N 2749	9 2	18 30	E3	10	13.03	0.87	0.44	4180	278	85	506	1.30	0.06		
N 2768	9 7	60 14	S01/2(6)	22	10.92	0.85		1363	196	<50	76	1.80	0.35		
N 2775	9 7	7 14	Sa(r)	50	11.10	0.78	0.31	1326	176			1.65	0.10	30.6	5.5
N 2781	9 9	-14 36	Sa(r)	50	12.22			2028				1.59	0.30		
N 2782	9 10	40 19	Sa(s)pec	57	11.50	0.56	-0.05	2550				1.58	0.12	22.4	9.1
N 2784	9 10	-23 57	S01(4)	21	10.87	1.00	0.55	708	240	180	76	1.71	0.35		
N 2787	9 14	69 24	SB0/a	40	11.66	0.90		689	194			1.53	0.17		
N 2798	9 14	42 12	SBa(s)tides	57	12.94	0.60		1733				1.44	0.38		
N 2811	9 13	-16 6	Sa	50	11.54	0.80	0.35	2514				1.43	0.41		
N 2832	9 16	33 57	E3(tides)	17	12.39	0.88		6867	304			1.52	0.17	94.7	16.3
N 2844	9 18	40 22	Sa(r)	50	12.78			1486	113			1.28	0.29		
N 2855	9 19	-11 41	Sa(r)	50	11.79	0.80		1901	241			1.43	0.05		
N 2859	9 21	34 43	RSB02(3)	25	11.75	0.85		1685	179	100	68	1.68	0.06	-0.3	3.8
N 2865	9 21	-22 56	E4	10	12.09	0.79	0.27	2581	168			1.31	0.12		
N 2880	9 25	62 42	SB01	25	12.54	0.79		1563	144			1.41	0.21		
N 2888	9 24	-27 49	E2	10	13.16	0.87		2233	87			0.88	0.04		
N 2902	9 28	-14 31	S01(0)	21	13.25			1990				1.11	0.04		
N 2907	9 29	-16 30	S03(6)pec	27	12.83			2090				1.29	0.17		
N 2911	9 31	10 22	S0p or S03(2)	27	12.53	0.91	0.43	3131				1.63	0.12	4.3	7.5
N 2924	9 32	-16 10	E0	10	13.11			4615				1.21	0.03		
N 2950	9 38	59 4	RSB02/3	25	11.76	0.81		1327	185	90	68	1.50	0.17		
N 2962	9 38	5 23	RSB02/Sa	40	12.71	1.00		2117				1.52	0.14		
N 2974	9 40	-3 28	E4	10	11.68	0.89	0.51	1890	204	210	503	1.53	0.21	29.3	6.3
N 2983	9 41	-20 14	SBa	50	12.38	0.79		2015				1.41	0.16		
N 2986	9 41	-21 2	E2	10	11.84	0.91	0.53	2275	282			1.40	0.04		
N 2992	9 43	-14 5	Sa(tides)	57	11.61	0.74	0.31	2305				1.61	0.46		
N 3032	9 49	29 28	RSa pec	57	12.29	0.66		1561				1.39	0.06		
N 3056	9 52	-28 3	S01/2(5)	22	12.58			1047				1.31	0.16		
N 3065	9 57	72 24	S01/2(0)	22	12.81	0.85		2004	170			1.30	0.03	73.4	19.8
N 3078	9 56	-26 41	E3	10	11.92	0.91	0.51	2502	238			1.29	0.11	42.0	6.6
N 3081	9 57	-22 35	SBa(s)	50	12.50			2413				1.34	0.09	63.0	13.6
N 3087	9 56	-33 59	E2	10	12.53	0.90	0.44	2662	273			1.27	0.17		
N 3091	9 57	-19 23	E3	10	12.34	0.97		3882	290	71	501	1.34	0.10		
N 3098	9 59	24 57	S01(9)	21	12.85			1401	104	130	76	1.41	0.53		
N 3115	10 2	-7 28	S01(7)	21	9.89	0.87	0.49	685	247	225	76	1.92	0.42	22.8	10.0
N 3136	10 4	-67 7	E4	10	11.42	0.60	0.23	1731	238			1.40	0.17		
N 3156	10 10	3 22	E5/S02/3(5)	30	13.00	0.72		1296	141			1.33	0.24		
N 3158	10 10	39 0	E3	10	12.90	0.90	0.56	6982	366			1.37	0.04		

TABLE 1A—*Continued*

NAME	RA	DEC	Type (RSA)	Type KEY	Bo	(B-V)o	(U-B)o	V helio	Vel. Disp.	Vmax Rot.	Vmax Ref.	log D25	log R25	XRay Flux	XRay rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg $cm^{-2}s^{-1}$	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 3166	10 11	3 40	Sa(s)	50	10.65	0.80		1339	112			1.72	0.29	23.7	8.3
N 3185	10 14	21 56	SBa(s)	50	12.63	0.71		1218				1.36	0.16		
N 3190	10 15	22 5	Sa	50	11.02	0.84	0.33	1302	195			1.66	0.40		
N 3193	10 15	22 8	E2	10	11.83	0.87	0.44	1378	184			1.45	0.04		
N 3203	10 17	-26 26	S02(7)	22	12.65			2424				1.47	0.63		
N 3226	10 20	20 9	E2/S01(2)	30	12.30	0.87		1275	207			1.44	0.04		
N 3245	10 24	28 45	S01(5)	21	11.69	0.80		1358	228			1.51	0.24		
N 3250	10 24	-39 41	E3	10	11.79	0.90	0.41	2820	264			1.50	0.17		
N 3258	10 26	-35 21	E1	10	12.48	0.94	0.37	2778	272			1.26	0.04	53.1	14.1
N 3268	10 27	-35 4	E2	10	12.57	0.94	0.41	2818	228			1.31	0.09		
N 3271	10 28	-35 6	Sa	50	11.72	0.94	0.36	3784				1.37	0.32	-9.1	16.0
N 3277	10 30	28 46	Sa(r)	50	12.31	0.75	0.22	1417	217			1.31	0.04		
N 3281	10 29	-34 36	Sa	50	11.96	0.79		3395				1.52	0.27	19.5	15.7
N 3300	10 33	14 25	SB03/a	40	13.29			2992				1.32	0.27		
N 3301	10 34	22 8	Sa	50	12.24	0.73	0.30	1380				1.56	0.47		
N 3309	10 34	-27 15	E1	10	12.65	0.90	0.58	4057				1.28	0.04		
N 3348	10 43	73 6	E0	10	12.08	1.02	0.42	2831	246			1.35	0.01		
N 3358	10 41	-36 8	Sa(r)I	50	11.90			2910				1.58	0.22		
N 3377	10 45	14 15	E6	10	11.10	0.79	0.27	689	160	80	77	1.64	0.21	5.9	4.7
N 3379	10 45	12 50	E0	10	10.33	0.89	0.48	922	218	44	501	1.65	0.05	32.5	13.2
N 3384	10 45	12 53	SB01(5)	25	10.70	0.84	0.41	728	173			1.77	0.35	-5.9	9.7
N 3390	10 45	-31 16	S03(8) or Sb	27	12.90			2850				1.60	0.77		
N 3412	10 48	13 40	SB01/2(5)	25	11.47	0.83	0.24	867	107			1.56	0.25		
N 3414	10 48	28 14	S01/2(0)/a	40	11.74	0.93		1476	249	<100	76	1.56	0.13		
N 3449	10 50	-32 39	Sa	50	12.32			3305				1.42	0.33		
N 3458	10 52	57 23	SB01	25	13.15			1800				1.22	0.19	21.5	12.1
N 3489	10 57	14 10	S03/Sa	40	11.13	0.74	0.34	693	142			1.57	0.24	6.0	7.0
N 3516	11 3	72 50	RSB02	25	12.34	0.72	-0.01	2602				1.36	0.10	415.0	18.2
N 3557	11 7	-37 16	E3	10	11.23	0.86	0.48	3038	220	140	501	1.60	0.17		
N 3571	11 9	-18 1	Sa	50	11.78			3614				1.52	0.39		
N 3585	11 10	-26 28	E7/S01(7)	30	10.81	0.87	0.43	1373	220			1.46	0.25	14.2	3.9
N 3593	11 12	13 5	Sa pec	57	10.78	0.64		693	76			1.76	0.37	14.0	5.5
N 3605	11 14	18 17	E5	10	13.06	0.87		686	94	52	77	1.23	0.23	11.2	3.1
N 3607	11 14	18 19	S03(3)	23	11.08	0.88	0.43	934	240			1.57	0.06	27.6	3.7
N 3608	11 14	18 25	E1	10	11.88	0.87	0.40	1197	204	26	506	1.48	0.09	12.5	3.1
N 3610	11 15	59 3	E5/S01(5)	30	11.54	0.78		1765	176	140	503	1.50	0.10		
N 3611	11 14	4 49	Sa	50	12.28	0.49		1620				1.38	0.07		
N 3613	11 15	58 16	E6/S01(6)	30	11.65	0.96		2054	215	140	503	1.56	0.26		
N 3619	11 16	58 2	Sa	50	12.02			1555				1.49	0.08		
N 3623	11 16	13 21	Sa(s)II	50	9.17	0.76	0.28	806	169			2.00	0.48		
N 3626	11 17	18 37	Sa	50	11.43	0.75		1473				1.49	0.15		
N 3630	11 17	3 14	S01(9)	21	12.65			1514				1.36	0.41		
N 3637	11 18	-9 59	RSB02/3/SBa	40	12.80			1846				1.23	0.03		
N 3640	11 18	3 30	E2	10	11.26	0.88	0.52	1302	193	120	503	1.61	0.08		
N 3665	11 22	39 2	S03(3)	23	11.75	0.87		2080	205			1.51	0.10		
N 3706	11 27	-36 6	E4	10	11.93	0.94	0.49	2991	281			1.46	0.18		
N 3783	11 36	-37 27	SBa(r)I	50	12.68			2550				1.28	0.09		
N 3818	11 39	-5 52	E5	10	12.79	0.83		1498	196	114	77	1.33	0.17	17.9	10.1

TABLE 1A—*Continued*

NAME (1)	RA h m (2)	DEC d m (3)	Type (RSA) (4)	Type KEY (5)	Bo (6)	(B-V)o (7)	(U-B)o (8)	V helio km s^{-1} (9)	Vel. Disp. km s^{-1} (10)	Vmax Rot. km s^{-1} (11)	Vmax Ref. (12)	log D25 (13)	log R25 (14)	XRay Flux 10^{-14}erg cm^{-2}s^{-1} (15)	XRay rms (16)
N 3872	11 43	14 2	E4	10	12.80	0.88		3210	272			1.35	0.16		
N 3885	11 44	-27 38	Sa	50	12.33			1802				1.23	0.30		
N 3892	11 45	-10 41	SB02	25	12.46			1727				1.44	0.10		
N 3898	11 46	56 21	SaI	50	10.96	0.78		1113	205			1.64	0.23		
N 3900	11 46	27 18	Sa(r)	50	11.44	0.73		1799	128			1.54	0.25		
N 3904	11 46	-28 59	E2	10	11.83	0.90	0.58	1797	197	63	77	1.35	0.13		
N 3923	11 48	-28 31	E4/S01(4)	30	10.79	0.91		1649	249			1.46	0.19	62.0	7.5
N 3941	11 50	37 15	SB01/2/a	40	11.28			944				1.58	0.18		
N 3945	11 50	60 57	RSB02	25	11.49	0.83		1220	167	167	68	1.74	0.18		
N 3957	11 51	-19 17	S03(9)	23	12.91			1637				1.55	0.63		
N 3962	11 52	-13 41	E1	10	11.61	0.89		1822	234			1.46	0.04		
N 3998	11 55	55 44	S01(3)	21	11.50	0.87	0.46	1028	308			1.49	0.09	538.1	34.7
N 4008	11 55	28 28	S01(5)	21	12.90	0.97		3680	208			1.40	0.23		
N 4024	11 55	-18 4	S01(2,5)	21	12.61	0.94		1646	149			1.37	0.15		
N 4026	11 56	51 14	S01/2(9)	22	11.47			878	203	145	76	1.71	0.56		
N 4033	11 58	-17 34	S01(6)	21	12.41	0.89		1614	126			1.40	0.36		
N 4036	11 58	62 10	S03(8)/Sa	40	11.56	0.81	0.49	1382	195			1.65	0.34	0.8	6.8
N 4073	12 1	2 10	E5	10	12.74	1.01		5844	269			1.39	0.11		
N 4105	12 4	-29 28	S01/2(3)	22	11.76	0.89		1896	242			1.38	0.11	26.8	5.8
N 4106	12 4	-29 29	SB0/a(tides)	47	12.24	0.89		2198				1.29	0.10		
N 4111	12 4	43 20	S01(9)	21	11.75	0.74	0.28	807	140			1.68	0.63		
N 4124	12 5	10 39	S03(6)	23	12.35			1674				1.66	0.42		
N 4125	12 5	65 27	E6/S01/2(6)	30	10.76	0.81		1340	230	150	502	1.71	0.20		
N 4128	12 6	69 2	S01(6)	21	12.73			2315	213			1.44	0.44		
N 4138	12 6	43 57	Sa(r)pec	57	11.45			960				1.46	0.19		
N 4143	12 7	42 48	S01(5)/Sa	40	12.07			784				1.46	0.20		
N 4150	12 8	30 40	S03(4)/Sa	40	12.40	0.73		244				1.39	0.14		
N 4158	12 8	20 27	Sa:	50	12.35			2445				1.31	0.05		
N 4168	12 9	13 29	E1	10	12.21	0.87		2307	182			1.45	0.04	29.4	5.5
N 4179	12 10	1 34	S01(9)	21	11.84	0.80	0.42	1228	164	230	76	1.62	0.54		
N 4203	12 12	33 28	S02(1)	22	11.62	0.84		1117	175			1.56	0.04	246.8	22.0
N 4215	12 13	6 41	S01(9)	21	13.04			2067				1.29	0.41	-6.9	6.2
N 4220	12 13	48 9	Sa(r)	50	11.23			954				1.61	0.43		
N 4224	12 14	7 44	Sa	50	12.04			2651				1.38	0.36		
N 4233	12 14	7 54	SB01(6)	25	12.97			2224				1.37	0.33	3.8	10.6
N 4235	12 14	7 28	Sa	50	12.00			2596				1.63	0.60		
N 4245	12 15	29 52	SBa(s)	50	12.25	0.82	0.34	890				1.52	0.10	-5.9	6.8
N 4251	12 15	28 27	S01(8)	21	11.62			1014				1.62	0.35	-1.7	3.3
N 4260	12 16	6 22	SBa(s)	50	12.30	0.82	0.37	1846				1.42	0.28	9.2	10.7
N 4261	12 16	6 6	E3	10	11.38	0.92	0.51	2200	339	15	503	1.59	0.08	91.7	12.9
N 4262	12 16	15 9	SB0	25	12.38	0.87	0.45	1376	176			1.34	0.03		
N 4267	12 17	13 4	SB01	25	11.78	0.85	0.44	1001	162			1.54	0.03	8.6	5.2
N 4270	12 17	5 44	S01(6)	21	13.17	0.80	0.35	2347				1.34	0.35		
N 4274	12 17	29 53	Sa(s)	50	10.35	0.81	0.29	920	137			1.84	0.39		
N 4278	12 17	29 33	E1	10	11.13	0.89	0.42	643	243	50	77	1.56	0.02		
N 4281	12 17	5 39	S03(6)	23	12.26	0.84		2732	285			1.49	0.31		
N 4283	12 17	29 35	E0	10	13.12	0.89	0.44	1076	107			1.15	0.01		
N 4291	12 18	75 38	E3	10	12.28	0.96		1715	295	76	506	1.34	0.07	65.7	5.6

TABLE 1A—*Continued*

NAME	RA	DEC	Type (RSA)	Type KEY	Bo	(B-V)o	(U-B)o	V helio km s^{-1}	Vel. Disp. km s^{-1}	Vmax Rot. km s^{-1}	Vmax Ref.	log D25	log R25	XRay Flux 10^{-14}erg cm^{-2}s^{-1}	XRay rms
	h m	d m													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 4293	12 18	18 39	Sa	50	10.36			933				1.78	0.31		
N 4314	12 20	30 10	SBa(rs) pec	57	11.35	0.78	0.25	1004				1.68	0.05		
N 4324	12 20	5 31	Sa(r)ring	50	11.91			1681	79			1.39	0.32		
N 4339	12 21	6 21	S01/2(0)	22	12.32	0.86	0.46	1298	135			1.37	0.01		
N 4340	12 21	17 0	RSB02	25	11.93			932	116	90	68	1.61	0.10	11.4	3.6
N 4342	12 21	7 20	E7	10	13.54	0.96		714	242			1.15	0.31		
N 4346	12 21	47 16	SB01(8)	25	12.19			762				1.55	0.39		
N 4350	12 21	16 58	S01(8)	21	11.88	0.80		1247	192			1.50	0.44	4.0	3.5
N 4365	12 21	7 35	E3	10	10.60	0.99		1240	262	15	77	1.79	0.13	23.6	6.0
N 4371	12 22	11 58	SB02/3(r)(3)	25	11.74	0.93		941	127	117	68	1.59	0.20		
N 4373	12 22	-39 28	E(4,2)	10	11.86	0.91	0.42	3373	234			1.51	0.15		
N 4374	12 22	13 9	E1	10	10.23	0.92	0.54	1033	296	10	503	1.70	0.06	153.8	15.7
N 4377	12 22	15 2	S01(3)	21	12.67	0.82	0.34	1375	136			1.26	0.08		
N 4378	12 22	5 12	Sa(s)	50	12.28			2545	181			1.52	0.03	24.3	6.2
N 4379	12 22	15 53	S01(2)	21	12.30			1071	71			1.32	0.06		
N 4382	12 22	18 28	S01(3) pec	27	10.10	0.81		758	200			1.85	0.13	43.8	5.1
N 4386	12 22	75 48	S01(5)	21	12.53			1649	193			1.48	0.26	-9.5	5.7
N 4406	12 23	13 13	S01(3)/E3	30	10.02	0.89	0.47	-284	256	6	506	1.87	0.13	438.2	17.6
N 4417	12 24	9 51	S01(7)	21	12.07			843	85			1.56	0.40	0.0	24.3
N 4419	12 24	15 19	Sa dust only	50	11.12			-182				1.53	0.43		
N 4424	12 24	9 41	S(a?)pec	57	11.50	0.60		432				1.57	0.29	-0.5	2.2
N 4425	12 24	13 0	SB0p or Sap	47	12.79	0.87		1883				1.53	0.44		
N 4429	12 24	11 23	S03(6)/Sa p	47	11.15	0.84	0.45	1131	184			1.74	0.33	22.8	5.8
N 4435	12 25	13 21	SB01(7)	25	11.72	0.85	0.43	773	171			1.47	0.18	0.2	14.7
N 4442	12 25	10 4	SB01(6)	25	11.31	0.84	0.47	515	217			1.66	0.37		
N 4448	12 25	28 53	Sa(late)	50	11.05	0.80		693	176			1.60	0.39		
N 4452	12 26	12 2	S01(10)	21	13.30			152				1.38	0.58		
N 4454	12 26	-1 39	Sa	50	13.00			2407				1.34	0.07		
N 4459	12 26	14 15	S03(3)	23	11.49	0.88	0.45	1215	172	75	26	1.58	0.13	29.5	7.7
N 4461	12 26	13 27	Sa	50	12.09	0.75	0.43	1925	166			1.57	0.38	5.2	10.5
N 4472	12 27	8 16	E1/S01(1)	30	9.32	0.89		997	315	29	501	1.95	0.08	836.7	19.7
N 4473	12 27	13 42	E5	10	11.07	0.81	0.50	2236	197	60	77	1.65	0.24	13.4	8.7
N 4474	12 27	14 20	S01(8)	21	12.70	0.87		1624				1.37	0.28	-16.5	7.7
N 4476	12 27	12 37	E5pec (dust)	17	13.08	0.83		1955	41			1.28	0.17	-2.3	12.3
N 4477	12 27	13 54	SB01/2/SBa	40	11.24	0.87	0.52	1355	200			1.60	0.05	41.2	5.3
N 4478	12 27	12 36	E2	10	12.15	0.84	0.42	1370	144	62	77	1.31	0.06	-22.9	17.2
N 4483	12 28	9 17	SB01(5)	25	13.41			875				1.25	0.22		
N 4486	12 28	12 40	E0	10	9.62	0.88	0.53	1292	335	<20	77	1.86	0.03		
N 4494	12 28	26 3	E1	10	10.74	0.83	0.45	1350	174	85	503	1.68	0.10		
N 4503	12 29	11 27	Sa	50	12.22			1359	120			1.55	0.30	4.2	3.8
N 4526	12 31	7 58	S03(6)	23	10.59	0.85	0.45	602	275			1.86	0.49	11.0	4.1
N 4546	12 32	-3 31	SB01/Sa	40	11.30	0.91		1037				1.54	0.32		
N 4550	12 32	12 29	E7/S01(7)	30	12.33	0.79	0.32	381	84			1.54	0.51	3.3	5.5
N 4552	12 33	12 50	S01(0)	21	10.80	0.95	0.54	322	273			1.62	0.00	80.0	7.8
N 4564	12 33	11 42	E6	10	11.87	0.90	0.51	1165	165	150	503	1.49	0.35	5.1	6.1
N 4570	12 34	7 31	S01(7)/E7	30	11.68	0.84		1730	180			1.61	0.50		
N 4578	12 34	9 49	S01/2(4)	22	12.04	0.84		2284	150			1.56	0.12	9.0	8.1
N 4586	12 35	4 35	Sa	50	11.53			819				1.64	0.43		

TABLE 1A—*Continued*

NAME	RA	DEC	Type (RSA)	Type KEY	Bo	(B-V)o	(U-B)o	V helio	Vel. Disp.	Vmax Rot.	Vmax Ref.	log D25	log R25	XRay Flux	XRay rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg cm^{-2}s^{-1}	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 4589	12 35	74 28	E2	10	11.81	0.95		1985	241	50	505	1.48	0.05	19.1	5.5
N 4596	12 37	10 27	SBa v. early	50	11.45			1870	149			1.59	0.14		
N 4608	12 38	10 25	SB03/a	40	12.05			1864	160			1.50	0.08		
N 4612	12 39	7 35	RSB01/2	25	12.04			1884				1.34	0.08		
N 4621	12 39	11 55	E5	10	10.67	0.91		444	225	120	503	1.71	0.18	20.8	5.1
N 4623	12 39	7 57	E7	10	13.09			1788				1.42	0.45		
N 4636	12 40	2 57	E0/S01(6)	30	10.50	0.89	0.46	937	217	79	77	1.79	0.09	631.6	37.3
N 4638	12 40	11 42	S01(7)	21	12.05	0.78		1148	133			1.45	0.24	11.9	6.0
N 4643	12 40	2 15	SB03/SBa	40	11.55	0.87	0.49	1346				1.53	0.10	21.8	6.2
N 4645	12 41	-41 28	E5	10	12.56	0.99	0.51	2601	171			1.35	0.16	-2.2	4.2
N 4649	12 41	11 49	S01(2)	21	9.83	0.95		1095	344	46	501	1.86	0.07	384.6	13.6
N 4660	12 42	11 27	E5	10	11.87	0.89		1115	196	150	503	1.44	0.15		
N 4665	12 42	3 19	SB01/3/SBa:	40	11.43			785				1.62	0.07	17.1	5.7
N 4684	12 44	-2 27	S01(7)	21	12.27			1589				1.46	0.40		
N 4696	12 46	-41 2	S03(0)	23	11.36	0.91	0.51	3045	223			1.55	0.04		
N 4697	12 46	-5 31	E6	10	10.11	0.87	0.35	1210	186	103	77	1.78	0.20	40.2	6.8
N 4698	12 45	8 45	Sa	50	11.15	0.77	0.31	1008	166			1.63	0.24	11.1	5.7
N 4710	12 47	15 26	S03(9)	23	11.85	0.70		1129				1.71	0.57		
N 4742	12 49	-10 11	E4	10	12.11	0.95		1270	108	83	77	1.37	0.18		
N 4753	12 49	-0 55	S0 pec	27	10.85	0.85	0.39	1288				1.73	0.27	17.3	3.5
N 4754	12 49	11 35	SB01(5)	25	11.41	0.88	0.45	1374	204			1.67	0.26	8.5	5.2
N 4756	12 50	-15 8	E3	10	13.28			4164				1.30	0.07	77.2	9.1
N 4760	12 50	-10 13	S01(2) or cD	37	13.04	0.93		4640	249			1.26	0.01		
N 4762	12 50	11 30	S01(10)	21	11.26	0.78	0.30	1006	153	160	20	1.94	0.73	17.6	5.5
N 4767	12 51	-39 27	S0/a	40	12.45	0.96	0.55	2997	191			1.42	0.27		
N 4772	12 50	2 26	Sa:	50	11.58			1042				1.52	0.29		
N 4782	12 51	-12 18	E0(tides)	17	12.75	0.93	0.57	3951	385			1.19	0.00	73.7	15.4
N 4783	12 52	-12 17	E1(tides)	17	12.80	0.86	0.52	4609	274			1.22	0.01		
N 4786	12 51	-6 35	E3	10	12.82	0.95		4647	296			1.31	0.12		
N 4795	12 52	8 20	SBa(s)tides?	57	12.67			2812				1.23	0.06		
N 4825	12 54	-13 23	S01/2(3)	22	12.88			4452				1.31	0.14		
N 4845	12 55	1 50	Sa	50	11.07			1232				1.70	0.50	21.2	5.6
N 4856	12 56	-14 46	S01(6)/Sa	40	11.35	0.83		1385				1.66	0.46		
N 4866	12 56	14 26	Sa	50	10.59	0.70		1980				1.81	0.62		
N 4880	12 57	12 45	E4/S01(4)	30	12.57			1470				1.52	0.12	10.2	7.3
N 4889	12 57	28 14	E4	10	12.57	0.95		6497	391	24	77	1.48	0.16		
N 4914	12 58	37 35	E5/S01(5)	30	12.30			4663	228			1.56	0.22		
N 4915	12 58	-4 16	E0	10	12.88	0.81		3152	209			1.22	0.08		
N 4933	13 1	-11 13	S03pecTides?	27	13.18			3247				1.40	0.21		
N 4936	13 1	-30 15	E2	10	12.28	0.97	0.48	3186	250			1.28	0.00		
N 4958	13 3	-7 45	S01(7)	21	11.48	0.76		1223				1.61	0.47		
N 4976	13 5	-49 14	S01(4)	21	10.73	0.80	0.19	1503	170			1.63	0.22		
N 4984	13 6	-15 15	Sa(s)	50	11.10			1259				1.44	0.10		
N 5011	13 10	-42 50	S01(2)	21	12.14	0.92	0.50	3125	229			1.30	0.00		
N 5017	13 10	-16 30	E2	10	13.19	0.96		2543	175			1.22	0.06		
N 5018	13 10	-19 15	S02(4)/a	40	11.65	0.95		2897	223			1.42	0.10		
N 5044	13 12	-16 7	E0	10	11.87	0.98		2704	234			1.42	0.01		
N 5061	13 15	-26 34	E0	10	11.26	0.86		2041	191			1.41	0.04		

TABLE 1A—*Continued*

NAME	RA	DEC	Type	Type	Bo	(B-V)o	(U-B)o	V	Vel.	Vmax		log	log	XRay	
			(RSA)	KEY				helio	Disp.	Rot.	Ref.	D25	R25	Flux	rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg $cm^{-2}s^{-1}$	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 5064	13 16	-47 38	Sa	50	11.39			2982				1.44	0.36		
N 5077	13 16	-12 23	S01/2(4)	22	12.52	0.98	0.54	2764	275	20	84	1.30	0.09	28.2	5.8
N 5084	13 17	-21 33	S01(8)?	21	11.95			1739	213	200	76	1.68	0.55	68.2	14.7
N 5087	13 17	-20 20	S03(5)	23	11.93	0.94		1832				1.37	0.18		
N 5090	13 18	-43 26	E2	10	12.36	1.00	0.65	3355	272			1.41	0.02		
N 5101	13 19	-27 10	SBa	50	11.48			1864				1.74	0.05	19.2	7.1
N 5102	13 19	-36 22	S01(5)	21	10.47	0.58	0.19	420	128			1.97	0.43	-6.1	8.1
N 5121	13 21	-37 25	S01(4)/Sa	40	12.22			1532				1.36	0.06		
N 5128	13 22	-42 45	S0+S pec	27	6.60	0.85	0.58	547	140	80	99	2.26	0.10	418.0	
N 5193	13 29	-32 58	S01(0)	21	12.74	0.84	0.39	3644				1.25	0.04		
N 5195	13 27	47 31	SB01 pec	27	10.50	0.83	0.34	558	159			1.73	0.10	26.1	7.4
N 5198	13 28	46 55	E1	10	12.90	0.96		2569	212	4	506	1.33	0.06		
N 5266	13 39	-47 55	S03(5)p(pro)	27	11.85	0.97	0.53	3201	175	210	504	1.51	0.19		
N 5273	13 39	35 54	S0/a	40	12.42	0.80	0.32	1089				1.49	0.06		
N 5308	13 45	61 13	S01(8)	21	12.20	0.78		2038				1.54	0.65		
N 5322	13 47	60 26	E4	10	10.91	0.80	0.40	1804	310	40	503	1.74	0.15	15.9	5.4
N 5326	13 48	39 49	S03(6)/Sa	40	12.94			2625				1.39	0.27		
N 5328	13 50	-28 14	E4	10	12.78	0.73		4671	275			1.23	0.08		
N 5353	13 51	40 31	S01(7)/E7	30	12.05	0.90	0.51	2162				1.45	0.26	48.5	9.2
N 5357	13 53	-30 5	E3	10	13.07	0.93		4975	157			1.20	0.06		
N 5363	13 53	5 30	[S03(5)]	27	11.06	0.90	0.50	1138	200	140	504	1.62	0.19	40.2	10.9
N 5365	13 54	-43 41	RSB01/3	25	11.90			2497				1.49	0.11		
N 5377	13 54	47 28	SBa or Sa	50	11.26	0.71		1752				1.66	0.23		
N 5380	13 54	37 51	S01(0)	21	12.75			3173	158			1.33	0.00		
N 5419	14 0	-33 44	S01(2)	21	12.20	0.94	0.57	4126	301			1.54	0.07		
N 5422	13 58	55 24	Sa or S03(8)	40	12.71			1869				1.59	0.64		
N 5444	14 1	35 22	E3	10	12.51	0.98		3994	221			1.43	0.06		
N 5448	14 0	49 24	Sa(s)	50	11.35			1996				1.62	0.31		
N 5473	14 2	55 7	SB01(3)	25	12.36	0.79	0.49	2023				1.41	0.15		
N 5485	14 5	55 14	S03(2)p pro	27	12.44	0.83	0.44	1989	140	30	505	1.41	0.09	12.5	6.7
N 5493	14 8	-4 48	S01(7)	21	12.30	0.79		2627				1.30	0.15		
N 5548	14 15	25 22	Sa	50	12.90	0.55	-0.27	5165				1.28	0.06		
N 5557	14 16	36 43	E2	10	12.01	0.86	0.47	3258	260			1.38	0.04		
N 5566	14 17	4 9	SBa(r)II	50	10.35	0.71	0.29	1569				1.81	0.43	21.2	6.0
N 5574	14 18	3 28	S01(8)/a	40	13.25	0.74	0.23	1582				1.21	0.23	-1.1	8.3
N 5576	14 18	3 29	E4(tides?)	17	11.76	0.81	0.38	1555	192	25	503	1.50	0.15	4.2	8.9
N 5614	14 22	35 5	Sa(s)tides	57	12.02	0.77	0.36	3872				1.43	0.07		
N 5631	14 25	56 48	S03(2)/Sa	40	12.46			1950				1.34	0.02		
N 5638	14 27	3 27	E1	10	12.20	0.82	0.43	1648	168	62	77	1.41	0.04		
N 5687	14 33	54 41	E3	10	12.60	0.77		2119				1.42	0.15		
N 5689	14 33	48 57	Sa	50	12.44	0.79		2163				1.57	0.49	4.3	7.3
N 5701	14 36	5 34	(PR)SBa	50	11.80			1505				1.67	0.02		
N 5739	14 40	42 3	Sa(s)	50	12.80			5579				1.35	0.03		
N 5750	14 43	-0 1	SBa(s)	50	11.78			1930				1.46	0.22		
N 5791	14 55	-19 3	S01(4)	21	12.76	0.94		3316	202			1.38	0.22		
N 5796	14 56	-16 25	E1 pec	17	12.56	0.94		2946	317			1.29	0.07		
N 5812	14 58	-7 15	E0	10	12.27	0.87		2066	204			1.38	0.03		
N 5813	14 58	1 53	E1	10	11.57	0.91	0.50	1963	231	8	77	1.56	0.11		

TABLE 1A—*Continued*

NAME (1)	RA h m (2)	DEC d m (3)	Type (RSA) (4)	Type KEY (5)	Bo (6)	(B-V)o (7)	(U-B)o (8)	V helio km s⁻¹ (9)	Vel. Disp. km s⁻¹ (10)	Vmax Rot. km s⁻¹ (11)	Vmax Ref. (12)	log D25 (13)	log R25 (14)	XRay Flux 10^{-14}erg cm^{-2}s^{-1} (15)	XRay rms (16)
N 5820	14 57	54 5	S02(4)	22	12.99	0.87	0.39	3235	193			1.40	0.04		
N 5831	15 1	1 24	E4/S01(disk)	30	12.46	0.89	0.50	1683	171	27	77	1.34	0.04		
N 5838	15 2	2 17	S02(5)	22	11.72	0.86	0.45	1359	284	225	76	1.62	0.42	22.4	3.7
N 5846	15 3	1 47	S01(0)	21	11.13	0.93	0.55	1709	250	7	501	1.53	0.02	359.9	9.5
N 5854	15 5	2 45	Sa	50	12.60	0.70	0.18	1669				1.43	0.51		
N 5864	15 7	3 14	SBa	50	12.59			1850				1.45	0.46		
N 5866	15 5	55 57	S03(8)	23	10.86	0.74	0.31	672	170			1.72	0.35	22.5	8.5
N 5898	15 15	-23 55	S02/3(0)	23	12.41	0.95		2267	218			1.24	0.02	-1.8	12.3
N 5903	15 15	-23 53	E3/S01(3)	30	12.35	0.89		2513	235			1.30	0.06		
N 5982	15 37	59 31	E3	10	12.03	0.83	0.47	2936	248	10	505	1.46	0.11	26.3	11.4
N 6340	17 11	72 21	Sa(r)I	50	11.29	0.76		1234	131			1.53	0.05		
N 6482	17 49	23 5	E2	10	11.89	0.75	0.25	3922	287			1.37	0.07		
N 6684	18 44	-65 13	SBa(s)	50	10.84	0.74	0.29	865				1.57	0.14		
N 6721	18 56	-57 49	E1	10	12.93	0.87	0.45	4416	248			1.29	0.00		
N 6758	19 9	-56 23	E2	10	12.43	0.88	0.45	3492				1.32	0.05		
N 6776	19 20	-63 57	E1p(merger?)	17	12.76	0.78	0.46	5520				1.28	0.04		
N 6851	19 59	-48 25	E4	10	12.49	0.84	0.37	3036	182			1.26	0.13		
N 6854	20 1	-54 31	E1+E0	17	13.16	0.86	0.45	5677				1.36	0.08		
N 6861	20 3	-48 30	S03(6)	23	11.95	0.85	0.47	2819				1.43	0.27		
N 6868	20 6	-48 31	E3/S02/3(3)	30	11.72	0.91	0.52	2854	286			1.43	0.08		
N 6875	20 9	-46 18	S0/a(merger)	47	12.66	0.82	0.29	3121				1.39	0.29		
N 6876	20 13	-71 1	E3	10	12.45	0.91	0.57	3836	231			1.38	0.13	66.5	7.2
N 6893	20 17	-48 23	S03(4)	23	12.44			3135				1.45	0.18		
N 6902	20 21	-43 49	Sa(r)	50	12.27			2781				1.34	0.09		
N 6909	20 24	-47 11	E5	10	12.68	0.75		2716	100	28	77	1.36	0.28		
N 6935	20 34	-52 17	Sa(r)	50	12.41			4631				1.30	0.06		
N 6942	20 36	-54 28	SBa(s)	50	13.02			3964				1.42	0.14		
N 6958	20 45	-38 10	R?S01(3)	21	12.13	0.82	0.40	2652	219			1.38	0.04		
N 7007	21 1	-52 45	S02/3/a	40	12.92			2954				1.27	0.20		
N 7014	21 4	-47 22	E5	10	13.28	0.87	0.56	4764	264			1.29	0.00		
N 7020	21 7	-64 14	RS02(5)/RSa	40	12.41			3105				1.63	0.26		
N 7029	21 8	-49 29	S01(5)	21	12.53	0.77	0.19	2738	199			1.15	0.24		
N 7041	21 13	-48 34	S01(7)/E7	30	11.99	0.82	0.36	1877				1.59	0.41		
N 7049	21 15	-48 46	S03(4)/Sa	40	11.58	0.95	0.51	2158				1.45	0.11		
N 7079	21 29	-44 17	SBa	50	12.49	0.77	0.25	2670				1.44	0.20		
N 7096	21 37	-64 8	Sa(r)I	50	12.53			2958				1.43	0.06		
N 7097	21 37	-42 46	E4	10	12.48	0.88	0.42	2404	200	30	105	1.40	0.22		
N 7135	21 46	-35 7	S01 pec	27	12.61	0.91	0.45	2718				1.45	0.15		
N 7144	21 49	-48 29	E0	10	11.75	0.82	0.58	1890	185	36	501	1.54	0.00		
N 7145	21 50	-48 7	E0	10	12.13	0.76	0.18	1872	132	21	501	1.40	0.03		
N 7155	21 52	-49 45	SB0	25	12.79			1853				1.27	0.20		
N 7166	21 57	-43 37	S01(6)	21	12.71	0.93	0.52	2484				1.38	0.45		
N 7168	21 58	-51 59	E3	10	12.81	0.87	0.48	2747				1.30	0.09		
N 7192	22 3	-64 33	S02(0)	22	12.15	0.88	0.48	2904	185			1.39	0.00		
N 7196	22 2	-50 22	E3/S03(3)	30	12.46	0.91	0.47	2853	276			1.28	0.12		
N 7213	22 6	-47 25	Sa(rs)	50	10.72	0.81	0.33	1769				1.27	0.02	5540.0	96.2
N 7302	22 29	-14 22	S01(4)	21	13.21	0.98	0.43	2586				1.29	0.16		
N 7332	22 35	23 32	S02/3(8)	23	11.58	0.76	0.25	1207	154	135	76	1.62	0.51	3.4	8.9

TABLE 1A—*Continued*

NAME	RA	DEC	Type	Type	Bo	(B-V)o	(U-B)o	V	Vel.	Vmax		log	log	XRay	
			(RSA)	KEY				helio	Disp.	Rot.	Ref.	D25	R25	Flux	rms
	h m	d m						km s^{-1}	km s^{-1}	km s^{-1}				10^{-14}erg cm^{-2}s^{-1}	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
N 7371	22 43	-11 16	SBa(r)II	50	12.58	0.63	0.10	2685				1.32	0.01		
N 7377	22 45	-22 34	S02/3/Sa pec	47	12.61	0.91	0.29	3291	166			1.34	0.09		
N 7410	22 52	-39 55	SBa	50	10.29	0.77	0.36	1638				1.74	0.43		
N 7457	22 58	29 52	S01(5)	21	11.68	0.78		822	78	75	76	1.64	0.25		
N 7507	23 9	-28 48	E0	10	11.43	0.86	0.53	1536	205	11	501	1.42	0.00		
N 7585	23 15	-4 55	S01(3)/Sa	40	12.39	0.80	0.38	3356				1.37	0.09		
N 7600	23 16	-7 51	S01(5)	21	12.99			3436	218	55	76	1.38	0.34		
N 7619	23 17	7 56	E3	10	12.17	0.94	0.55	3758	330	65	77	1.46	0.04	92.6	7.4
N 7626	23 18	7 56	E1	10	12.17	0.92	0.52	3416	270	3	506	1.39	0.08	39.8	6.5
N 7702	23 32	-56 17	RSa(r)	50	12.27	0.76	0.38	3152				1.28	0.24		
N 7727	23 37	-12 34	Sa pec	57	11.00	0.77		1821				1.62	0.09		
N 7742	23 41	10 29	Sa(r!)	50	11.99	0.64	-0.07	1655	101			1.31	0.01		
N 7743	23 41	9 39	SBa	50	12.04	0.90		1658	87	54	68	1.49	0.07		
N 7744	23 42	-43 11	SB01(3)	25	12.35			3098				1.36	0.11		
N 7785	23 52	5 38	S01(5)/E5	30	12.67	0.92	0.53	3824	241	100	77	1.36	0.22		
N 7796	23 56	-55 44	E1	10	12.32	0.92	0.52	3252				1.36	0.06		
I 1459	22 54	-36 43	E4	10	10.96	0.90	0.54	1659		40	501	1.70	0.15	86.6	9.5
I 2006	3 52	-36 6	E1	10	12.27	0.90	0.42	1350	123			1.36	0.04		
I 2035	4 7	-45 38	SB01(4)pec	27	12.13	0.65	0.26	1503				1.04	0.14		
I 3370	12 24	-39 3	E2 pec	17	11.91	0.91	0.35	2934	207			1.45	0.07		
I 3896	12 53	-5 4	E1	10	12.37	0.96	0.54	2274				1.34	0.04		
I 4296	13 33	-33 42	E0	10	11.43	0.90	0.54	3762	290	36	501	1.60	0.00	70.1	7.4
I 4329	13 46	-30 2	S01(5)	21	12.48	0.87		4523	288			1.51	0.31		
I 4797	18 52	-54 22	E5/S01(5)	30	12.08	0.86	0.39	2606		130	504	1.45	0.32		
I 4889	19 41	-54 27	S01/2(5)	22	12.06	0.91	0.49	2513	176			1.42	0.26		
I 5063	20 48	-57 15	S03(3)pec/Sa	47	13.14	0.91	0.26	3402				1.28	0.11	20.6	9.9
I 5105	21 21	-40 45	E5	10	12.61	0.90	0.56	5437				1.39	0.20		
I 5135	21 45	-35 11	Sa pec	57	12.64	0.54	-0.03	4842				1.12	0.04		
I 5181	22 10	-46 16	S01(7)	21	12.36	0.79	0.51	1987				1.45	0.46		
I 5240	22 38	-45 2	SBa(r)	50	11.67			1724				1.51	0.12		
I 5267	22 54	-43 39	Sa(r)	50	11.12	0.84	0.24	1725				1.70	0.09		
I 5269	22 54	-36 17	S01(7)	21	13.57	0.79		2122				1.40	0.35	-4.2	8.1
I 5328	23 30	-45 17	S01(3)	21	11.95	0.95		3121	197			1.39	0.19		
A185254	18 52	-54 36	E3	10	12.44	0.78		2668				1.20	0.12		
A202044	20 20	-44 9	Sa(s)	50	12.56			2902				1.39	0.37		

TABLE 1A—*Continued*

NAME		Em Line +Ref.	HI Jy km s^{-1}	HI rms mJy	Line wdth. km s^{-1}	HI Ref.	CO Jy km s^{-1}	CO Er/Lm	CO Ref.	21cm Continuum Flux mJy	Er/Lm mJy	Ref.	13/11cm Continuum Flux mJy	Er/Lm mJy	Ref.	6cm Continuum Flux mJy	Er/Lm mJy	Ref.
	(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N	16	N1		0.7		501					100.0	33		15.0	8			
N	128	E1,34		1.5		501					12.0	21		15.0	8		20.0	17
N	147	N28		18.0		373					10.0	11		60.0	14	12.0		34
N	148	N2,19	10.7		507	232												
N	185	U6	1.4		35	112	26		5		10.0	11		80.0	14		50.0	17
N	205	U6	3.3		46	112	62	17	4		4.0	11		40.0	14		1.0	34
N	221	U6,11		18.0		83					4.0	11		40.0	14		1.0	34
N	227	U3		9.0		1407					21.0	11		30.0	14		12.0	15
N	254	N2	3.8		317	53												
N	274	N27				160		340	6					60.0	14			
N	357	U11		5.0		346								40.0	14			
N	404	E1,7	42.0		80	17	148	30	1		10.0	12		15.0	8		50.0	17
N	439	N2		75.0		320												
N	474	N1	3.3		365	346					0.6	4		15.0	8		90.0	17
N	524	N1		1.9		419					10.0	12		15.0	8	4.1	0.8	3
N	533	N2,19									100.0	33	23.0	3.0	8			
N	584	U11		4.0		205					27.0	11		30.0	14		1.0	5
N	596	U3									114.0	11		40.0	14		1.0	5
N	636	U3		3.0		1407					12.0	11		30.0	14	6.0		34
N	718	U11	0.2		124	488								15.0	8			
N	720	U3		3.0		488					10.0	11		30.0	14		1.0	3
N	741	N1,22		1.0		28				970.0		11	440.0	22.0	8	200.0		5
N	750	N1		15.0		18					10.0	11		15.0	8		1.0	34
N	777	E2									10.0	24		15.0	8	12.0		34
N	788	E1	7.8		400	7001					50.0	33		30.0	14			
N	821	N1,7		0.9		488					8.0	11		15.0	8		60.0	17
N	890	N1		1.0		501					50.0	33		15.0	8			
N	936	E1								3.3	0.4	4		40.0	14	3.7	0.1	4
N	1022	E11,19		5.3		346								50.0	23			
N	1023	N1,27	63.0		663	431		59	8		10.0	12		30.0	14		21.0	26
N	1052	E8,12	5.6		400	493		95	7	833.0	25.0	9				1270.0	40.0	9
N	1079	U11	37.3		325	346								30.0	14			
N	1169	E2	33.3		451	346					10.0	24		30.0	14			
N	1172	E26		6.9		346					100.0	33		30.0	14			
N	1175	N2		1.9		84					10.0	12						
N	1199	N1		2.2		455					17.0	11		30.0	14		1.0	34
N	1201	N1		17.0		346					10.0	12		30.0	14		12.0	15
N	1209	E3,7		7.0		1407					19.0	11		40.0	14		12.0	15
N	1275	E8				1028	89		10,11	20610.0		18				56700.0		29
N	1291	U11	74.5		50	18							63.0		23	43.0		22
N	1297	E2		27.0		1409					50.0	33		50.0	14			
N	1302	U11	14.1		92	346					10.0	24		50.0	14			
N	1316	E29					117		3	138000.0		28	98000.0		28	65800.0		15
N	1317	N1		21.0		320	126		3									
N	1326	E2,26	39.5		270	320	90		3								50.0	22
N	1332	N1	5.4		228	246					10.0	12		30.0	14		1.0	3
N	1339	N2															12.0	15
N	1344	U3		30.0		311					0.4	4					0.5	4

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 1350	N27	31.4		438	53								50.0	23			
N 1351	U4												25.0	19		0.8	1
N 1357	E11	8.7		417	7002								40.0	14			
N 1358	E2												40.0	14			
N 1366	E6		44.0		320												
N 1371	N2	55.5		388	346					10.0	24		50.0	23			
N 1374	U4												20.0	19		0.7	1
N 1379	U3												30.0	19		0.8	1
N 1380	E4		25.0		320								40.0	19	1.9	0.1	2
N 1381	U4		21.2		320								20.0	19		0.7	1
N 1386	E2		21.2		320	131		3							30.0	3.0	15
N 1387	N27															12.0	15
N 1389	E3												30.0	19		1.0	1
N 1395	N1								3.2	0.1	4		30.0	14	2.0	0.2	4
N 1399	U4		3.1		418				590.0		27				230.0		27
N 1400	U3		13.0		377		125	8		50.0	33		50.0	14	2.0	0.1	2
N 1404	U4												30.0	19		0.7	1
N 1407	E3		3.3		455				50.0		11	70.0	30.0	14	44.0	4.0	15
N 1411	E4												35.0	19		0.8	1
N 1415	E1,7	7.8		324	346								40.0	14			
N 1426	E3									13.0	11		30.0	14		1.0	34
N 1427	U4												20.0	19		0.8	1
N 1439	N1									17.0	11		40.0	14		12.0	15
N 1440	N2		6.0		1409					50.0	33		30.0	14			
N 1452	N2	7.6		177	346								50.0	14			
N 1453	E1,7		10.0		1407					31.0	11		30.0	14	18.0	3.0	15
N 1461	N2		2.2		7002					50.0	33		40.0	14			
N 1521	E26									21.0	11		40.0	14		12.0	15
N 1527	N2		22.1		320												
N 1533	E4	87.5		320	320								30.0	19			
N 1537	N2																
N 1543			31.5		320												
N 1549	U3,4												30.0	19		12.0	15
N 1553	E4		21.2		320								30.0	1		12.0	15
N 1574	E3,4												30.0	19		12.0	15
N 1596	U4	15.7		250	320								35.0	19			
N 1600	U3		9.0		1407				37.0		11		60.0	14	22.0	3.0	15
N 1617	N2		30.0		320												
N 1638	E3	8.0		371	7002		35	8		50.0	33		30.0	14			
N 1700	U3,12		4.0		205					8.0	11		30.0	14		0.7	5
N 1726	N2									50.0	33		30.0	14			
N 1947	E4											18.0		1	18.0	3.0	1
N 2179	E2	1.9		192	346								30.0	14			
N 2217	E1	24.8		240	346					12.0	12		40.0	14			
N 2300	N1		6.0		1409					10.0	12		60.0	14	0.7	0.1	2
N 2310	N2		32.9		320								20.0	19	2.5		1
N 2314	N1		4.0		205		80	7	20.0		11		40.0	14	8.0	0.1	2
N 2325	U3															12.0	15

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 2434	U4												20.0	19		12.0	15
N 2549	N1		6.0		384					10.0	12		30.0	14		50.0	17
N 2639	N1		3.0		498		120	7	101.0		24	76.0		10	50.0	9.0	20
N 2646	N1		6.0		1409					10.0	12		30.0	14			
N 2655	E1,7	33.1		182	346		300	6,12	130.0		24	80.0	40.0	14	42.0	3.0	13
N 2672	N1		0.7		7002					14.0	11		15.0	8		30.0	26
N 2681	E6		3.3		346		145	8		100.0	24		30.0	14			
N 2685	E6,7	32.3		290	26		90	1		3.0	12		30.0	14	3.3	0.2	2
N 2693	N1		8.0		1407					10.0	11		30.0	14	1.7	0.1	2
N 2732	N1		12.0		131					10.0	12		30.0	14			
N 2749	E3,20		0.9		249				53.0		11	46.0	3.0	8		80.0	17
N 2768	E3,6		6.0		205				13.0		11		30.0	14	10.0		5
N 2775	U11	4.0		420	292	550		2		15.0	24		15.0	8		10.0	23
N 2781	N2	13.2		362	346					50.0	33						
N 2782	E1,7	9.5		147	346	1630	200	15	110.0		18	84.0	20.0	26	55.0		13
N 2784	N1		17.0		377					10.0	12					12.0	15
N 2787	E6,15	15.1		358	346				15.0		12		40.0	14	9.0		7
N 2798	E1	8.5		236	346	330		2				59.0	15.0	26	39.0	11.0	26
N 2811	N1		1.7		53												
N 2832	U3		2.2		331					11.0	11		15.0	8		33.0	26
N 2844	E2	5.8		310	346					50.0	33					30.0	20
N 2855	E1,7		7.1		346											60.0	17
N 2859	N1	1.0		300	7002					10.0	12		15.0	8		1.0	3
N 2865	U3									0.1	4					12.0	15
N 2880	N1		2.7		26					10.0	12		30.0	14			
N 2888	N2															12.0	15
N 2902	N2	12.2		178	466		300	6		50.0	33						
N 2907	N2	6.1		510	466					50.0	33						
N 2911	E6,12	4.4		405	501				90.0	4.0	9	112.0	5.0	8	120.0	5.0	9
N 2924	U3									50.0	33					12.0	15
N 2950	U6		2.0		1409					3.0	7		30.0	14		2.0	7
N 2962	E26	3.5		417	419					6.0	21		15.0	8		10.0	23
N 2974	E7,12	6.0		580	534		45	8		25.0	11				9.6	0.1	2
N 2983	N1		4.5		346												
N 2986	N1				418					20.0	11				33.0	3.0	15
N 2992	E2	27.1		355	346	88		16							8.5		13
N 3032	E26	1.3		160	27	120	10	4		14.0	21		15.0	8	3.7	0.7	6
N 3056	N2																
N 3065	E1,7	7.8		353	498		47	8		10.0	12						
N 3078	U12		3.1		418				267.0	8.0	9	147.0	8.0	10	167.0	5.0	9
N 3081	E2,11	17.7		255	346												
N 3087	U4												30.0	19	0.7		1
N 3091	N2									100.0	33					12.0	15
N 3098	N2		0.6		488					50.0	33		15.0	8			
N 3115	U11		1.8		466					10.0	12					0.4	2
N 3136	E4												20.0	19		12.0	15
N 3156	N2		0.8		419					50.0	33		15.0	8		10.0	23
N 3158	N1		10.0		459					10.0	11		30.0	14	3.0		34

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	Er/Lm	Ref.	13/11cm Continuum Flux	Er/Lm	Ref.	6cm Continuum Flux	Er/Lm	Ref.
		Jy km s^{-1}	mJy	km s^{-1}			Jy km s^{-1}		mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 3166	E1 7	3.5		435	292	138		3		60.0	24	32.0	4.0	8		10.0	23
N 3185	E1,7	3.4		278	292								15.0	8			
N 3190	N1	4.1		457	292					100.0	33				50.0	16.0	20
N 3193	N1		0.7		134					10.0	11		15.0	8		60.0	17
N 3203	N2		30.6		320												
N 3226	E1,7				501		43	1		36.0	11		15.0	8		100.0	17
N 3245	N1		0.8		419		27	4		10.0	12		15.0	8		50.0	17
N 3250	U4															0.1	1
N 3258	E3		1.2		418							90.0	15.0	19	52.0	5.0	19
N 3268	E4											25.0	12.0	19	23.0		1
N 3271	U4												20.0	19		1.0	1
N 3277	E1	3.4		247	467					50.0	33		15.0	8			
N 3281	E2		53.6		320												
N 3300	N5		0.8		419					50.0	33		15.0	8			
N 3301	E1	5.1		320	7001					100.0	33		15.0	8			
N 3309	N2														14.0	3.0	15
N 3348	N1		3.3		455					10.0	11		30.0	14		50.0	17
N 3358	N2				320												
N 3377	U3		0.3		249					4.0	21		15.0	8		0.6	5
N 3379	U11		0.2		7002		4	17		10.0	11		15.0	8	0.8	0.1	2
N 3384	U11		0.5		7002					10.0	12		15.0	8			
N 3390	N2		42.3		320												
N 3412	N1		0.8		419					5.0	21		15.0	8			
N 3414	N1	1.0		330	27					8.0	21		15.0	8		62.0	26
N 3449	E2	19.2		504	552												
N 3458	N5		4.0		384					10.0	12		60.0	14			
N 3489	E1	0.6		338	7002					7.0	21		15.0	8		0.3	2
N 3516	E1,30		4.1		114				26.0		12				15.5	1.7	6
N 3557	E4		1.9		418				630.0		28	410.0		28	270.0		28
N 3571	N2	4.1		303	466					100.0	33						
N 3585	N1		16.0		95					10.0	24					1.2	3
N 3593	E1,7	8.6		209	346	876	160	1	82.0	5.0	21	64.0	4.0	8	67.0	17.0	20
N 3605	N1		0.4		249					10.0	11		15.0	8		1.2	5
N 3607	E26		0.5		30					10.0	12		15.0	8	3.9	0.1	2
N 3608	N1		0.3		427					9.0	11		15.0	8	0.9	0.1	2
N 3610	U3,6		2.7		26					10.0	11		50.0	14	5.0		34
N 3611	E1	10.6		274	467		240	1				24.0	3.0	8			
N 3613	U6		10.0		384					10.0	11		30.0	14		1.0	34
N 3619	E1	5.0		308	346					10.0	12		40.0	14		80.0	17
N 3623	E1,7	14.0		502	292		680	2		20.0	24						
N 3626	E26	6.6		363	519					10.0	12		15.0	8			
N 3630	N2		0.9		419					7.0	21		15.0	8			
N 3637	N2	1.1		212	466					50.0	33					12.0	15
N 3640	N1		0.6		427					10.0	11		15.0	8	4.0		34
N 3665	N1		23.2		131	94	14	4	125.0		12	100.0		30	70.0		30
N 3706	U23		2.0		418				45.0		4		30.0	19	19.0		1
N 3783		10.3		151	538												
N 3818	N1		10.0		1407					8.0	11					0.7	5

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TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Er/Lm	21cm Ref.	13/11cm Continuum Flux	13/11cm Er/Lm	13/11cm Ref.	6cm Continuum Flux	6cm Er/Lm	6cm Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 3872	N1		1.9		375					11.0	11		15.0	8			
N 3885	E2	18.0		555	346												
N 3892	N2		3.0		466					50.0	33						
N 3898	E6,15	30.0		470	346	154	51	15		100.0	24		30.0	14			
N 3900	N1	17.6		414	346					50.0	33		15.0	8			
N 3904	N1		3.0		405					10.0	11					0.9	5
N 3923	U3,23		12.0		52					0.5	4				4.5	1.0	3
N 3941	N1	15.7		217	346					10.0	12		40.0	14			
N 3945	U6	3.9		680	1409					10.0	12		40.0	14		1.0	7
N 3957	E2		27.3		320					50.0	33					12.0	15
N 3962	E3,12		5.0		405					10.0	11				3.7		5
N 3998	E6,14	6.4		580	440				104.0	3.0	9	109.0	9.0	10	92.0	3.0	9
N 4008	N2		0.6		501				14.0	3.0	21		15.0	8			
N 4024	N2									50.0	33						
N 4026	U6		1.6		517					10.0	12		30.0	14		2.0	7
N 4033	N2									50.0	33					12.0	15
N 4036	E6		9.0		346					10.0	12		50.0	14	3.0		7
N 4073	N2		1.3		501					10.0	12		15.0	8			
N 4105	E1				405					10.0	11				3.7	0.1	2
N 4106	E1				405											12.0	15
N 4111	E6	11.6		327	459		25	9	8.0		7		30.0	14	3.0		7
N 4124	N2		0.6		419					10.0	12		15.0	8			
N 4125	E6,14		8.0		1407					10.0	11		30.0	14	3.0		34
N 4128	N1									10.0	12		30.0	14			
N 4138	E26	16.0		290	241	100	33	1		10.0	12		100.0	14			
N 4143	N1		9.0		346					10.0	12		30.0	14	38.0	11.0	20
N 4150	E1		0.5		249		280	6,12		10.0	12		15.0	8		80.0	17
N 4158	E2	8.8		284	346	130	26	18		50.0	33		15.0	8			
N 4168	E26									11.0	11		15.0	8	4.0		34
N 4179	N1		1.6		419					8.0	21		15.0	8		90.0	17
N 4203	E26	27.4		240	519		31	8		20.0	12		15.0	8	14.6	0.2	2
N 4215	N2		1.3		419					5.0	21		15.0	8			
N 4220	N1		6.0		346					10.0	12		30.0	14			
N 4224	N2	4.7		495	428					10.0	25		15.0	8			
N 4233	N2		0.6		501					16.0	12		15.0	8			
N 4235	E2		3.7		154					10.0	25		15.0	8			
N 4245	N1	0.4		220	7002					100.0	33		15.0	8			
N 4251	N1		0.7		27					10.0	12		15.0	8		1.2	3
N 4260	N27	3.0		465	346					120.0	25		15.0	8			
N 4261	U24								17850.0		25	10900.0	440.0	8	8300.0		17
N 4262	E26	8.2		440	443					5.0	21		15.0	8			
N 4267	N1		0.9		419					10.0	12		15.0	8			
N 4270	N1		3.2		137					50.0	12		15.0	8			
N 4274	U11	9.2		457	346					10.0	24		15.0	8			
N 4278	E6,12	10.5		399	519		45	9	518.0	16.0	9	434.0	18.0	8	351.0	11.0	9
N 4281	N1		0.8		7002				18.0	5.0	21		15.0	8			
N 4283	E21									42.0	11		15.0	8			
N 4291	N1									10.0	11		30.0	14		0.4	2

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 4293	U11		1.1		419	270	45	19	15.0	2.0	25	20.0	4.0	8			
N 4314	N5		6.2		346		225	6,14		15.0	24		15.0	8			
N 4324	E20	10.1		306	346					10.0	25		15.0	8			
N 4339	N1		1.2		501					10.0	11		15.0	8			
N 4340	N5		0.7		419					10.0	12	20.0	4.0	8			
N 4342			1.3		419					3.0	12		15.0	8	5.0		34
N 4346	N2		4.7		381					10.0	12		40.0	14			
N 4350	N1		0.8		419					7.0	12		15.0	8			
N 4365	U11		0.3		7002					4.0	11		15.0	8		0.5	5
N 4371	N19		0.8		419					10.0	12		15.0	8			
N 4373	N2												30.0	19	12.7		1
N 4374	E1,31								6200.0	100.0	25	3635.0	146.0	8	2880.0	240.0	20
N 4377	N2		0.9		419					10.0	12		15.0	8			
N 4378	N2	13.1		340	346					10.0	25		15.0	8			
N 4379	E3		1.0		419					10.0	12		15.0	8			
N 4382	U11		0.6		193					10.0	12		15.0	8		1.0	3
N 4386	N1		5.0		384					10.0	12		40.0	14			
N 4406	U11	1.3		130	551		14	20		4.0	11		15.0	8		0.6	5
N 4417	N2		0.8		419					6.0	25		15.0	8			
N 4419	N2	2.2		176	520	920	190	19	49.0	3.0	25	44.0	4.0	8	34.0	10.0	20
N 4424	E2	3.6		78	377	56	30	19		5.0	25		15.0	8			
N 4425	N1		0.7		419					3.0	12		15.0	8			
N 4429	N1		0.9		419	25	7	4		7.0	21		15.0	8			
N 4435	N1		0.7		419		14	9		6.0	12		15.0	8			
N 4442	N1		0.8		419					10.0	12		15.0	8			
N 4448	E1									10.0	24		15.0	8			
N 4452	N2		0.8		520	52	78	18		10.0	25		15.0	8			
N 4454	N2	2.7		238	466								50.0	14			
N 4459	N1		1.3		419	125	28	4		10.0	12		15.0	8	2.4	0.8	3
N 4461	N1		0.8		419					10.0	12		50.0	14			
N 4472	U11,20		0.2		7002	4		17	225.0	5.0	25	132.0	6.0	8	101.0	22.0	26
N 4473	N1		0.6		7002					6.0	11		15.0	8		1.2	5
N 4474	N1		1.2		419					10.0	12		15.0	8			
N 4476	N2		0.9		419					450.0	12		62.0	8		1.0	34
N 4477	N1		0.7		419					10.0	12		15.0	8		0.3	2
N 4478	N1		2.1		134					450.0	11		750.0	14		1.5	5
N 4483	N2		0.8		419					10.0	25		15.0	8			
N 4486	E6,31						47	21	214000.0		31	122000.0		31	71900.0		31
N 4494	N1		0.5		7002					10.0	11		15.0	8	1.0		34
N 4503	N2		0.7		419		50	22		10.0	12		15.0	8			
N 4526	U11		0.5		193	135	10	4		10.0	12		15.0	8			
N 4546	E1	3.4		358	466				13.0		12		50.0	14			
N 4550	E1		1.5		134					10.0	12		15.0	8		1.0	34
N 4552	E3		0.5		249		185	6,12	124.0	2.0	4	92.0	5.0	8	108.0	2.0	4
N 4564	N19		0.4		193		52	8		10.0	11		15.0	8		1.0	34
N 4570	N1		0.7		419					10.0	12		15.0	8		70.0	17
N 4578	N1		0.4		193					10.0	12		15.0	8			
N 4586	N2	3.9		252	428	520	260	18		10.0	25		15.0	8			

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 4589	E6		6.0		384				35.0		11	40.0	30.0	14	23.5	0.6	2
N 4596	N2		1.0		419		50	22		10.0	12		15.0	8			
N 4608	N2		0.9		419					4.0	21		15.0	8			
N 4612	N2		0.8		419					10.0	12		15.0	8			
N 4621	N1		1.0		193		40	8		7.0	11		15.0	8		0.7	5
N 4623	N2		1.5		427					10.0	12		15.0	8	2.0		34
N 4636	E12,20		1.0		193		500	6,13	44.0	2.0	25	64.0	4.0	8	45.0	9.0	3
N 4638	N1		0.9		419					10.0	12		15.0	8		100.0	17
N 4643	N1	1.7		350	137					7.0	25		15.0	8		0.6	2
N 4645	E3,4												30.0	19		12.0	15
N 4649	N1		1.6		134	28	3	4	25.0	2.0	11	27.0		8	24.0	2.0	3
N 4660	N1		0.4		7002					50.0	33		15.0	8		1.0	34
N 4665	N1		8.1		137					10.0	25		15.0	8		0.4	2
N 4684	E2		6.6		466		27	8	42.0	7.0	12						
N 4696	E3,4		2.1		418				3910.0	110.0	32	2460.0	50.0	19	1290.0	30.0	32
N 4697	U3		16.0		95					10.0	11					0.6	5
N 4698	E1	50.3		420	428		135	19		10.0	25		15.0	8			
N 4710	E19	0.6		500	7002	200	30	1	15.0	2.0	12	17.0	4.0	8	8.8	1.1	6
N 4742	E3									10.0	24		100.0	14		1.0	5
N 4753	N1,19		16.0		95		104	1		10.0	24		60.0	14		0.3	2
N 4754	N1		0.9		419					3.0	12		15.0	8			
N 4756	U3																
N 4760	U24											570.0	100.0	14	460.0		15
N 4762	U33		0.6		419					3.0	12		15.0	8			
N 4767	N2												40.0	19		0.9	1
N 4772	N2	15.1		434	346					13.0	25		15.0	8			
N 4782	N21								7670.0	230.0	32	4760.0	30.0	32	2540.0	75.0	15
N 4783	N21																
N 4786	E3															12.0	15
N 4795	N2	6.3		407	346					10.0	25		15.0	8			
N 4825	E2		6.8		466					50.0	33						
N 4845	N2		2.5		346	290		8	34.0	2.0	25	31.0	3.0	8			
N 4856	N1	6.4		454	466					10.0	24						
N 4866	E1,26	14.1		548	346		135	19		10.0	12		15.0	8			
N 4880	N2		0.3		7002					10.0	25		15.0	8		1.0	34
N 4889	N1		0.6		249								15.0	8	1.0		5
N 4914	N2		1.4		501					10.0	12						
N 4915	U3									29.0	11					12.0	15
N 4933	N2	4.6		528	466												
N 4936	E23								41.0	0.5	4	97.0	10.0	15	33.3	0.3	4
N 4958	E26	2.1		374	466					10.0	12		50.0	23			
N 4976	U3												30.0	19		12.0	15
N 4984	E2	2.5		234	466				23.0	3.0	12		50.0	23			
N 5011	E4												20.0	19		0.8	1
N 5017	U3									100.0	33						
N 5018	U3	1.9		170	534					0.5	4		50.0	23	1.1	0.2	4
N 5044	E2		2.2		455					50.0	33				30.0	3.0	15
N 5061										10.0	11		50.0	23		12.0	15

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 5064	N2	21.7		486	550												
N 5077	E6,12		2.1		418				109.0	5.0	9	133.0	8.0	10	90.0	3.0	9
N 5084	N2	84.8		645	492	32	17	8					50.0	23	34.0	3.0	16
N 5087	N1						42	8								12.0	15
N 5090	E4		1.7		418							3410.0	60.0	19	1630.0	40.0	19
N 5101	E2	34.7		188	346					10.0	24						
N 5102	U4	72.0		438	95		54	9					20.0	19		0.8	1
N 5121	N2																
N 5128	E4					1400		23				128000.0		19	126000.0		19
N 5193	E4												50.0	19		0.8	1
N 5195	E15,23					400	25	4	15.0		24					80.0	17
N 5198	E26									10.0	24		30.0	14			
N 5266	E3,4	20.0		520	540								30.0	19		12.0	15
N 5273	E1,26		1.3		419					10.0	12		15.0	8			
N 5308	N1		20.0		131					10.0	12		40.0	14		100.0	17
N 5322	U3		3.0		205				87.0		11	70.0	50.0	14	34.0		13
N 5326	N2		3.0		384											20.0	20
N 5328	E9															12.0	15
N 5353	E21	17.6		300	384				40.0		12	70.0	50.0	14	35.0	2.0	13
N 5357	N2																
N 5363	E3	1.9		629	353	110		16	152.0		18	132.0	6.0	8	95.0	3.0	13
N 5365	N2																
N 5377	E1	9.5		372	346					10.0	24		30.0	14			
N 5380	N2		1.4		501					50.0	33					30.0	20
N 5419	U4								800.0		28	460.0		28	390.0		28
N 5422	N5		2.4		346					10.0	12						
N 5444	E16		0.8		501							178.0	8.0	8	187.0	20.0	20
N 5448	E1	25.4		402	346					10.0	24		60.0	14			
N 5473	N1		5.0		131					10.0	12		30.0	14			
N 5485	U11		5.0		1409					10.0	12		40.0	14	0.9	0.1	2
N 5493	U3	8.0		520	1409					100.0	33		40.0	14			
N 5548	E1,32	0.8		240	126								27.0	8			
N 5557	U3		1.5		7002					10.0	11		15.0	8		1.0	34
N 5566	N1	9.9		428	508					10.0	24		15.0	8			
N 5574	N1		0.8		419					50.0	33		15.0	8			
N 5576	U3		0.4		427					10.0	11		15.0	8		1.0	34
N 5614	N1	4.2		250	384					10.0	24		15.0	8		20.0	20
N 5631	E1,26	7.6		380	232		245	6,12		10.0	12						
N 5638	U3									26.0	11		15.0	8		0.6	5
N 5687	N1		4.0		131					10.0	12		40.0	14		50.0	17
N 5689	N1	2.8		366	346					10.0	24		50.0	14		100.0	17
N 5701	U11	43.2		123	346		120	7					15.0	8			
N 5739	E2	8.0		440	7001					10.0	12						
N 5750	N2	5.2		268	346					50.0	33						
N 5791	N2		0.9		346											12.0	15
N 5796	N2,9	3.1		40	418										154.0	3.0	15
N 5812	U3		4.0		205					26.0	11		40.0	14		12.0	15
N 5813	N1		0.7		427					23.0	11		15.0	8	1.7		5

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 5820	N1	6.8		330	350		13	8		10.0	12		30.0	14		36.0	26
N 5831	N1		0.8		427					13.0	11		15.0	8		0.6	5
N 5838	N1		1.5		501					8.0	21	21.0	3.0	8		50.0	23
N 5846	E3,12		0.2		551		6	17	17.0	2.0	11	21.0	3.0	8	7.8	0.5	2
N 5854	N1	0.4		234	170					50.0	33		15.0	8			
N 5864	N19		0.6		501								15.0	8			
N 5866	U6,11		6.0		405	240	80	1	16.0	2.0	12	40.0	30.0	14	13.0	1.0	3
N 5898	E3		1.2		7003					23.0	11				1.1	0.5	3
N 5903	N1,9	11.1		280	7003					34.0	11				26.0	3.0	16
N 5982	U3									10.0	11		30.0	14		1.0	34
N 6340	U11	14.3		224	346		95	6,12		10.0	24		40.0	14			
N 6482	N1		1.2		7002					10.0	11		15.0	8	13.0		34
N 6684	N2		22.0		320								50.0	23		12.0	15
N 6721	E4												35.0	19		12.0	15
N 6758	E4											42.0		1	28.0		1
N 6776	E4												30.0	19		12.0	15
N 6851	E4												20.0	19		12.0	15
N 6854	U3,4												20.0	19		12.0	15
N 6861	E4												30.0	19	20.0		19
N 6868	E4		2.1		418							124.0	13.0	19	124.0	7.0	19
N 6875	E3												35.0	19		12.0	15
N 6876	E4												20.0	19		12.0	15
N 6893	N2																
N 6902	N2	44.8		327	18												
N 6909	U3,4												20.0	19		12.0	15
N 6935	N2				320												
N 6942	N2																
N 6958	E3,4		2.0		418							43.0	12.0	19	27.0	5.0	19
N 7007	E4												25.0	19		12.0	15
N 7014	U3,4												25.0	19		12.0	15
N 7020	N2		31.0		320												
N 7029	U3,4												30.0	19		12.0	15
N 7041	U4		31.0		320								20.0	19		12.0	15
N 7049	E3,4											57.0	15.0	19	35.0	4.0	19
N 7079	E3												25.0	19		0.8	1
N 7096	N2		43.0		320												
N 7097	E3,4												30.0	19	17.5		1
N 7135	E19		22.0		320				6.0	0.2	4				4.0	0.2	4
N 7144	U3,4												20.0	19		12.0	15
N 7145	U3												20.0	19		12.0	15
N 7155	N2																
N 7166	E4												20.0	19	0.6		1
N 7168	U4												35.0	19		12.0	15
N 7192	E3,4												25.0	19		12.0	15
N 7196	U4												20.0	19		12.0	15
N 7213	E4	26.8		451	320	445		3				187.0	17.0	19	228.0	10.0	19
N 7302	N1	4.0		277	1409					100.0	33		40.0	14		12.0	15
N 7332	N1		1.6		519		170	6,12		10.0	21		15.0	8		60.0	17

TABLE 1A—*Continued*

NAME	Em Line +Ref.	HI	HI rms	Line wdth.	HI Ref.	CO	CO Er/Lm	CO Ref.	21cm Continuum Flux	21cm Continuum Er/Lm	21cm Continuum Ref.	13/11cm Continuum Flux	13/11cm Continuum Er/Lm	13/11cm Continuum Ref.	6cm Continuum Flux	6cm Continuum Er/Lm	6cm Continuum Ref.
		Jy km s^{-1}	mJy	km s^{-1}		Jy km s^{-1}			mJy	mJy		mJy	mJy		mJy	mJy	
(1)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
N 7371	U11	18.8		142	346	89	24	7		50.0	33		60.0	14			
N 7377	E26		15.0		18											12.0	15
N 7410			21.2		320								50.0	23		12.0	15
N 7457	N1		2.0		501					10.0	21		15.0	8		50.0	17
N 7507	U3		1.9		455					10.0	11		30.0	14		1.0	34
N 7585	U23		18.0		18					0.4	4		30.0	14		60.0	17
N 7600	N1		4.2		7002								30.0	14		70.0	17
N 7619	N1		1.1		193					23.0	11	22.0	3.0	8	7.7		5
N 7626	U16,24		0.7		193				700.0		11	380.0		30	230.0		30
N 7702																12.0	15
N 7727	U7,11	3.5		421	346					10.0	24		30.0	8			
N 7742	E1,11	13.3		69	346	154	31	7		50.0	33	17.0	4.0	8			
N 7743	U7,11	3.4		258	346					50.0	33		15.0	8			
N 7744																	
N 7785	U3		1.1		193					24.0	11	19.0	3.0	8	3.5		5
N 7796	U4												20.0	19		12.0	15
I 1459	E3		5.8		418				970.0		28	1155.0	23.0	19	1016.0		19
I 2006	N9	3.0		244	553								30.0	19		0.8	1
I 2035	N2												25.0	19		0.7	1
I 3370	E2												30.0	19	6.4		1
I 3896	U3,4												20.0	19		12.0	15
I 4296	E4								14000.0		28	3170.0	42.0	19	1604.0	30.0	19
I 4329	U23								6.9	0.2	4				0.6	0.1	4
I 4797	U3,4												20.0	19		12.0	15
I 4889	E3,4												20.0	19		12.0	15
I 5063	E3	9.7		512	326				1990.0	110.0	32				430.0	30.0	32
I 5105	U3,4												20.0	19	3.7		1
I 5135	E2		18.5		538												
I 5181	E4		24.0		320								25.0	19			
I 5240	N2	12.6		338	320												
I 5267		57.8		370	320								50.0	23			
I 5269	U4	18.0		164	379								35.0	19	3.1		1
I 5328	N1															12.0	15
A185254	U3																
A202044	E2		30.0		320											12.0	15

TABLE 1B

NAME	# SN	Dust +Ref.	60u Flux mJy	60u err. mJy	100u Flux mJy	100u err. mJy	12/25u ratio
(1)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
N 16				29		76	
N 128			750	41	1550	115	
N 147				46		160	
N 148				54		140	
N 185		D1,4	440	31	1900	152	
N 205		D1,4	570	37	3130	102	0.85
N 221		N4		87		1255	2.18
N 227				58		159	
N 254				41	570	78	
N 274			4910	590	9390	1500	
N 357							
N 404		D1	2320	59	4000	800	
N 439				46		97	
N 474				27		88	
N 524		D11	780	34	1820	114	
N 533		N4		44		96	
N 584				41	520	90	
N 596		N4		26		100	
N 636		N4		42		133	
N 718			640	75	1160	240	
N 720		N4		42		56	
N 741		N4	200	24	1000	96	
N 750		N4		21		24	
N 777				38		76	
N 788							
N 821		N4		42	440	104	
N 890				30		44	
N 936		D11		44		90	
N 1022			20120	3200	27440	4400	0.23
N 1023				32		66	
N 1052		D1,3	900	31	1400	60	0.43
N 1079			470	100	1290	155	
N 1169			1020	200	5160	800	
N 1172				41		72	
N 1175				37		126	
N 1199		D1,3,4		42		80	
N 1201				35		72	
N 1209		N4		32		98	
N 1275	1		7220	860	8000	960	0.34
N 1291			1870	25	11900	99	1.14
N 1297		D1		38		128	
N 1302			290	32	1780	117	
N 1316	2	D1,2	3160	30	14200	3000	1.15
N 1317			3690	35	9530	1555	1.04
N 1326			8500	48	13180	41	0.52
N 1332	1		520	27	1610	51	0.90
N 1339				27	600	51	
N 1344		D1		43		128	
N 1350	1			190	3970	470	
N 1351		N2	90	21	450	37	
N 1357			1030	120	4910	590	
N 1358							
N 1366				28	380	54	
N 1371				135	1170	190	
N 1374		N2		20		42	
N 1379		N2		29	120	41	
N 1380		D2,5	1070	43	3060	95	2.43
N 1381				24		63	
N 1386			5650	38	8890	48	0.35
N 1387			2370	28	6030	44	0.94
N 1389		N2		28		89	
N 1395			50	26	300	42	
N 1399		N2		32	270	72	
N 1400		D9	760	40	2920	129	
N 1404		N2		28	240	49	
N 1407			140	30	430	65	
N 1411	1	N2	170	38	620	58	
N 1415			5280	625	12320	1500	0.47
N 1426				29		89	
N 1427		N2		38		43	
N 1439		N2		32	300	35	
N 1440				43	1150	88	
N 1452				135	920	110	
N 1453		N4		39	670	113	
N 1461			80	24	280	92	
N 1521		N4		27		109	
N 1527				45		90	
N 1533		N2	330	24	1240	87	
N 1537				27	260	72	
N 1543				28	1430	304	
N 1549		N2		22	160	48	1.50
N 1553		N2	570	24	1010	51	1.31
N 1574		N2	370	22	590	64	1.43
N 1596		N2		34		65	
N 1600		D4	100	27	170	65	
N 1617			730	60	3770	300	
N 1638		U4		28		169	
N 1700				26		193	
N 1726		U4	50	31	300	76	
N 1947		D1,2	1100	24	4270	50	1.56
N 2179				135	1310	200	
N 2217			1360	33	5330	65	1.17
N 2300				25		81	
N 2310		D9	130	28	360	168	
N 2314			70	22	300	55	
N 2325				54		186	

TABLE 1B—*Continued*

NAME	# SN	Dust +Ref.	60u Flux mJy	60u err. mJy	100u Flux mJy	100u err. mJy	12/25u ratio
(1)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
N 2434				23		91	
N 2549			270	49	330	116	
N 2639			2000	160	7080	550	
N 2646			210	30	760	81	
N 2655			1730	29	7200	320	0.69
N 2672	1			45	440	45	
N 2681			7070	1100	11370	1300	
N 2685			370	42	1660	100	
N 2693			210	37	790	114	
N 2732				23		66	
N 2749		N4		35	380	80	
N 2768		D1	400	31	1220	56	0.80
N 2775			1740	200	10470	1200	
N 2781			530	70	2030	160	
N 2782			8470	1330	13810	1600	0.35
N 2784			330	90	1210	450	0.83
N 2787			620	52	1050	184	
N 2798			22760	3600	29130	4600	0.24
N 2811			450	60	1810	140	
N 2832			440	27	1330	137	
N 2844			420	41	1700	122	
N 2855			570	27	2270	66	
N 2859			320	31	830	72	
N 2865		N4	190	29	370	92	
N 2880			100	25	340	66	
N 2888				72		581	
N 2902			160	41	920	162	
N 2907		D1	310	26	1090	194	
N 2911		D1	290	28	560	79	
N 2924		N4		41		226	
N 2950			160	33	180	102	
N 2962			230	39	700	99	
N 2974			430	33	1690	47	
N 2983				27		59	
N 2986		N4		25	360	109	
N 2992			6870	1100	14400	2900	0.43
N 3032			1990	31	4180	79	0.96
N 3056							
N 3065			1550	25	1780	88	
N 3078							
N 3081							
N 3087				50		168	
N 3091		N4					
N 3098				35		137	
N 3115	1			43		100	3.40
N 3136		N2	170	34		157	
N 3156			190	33	540	66	
N 3158				28		249	
N 3166			5900	33	13570	100	0.74
N 3185			1580	185	3680	425	
N 3190			3500	420	10280	1230	0.65
N 3193		N4		28		320	
N 3203				41		197	
N 3226	1						
N 3245			2090	40	3530	75	0.68
N 3250				60		128	2.36
N 3258			160	38	640	149	
N 3268			160	43	200	62	
N 3271		N2	330	48	1150	119	
N 3277			700	55	2120	170	
N 3281			6760	1060	7680	1180	0.34
N 3300				25		90	
N 3301			490	31	820	41	
N 3309		D1		29		147	
N 3348			130	29	270	123	
N 3358				165	1970	235	
N 3377			140	46	310	57	
N 3379				42		96	
N 3384				39	400	75	
N 3390			950	70	3330	337	
N 3412							
N 3414			260	25	500	164	
N 3449			910	110	3000	360	
N 3458				33		80	
N 3489							
N 3516			1900	29	1890	197	0.41
N 3557		N2	250	47	670	150	
N 3571							
N 3585			160	42		78	0.55
N 3593			18870	34	35600	59	0.63
N 3605		D4					
N 3607		D9					
N 3608		D4					
N 3610				31	250	76	
N 3611			5050	800	8210	1300	0.47
N 3613				26		76	
N 3619			390	35	1630	201	
N 3623			2070	325	13340	2700	
N 3626							
N 3630				57		94	
N 3637				48	1280	105	
N 3640				40		58	
N 3665		D1	1960	40	6690	163	0.50
N 3706		N2	70	48	200	66	
N 3783			3370	400	5120	600	0.33
N 3818		U4		49		85	

TABLE 1B—*Continued*

NAME	# SN	Dust +Ref.	60u Flux mJy	60u err.	100u Flux mJy	100u err.	12/25u ratio
(1)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
N 3872				41	360	65	
N 3885			11460	1800	15220	2450	0.35
N 3892			120	29	350	76	
N 3898				195	2050	250	
N 3900			400	38	1750	167	
N 3904	1		210	49	480	160	
N 3923		D7		35		120	
N 3941							
N 3945			270	27	1210	80	
N 3957		D9	580	38	1640	188	
N 3962			210	41	260	267	
N 3998			570	27	1020	110	1.08
N 4008			130	27	110	111	
N 4024			170	39	380	84	
N 4026			100	27	500	112	
N 4033				35		40	
N 4036			580	48	1450	129	
N 4073				46		157	
N 4105			270	40	740	135	
N 4106			230	22	630	151	
N 4111							
N 4124		D9	440	42	1560	63	
N 4125		D1	720	45	1480	61	
N 4128				27		62	
N 4138							
N 4143							
N 4150			1250	37	2370	54	
N 4158			850	100	2690	300	
N 4168		U4		37	590	139	
N 4179				31		57	
N 4203			610	30	1920	71	
N 4215				31		92	
N 4220	1		1580	49	7140	204	0.89
N 4224				135	1020	120	
N 4233			200	38	430	77	
N 4235			320	50	640	110	
N 4245			810	40	2680	97	
N 4251			120	39		80	
N 4260			200	50	950	130	
N 4261		D10,12	80	35	130	43	
N 4262			190	35	350	110	
N 4267			190	35	1030	36	
N 4270				42		83	
N 4274			4160	650	14530	2250	
N 4278		D1,4	600	54	1650	53	
N 4281		D5	630	33	1780	90	
N 4283				34		69	
N 4291				30		44	
N 4293			3970	43	6860	79	0.38
N 4314			3760	600	7590	1170	
N 4324			420	43	1770	45	
N 4339				33	200	116	
N 4340	1		90	25	330	55	
N 4342				66		160	
N 4346							
N 4350			370	35	970	74	
N 4365		D12		45	580	116	
N 4371				48		139	
N 4373		N2		45		169	
N 4374	1	D1,4	510	27	1030	109	1.17
N 4377			370	52	980	122	
N 4378				135	1370	160	
N 4379				47		112	
N 4382	1	U4		30		70	
N 4386			120	23		79	
N 4406		D8	110	35	290	59	
N 4417				44		106	
N 4419	1		7830	920	17860	2140	0.37
N 4424	1		3210	500	6070	970	
N 4425				60		146	
N 4429			1600	45	4580	95	
N 4435			2050	44	4160	106	
N 4442			130	43	250	89	
N 4448			1600	250	4970	800	
N 4452				33		85	
N 4454			420	47	1470	99	
N 4459		D9	1920	67	4280	119	
N 4461				17		75	
N 4472	1	U4,5		66		94	
N 4473				62		95	0.57
N 4474				48		80	
N 4476			680	38	1640	96	
N 4477			590	52	1250	87	
N 4478		N4		43		66	
N 4483				37	420	147	
N 4486	1	D11	400	41	360	91	
N 4494			200	50		151	
N 4503				40		169	
N 4526	1	D5	5720	47	21000	270	0.83
N 4546			270	46	790	196	
N 4550			140	31	220	80	
N 4552		D12	160	47	470	52	
N 4564	1	U4		61		168	
N 4570				46		97	
N 4578				34		98	
N 4586				180	1720	200	

TABLE 1B—*Continued*

NAME	# SN	Dust +Ref.	60u Flux	60u err.	100u Flux	100u err.	12/25u ratio
			mJy		mJy		
(1)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
N 4589		D13	210	31	590	136	
N 4596			410	24	670	40	
N 4608				25	210	58	
N 4612				41		75	
N 4621	1	D10		51		83	
N 4623				23		106	
N 4636	1	D10	140	43		152	
N 4638				45		66	
N 4643			640	27	1830	80	
N 4645			300	60	1490	227	
N 4649		U4	900	65	2310	270	1.00
N 4660				49		89	
N 4665				27		44	
N 4684			1310	45	1910	88	
N 4696		D1,2	100	23	740	131	
N 4697		D11	470	23	1100	67	
N 4698				157	1830	210	
N 4710		D9	5890	42	13150	156	0.35
N 4742		D4	460	61	1020	104	
N 4753	2	D1	2640	60	8010	176	1.10
N 4754				45		102	
N 4756				43		135	
N 4760		N4		43		70	
N 4762				48		71	
N 4767				25		71	
N 4772	1						
N 4782	1			33		288	
N 4783				39		313	
N 4786		N4	300	31	720	80	
N 4795				40		98	
N 4825				49		124	
N 4845			9450	1110	23670	3800	0.65
N 4856			170	32	410	139	
N 4866			150	52	910	145	
N 4880				34		129	
N 4889		N4		55		61	
N 4914				30		40	
N 4915		U4,5	120	40		103	
N 4933			340	42	1130	117	0.39
N 4936			230	41	1050	116	
N 4958			280	47	310	116	
N 4976		N2	220	45		353	
N 4984			11360	1800	15600	2500	0.42
N 5011		N2		39		66	
N 5017				50		102	
N 5018		D1,5	980	41	1650	80	
N 5044			140	57	130	65	
N 5061				34		101	
N 5064			3140	370	10150	1600	
N 5077							
N 5084			420	42	2300	330	
N 5087		D9	1110	41	2780	175	
N 5090	1	N2	170	46	760	397	0.58
N 5101	1		780	31	5600	280	1.00
N 5102		D6	940	35	2430	89	
N 5121			320	30	1010	61	
N 5128	1	D1,2	230500	560	492000	1880	0.93
N 5193			150	27	470	64	
N 5195	1		39070	1261		454	0.01
N 5198		N4		38		68	
N 5266		D1,2	1230	24	3650	56	
N 5273			930	35	1390	108	0.41
N 5308				40		79	
N 5322			430	38	890	67	
N 5326							
N 5328				33		62	
N 5353			330	54	1290	100	
N 5357			260	27	670	110	
N 5363		D1	1700	46	4450	45	0.86
N 5365			150	28	280	109	
N 5377			870	175	3290	400	
N 5380				27		185	
N 5419		N2		38	200	59	
N 5422			70	27	330	71	
N 5444				41		142	
N 5448			1630	195	5210	600	
N 5473			90	14	320	60	
N 5485	1	D1,4	150	34	850	88	
N 5493				40		94	
N 5548	1		1040	125	1730	200	0.49
N 5557		U4		41		81	
N 5566			1070	125	5610	900	
N 5574				40		447	
N 5576			90	27	190	247	
N 5614			1260	150	6080	970	
N 5631		U4	230	34	920	76	
N 5638		U4		30	400	106	
N 5687		D4		20		45	
N 5689			440	60	1420	170	
N 5701				135	1110	220	
N 5739		U4	240	20	740	52	
N 5750			600	70	2470	300	
N 5791				27		135	
N 5796		N4		54		56	
N 5812		U4		42		78	
N 5813		U3,4,5		23		88	

TABLE 1B—*Continued*

NAME	# SN	Dust +Ref.	60u Flux mJy	60u err. mJy	100u Flux mJy	100u err. mJy	12/25u ratio
(1)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
N 5820			130	39	470	147	
N 5831		D4					
N 5838		N4	750	40	1480	82	
N 5846		D10		37		112	
N 5854	1			33		166	
N 5864				27	340	53	
N 5866		D9	5210	21	16610	51	1.25
N 5898		D3	130	37	200	64	
N 5903				23		112	
N 5982		N4		33	330	31	
N 6340							
N 6482				90		303	
N 6684				47		93	
N 6721				46		111	
N 6758			100	31	310	102	
N 6776			260	47	580	149	
N 6851		D5	250	42	620	84	
N 6854				42		124	
N 6861		D5	870	58	3110	115	
N 6868		D2,5	470	30	1470	96	
N 6875			1160	51	3070	106	0.74
N 6876		N2	90	35	430	92	
N 6893		D9	2470	42	7370	71	0.87
N 6902			810	100	4080	500	
N 6909				44		141	
N 6935			700	90	3570	430	
N 6942							
N 6958		D3	1090	34	2020	53	0.75
N 7007			270	45	530	60	
N 7014		N2	60	24		89	
N 7020				38	200	57	
N 7029			190	47	310	57	
N 7041		N2		46	440	80	
N 7049		D2,5	540	23	1760	82	
N 7079			130	41	280	90	
N 7096				215	1130	135	
N 7097		D1,3	200	23	630	104	
N 7135			260	32	700	29	
N 7144		N2	90	34	290	95	
N 7145		N2		41		106	
N 7155				38		84	
N 7166			220	38	510	75	
N 7168				20		40	
N 7192				28	270	53	
N 7196		D3,5	760	43	2040	169	
N 7213		D1,2	2570	34	8130	118	0.62
N 7302			90	34	530	211	
N 7332		D9	220	30	360	96	
N 7371							
N 7377		D4	390	46	1480	104	
N 7410			830	100	2840	440	
N 7457			110	42	400	170	
N 7507		U3,5		43		136	
N 7585		U4	120	42	310	70	
N 7600				34		66	
N 7619	1	N4		38	630	205	
N 7626		N4		42		113	
N 7702			260	25	890	81	
N 7727							
N 7742			2870	39	6320	132	0.53
N 7743			950	42	3020	191	
N 7744				55		83	
N 7785		D4		38		88	
N 7796				28		88	
I 1459		D3	520	31	1050	91	0.53
I 2006			120	15	280	41	
I 2035			140	19	250	34	
I 3370		D2,5	570	28	2010	106	
I 3896		N2		70		242	
I 4296		N2	140	59	230	73	
I 4329			2040	240	1620	190	0.47
I 4797				46		120	
I 4889		N2	160	72	410	73	
I 5063		D1	6530	32	3920	200	0.31
I 5105		N2		34		88	
I 5135			16670	2000	26270	3150	0.29
I 5181			100	22	350	56	
I 5240				150	1240	200	
I 5267			890	180	5840	700	
I 5269			160	43		122	
I 5328				31	600	54	
A185254				43		243	
A202044			5040	590	6700	800	

NOTES.—*NGC 221*: Available H I data confused by nearby source. X-ray emission may arise from an AGN. *NGC 274*: Available H I and *IRAS* data confused by nearby source. *NGC 474*: Arp 227. *NGC 750*: Arp 166. *NGC 936*: Available H I data confused by nearby source, NGC 941; see ref. 232. *NGC 1023*: Arp 135. *NGC 1052*: X-ray emission may arise from an AGN. Variable radio emission. *NGC 1275*: Per A, 3C 84. H I detected in absorption. Variable radio emission. X-ray confused with cluster. *NGC 1316*: Arp 154, For A. *NGC 1596*: Near NGC 1602, an Irr. H I flux based on decomposition and is uncertain. *NGC 2300*: Arp 114. *NGC 2655*: Arp 225. *NGC 2672*: Arp 167. *NGC 2685*: Arp 336. *NGC 2782*: Arp 215. *NGC 2798*: Arp 283. *NGC 2832*: Arp 315. *NGC 2911*: Arp 232. Possibly variable radio source. *NGC 2986*: Available H I data confused by nearby source. *NGC 2992*: Arp 245. *NGC 3065*: Near NGC 3066, an Sbc. H I flux based on decomposition and is uncertain. *NGC 3190*: (=NGC 3189), Arp 316. *NGC 3226*: Available H I and *IRAS* data confused by nearby source. *NGC 3268*: Variable radio source. *NGC 3358*: Available H I data confused by nearby source. *NGC 3379*: M105. *NGC 3390*: Numerical type reflects uncertainty in classification. *NGC 3414*: Arp 162. *NGC 3516*: Seyfert. X-ray emission may arise from an AGN. *NGC 3608*: Uncertain H I detection in ref. 427. Upper limit only, with similar rms, in ref. 7002. Confused at X-ray. *NGC 3623*: Arp 317. *NGC 4105*: Available H I and X-ray data confused by nearby source (NGC 4106). X-ray emission is from both objects. *NGC 4106*: See NGC 4105. *NGC 4261*: 3C 270. *NGC 4283*: Available H I data (ref. 7002) confused by nearby source. *NGC 4374*: M84, 3C 272.1. *NGC 4382*: M85. *NGC 4406*: M86. *NGC 4435*: Arp 120. *NGC 4472*: M49, Arp 134. *NGC 4486*: M87, 3C 274. X-ray confused with cluster. *NGC 4552*: M89. Variable radio source. *NGC 4621*: M59. *NGC 4649*: M60, Arp 116. *NGC 4782*: This and NGC 4783 identified with 3C 278. Radio emission is from both objects. *NGC 4783*: See NGC 4782. *NGC 4933*: Arp 176. *NGC 4936*: Possibly radio variable. *NGC 4958*: Several late-type systems at distances of 12′–14′. *NGC 5077*: Confusion in *IRAS*. Radio variable. *NGC 5090*: Paired with NGC 5091, a spiral. *NGC 5128*: Arp 153, Cen A. X-ray distribution is complex and has a variable component. X-ray flux is for the "diffuse" component. *NGC 5195*: Available data confused by nearby source (NGC 5194, M51). *NGC 5576*: Available H I data confused by nearby source. *NGC 5638*: Available H I data confused by nearby source. *NGC 5820*: Arp 136. *NGC 5831*: Confused in *IRAS*. *NGC 5903*: Available H I data confused by nearby source. *NGC 6876*: Confused in *IRAS*. *NGC 6935*: A late-type spiral nearby, will confuse H I observations. *NGC 6958*: Possibly radio variable. *NGC 7213*: X-ray emission may arise from an AGN. X-ray emission is variable, by a factor of 2. The value given is the highest value. *NGC 7585*: Arp 223. *NGC 7727*: Arp 222. *IC 1459*: Variable radio source. *IC 4329*: Confused in *IRAS*.

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TABLE 2A

DERIVATIVE QUANTITIES

NAME	Dist.	Grp Mem	Abs. Bo Mag.	Lg L (Bo) $L_\odot$	6cm Continuum Lg Lum. watts/Hz	Lg UL	X Ray Lg Mass $M_\odot$	Lg UL $M_\odot$	HI Lg Mass $M_\odot$	Lg UL $M_\odot$	H_2 Lg Mass $M_\odot$	Lg UL $M_\odot$	Dust Lg Mass $M_\odot$	Lg UL $M_\odot$
	Mpc.													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 16	65.4		-21.20	10.67		21.89				8.80				6.43
N 128	87.4		-22.08	11.02		22.04		9.88		9.39			6.45	
N 147	0.7	L	-14.16	7.86	17.85					6.27				2.79
N 148	37.7		-19.84	10.13					9.55					6.19
N 185	0.7	L	-14.39	7.95		17.77			5.21		5.15		2.94	
N 205	0.7	L	-15.52	8.40		16.77		4.73	5.58		5.52		3.39	
N 221	0.7	L	-15.33	8.32		16.77				6.27				3.68
N 227	108.2		-21.82	10.92		22.23		9.79		10.35				7.16
N 254	32.2		-19.88	10.14					8.97				6.19	
N 274	36.3		-19.82	10.12		21.74						9.69	6.42	
N 357	49.7		-20.89	10.55		21.87				9.42				
N 404	3.5		-16.76	8.90		19.17			8.08		7.30		3.95	
N 439	115.4		-22.31	11.12						11.33				7.00
N 474	48.8		-21.09	10.63		20.45			9.27					6.21
N 524	50.8		-21.91	10.96	21.10		9.71			9.02			6.14	
N 533	112.8		-22.51	11.20	22.30		10.71							6.98
N 584	38.7		-21.74	10.89		20.25		9.35		9.10			6.31	
N 596	37.5		-20.99	10.59		20.23		8.87						6.04
N 636	37.1		-20.60	10.43	20.99					8.94				6.15
N 718	36.8		-20.33	10.32		21.39			7.83				5.49	
N 720	34.6		-21.55	10.81		20.16	9.49			8.88				5.87
N 741	112.8		-22.72	11.28	23.48					9.43			7.21	
N 750	106.1		-21.96	10.98		21.13				10.55				6.85
N 777	104.2		-22.86	11.34	22.19									6.83
N 788	82.2		-21.57	10.82		22.21			10.09					
N 821	36.2		-20.90	10.55		21.10				8.40			6.18	
N 890	83.1		-22.34	11.13		22.09				9.17				6.63
N 936	29.4		-21.15	10.65	20.58		9.00							5.78
N 1022	30.1		-20.73	10.48		21.51				9.01			6.51	
N 1023	16.2		-20.96	10.58		20.50			9.59			8.23		5.21
N 1052	29.4		-20.81	10.52	23.12				9.06			8.96	5.27	
N 1079	27.6		-19.98	10.18		21.26			9.83				5.58	
N 1169	51.3		-21.95	10.97		21.50			10.31				7.25	
N 1172	32.4		-19.55	10.01		21.40		8.12		9.19				5.82
N 1175	112.3		-21.85	10.93		22.18				9.71				7.09
N 1199	53.0		-21.20	10.67		20.53				9.12				6.24
N 1201	32.6		-21.01	10.60		21.18		9.01		9.58				5.82
N 1209	51.3		-21.29	10.71		21.58				9.59				6.30
N 1275	108.2		-23.26	11.50	25.90						10.06		6.96	
N 1291	13.8		-21.53	10.80	20.99				9.52				6.71	
N 1297	29.4		-19.73	10.08		21.49				9.69				5.94
N 1302	31.9		-21.14	10.65		21.09			9.53				6.58	
N 1316	26.3	F	-22.78	11.30	24.74		10.03				8.95		7.00	
N 1317	26.3	F	-20.06	10.22						9.49	8.98		6.36	
N 1326	26.3	F	-20.76	10.50		21.62			9.81		8.84		6.15	
N 1332	27.5		-20.91	10.56		19.96	8.99		8.98				5.77	
N 1339	24.0		-19.53	10.00		20.92							5.95	
N 1344	20.4		-20.27	10.30		19.70				9.42				5.62

TABLE 2A—*Continued*

NAME	Dist.	Grp Mem	Abs. Bo Mag.	Lg L (Bo) $L_\odot$	6cm Continuum Lg Lum. watts/Hz	Lg UL	X Ray Lg Mass $M_\odot$	Lg UL $M_\odot$	HI Lg Mass $M_\odot$	Lg UL $M_\odot$	H_2 Lg Mass $M_\odot$	Lg UL $M_\odot$	Dust Lg Mass $M_\odot$	Lg UL $M_\odot$
	Mpc.													
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 1350	26.3	F	-21.08	10.62		21.40		8.85	9.71				6.85	
N 1351	26.3	F	-19.45	9.97		19.92							5.60	
N 1357	39.0		-20.97	10.58		21.66			9.49				6.94	
N 1358	79.5		-21.55	10.81		22.28	9.58							
N 1366	23.6		-19.05	9.81						9.72			5.74	
N 1371	27.2		-20.67	10.46		20.95			9.99				6.35	
N 1374	26.3	F	-19.80	10.11		19.92								5.64
N 1379	26.3	F	-20.03	10.20		19.92								5.64
N 1380	26.3	F	-21.00	10.59	20.20		9.04			9.56			5.94	
N 1381	26.3	F	-19.76	10.10		19.92		8.42		9.49				5.64
N 1386	26.3	F	-21.02	10.60	21.40					9.49	9.00		5.99	
N 1387	26.3	F	-20.27	10.30		21.00		8.69					6.15	
N 1389	26.3	F	-19.71	10.08		19.92		8.35						5.68
N 1395	31.1		-21.28	10.70	20.36		9.29						5.88	
N 1399	26.3	F	-21.31	10.72	22.28		9.68			8.66			5.69	
N 1400	9.1		-17.72	9.28	19.30			6.82		8.36		8.06	5.25	
N 1404	26.3	F	-21.04	10.61		19.92	9.41						5.64	
N 1407	33.4		-21.69	10.87	21.77		9.63			8.89			5.36	
N 1411	16.5		-19.39	9.95		19.51							5.05	
N 1415	29.1		-20.52	10.40		21.40			9.19				6.48	
N 1426	26.7		-19.76	10.10		19.93								5.69
N 1427	26.3	F	-20.16	10.26		19.92								5.64
N 1439	31.2		-19.89	10.15		21.15							5.88	
N 1440	28.7		-19.64	10.05		21.29				9.02			6.39	
N 1452	36.1		-19.76	10.10		21.67			9.37				6.49	
N 1453	77.2		-21.85	10.93	22.11					10.10			7.02	
N 1461	27.1		-19.31	9.92		21.34				8.53			5.10	
N 1521	80.8		-21.96	10.98		21.97								6.74
N 1527	19.3		-19.78	10.10						9.24				5.42
N 1533	11.2		-18.60	9.63		20.48	7.28		9.41				5.04	
N 1537	24.4		-20.37	10.34									5.60	
N 1543	17.4		-19.77	10.10						9.31			6.05	
N 1549	20.6		-20.87	10.54		20.79								5.42
N 1553	21.3		-21.28	10.70		20.81	9.18			9.31			4.94	
N 1574	16.4		-19.94	10.17		20.59		8.21					4.41	
N 1596	26.0		-20.11	10.24		21.21			9.40					5.63
N 1600	92.0		-22.81	11.32	22.35		10.52			10.21				6.72
N 1617	15.6		-20.49	10.39						9.19			6.10	
N 1638	64.5		-21.41	10.76		22.00			9.89			9.20		6.74
N 1700	75.5		-22.58	11.22		20.83				9.68				6.93
N 1726	79.0		-21.65	10.85		22.17							6.69	
N 1947	17.0		-19.40	9.95	20.79			7.97					5.97	
N 2179	51.0		-20.72	10.48		21.79			9.07				6.95	
N 2217	27.3		-21.12	10.64		21.03			9.64				6.48	
N 2300	42.7		-21.16	10.66	20.18		9.42			9.37				6.06
N 2310	18.9		-19.22	9.88	20.03					9.40				5.67
N 2314	80.9		-21.71	10.88	21.80			9.62		9.74		9.76	6.26	
N 2325	38.0		-21.12	10.64		21.32								6.32

TABLE 2A—*Continued*

NAME	Dist.	Grp Mem	Abs. Bo Mag.	Lg L (Bo)	6cm Continuum Lg Lum.	Lg UL	X Ray Lg Mass	Lg UL	HI Lg Mass	Lg UL	H_2 Lg Mass	Lg UL	Dust Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 2434	22.5		-19.69	10.07		20.86								5.56
N 2549	22.8		-19.73	10.08		20.79				8.82				5.67
N 2639	65.4		-22.18	11.06	22.41					9.43		9.75	7.27	
N 2646	77.7		-21.60	10.83		21.86				9.89			6.47	
N 2655	31.4		-22.16	11.06	21.70				9.89			9.51	6.79	
N 2672	77.4		-21.93	10.96		22.03				8.95			6.84	
N 2681	15.3		-20.38	10.34		20.75				8.21		8.57	5.64	
N 2685	19.4		-19.58	10.02	20.17			8.04	9.46			8.57	5.80	
N 2693	98.3		-22.26	11.10	21.29			10.05		10.21			6.73	
N 2732	42.8		-20.44	10.37		21.34				9.67				6.06
N 2749	81.2		-21.52	10.80	22.50					9.10			6.81	
N 2768	29.1		-21.40	10.75	21.01					9.03			5.68	
N 2775	23.1		-20.72	10.48		20.81	8.72		8.70		9.51		7.04	
N 2781	35.6		-20.54	10.41		21.58			9.60				6.27	
N 2782	50.8		-22.03	11.00	22.23			9.67	9.76		10.67		6.77	
N 2784	8.7		-18.83	9.72		20.04				8.44				5.42
N 2787	16.6		-19.44	9.97	20.47				8.99				4.71	
N 2798	34.7		-19.76	10.10	21.75				9.38		9.64		6.62	
N 2811	45.2		-21.74	10.89						8.87			6.47	
N 2832	136.5		-23.29	11.51		22.39	10.97			9.94			7.06	
N 2844	29.6		-19.58	10.02		21.50			9.08				6.08	
N 2855	33.2		-20.82	10.52		21.90				9.22			6.29	
N 2859	33.0		-20.84	10.53		20.12		8.72	8.41				5.50	
N 2865	46.2		-21.23	10.68		20.41							5.23	
N 2880	33.4		-20.08	10.22		21.13				8.81			5.34	
N 2888	39.0		-19.80	10.11		21.34								6.84
N 2902	34.8		-19.46	9.98		21.56			9.54			9.60	6.30	
N 2907	36.7		-19.99	10.19		21.61			9.29				5.95	
N 2911	59.5		-21.34	10.73	22.71			9.37	9.56				5.63	
N 2924	87.2		-21.59	10.83		22.04								7.13
N 2950	28.3		-20.50	10.39		20.28				8.53				5.80
N 2962	38.8		-20.23	10.28		21.26			9.09				5.69	
N 2974	33.6		-20.95	10.57	21.11		8.98		9.20			8.75	6.17	
N 2983	35.0		-20.34	10.33						9.07				5.88
N 2986	40.2		-21.18	10.66	21.81								6.18	
N 2992	41.2		-21.46	10.78	21.24				10.03		9.22		6.78	
N 3032	30.0		-20.10	10.23	20.60				8.44		9.07		5.97	
N 3056	15.4		-18.36	9.54										
N 3065	43.2		-20.37	10.34		21.35	9.01		9.54			8.98	5.53	
N 3078	44.5		-21.32	10.72	22.60		9.36			9.11				
N 3081	42.9		-20.66	10.46			9.12		9.89					
N 3087	47.5		-20.85	10.53	20.28									6.47
N 3091	72.5		-21.96	10.98		21.88								
N 3098	26.4		-19.26	9.90		21.10				7.95				5.87
N 3115	9.3		-19.95	10.17		19.02		7.95		7.52				4.83
N 3136	29.0		-20.89	10.55		21.08								6.01
N 3156	22.3		-18.74	9.69		20.77				7.93			5.04	
N 3158	139.4		-22.82	11.32	21.84					10.61				7.58

TABLE 2A—*Continued*

NAME	Dist.	Grp Mem	Abs. Bo Mag.	Lg L (Bo)	6cm Continuum Lg Lum.	Lg UL	X Ray Lg Mass	Lg UL	HI Lg Mass	Lg UL	H_2 Lg Mass	Lg UL	Dust Lg Mass	Lg UL
	Mpc.			$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 3166	23.2		-21.18	10.66		20.81		8.90	8.65		8.91		6.32	
N 3185	22.5		-19.13	9.84		20.96			8.61				5.73	
N 3190	24.2		-20.90	10.55	21.54				8.75				6.42	
N 3193	25.7		-20.22	10.28		20.90				7.99				6.22
N 3203	43.1		-20.52	10.40						10.08				6.46
N 3226	23.5		-19.56	10.02		21.00						8.42		
N 3245	26.0		-20.38	10.34		20.91				8.06		8.30	5.62	
N 3250	50.6		-21.73	10.88		20.49								6.41
N 3258	49.9		-21.01	10.60	22.19		9.32			8.80			6.10	
N 3268	50.7		-20.96	10.58	21.85									6.21
N 3271	70.0		-22.51	11.20		20.77		10.17					6.53	
N 3277	27.2		-19.86	10.14		21.12			8.77				5.86	
N 3281	62.3		-22.01	11.00				9.87		10.64			6.48	
N 3300	57.3		-20.50	10.39		21.77				8.75				6.36
N 3301	25.8		-19.82	10.12		21.08			8.90				4.97	
N 3309	75.8		-21.75	10.89	21.98									6.82
N 3348	59.8		-21.80	10.91		21.63				9.40				6.54
N 3358	52.6		-21.70	10.87									7.15	
N 3377	11.3		-19.17	9.86		19.18		7.50		6.91			4.02	
N 3379	15.9		-20.68	10.46	19.38			8.59		7.03		7.05		5.28
N 3384	12.0		-19.70	10.07		20.24		7.93		7.18			5.18	
N 3390	51.6		-20.66	10.46						10.38			6.73	
N 3412	14.9		-19.40	9.95		20.12				7.58				
N 3414	28.4		-20.53	10.40		20.89			8.28				4.93	
N 3449	60.6		-21.59	10.83					10.22				6.78	
N 3458	37.8		-19.74	10.09		21.23		8.50		9.08				5.95
N 3489	11.5		-19.17	9.86		19.20		7.59	7.27					
N 3516	55.3		-21.37	10.74	21.77					9.42			5.69	
N 3557	55.3		-22.48	11.18	22.99					9.09			5.88	
N 3571	67.6		-22.37	11.14		22.34			9.65					
N 3585	22.4		-20.94	10.57		19.78	8.65			9.23				5.50
N 3593	11.5		-19.52	10.00	21.03			7.71	8.43		9.11		5.99	
N 3605	11.9		-17.32	9.12		19.23	6.58			7.08				
N 3607	16.8		-20.05	10.21	20.12		8.24			7.48				
N 3608	22.1		-19.84	10.13	19.72		8.09			8.02				
N 3610	37.4		-21.32	10.72	20.92					8.90			5.96	
N 3611	29.4		-20.06	10.22	21.16				9.33			9.36	6.07	
N 3613	43.1		-21.52	10.80		20.35				9.60				6.06
N 3619	33.1		-20.58	10.42		21.12			9.11				6.19	
N 3623	13.8		-21.53	10.80		20.36			8.80			9.15	6.77	
N 3626	27.7		-20.78	10.50		20.96			9.08					
N 3630	27.1		-19.51	10.00		20.79				8.15				5.73
N 3637	32.8		-19.78	10.10		21.19			8.45				6.55	
N 3640	22.9		-20.54	10.41	20.80					7.82				5.51
N 3665	41.8		-21.36	10.74	22.17					9.93	9.26		6.83	
N 3706	54.5		-21.75	10.89	21.83					9.10				6.27
N 3783	45.7		-20.62	10.44					9.70				6.20	
N 3818	26.3		-19.31	9.92		19.92		8.10		9.17				5.66

TABLE 2A—*Continued*

NAME	Dist.	Grp	Abs.	Lg L	6cm Continuum		X Ray		HI		H_2		Dust	
		Mem	Bo	(Bo)	Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 3872	62.2		-21.17	10.66		21.71				9.19			6.56	
N 3885	31.2		-20.14	10.25					9.62				6.26	
N 3892	30.6		-19.97	10.18		21.45				8.77			5.15	
N 3898	24.3		-20.97	10.58		21.15			9.62		9.00		6.50	
N 3900	35.3		-21.30	10.71		21.35			9.71				6.32	
N 3904	31.1		-20.63	10.44		20.06				8.79			5.12	
N 3923	28.1		-21.45	10.77	20.63		9.31			9.30				5.87
N 3941	19.1		-20.13	10.24		20.64			9.13					
N 3945	26.8		-20.65	10.45		19.93			8.82				5.94	
N 3957	28.4		-19.36	9.94		21.06				9.67			5.73	
N 3962	32.4		-20.94	10.57	20.67					9.05				6.34
N 3998	22.6		-20.27	10.30	21.75		9.12		8.89				5.00	
N 4008	73.1		-21.42	10.76	21.58					8.85				6.67
N 4024	28.7		-19.68	10.06		21.39							4.93	
N 4026	19.2		-19.95	10.17		19.95				8.10			5.37	
N 4033	28.1		-19.83	10.12		21.05								5.69
N 4036	30.2		-20.84	10.53	20.52			8.81		9.24			5.64	
N 4073	114.1		-22.55	11.21		22.19				9.55				7.20
N 4105	33.2		-20.85	10.53	20.69		8.91						5.50	
N 4106	39.2		-20.73	10.48		21.34							5.57	
N 4111	17.1		-19.41	9.96	20.02				8.90			7.91		
N 4124	21.9	V	-19.35	9.93		20.76				7.79			5.67	
N 4125	29.7		-21.60	10.83	20.50					9.18			5.49	
N 4128	49.4		-20.74	10.49		21.47								6.18
N 4138	20.2		-20.08	10.22		20.69			9.19		8.65			
N 4143	16.6		-19.03	9.80	21.10					8.72				
N 4150	4.7		-15.96	8.58		19.42				6.37		7.83	4.04	
N 4158	47.8		-21.05	10.61		21.61			9.68		9.51		6.49	
N 4168	21.9	V	-19.49	9.99	20.36		8.10						5.87	
N 4179	21.9		-19.86	10.14		20.66				8.21				5.48
N 4203	22.5		-20.14	10.25	20.95		8.89		9.51			8.24	5.68	
N 4215	39.1		-19.92	10.16		20.96		8.46		8.62				6.04
N 4220	20.5		-20.33	10.32		20.70				8.73			6.49	
N 4224	50.9		-21.49	10.79		21.49			9.46				6.84	
N 4233	21.9	V	-18.73	9.68		20.94		7.75		7.79			4.72	
N 4235	49.7		-21.48	10.78		21.47				9.29			5.55	
N 4245	17.6		-18.98	9.78		20.75		7.68	7.47				5.66	
N 4251	20.0		-19.89	10.15		19.68		8.02		7.77				5.40
N 4260	34.7		-20.40	10.35		21.33		8.76	8.93				6.12	
N 4261	41.7		-21.72	10.88	24.24		9.70							6.04
N 4262	21.9	V	-19.32	9.92		20.46			8.97				4.52	
N 4267	21.9	V	-19.92	10.16		20.76		8.17		7.96			5.88	
N 4270	44.7		-20.08	10.22		21.55				9.13				6.11
N 4274	18.2		-20.95	10.57		20.60			8.86				6.46	
N 4278	12.7		-19.39	9.95	21.83				8.60			7.90	5.01	
N 4281	52.4		-21.34	10.73	21.42					8.67			6.30	
N 4283	21.3		-18.52	9.60		20.91								5.45
N 4291	37.9		-20.61	10.44		20.24	9.05							5.95

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TABLE 2A—*Continued*

NAME	Dist.	Grp	Abs.	Lg L	6cm Continuum		X Ray		HI		H_2		Dust	
		Mem	Bo	(Bo)	Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 4293	21.9	V	-21.34	10.73	20.94					8.05	9.15		5.77	
N 4314	20.0		-20.16	10.26		20.86				8.72		9.00	5.84	
N 4324	21.9	V	-19.79	10.11		20.76			9.06				5.88	
N 4339	21.9	V	-19.38	9.94		20.76				8.09				5.64
N 4340	21.9	V	-19.77	10.10	20.84		8.03			7.85			5.02	
N 4342	21.9	V	-18.16	9.46	20.46					8.12				5.78
N 4346	16.7		-18.92	9.76		20.52				8.44				
N 4350	21.9	V	-19.82	10.12		20.60		8.03		7.91			5.22	
N 4365	21.9	V	-21.10	10.63		19.76	8.82			7.48			5.86	
N 4371	21.9	V	-19.96	10.18		20.76				7.91				5.72
N 4373	62.6		-22.12	11.04	21.78									6.71
N 4374	21.9	V	-21.47	10.78	23.22		9.41						5.06	
N 4377	21.9	V	-19.03	9.80		20.76				7.96			5.23	
N 4378	48.6		-21.15	10.65		21.45	9.20		9.86				6.92	
N 4379	21.9	V	-19.40	9.95		20.76				8.01				5.62
N 4382	21.9	V	-21.60	10.83		19.76	9.20			7.79				5.48
N 4386	36.7		-20.29	10.31		21.21		8.59		9.15				5.92
N 4406	21.9	V	-21.68	10.86		19.76	9.73		8.17			7.87	4.70	
N 4417	21.9	V	-19.63	10.04		20.54		8.36		7.91				5.60
N 4419	21.9	V	-20.58	10.36	21.29				8.40		9.69		6.38	
N 4424	21.9	V	-20.20	10.27		20.46		8.11	8.61			8.68	5.78	
N 4425	21.9	V	-18.91	9.76		20.24				7.85				5.74
N 4429	21.9	V	-20.55	10.41		20.60	8.55			7.96	8.12		5.96	
N 4435	21.9	V	-19.98	10.18		20.54		8.42		7.85		7.87	5.67	
N 4442	21.9	V	-20.39	10.35		20.76				7.91				5.52
N 4448	13.7		-19.63	10.04		20.35							5.65	
N 4452	21.9	V	-18.40	9.55		20.76				7.91		9.09		5.50
N 4454	45.4		-20.29	10.31		21.87			9.12				6.27	
N 4459	21.9	V	-20.21	10.28	20.14		8.45			8.12	8.82		5.74	
N 4461	21.9	V	-19.61	10.04		20.76		8.18		7.91				5.48
N 4472	21.9	V	-22.38	11.14	21.76		10.21			7.18	7.32			5.55
N 4473	21.9	V	-20.63	10.44		19.76		8.62		7.79				5.55
N 4474	21.9	V	-19.00	9.79		20.76		7.81		8.09				5.48
N 4476	21.9	V	-18.62	9.64		19.76		7.73		7.96			5.38	
N 4477	21.9	V	-20.46	10.38		19.76	8.64			7.85			5.17	
N 4478	21.9	V	-19.55	10.01		20.06		8.25		8.33				5.48
N 4483	21.9	V	-18.29	9.51		20.76				7.91				5.74
N 4486	21.9	V	-22.08	11.02	24.62							8.39	4.11	
N 4494	26.6		-21.38	10.74	19.93					7.88				5.92
N 4503	21.9	V	-19.48	9.98		20.76		7.89		7.85		8.42		5.80
N 4526	21.9	V	-21.11	10.64		20.76		8.69		7.71	8.85		6.83	
N 4546	17.9		-19.96	10.18	20.36				8.41				5.04	
N 4550	21.9	V	-19.37	9.94		19.76		7.92		8.18				5.48
N 4552	21.9	V	-20.90	10.55	21.79		8.99			7.71		8.99	4.99	
N 4564	21.9	V	-19.83	10.12		19.76		8.15		7.61		8.44		5.80
N 4570	21.9	V	-20.02	10.20		20.76				7.85				5.56
N 4578	21.9	V	-19.66	10.06		20.76		8.14		7.61				5.56
N 4586	21.9	V	-20.17	10.26		20.76			8.64			9.61	6.33	

TABLE 2A—*Continued*

NAME	Dist.	Grp Mem	Abs. Bo Mag.	Lg L (Bo)	6cm Continuum		X Ray		HI		H_2		Dust	
					Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 4589	43.3		-21.37	10.74	21.72		9.20			9.38			5.65	
N 4596	21.9	V	-20.25	10.29		20.76				8.01		8.42	4.73	
N 4608	21.9	V	-19.65	10.05		20.36				7.96				5.48
N 4612	21.9	V	-19.66	10.06		20.76				7.91				5.48
N 4621	21.9	V	-21.03	10.60		19.76	8.76			8.01		8.32		5.49
N 4623	21.9	V	-18.61	9.64	20.06					8.18				5.60
N 4636	16.5		-20.59	10.43	21.17		9.17			7.76		9.18		5.51
N 4638	21.9	V	-19.65	10.05		20.76		8.07		7.96				5.48
N 4643	24.7		-20.41	10.36		19.86	8.53		8.39				5.67	
N 4645	47.2		-20.81	10.52		21.51		8.89					6.62	
N 4649	21.9	V	-21.87	10.94	21.14		9.80			8.21	8.17		5.58	
N 4660	21.9	V	-19.83	10.12		19.76				7.61				5.52
N 4665	13.6		-19.24	9.89		19.35	7.66			8.50				5.06
N 4684	29.2		-20.06	10.22	21.26					9.08		8.40	5.36	
N 4696	56.2		-22.39	11.15	23.69					9.15			6.89	
N 4697	21.4		-21.54	10.81		19.74	9.14			9.19			5.17	
N 4698	21.9	V	-20.55	10.41		20.76		8.49	9.75			8.85	6.36	
N 4710	21.9	V	-19.85	10.13	20.70				7.83		9.02		6.23	
N 4742	22.3		-19.63	10.04		19.77							5.13	
N 4753	23.4		-21.00	10.59		19.82	8.73			9.27		8.80	6.31	
N 4754	21.9	V	-20.29	10.31		20.24		8.35		7.96				5.58
N 4756	79.9		-21.23	10.68			9.70							6.83
N 4760	89.8		-21.73	10.88	23.65									6.70
N 4762	21.9	V	-20.44	10.37		20.24	8.44			7.79				5.48
N 4767	55.3		-21.26	10.70		20.56								6.28
N 4772	18.7		-19.78	10.10		20.80			9.09					
N 4782	75.9		-21.65	10.85	24.24		9.88							7.11
N 4783	89.0		-21.95	10.97										7.29
N 4786	90.2		-21.96	10.98		22.07							6.25	
N 4795	54.6		-21.02	10.60		21.55			9.65					6.36
N 4825	85.8		-21.79	10.91		22.34				10.03				6.85
N 4845	22.6		-20.70	10.47	21.23		8.62			8.43	9.21		6.60	
N 4856	24.4		-20.59	10.43		20.85			8.95					5.81
N 4866	21.9	V	-21.11	10.64		20.76			9.20			8.85	6.05	
N 4880	21.9	V	-19.13	9.84		19.76		7.86		7.48				5.68
N 4889	130.1		-23.00	11.39	21.31					9.33				7.02
N 4914	94.3		-22.57	11.22		22.03				9.42				6.74
N 4915	60.5		-21.03	10.60		21.72								6.47
N 4933	62.0		-20.78	10.50					9.62				6.38	
N 4936	59.6		-21.60	10.83	22.15								6.59	
N 4958	21.8		-20.21	10.28		20.76			8.37					5.63
N 4976	25.3		-21.29	10.71		20.96								6.25
N 4984	22.0		-20.61	10.44	20.76				8.46				5.99	
N 5011	58.0		-21.68	10.86		20.60								6.32
N 5017	47.7		-20.20	10.27		22.13								6.26
N 5018	54.6		-22.04	11.01	20.59				9.13				5.93	
N 5044	50.9		-21.66	10.86	21.97					9.08				6.21
N 5061	37.1		-21.59	10.83		21.30								6.04

TABLE 2A—*Continued*

NAME	Dist.	Grp	Abs.	Lg L	6cm Continuum		X Ray		HI		H_2		Dust	
		Mem	Bo	(Bo)	Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 5064	55.0		-22.31	11.12					10.19				7.20	
N 5077	52.5		-21.08	10.62	22.47		9.23			9.09				
N 5084	31.4		-20.53	10.40	21.60		8.93		10.29			8.74	6.55	
N 5087	33.3		-20.68	10.46		21.20						8.71	6.01	
N 5090	62.7		-21.63	10.84	23.88					9.15				7.09
N 5101	33.6		-21.15	10.65		21.13		9.01	9.97				7.29	
N 5102	6.3	C	-18.53	9.60		18.68		7.05	8.83			7.37	4.53	
N 5121	26.5		-19.90	10.15									5.55	
N 5128	6.3	C	-22.40	11.15	23.78		9.53				8.79		6.69	
N 5193	69.0		-21.45	10.77		20.76							6.04	
N 5195	13.3		-20.12	10.24	20.10		8.16				8.89			5.80
N 5198	53.5		-20.74	10.49		21.53								6.25
N 5266	59.7		-22.03	11.00		21.71			10.23				6.76	
N 5273	23.2		-19.41	9.96		20.81				8.17			5.04	
N 5308	44.0		-21.02	10.60		21.36				9.91				6.08
N 5322	39.3		-22.06	11.02	21.80			9.46		8.99			5.52	
N 5326	54.3		-20.73	10.48		21.85				9.27				
N 5328	90.1		-21.99	10.99		22.07								6.70
N 5353	45.1		-21.22	10.68	21.93		9.35		9.93				6.30	
N 5357	96.1		-21.84	10.93									6.33	
N 5363	21.9		-20.64	10.45	21.74		8.72		8.33		8.76		5.88	
N 5365	45.9		-21.41	10.76										6.25
N 5377	37.5		-21.61	10.84		21.23			9.50				6.51	
N 5380	65.2		-21.32	10.72		22.18				9.10				6.79
N 5419	79.0		-22.29	11.11	23.46									6.59
N 5422	40.4		-20.32	10.32		21.29				8.92			6.15	
N 5444	81.5		-22.05	11.01	23.17					9.05				6.87
N 5448	42.5		-21.79	10.91		21.33			10.03				6.68	
N 5473	43.5		-20.83	10.52		21.36				9.30			5.58	
N 5485	42.8		-20.72	10.48	20.30			8.90		9.29			6.43	
N 5493	51.1		-21.24	10.69		21.89			9.69					6.28
N 5548	104.4		-22.19	11.07		22.51			9.31				6.51	
N 5557	67.1		-22.12	11.04		20.73				9.16				6.45
N 5566	30.8		-22.09	11.03		21.06	9.43		9.34				6.88	
N 5574	31.0		-19.21	9.88		21.24		8.09		8.21				6.53
N 5576	30.5		-20.66	10.46		20.05		8.79		7.90				6.25
N 5614	79.3		-22.48	11.18		21.88			9.79				7.66	
N 5631	42.3		-20.67	10.46		21.33			9.51			9.68	6.12	
N 5638	32.5		-20.36	10.34		20.10							6.04	
N 5687	45.7		-20.70	10.47		21.40				9.25				6.12
N 5689	46.2		-20.88	10.54		21.41		9.02	9.15				6.20	
N 5701	30.0		-20.59	10.43		21.21			9.96			9.07	6.41	
N 5739	114.2		-22.49	11.19		22.19			10.39				6.66	
N 5750	38.1		-21.12	10.64		21.72			9.25				6.48	
N 5791	64.6		-21.29	10.71		21.78				8.90				6.64
N 5796	57.4		-21.23	10.68	22.78				9.38					6.31
N 5812	40.5		-20.77	10.50		21.37				9.14				6.01
N 5813	39.2		-21.40	10.75	20.50					8.36				6.02

TABLE 2A—*Continued*

NAME	Dist.	Grp	Abs.	Lg L	6cm Continuum		X Ray		HI		H_2		Dust	
		Mem	Bo	(Bo)	Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 5820	68.2		-21.18	10.66		21.75			9.87			8.82	6.15	
N 5831	33.6		-20.17	10.26		20.13				8.28				
N 5838	27.2		-20.45	10.37	21.03		8.59			8.37			5.39	
N 5846	34.2		-21.54	10.81	21.05		9.82			7.70		7.89		6.01
N 5854	33.5		-20.03	10.20		21.30			8.02					6.16
N 5864	37.2		-20.26	10.30		21.40				8.25			6.09	
N 5866	17.1		-20.30	10.31	20.66			8.35		8.57	8.89		6.39	
N 5898	43.6		-20.79	10.51		20.66		9.07		8.68				6.07
N 5903	48.5		-21.08	10.62	21.86				9.79					6.31
N 5982	62.8		-21.96	10.98		20.67		9.78					6.53	
N 6340	29.5		-21.06	10.62		21.02			9.47			8.96		
N 6482	82.6		-22.69	11.27	22.03					9.24				7.21
N 6684	14.6		-19.98	10.18		20.49				9.00				5.19
N 6721	86.3		-21.75	10.89		22.03								6.81
N 6758	68.0		-21.73	10.88	22.19								5.84	
N 6776	108.0		-22.41	11.16		22.22							6.26	
N 6851	59.9		-21.40	10.75		21.71							5.86	
N 6854	112.1		-22.09	11.03		22.26								7.08
N 6861	55.6		-21.78	10.90	21.87								6.78	
N 6868	56.3		-22.03	11.00	22.67					9.15			6.36	
N 6875	61.9		-21.30	10.71		21.74							6.63	
N 6876	73.8		-21.89	10.95		21.89	9.96						6.78	
N 6893	62.0		-21.52	10.80									7.10	
N 6902	55.4		-21.45	10.77					10.51				7.21	
N 6909	53.7		-20.97	10.58		21.62								6.50
N 6935	91.5		-22.40	11.15									7.60	
N 6942	77.9		-21.44	10.77										
N 6958	53.4		-21.51	10.80	21.96					9.08			6.06	
N 7007	58.0		-20.90	10.55		21.68							5.59	
N 7014	94.7		-21.60	10.83		22.11								6.79
N 7020	59.8		-21.47	10.78						10.37				6.35
N 7029	54.0		-21.13	10.64		21.62							5.18	
N 7041	36.8		-20.84	10.53		21.29				9.95			6.19	
N 7049	42.4		-21.56	10.82	21.88								6.22	
N 7079	53.1		-21.14	10.65		20.53							5.30	
N 7096	56.9		-21.25	10.69						10.47			7.00	
N 7097	48.0		-20.93	10.56	21.68								5.86	
N 7135	55.0		-21.09	10.63	21.16					10.15			5.90	
N 7144	37.1		-21.10	10.63		21.30							6.02	
N 7145	36.7		-20.69	10.47		21.29								6.05
N 7155	36.2		-20.00	10.19										5.93
N 7166	49.4		-20.76	10.50	20.24								5.56	
N 7168	53.8		-20.84	10.53		21.62								6.26
N 7192	55.7		-21.58	10.82		21.65							6.34	
N 7196	56.1		-21.28	10.70		21.66							6.38	
N 7213	34.7		-21.98	10.98	22.52				9.88		9.77		6.69	
N 7302	54.3		-20.46	10.38		21.63			9.44					6.69
N 7332	29.3		-20.75	10.49		21.01		8.81		8.46		9.21	4.71	

TABLE 2A—*Continued*

NAME	Dist.	Grp	Abs.	Lg L	6cm Continuum		X Ray		HI		H_2		Dust	
		Mem	Bo	(Bo)	Lg Lum.	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL	Lg Mass	Lg UL
	Mpc.		Mag.	$L_\odot$	watts/Hz		$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$	$M_\odot$
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
N 7371	56.4		-21.18	10.66		21.98			10.15		9.49			
N 7377	67.5		-21.54	10.81		21.82				10.16			6.68	
N 7410	32.7		-22.28	11.10		21.19				9.68			6.25	
N 7457	21.8		-20.01	10.20		20.76				8.30				5.80
N 7507	31.6		-21.07	10.62		20.08				8.60				6.03
N 7585	70.1		-21.84	10.93		20.77				10.27			6.60	
N 7600	71.5		-21.28	10.70		22.09				9.66				6.50
N 7619	79.1		-22.32	11.12	21.76		10.26			9.16			7.01	
N 7626	72.3		-22.13	11.04	23.16		9.95			8.89				6.66
N 7702	61.1		-21.66	10.86		21.73							6.29	
N 7727	38.6		-21.93	10.96		21.25			9.09					
N 7742	37.0		-20.85	10.53	21.21				9.63		9.37		6.36	
N 7743	37.0		-20.80	10.51		21.39			9.04				6.32	
N 7744	61.2		-21.58	10.82										6.38
N 7785	79.9		-21.84	10.93	21.43					9.17				6.64
N 7796	63.0		-21.68	10.86		21.76								6.44
I 1459	33.4		-21.66	10.86	23.13		9.56			9.14			5.43	
I 2006	23.8		-19.61	10.04		19.83			8.60				4.67	
I 2035	26.2		-19.96	10.18		19.91							4.51	
I 3370	53.8		-21.74	10.89	21.35								6.56	
I 3896	40.6		-20.67	10.46		21.37								6.49
I 4296	71.4		-22.84	11.33	23.99		10.41							6.50
I 4329	87.0		-22.22	11.08	20.74								5.90	
I 4797	50.4		-21.43	10.76		21.56								6.38
I 4889	48.8		-21.38	10.74		21.53							6.40	
I 5063	66.4		-20.97	10.58	23.36			9.30	10.00				5.92	
I 5105	108.8		-22.57	11.22	21.72									6.91
I 5135	97.5		-22.31	11.12						10.57			7.60	
I 5181	39.2		-20.61	10.44		21.66				9.89			5.51	
I 5240	33.9		-20.98	10.58					9.53				6.57	
I 5267	34.0		-21.54	10.81		21.62			10.20				7.22	
I 5269	42.7		-19.58	10.02	20.83			8.38	9.89					6.24
I 5328	61.5		-21.99	10.99		21.74							6.77	
A185254	51.6		-21.12	10.64										6.70
A202044	57.7		-21.25	10.69		21.68				10.33			6.44	

TABLE 2B

NAME (1)	6cm flux Obs/Drv mjy (16)	Er/Lm mjy (17)	Lg X Lum watts (18)	Lg U.L. X Lum. watts (19)	Lg {M} $M_\odot$ (20)	Lg {M}/L solar (21)
N 16		15.0			11.2	0.5
N 128		12.0		34.32		
N 147	12.0					
N 148						
N 185		10.0				
N 205		1.0		30.31	9.6	1.2
N 221		1.0	30.42		9.1	0.8
N 227		12.0		34.37	11.7	0.8
N 254						
N 274		35.0			10.1	0.0
N 357		25.0				
N 404		10.0			9.2	0.3
N 439						
N 474		1.0			11.6	1.0
N 524	4.1	0.8	34.11		11.6	0.6
N 533	13.0		35.55		12.1	0.9
N 584		1.0		33.56	11.4	0.5
N 596		1.0		33.33	11.1	0.5
N 636	6.0				10.9	0.5
N 718		15.0			10.8	0.5
N 720		1.0	34.04		11.4	0.6
N 741	200.0				12.0	0.7
N 750		1.0			11.3	0.3
N 777	12.0				12.1	0.8
N 788		20.0				
N 821		8.0			11.3	0.8
N 890		15.0			11.6	0.5
N 936	3.7	0.2	33.43		11.3	0.7
N 1022		30.0				
N 1023		10.0			11.4	0.8
N 1052	1270.0	40.0	33.76		11.1	0.6
N 1079		20.0				
N 1169		10.0				
N 1172		20.0		33.22	10.4	0.4
N 1175		10.0			11.7	0.8
N 1199		1.0			11.2	0.5
N 1201		12.0		33.57	11.1	0.5
N 1209		12.0			11.5	0.8
N 1275	56700.0					
N 1291	43.0					
N 1297		30.0				
N 1302		10.0				
N 1316	65800.0		33.94		11.6	0.3
N 1317						
N 1326		50.0				
N 1332		1.0	33.63		11.6	1.0
N 1339		12.0			10.7	0.7
N 1344		1.0			11.0	0.7
N 1350		30.0		33.22		
N 1351		1.0			10.5	0.5
N 1357		25.0			10.7	0.1
N 1358		25.0	34.21		11.3	0.5
N 1366						
N 1371		10.0				
N 1374		1.0			10.8	0.7
N 1379		1.0			10.5	0.3
N 1380	1.9	0.2	33.67		11.4	0.8
N 1381		1.0		33.61	10.9	0.8
N 1386	30.0	3.0			11.0	0.4
N 1387		12.0		33.66		
N 1389		1.0		33.51		
N 1395	2.0	0.2	33.90		11.3	0.6
N 1399	230.0		34.64		11.4	0.7
N 1400	2.0	0.1		32.37	10.6	1.3
N 1404		1.0	34.35		11.0	0.4
N 1407	44.0	4.0	34.17		11.3	0.4
N 1411		1.0				
N 1415		25.0				
N 1426		1.0			10.7	0.6
N 1427		1.0			10.8	0.5
N 1439		12.0			10.9	0.8
N 1440		20.0				
N 1452		30.0				
N 1453	18.0	3.0			11.7	0.8
N 1461		25.0			11.1	1.2
N 1521		12.0			11.6	0.6
N 1527						
N 1533		20.0	32.45			
N 1537					10.9	0.6
N 1543						
N 1549		12.0			11.0	0.5
N 1553		12.0	33.67			
N 1574		12.0		33.02		
N 1596		20.0				
N 1600	22.0	3.0	34.88		11.9	0.6
N 1617						
N 1638		20.0				
N 1700		1.0			11.6	0.4
N 1726		20.0			11.3	0.5
N 1947	18.0	3.0		33.07		
N 2179		20.0				
N 2217		12.0			11.4	0.8
N 2300	0.7	0.1	34.25		11.5	0.8
N 2310	2.5					
N 2314	8.0	0.2		34.13	11.7	0.8
N 2325		12.0			10.7	0.1

TABLE 2B—*Continued*

NAME (1)	6cm flux Obs/Drv mjy (16)	Er/Lm mjy (17)	Lg X Lum watts (18)	Lg U.L. X Lum. watts (19)	Lg {M} $M_\odot$ (20)	Lg {M}/L solar (21)
N 2434		12.0			10.9	0.8
N 2549		10.0			11.0	0.9
N 2639	50.0	9.0			11.2	0.1
N 2646		10.0			11.4	0.6
N 2655	42.0	3.0			11.1	0.0
N 2672		15.0			11.7	0.7
N 2681		20.0			10.4	0.1
N 2685	3.3	0.2		33.04	10.6	0.6
N 2693	1.7	0.1		34.45	12.0	0.9
N 2732		10.0			11.0	0.6
N 2749	40.0				11.6	0.8
N 2768	10.0				11.4	0.7
N 2775		10.0	33.29		11.0	0.5
N 2781		25.0				
N 2782	55.0			33.93		
N 2784		12.0			10.9	1.2
N 2787	9.0				10.9	0.9
N 2798	39.0					
N 2811						
N 2832		11.0	35.32		12.2	0.7
N 2844		30.0			10.4	0.4
N 2855		60.0			11.2	0.7
N 2859		1.0		33.17	11.2	0.7
N 2865		1.0			11.0	0.3
N 2880		10.0			10.8	0.6
N 2888		12.0			9.9	-0.2
N 2902		25.0				
N 2907		25.0				
N 2911	120.0	5.0		33.98		
N 2924		12.0				
N 2950		2.0			11.0	0.6
N 2962		10.0				
N 2974	9.6	0.2	33.60		11.2	0.6
N 2983						
N 2986	33.0	3.0			11.4	0.7
N 2992	8.5					
N 3032	3.7	0.7				
N 3056						
N 3065		10.0	34.21		10.9	0.6
N 3078	167.0	5.0	34.00		11.2	0.5
N 3081			34.14			
N 3087	0.7				11.3	0.8
N 3091		12.0			11.7	0.7
N 3098		15.0			10.4	0.5
N 3115		1.0		32.49	11.2	1.0
N 3136		12.0			11.1	0.5
N 3156		10.0			10.5	0.8
N 3158	3.0				12.2	0.9
N 3166		10.0		33.21	10.7	0.0
N 3185		15.0				
N 3190	50.0	16.0			11.2	0.6
N 3193		10.0			10.9	0.6
N 3203						
N 3226		15.0			11.0	1.0
N 3245		10.0			11.2	0.9
N 3250		1.0			11.6	0.7
N 3258	52.0	5.0	34.20		11.4	0.8
N 3268	23.0				11.3	0.7
N 3271		1.0		34.45		
N 3277		15.0			10.9	0.8
N 3281				34.34		
N 3300		15.0				
N 3301		15.0				
N 3309	14.0	3.0				
N 3348		10.0			11.4	0.5
N 3358						
N 3377		1.0		32.33	10.6	0.7
N 3379	0.8	0.1		33.08	11.1	0.6
N 3384		10.0		32.70	10.9	0.8
N 3390						
N 3412		5.0			10.3	0.4
N 3414		8.0			11.3	0.9
N 3449						
N 3458		10.0		33.79		
N 3489		1.0		32.52	10.5	0.6
N 3516	16.0	2.0	35.18			
N 3557	270.0				11.6	0.4
N 3571		40.0				
N 3585		1.0	32.93		11.0	0.4
N 3593	67.0	17.0		32.42	10.1	0.1
N 3605		1.0	32.28		9.8	0.7
N 3607	3.9	0.1	32.97		11.1	0.9
N 3608	0.9	0.1	32.86		11.0	0.9
N 3610	5.0				11.1	0.4
N 3611	14.0	3.0				
N 3613		1.0			11.4	0.6
N 3619		10.0				
N 3623		10.0			11.1	0.3
N 3626		10.0				
N 3630		7.0				
N 3637		12.0				
N 3640	4.0				11.1	0.7
N 3665	70.0				11.3	0.6
N 3706	19.0				11.6	0.7
N 3783						
N 3818		1.0		33.40	10.9	1.0

TABLE 2B—*Continued*

NAME (1)	6cm flux Obs/Drv mjy (16)	Er/Lm mjy (17)	Lg X Lum watts (18)	Lg U.L. X Lum. watts (19)	Lg {M} $M_\odot$ (20)	Lg {M}/L solar (21)
N 3872		11.0			11.5	0.8
N 3885						
N 3892		25.0				
N 3898		20.0			11.2	0.6
N 3900		15.0			10.8	0.1
N 3904		1.0			11.0	0.6
N 3923	4.5	1.0	33.77		11.2	0.4
N 3941		10.0				
N 3945		1.0			11.1	0.7
N 3957		12.0				
N 3962	3.7				11.2	0.6
N 3998	92.0		34.52		11.4	1.1
N 4008	6.0	1.5			11.4	0.6
N 4024		25.0			10.7	0.6
N 4026		2.0			11.1	0.9
N 4033		12.0			10.6	0.5
N 4036	3.0			33.35	11.2	0.7
N 4073		10.0			11.8	0.6
N 4105	3.7	0.1	33.55		11.2	0.7
N 4106		12.0				
N 4111	3.0				10.7	0.7
N 4124		10.0				
N 4125	3.0				11.4	0.6
N 4128		10.0			11.3	0.8
N 4138		10.0				
N 4143	38.0	11.0				
N 4150		10.0				
N 4158		15.0				
N 4168	4.0		33.23		10.8	0.8
N 4179		8.0			10.9	0.8
N 4203	14.6	0.2	34.17		10.9	0.7
N 4215		5.0		33.53		
N 4220		10.0				
N 4224		10.0				
N 4233		15.0		33.26		
N 4235		10.0				
N 4245		15.0		32.88		
N 4251		1.0		32.68		
N 4260		15.0		33.67		
N 4261	8300.0		34.28		11.8	0.9
N 4262		5.0			10.7	0.8
N 4267		10.0		32.95	10.8	0.6
N 4270		15.0				
N 4274		10.0			10.9	0.3
N 4278	351.0				11.0	1.1
N 4281	8.0				11.6	0.9
N 4283		15.0			10.1	0.5
N 4291		1.0	34.05		11.4	1.0
N 4293	15.0					
N 4314		15.0				
N 4324		10.0			10.1	0.0
N 4339		10.0			10.5	0.6
N 4340	12.0		32.82		10.6	0.5
N 4342	5.0				10.8	1.3
N 4346		10.0				
N 4350		7.0		32.78	10.9	0.8
N 4365		1.0	33.13		11.5	0.9
N 4371		10.0			10.7	0.5
N 4373	12.7				11.6	0.6
N 4374	2880.0	240.0	33.95		11.5	0.7
N 4377		10.0			10.4	0.6
N 4378		10.0	33.84		11.3	0.7
N 4379		10.0			9.9	0.0
N 4382		1.0	33.40		11.3	0.5
N 4386		10.0		33.44	11.1	0.8
N 4406		1.0	34.40		11.6	0.7
N 4417		6.0		33.62	10.3	0.3
N 4419	34.0	10.0				
N 4424		5.0		32.58		
N 4425		3.0				
N 4429		7.0	33.12		11.1	0.7
N 4435		6.0		33.40	10.8	0.6
N 4442		10.0			11.2	0.8
N 4448		10.0			10.8	0.8
N 4452		10.0				
N 4454		30.0				
N 4459	2.4	0.8	33.23		10.9	0.6
N 4461		10.0		33.26	10.9	0.9
N 4472	101.0	22.0	34.68		11.8	0.7
N 4473		1.0		33.18	11.1	0.7
N 4474		10.0		33.12		
N 4476		1.0		33.33	9.4	-0.2
N 4477		1.0	33.37		11.1	0.7
N 4478		2.0		33.47	10.5	0.5
N 4483		10.0				
N 4486	71900.0				11.8	0.8
N 4494	1.0				11.1	0.4
N 4503		10.0		32.82	10.6	0.6
N 4526		10.0		32.85	11.6	1.0
N 4546	6.0					
N 4550		1.0		32.98	10.3	0.4
N 4552	108.0	2.0	33.66		11.4	0.8
N 4564		1.0		33.02	10.8	0.7
N 4570		10.0			11.0	0.8
N 4578		10.0		33.14	10.8	0.7
N 4586		10.0				

TABLE 2B—*Continued*

NAME (1)	6cm flux Obs/Drv mjy (16)	Er/Lm mjy (17)	Lg X Lum watts (18)	Lg U.L. X Lum. watts (19)	Lg {M} $M_\odot$ (20)	Lg {M}/L solar (21)
N 4589	23.5	0.6	33.63		11.4	0.7
N 4596		10.0			10.8	0.5
N 4608		4.0			10.8	0.8
N 4612		10.0				
N 4621		1.0	33.08		11.3	0.7
N 4623	2.0					
N 4636	45.0	9.0	34.31		11.2	0.8
N 4638		10.0		33.01	10.6	0.5
N 4643		1.0	33.20			
N 4645		12.0		33.53	11.0	0.5
N 4649	24.0	2.0	34.34		11.8	0.9
N 4660		1.0			10.9	0.8
N 4665		1.0	32.58			
N 4684	18.0					
N 4696	1290.0	30.0			11.5	0.3
N 4697		1.0	33.34		11.2	0.4
N 4698		10.0		32.99	10.9	0.5
N 4710	8.8	1.1				
N 4742		1.0			10.3	0.3
N 4753		1.0	33.05			
N 4754		3.0		32.95	11.2	0.9
N 4756			34.77			
N 4760	460.0				11.5	0.6
N 4762		3.0	33.00		11.2	0.8
N 4767		1.0			11.3	0.6
N 4772		15.0				
N 4782	2540.0	75.0	34.71		11.8	1.0
N 4783					11.6	0.6
N 4786		12.0			11.7	0.7
N 4795		10.0				
N 4825		25.0				
N 4845	28.0	3.0	33.11			
N 4856		10.0				
N 4866		10.0				
N 4880		1.0		33.10		
N 4889	1.0				12.3	0.9
N 4914		10.0			11.8	0.6
N 4915		12.0			11.2	0.6
N 4933						
N 4936	33.3	0.3			11.4	0.6
N 4958		10.0				
N 4976		12.0			11.0	0.3
N 4984	10.0	2.0				
N 5011		1.0			11.3	0.4
N 5017		50.0			10.9	0.6
N 5018	1.1	0.2			11.4	0.4
N 5044	30.0	3.0			11.4	0.5
N 5061		12.0			11.1	0.3
N 5064						
N 5077	90.0	3.0	33.97		11.4	0.8
N 5084	34.0	3.0	33.91		11.4	1.0
N 5087		12.0				
N 5090	1630.0	40.0			11.6	0.8
N 5101		10.0		33.46		
N 5102		1.0		32.06	10.5	0.9
N 5121						
N 5128	126000.0		33.30		10.9	-0.3
N 5193		1.0				
N 5195	6.0		32.74		10.8	0.6
N 5198		10.0			11.2	0.7
N 5266		12.0			11.3	0.3
N 5273		10.0				
N 5308		10.0				
N 5322	34.0			33.48	11.8	0.8
N 5326		20.0				
N 5328		12.0			11.6	0.6
N 5353	35.0	2.0	34.07			
N 5357					11.1	0.2
N 5363	95.0	3.0	33.36		11.1	0.7
N 5365						
N 5377		10.0				
N 5380		30.0			11.1	0.4
N 5419	390.0				11.9	0.8
N 5422		10.0				
N 5444	187.0	20.0			11.6	0.6
N 5448		10.0				
N 5473		10.0				
N 5485	0.9	0.1		33.64	10.9	0.4
N 5493		25.0				
N 5548		25.0				
N 5557		1.0			11.6	0.6
N 5566		10.0	33.38			
N 5574		15.0		33.46		
N 5576		1.0		33.47	11.1	0.6
N 5614		10.0				
N 5631		10.0				
N 5638		1.0			10.9	0.6
N 5687		10.0				
N 5689		10.0		33.75		
N 5701		15.0				
N 5739		10.0				
N 5750		30.0				
N 5791		12.0			11.3	0.6
N 5796	154.0	3.0			11.6	0.9
N 5812		12.0			11.1	0.6
N 5813	1.7				11.4	0.7

TABLE 2B—*Continued*

NAME (1)	6cm flux Obs/Drv mjy (16)	Er/Lm mjy (17)	Lg X Lum watts (18)	Lg U.L. X Lum. watts (19)	Lg {M} $M_\odot$ (20)	Lg {M}/L solar (21)
N 5820		10.0			11.3	0.6
N 5831		1.0			10.9	0.6
N 5838	12.0	3.0	33.30		11.5	1.1
N 5846	8.0	0.5	34.70		11.4	0.6
N 5854		15.0				
N 5864		15.0				
N 5866	13.0	1.0		32.95	10.9	0.6
N 5898		2.0		33.92	11.1	0.6
N 5903	26.0	3.0			11.3	0.7
N 5982		1.0		34.21	11.6	0.6
N 6340		10.0			10.8	0.2
N 6482	13.0				11.7	0.4
N 6684		12.0				
N 6721		12.0			11.5	0.6
N 6758	28.0					
N 6776		12.0				
N 6851		12.0			11.1	0.3
N 6854		12.0				
N 6861	20.0					
N 6868	124.0	7.0			11.6	0.6
N 6875		12.0				
N 6876		12.0	34.64		11.5	0.6
N 6893						
N 6902						
N 6909		12.0			10.6	0.0
N 6935						
N 6942						
N 6958	27.0	5.0			11.3	0.5
N 7007		12.0				
N 7014		12.0			11.6	0.8
N 7020						
N 7029		12.0			11.0	0.4
N 7041		12.0				
N 7049	35.0	4.0				
N 7079		1.0				
N 7096						
N 7097	17.5				11.2	0.6
N 7135	4.0	0.2				
N 7144		12.0			11.2	0.6
N 7145		12.0			10.7	0.2
N 7155						
N 7166	0.6					
N 7168		12.0				
N 7192		12.0			11.2	0.4
N 7196		12.0			11.4	0.7
N 7213	228.0	10.0	35.90			
N 7302		12.0				
N 7332		10.0		33.44	11.0	0.5
N 7371		25.0				
N 7377		12.0			11.1	0.3
N 7410		12.0				
N 7457		10.0			10.3	0.1
N 7507		1.0			11.1	0.5
N 7585		1.0				
N 7600		20.0			11.4	0.7
N 7619	7.7		34.84		11.9	0.8
N 7626	230.0		34.40		11.6	0.6
N 7702		12.0				
N 7727		10.0				
N 7742	10.0	3.0			10.4	-0.1
N 7743		15.0			10.5	0.0
N 7744						
N 7785	3.5				11.6	0.7
N 7796		12.0				
I 1459	1016.0		34.06			
I 2006		1.0			10.4	0.4
I 2035		1.0				
I 3370	6.4				11.3	0.4
I 3896		12.0				
I 4296	1604.0	30.0	34.63		11.9	0.6
I 4329	0.6	0.1			11.9	0.8
I 4797		12.0				
I 4889		12.0			11.1	0.4
I 5063	430.0	30.0		34.20		
I 5105	3.7					
I 5135						
I 5181		25.0				
I 5240						
I 5267		30.0				
I 5269	3.1			33.72		
I 5328		12.0			11.3	0.3
A185254						
A202044		12.0				

TABLE 3
THE CENSUS OF THE ISM TRACERS

Classification	Type Code	Number of Galaxies	*IRAS* Obs	*IRAS* Det	6 cm Obs	6 cm Det	H I Obs	H I Det	X-Ray Obs	X-Ray Det	CO Obs	CO Det	EM Line Obs	EM Line Det	Dust Obs	Dust Det
E	10	124	120	43	119	52	64	3	39	27	7	0	122	34	69	18
Ep	17	12	12	7	11	4	6	2	4	2	2	2	12	3	3	2
$S0_1$	21	59	58	21	59	13	47	11	21	7	11	1	59	13	9	4
$S0_{1/2}$, $S0_2$	22	21	19	11	17	5	16	4	6	5	3	0	21	9	4	1
$S0_{2/3}$, $S0_3$	23	19	18	15	18	10	16	2	7	2	9	6	19	8	19	19
SB0	25	29	27	14	26	2	24	4	11	2	2	0	28	4	2	0
S0p, SB0p	27	18	18	16	16	8	13	6	12	6	5	3	18	10	10	8
E/S0	30	29	27	13	28	11	23	4	11	8	5	1	29	9	15	10
E/S0p	37	2	2	1	2	1	1	1	1	0	1	1	2	0	2	1
S0/Sa, SB0/SBa	40	36	32	23	32	9	31	14	10	7	2	0	35	13	8	5
S0/Sap, SB0/Sap	47	6	6	5	6	1	4	1	2	1	1	1	6	4	2	2
Sa, SBa	50	97	87	81	81	11	89	67	18	7	25	13	93	42	4	1
Sap, SBap	57	15	13	12	14	7	14	11	4	1	10	7	15	11	1	1
ALL CLASSES		467	439	262	429	134	348	130	146	75	83	35	459	160	148	72

The calculation is made only if the signal-to-noise ratio of the 100 μm flux is greater than 3, and if the 100 μm flux is greater than 240 mJy.

Column (15): the upper limit to the dust mass, derived using equation (8). The flux used is the greater of 3 times the rms of the 100 micron observation, or 240 mJy.

Column (16): the flux density at 6 cm, in mJy. It is derived either from an observation at that wavelength or from an estimation based on an observation at another wavelength. In the latter case, it is assumed that the spectral index of the emission is 0.7.

Column (17): the error in the flux density, or an upper limit to that value. The units are mJy. If the upper limit is taken from work at another wavelength, no correction for spectral index is applied.

Columns (18)–(19): the X-ray luminosity (18) or its 3 rms upper limit in the 0.5–4.5 kev band. The latter are given for those instances where the X-ray flux is less than 3 rms.

Column (20): an estimate of the total mass of the galaxy contained within a radius R:

$$\{M\} = 2.32 \times 10^5 R\sigma^2 , \qquad (9)$$

where σ is the central velocity dispersion, as in column (10) of Table 1, and R is from D_{25}. The units are solar mass, kpc and km s^{-1}. The assumptions and unknowns, e.g., the forms of the dispersion and rotation curves and the dispersion tensor, are such that we consider the resultant values as estimates only, although they do represent well-defined normalizing quantities for other entries in Tables 1 and 2. To emphasize the formalization of this approach (see e.g., Tonry and Davis 1981; Binney 1982) we call the resultant mass estimator a "mass gauge" and denote it as $\{M\}$.

Column (21): the mass gauge-to-luminosity ratio in solar units. $\{M\}/L$ scales with H_0.

IV. DISCUSSION

The principal thrust of this work is to inventory the amount of interstellar material present in various forms in early-type galaxies. We have accordingly focused on those tracers for which the observations as reported in the literature are the most complete. Our results are summarized in Tables 3 and 4, which show the number of objects of various types that have been searched and the number of detections for *IRAS* 100 μm emission, X-ray emission, radio emission, neutral hydrogen emission, or carbon monoxide emission. To improve the statistics, Table 4 gives averages of these data over several type groups. Also shown are the number of objects with notes about the presence of either emission-line material or visible dust.

As might be expected, the degree of completeness varies widely from one technique to the next. Even so, 202 (65%) E's and S0's (including peculiars and E/S0's) have already been *detected* in one or more of the five principal tracers. Thanks in large part to the work of Knapp *et al.* (1989), the *IRAS* data are the most complete, with information in hand on 94% of the objects. The rate of detection increases from 36% of the ellipticals to 93% of the Sa and Sa(pec) galaxies, with the later types showing generally higher detection rates. Although many of the earliest galaxies have been detected, there are a number where the upper limits are at the maximum sensitivity provided by *IRAS*, taken here to be 240 mJy at 100 microns.

The sampling is also nearly complete for radio continuum emission. However, the data are much less homogeneous than for *IRAS*. The most sensitive observations are made using interferometers, but these instruments have poor sensitivity to extended features of low surface brightness. Some of the objects have been done with filled apertures, but confusion limits the sensitivity to flux levels much higher than those attained with the arrays. There is also a possible effect arising from spectral index variation, since many of the sources were observed either at 1400 MHz or at 5 GHz, but not both. Thus, the "pseudo–6 cm" flux densities presented in Table 2 are useful indications of whether a given object is a strong radio source, but cannot be used easily to develop statistics about rate of detection.

A representative sample of the galaxies has now been surveyed for neutral hydrogen emission, with the recent observations reaching to interesting sensitivities. As expected, neutral hydrogen is found commonly in the Sa and Sa(pec) types. In

TABLE 4

ISM TRACERS BY GROUPED TYPES

TYPE KEYS	NUMBER OF GALAXIES	IRAS		6 CM		H I		X-RAY		CO		EM LINE		DUST	
		Obs	Det	Obs	Det	Obs	Det	Obs	Det	Obs	Det	Obs	Det	Obs	Det
10	124	120	43	119	52	64	3	39	27	7	0	122	34	69	18
30	29	27	13	28	11	23	4	11	8	5	1	29	9	15	10
21, 22, 23, 25	128	122	61	120	30	103	21	45	16	25	7	127	34	34	24
17, 27, 37	32	32	24	29	13	20	9	17	8	8	6	32	13	15	11
40, 47	42	38	28	38	10	35	15	12	8	3	1	41	17	10	7
50, 57	112	100	93	95	18	103	78	22	8	35	20	108	53	5	2

spite of a number of very sensitive searches, only three elliptical galaxies have been detected in H I emission, and there is evidence that in two of these the hydrogen is the result of capture. Certainly in this survey there is no evidence that neutral hydrogen is a common constituent of the interstellar medium of elliptical galaxies. This is not the case for the S0's, where 21 out of 103 observed have been detected in H I.

The X-ray emission from elliptical galaxies is an important tracer of the ISM, since it implies that there is a large mass of hot gas in or near each X-ray galaxy. The data given here is a complete summary for all early-type RSA galaxies observed by *Einstein* and for which reliable information can be derived. Although the sample is admittedly small, we note that the detection rate for elliptical galaxies is nearly twice that for S0's. This difference may only reflect the brighter absolute magnitude of the elliptical galaxies in this sample. Extending the survey will be an important task for future X-ray telescopes.

There is but a small amount of information on the presence of CO in these objects. Only now with improved receivers can CO sensitivities be pushed to meaningful limits. We have included what CO observations are available. With the small numbers, generalizations are dangerous, but it seems that sources with *IRAS* emission at 100 μm greater than a few Janskys can be detected. Most Sa and Sa(pec) galaxies that have been observed have also been detected. No ellipticals in our catalog have been detected, while seven S0's are detected in CO.

The column (17, Table 1) relating to emission lines gives a qualitative measure as to whether emission lines are present. There are a few studies which give quantitative data about various emission lines, either as equivalent widths or in intensity units, but the data are so diverse in their characteristics (slit width, sensitivity, emission lines used) that we elected to not use them. However, almost all of the objects have been looked at, with varying degrees of sensitivity. About 35% of the sample have been found to have optical emission lines. Among the ellipticals, 28% show line emission, only a modest increase over the 18% reported by Humason, Mayall, and Sandage (1956). Of the galaxies with emission lines, 90% have been seen in one or more of the five tracers.

The column (35, Table 1) describing the presence of visible dust summarizes an extremely heterogeneous group of papers. Obviously the success in seeing the dust depends critically on the observing conditions and techniques, as well as on the amount of dust in the galaxy and the viewing aspect. In addition, there are severe biases with galaxy type. Thus, all $S0_3$ galaxies show dust, by definition. Further, there are very few entries for the Sa galaxies because they are expected to have dust, and few authors therefore specifically mention its presence. Thus, it is not possible to use the data in our table to evaluate the frequency of appearance of dust in early-type galaxies in any meaningful way.

The nature of the interstellar material in early-type galaxies will be discussed elsewhere. It is interesting, however, to note the presence in Table 2 of a number of galaxies which have been detected in many tracers, as well as a few for which there are very good upper limits in most tracers. A few of each of these two types are listed in Table 5.

Finally, it was noted that, of the 467 RSA galaxies included in Tables 1 and 2, there are two (NGC 3056 and NGC 6942) for which we were unable to find any data at all. Unhappily, these are not the only moderately bright galaxies that have

TABLE 5

INTERSTELLAR MATTER IN SELECTED GALAXIES

Galaxy	Type Code	M_B	6 cm Cont. Log Lum. (W Hz^{-1})	X-Ray Log Mass ($M_\odot$)	H I Log Mass ($M_\odot$)	CO Log Mass ($M_\odot$)	*IRAS* Dust Log Mass ($M_\odot$)
N 2974	10	−20.95	21.11	8.98	9.20	<8.75	6.17
N 3998	21	−20.27	21.75	9.12	8.89		5.00
N 5128	27	−22.40	23.78	9.53		8.79	6.69
N 5353	30	−21.22	21.93	9.35	9.93		6.30
N 3115	21	−19.95	<19.02	<7.95	<7.52		<4.83
N 3379	10	−20.68	19.38	<8.59	<7.03	<7.05	<5.28
N 4473	10	−20.63	<19.76	<8.62	<7.79		<5.55
N 4564	10	−19.83	<20.76	<8.15	<7.61	<8.44	<5.80
N 5576	17	−20.66	<20.05	<8.79	<7.90		<6.25

been "forgotten." Appendix A of the RSA lists 259 early-type galaxies which warrant inclusion in the basic Shapley-Ames catalog by reason of their brightness, but which were excluded for one reason or other. They are often omitted from surveys and catalogs, and there is thus a dearth of information available on them. We urge that observations of these objects in at least some of the tracers be made.

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