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Possible new Planetary Nebulae in the IRAS Point Source Catalogue

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Summary. — A method for searching new possible planetary nebulae among the unidentified sources of the IRAS Point Source Catalogue is described. Sources were selected according to their far infrared colours, proximity to galactic equator, and quality of the IRAS detection. A catalogue of 388 new possible planetary nebulae is presented and the properties of the selected sample are discussed.

Key words: Planetary Nebulae — Infrared radiation — Catalogues.

1. Introduction.

More than 1300 Planetary Nebulae (PN) are positively known and well identified in our Galaxy, but the total number of PN in the Galaxy is possibly much larger. We know that the spatial distribution of PN is strongly peaked in the direction of the galactic centre, and concentrated in the galactic plane. This makes it extremely difficult to proceed in further identifications or discoveries with classical methods in the optical band: we need wavelength ranges, as infrared and radio, in which the radiation emitted by planetaries will not be substantially attenuated by the presence of interstellar dust.

Radio searches have been carried out in selected fields in the direction of the galactic centre. Wouterloot and Dekker (1979) and Isaacman (1981) have shown that about 25 % of the weak sources detected could be PN. There are problems with this type of analysis, though. In the first place, it is impossible to separate H II regions from PN on the basis of thermal continuum alone. Secondly, even the spatial resolution of the VLA is not always adequate to provide useful information on the morphology of the sources.

An important step forward has been achieved in the infrared with the survey of the sky performed by the Infrared Astronomical Satellite (IRAS) between 12 and 100 μm. The obvious advantage is that extinction is usually very low in the far-IR, even at large distances. The disadvantage is the low angular resolution. It would then be very helpful to associate the study of IRAS sources with radio interferometric observations and, when extinction is not extreme, with near-IR observations. Indeed Whitelock (1985) and Persi *et al.* (1987) have shown that an efficient method of classification of near-IR sources can be based on the position of the sources in the two-colour diagram (*J-H*, *H-K*).

In section 2 the criteria for selecting possible PN from the Point Source Catalogue (PSC) are described. Results are presented and discussed in section 3.

2. Selection criteria.

The complete list of selection criteria is shown in table I. The first criterium is the quality of the IRAS detection: sources have to be detected at least at 25 and 60 μm. Upper limits are allowed only at 12 and 100 μm.

In analogy with the classification scheme found for the near-IR, the main selection criterion is based on the far-IR colours of the sources. We know that IRAS Point Source Catalogue (PSC) lists the observations of more than 900 sources associated with PN on the basis of position coincidence only, but only 685 of them were detected at least in the 25 and 60 μm bands (Preite-Martinez, 1988). The two-colour diagram for all these sources, made with the flux densities at 12, 25, and 60 μm, can be found in Preite-Martinez (1988, his Fig. 2), while the brightest, better studied PN are plotted in Pottasch (1987, his Fig. 3). In the latter diagram also other classes of objects, as H II regions, stars, and galaxies, are plotted.

The extent of the region of the far-IR two-colour diagram where PN concentrate (the far-IR « PN Box ») is rather subjective: our choice is the region delimited by

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$F(12)/F(25) \leqslant 0.35$, and $F(25)/F(60) \geqslant 0.35$. Pottasch *et al.* (1988) use slightly different limits in their search in the galactic centre region : the limit on the $F(12)/F(25)$ ratio is the same, while the upper limit for the other ratio is only marginally different (0.30). On the other hand, we used more restrictive criteria (1, 4, and 5 in Tab. I) on the quality of the IRAS detection. This choice is probably one of the best trade-off between opposite requirements : to reduce the number of spurious sources falling in the PN Box, while retaining the maximum number of possible PN or PN-related objects with good quality IRAS detection. We also limit the search in the proximity of the galactic equator.

The PSC quotes flux densities at the effective wavelength of the survey bands for a given input energy distribution. The IRAS Explanatory Supplement (Beichman *et al.*, 1985) provides correction factors K for the actual energy distribution of a source. In order to colour-correct the Survey fluxes, table VI.C6 of the Supplement was used, assuming a black-body for the actual energy distribution of the sources. For the 25 and 60 μm fluxes we used an average value of the K's derived from the colour temperatures of adjacent wavelength intervals. For 12 and 100 μm fluxes we used the K appropriate to the colour temperature of the closest wavelength interval. Upper limits were not colour corrected. Correction factors are usually small, comparable to the accuracy of the measurements. Colour correction can be automatically performed by our searching code, before any other selection task.

3. Results.

In table II we summarize the results of the search in the PSC according to the selection criteria of table I. The search was made for all types of sources present in the PSC.

The total number of PSC sources satisfying criteria (1) to (3), including identified sources, is 1124. Only 388 of the 591 unidentified sources satisfy the further two criteria on variability and confusion. Selected sources are strongly concentrated around the galactic equator : 3/4 of the sources are confined within 5° from it. They are also concentrated in the direction of the galactic centre : about 1/3 of the sources are found within 15° of galactic longitude from the galactic centre.

In table III we present an analysis of the 533 identified PSC sources satisfying the first three criteria of table I. Catalogue numbers are those defined in the IRAS Explanatory Supplement (Beichman *et al.*, 1985). The number of associations is larger than the number of PSC sources because of multiple associations. As an example, there are 210 PN (catalogue # 11) also associated with entries of catalogue # 14 (ESO/Uppsala survey), and 17 PN also associated with entries of catalogue # 23 (various nebulae). Table III can be used for estimating the number of spurious sources that can be present in our selected sample. We can estimate that objects classified as « stars » in other wavelength bands might still represent about 10-15 % of the total selected sample, while PN-related sources (as proto-PN) might represent a similar, yet undefined, percentage. Standard H II regions are not expected to fall in the « PN box », but compact, dusty H II regions, as well as Herbig Ae-Be stars can still be present in the selected « box ».

3.1 Samples PM1 and PM2. — In tables IV and V the selected unidentified sources found in our search are listed. Actually, not all of them are still today unidentified : as we will discuss later, 12 of them have been identified as PN in radio and optical searches following the release of the PSC. The total number of 388 sources was divided into two sub-samples : the PM1 sample in table IV (340 sources) includes sources with an *a priori* higher probability of being a PN. The PM2 sample in table V (48 objects) includes all the sources that at first inspection show a higher *a priori* probability of being non-PN, or only PN-related objects. Selection has been made on the basis of the energy distribution and brightness of the sources in order to extract possible compact, dusty H II regions and objects with circumstellar dusty shells. Indeed, two main classes of objects are included in table V : (i) sources with very high flux densities at 25 μm, and at 12 μm if detected, or with temperature $T_d \geqslant 215$ K ; (ii) sources very strong at 60 μm, and at 100 μm if detected, or with flux densities increasing with wavelength and $F(100)/F(60) > 2$. Sources of the first type have always a high dust temperature T_d, while sources of the second type show low T_d values. Taking into account the first *a priori* selection of PM2 sources (about 15 % of the total sample), we feel that more than 50 % of the PM1 sources could turn out to be true PN. But, because the subdivision in the two sub-samples is rather subjective, it would not come as a surprise to find confirmed PN also in the PM2 sample.

Observed and derived quantities for the sources of the PM1 sample are shown in table IV. In the first 4 columns we list our PM1 number, IRAS name, and IRAS coordinates (right ascension and declination at epoch 1950), respectively. In columns 5 and 6 we list the corresponding galactic coordinates l and b. In the following 5 columns we list the corrected flux densities (Jy) and the quality of the IRAS detection (one digit per band). The dust temperature T_d follows in column 12 ; it is computed between 25 and 60 μm because of our choice of detection criteria.

The far-IR flux $F(\mathrm{IR})$ (column 13) has been computed assuming that the energy distribution of the sources can be approximated by a black-body at temperature T_d. The integration is performed from 4 to 300 μm, and the black-body flux density distribution is scaled to the observed flux at 60 μm, where the contribution of emission features is negligible (Preite-Martinez and Pottasch, 1987 ; Leene and Pottasch, 1987). Of course, other methods are available for computing $F(\mathrm{IR})$: a numerical integration of the observed flux densities can be performed over the wavelength range of the IRAS survey, but the result is reliable only if the source is observed with good statistics (flux quality > 2) in all four bands. If an extrapolation outside the limits of the survey

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wavelength range is required, it is usually made with a black-body. The choice of the appropriate temperature(s) is not a trivial problem, as well as the scaling at 12 μm, because of contamination of ionic lines. Moreover, high flux quality is required at 12 and 100 μm. In table IV $F(\mathrm{IR})$ is in units of $10(-14)\ \mathrm{W/m^2}$.

3.2 ESTIMATED QUANTITIES. — In the last 3 columns of table 4 we list the estimated values of the Hβ intensity, the radio flux density at 5 GHz, and distance for all the sources of the PM1 sample. We describe in the following how these quantities were computed.

In order to judge on the optical brightness of a source, and then to some extent on its observability, we can estimate the intensity of the Hβ line with the following assumptions : (i) that the source is indeed a PN ; (ii) the far-IR emission is due to dust heated to temperature T_d, (iii) Lyα photons are the main source of dust heating, and (iv) other parameters as electron temperature and density, and helium content, are fixed and equal for all the sources in the sample. Using equations (VIII-11) and (IV-27) from Pottasch (1984) we can relate the far-IR flux derived from IRAS observations to the radio and, in turn, to the Hβ flux that can be expected if the above assumptions are satisfied. Expressing the far-IR flux in $\mathrm{W/m^2}$, the radio flux density in Jansky, and the Hβ flux in $\mathrm{erg/cm^2/s}$, Pottasch (1984) gets :

$$F(\mathrm{IR}) = 9.38 \times 10(-12)\, S(5\ \mathrm{GHz}) \quad \text{(high density case)}$$

$$S(5\ GHz) = 3.67 \times 10(+9)\, F(\mathrm{H}\beta)\ ;$$

if the electron temperature t is $10(+4)$ K and the helium fraction $Y = 1.3$; then, inverting the above equations, we can estimate the Hβ flux and continuum radio flux density that can be expected from the selected sources, expressed in terms of their far-IR flux :

$$F(\mathrm{H}\beta) = 29.1\, G(\mathrm{IR}) \quad (\mathrm{erg/cm^2/s}) \quad (1)$$

$$S(5\ \mathrm{GHz}) = 1.07 \times 10(-14)\, F(\mathrm{IR}) \quad (\mathrm{mJy})\,. \quad (2)$$

Equations (1) and (2) can give reasonable estimates only in the case of an infrared excess IRE = 1. We know already from previous work on IRAS planetaries that assumption (iii) is the most delicate one. Indeed the distribution of the IRE (see for instance Preite-Martinez, 1988) show a maximum at values of IRE ⩾ 2. In estimating the values of the Hβ and radio fluxes listed in table IV we have assumed that Lyα photons contribute to dust heating only for a fraction 1/2, which is a much more reasonable assumption, on the average, than adopting IRE = 1. Indeed, the presence of large, diffuse, old nebulae in our sample is very unlikely, due to the characteristics of the IRAS Survey Array. Thus we have reduced the values given by equations (1) and (2) by a factor of $\langle \mathrm{IRE} \rangle = 2$. Due to our assumptions, the minimum uncertainty on $F(\mathrm{H}\beta)$ and S is a factor of 2-3 for each individual source.

Once the Hβ flux is computed, we can try to apply one of the statistical methods available in the literature for estimating the distance to the selected sources. Among the various methods we have selected the « modified » Shlowskii method in which the assumption of a constant nebular mass is released and a more realistic, though empirical, relationship between nebular mass and electron density is used. Following Pottasch (1984 ; Eq. (V-10)) and our estimate of $F(\mathrm{H}\beta)$ we can then express the distance D in terms of $F(\mathrm{IR})$:

$$D = 17.6/\sqrt{F(\mathrm{IR})/\langle \mathrm{IRE} \rangle}\ (\mathrm{kpc}) \quad (3)$$

where D is in kpc and $F(\mathrm{IR})$ in units of $10(-14)\ \mathrm{W/m^2}$, as in table IV. The assumption of an $\langle \mathrm{IRE} \rangle = 1$ would reduce the estimated distances by a factor of $\sqrt{2}$.

Thus, the value of other parameters (e.g. distance from the galactic plane and from the galactic centre) can be easily calculated.

We would like to stress here that the combination of our assumptions for computing $F(\mathrm{H}\beta)$ with the modified Shlowskii method is equivalent to the assumption that the sources in the sample all have the same far-IR luminosity, namely $L(\mathrm{IR}) \simeq 100 * \langle \mathrm{IRE} \rangle\, L_{\odot}$. Moreover, the analysis of the samples is biased by the fact that the planetaries near the galactic centre seem to show peculiar properties (Pottasch *et al.*, 1988) : they have an ⟨IRE⟩ higher than the well known PN, indicating that they are probably smaller, younger objects.

Observed and derived quantities for the sources of the PM2 sample are shown in table V. Columns are arranged in the same order of table IV, up to the total far-IR flux $F(\mathrm{IR})$. Other parameters were not estimated because we do not expect these sources to be planetary nebulae.

3.3 LRS SPECTRA. — Some of the selected unidentified sources are present in the Atlas of the IRAS Low Resolution Spectrometer (LRS) (Olnon *et al.*, 1986). They are all strong sources, and their spectra fall into two main categories : either featureless, or with a 10 μm silicate absorption band. Only in one case the spectrum shows a feature that could be attributed to the SI V line at 10.5 μm, but the absence of a neon line (either Ne II or Ne III) makes the classification uncertain. In table VI we list the objects with an LRS spectrum, with name(s), spectral classification as given in the Atlas, and remarks on the appearance of the spectral distribution.

3.4 IDENTIFIED SOURCES. — In a recent paper Iyengar (1987) searched the PSC for the far-IR counterpart of 104 newly discovered PN. Only 31 objects were associated with IRAS sources, and five of them are present in the PM1 sample. In particular, PM1-166 (alias PK 359 + 1.3 or 19W32) was also detected in radio searches in the direction of the galactic centre carried out by Wouterloot and Dekker (1979) and Isaacman *et al.* (1980). Hartl and Tritton (1984) detected 14 new PN on deep UK-Schmidt plates : the coordinates of one of them (No. 2) corresponds, within a few arcsec, to the IRAS coordinates of the selected possible planetary PM1-94. Five sources in the PM1 sample are in common with the list of new planetaries found by Pottasch *et al.* (1988) in their search in the direction of the galactic centre. The identification is also based on Very Large Array (VLA) observations.

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Cappellaro *et al.* (1987) discovered a new PN inspecting the red and infrared plates of the Near Infrared Photographic Survey of the galactic plane, confirming the classification with spectroscopic observations : with the same coordinates the object is present in the PM1 sample as PM1-210.

Likkel *et al.* (1987) have searched for CO emission in about 40 IRAS sources with fluxes characteristic of dust emission from shells around evolved objects. Nine objects were detected and classified as evolved stars in a pre-planetary nebula stage. Two of them are present in the PM2 sample : PM2-42 and PM2-48. Sources detected and identified in other wavelength bands are listed in table VII : names, references, and observed band(s) (other than IRAS) are indicated.

3.5 COMPARING DIFFERENT SAMPLES. — In figures 1 and 2 we show the distributions of dust temperature T_d and far-IR flux $F(\mathrm{IR})$ for the sources of the PM1 sample. The distributions of T_d and $F(\mathrm{IR})$ for the PM2 sample are shown in the lower panels of figures 1 and 2, respectively.

In order to discuss the distributions of the sample of possible PN we have applied the same selection criteria of table I to PSC sources associated with planetaries, selected on the basis of positional coincidence. Objects also present in the list of misclassified PN by Acker *et al.* (1987) were not taken into account. The total sample of confirmed PN in the PSC then reduces to 847 objects, with 787 PN in the proximity of the galactic equator ($|b| \leq 15°$). After colour correction, the number in the far-IR « PN Box » lowers to 370 PN, and eventually to 266 PN if all five criteria are applied. If the « PN Box » defined by Pottasch *et al.* (1988) had been used, the final sample would have been composed of 272 PN, a marginal difference. We have then applied to the sample of « selected PN » the same equations used for the sample of possible PN, and derived the distributions of the same quantities. These are shown in figures 3a and 3b.

First consider the two sub-samples PM1 and PM2 of selected possible PN. The differences in the distributions of T_d (Fig. 1) and $F(\mathrm{IR})$ (Fig. 2), reflect the choices made in creating the two sub-samples : for instance, all the sources brighter than $10(-11)\ \mathrm{W/m^2}$ are PM2 sources, and both the peak at low temperatures and the tail at high T_d in the lower panel of figure 1 are expected.

Of greater interest is the comparison between the distributions of the selected possible PN (Figs. 1 and 2, upper panels) and those concerning the 266 confirmed PN (Figs. 3a and 3b). As a first general consideration, we would like to stress that the following comparison should be taken « cum grano salis », because there could be as many planetaries in the PM1 sample as in the reference sample of true PN.

Although many low temperature sources were included in the PM2 sample, there is still a clear excess of PM1 sources below $T_d \simeq 115$ K (Figs. 1, upper panel, and 3a). Another piece of information can be extracted from the values listed in table IV : the $T_d - F(\mathrm{IR})$ plane is uniformely populated within the given ranges, but for a slight clustering at low-T_d, low-$F(\mathrm{IR})$ values, and in the region $T_d < 150$ K, $\mathrm{Log}\, F(\mathrm{IR}) > 2.3$. This is reflected also in the distribution of the $F(\mathrm{IR})$: in the PM1 sample

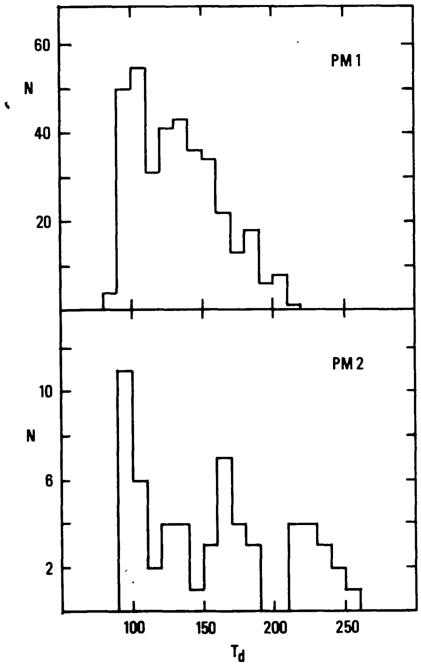

FIGURE 1. — Distribution of dust temperature T_d for the 340 sources of the PM1 sample (upper panel) and the for the 48 sources of the PM2 sample (lower panel). Bin size 10 K.

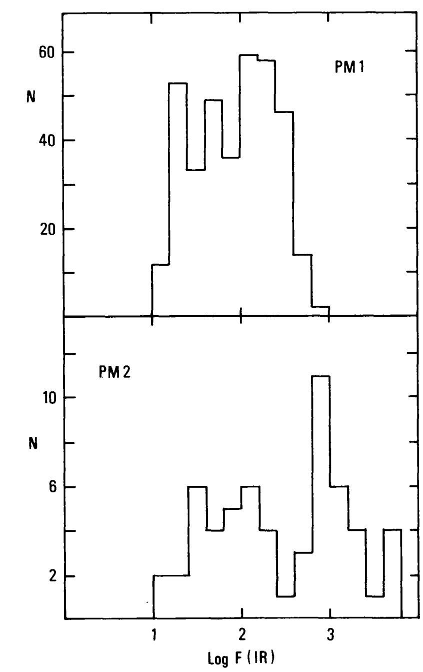

FIGURE 2. — Distribution of the far-IR flux $F(\mathrm{IR})$ integrated from 4 to 300 μm, in units of $10(-14)\ \mathrm{W/m^2}$. Samples and panels as in figure 1. Bin size 0.20 bel.

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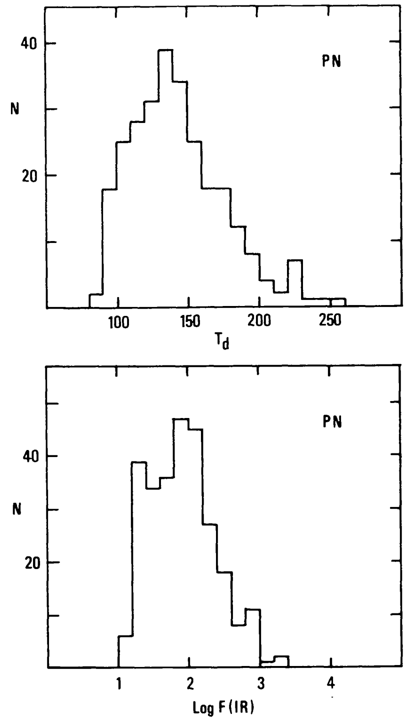

FIGURE 3. — Distributions of dust temperature T_d (panel a), and far-IR flux F(IR) (panel b), for all the P-K objects in the PSC that satisfy the five criteria of table I. Only confirmed PN were considered. The number of PN in the sample shown is 266. Units and bin sizes as in figures 1 and 2.

there is a slight relative excess of sources at Log F(IR) > 2.3 compared to the same distribution for PN (Figs. 2, upper panel, and 3b).

4. Conclusions.

The IRAS Point Source Catalogue has been searched for possible new planetary nebulae. Unidentified sources in the PSC were selected according to their far infrared colours, quality of the IRAS detection, and proximity to galactic equator. The number of sources satisfying our selection criteria is 388, and was further divided into two sub-samples according to brightness and shape of the far-IR energy distribution. The sources belonging to the two sub-samples PM1 and PM2 are listed in tables IV and V, respectively.

For all the sources we have derived the temperature T_d and the integrated far-IR flux F(IR). For the sample PM1, whose sources have a higher probability of being planetaries, we have also estimated the values of other parameters, as Hβ flux, thermal radio continuum at 5 GHz, and distance. The assumptions made in computing the distance are equivalent to postulate that all the sources have the same far-IR luminosity. The distributions of T_d and F(IR) for the samples PM1 and PM2 are discussed. In order to compare the distributions for sample PM1, we have produced a reference sample of planetary nebulae, applying the same selection criteria and equations to confirmed IRAS planetaries.

From the discussion of the properties of the selected sample and the relative amount of identified sources in our far-IR « PN box », we estimate that still a great number of spurious sources, mainly low-temperature, might be present in the selected sample of new possible PN. Nonetheless, it is relevant to note that even conservative estimates can yield as many PN in our sample as the number of known confirmed PN in the same far-IR « PN box ».

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TABLE I. — *Selection criteria.*

#	Criterium
1) Detection :	Flux Quality FQ ≥ 1, 2, 2, 1
2) Colours :	F(12)/F(25) ≤ 0.35, and F(25)/F(60) ≥ 0.35.
3) Distribution :	|b| ≤ 15°
4) Variability :	Variability index ≤ 20%
5) Confusion :	Confusion Flag set to 0 if FQ > 1.

TABLE II. — *Selected Sources.*

Sample	Criteria	|b| ≤ 15°	10°	5°
1) Total	(1-3)	1124	1048	811
2) Identified	(1-3)	533	480	342
3) Unidentified	(1-3)	591	568	469
4) Unidentified	(1-5)	388	372	295

TABLE III. — *Identified PSC sources selected with criteria (1) to (3).*

Catalogue(s)	Associations	%
11 (P-K)	374	41.7
1, 2, 4, 7 (Variable, red, early type stars; 2μm sky survey)	80	8.9
3, 5, 8, 14 (AFGL, ESO/UPPSALA, Globules, Equatorial IR)	264	29.5
6, 9, 10, 12, 25-31 (Galaxies)	16	1.8
13 (SAO)	36	4.0
15 - 19 (Bright, C-, S-stars)	15	1.7
20 - 24 (H II regions, CO, Var. Nebulae, 2μm survey improved)	111	12.4
Total associations	896	100.0
Total number of objects	533	

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TABLE IV. — *Possible new Planetary Nebulae in the IRAS Point Source Catalogue.*

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR	$LogF_R$	S mJy	D kpc
1	00115+6038	0 11 33.0	60 38 43	118.4	-1.6	0.25	0.91	2.49	14.9	1331	91	22	-11.50	11	5.4
2	00222+6354	0 22 15.5	63 54 25	120.1	1.5	0.25	3.00	5.94	19.8	1331	106	63	-11.04	33	3.1
3	01023+6426	1 2 18.3	64 26 54	124.4	1.9	0.25	1.04	2.63	13.5	1331	94	24	-11.46	12	5.1
4	02086+7600	2 8 41.7	76 1 0	127.9	14.2	0.39	3.02	7.53	10.2	3333	95	69	-11.00	36	3.0
5	02219+6100	2 21 54.1	61 0 2	134.0	0.4	0.52	1.64	3.07	21.0	3321	108	34	-11.31	17	4.3
6	02528+4350	2 52 53.1	43 50 45	145.4	-13.3	0.69	2.48	2.84	2.1	3333	132	44	-11.20	23	3.8
7	03238+5752	3 23 49.6	57 52 49	142.4	1.2	0.25	0.73	1.82	13.0	1331	95	17	-11.62	8	6.1
8	03331+6256	3 33 8.8	62 56 38	140.5	6.0	0.47	3.18	7.62	7.4	3333	97	71	-10.98	38	2.9
9	03563+5645	3 56 23.3	56 45 29	146.6	3.0	0.25	1.03	2.69	3.8	1333	93	24	-11.46	12	5.1
10	04154+4817	4 15 28.6	48 17 43	154.4	-1.3	0.25	0.86	2.38	3.8	1331	91	21	-11.52	10	5.5
11	04173+4401	4 17 23.9	44 1 19	157.7	-4.1	0.25	1.89	5.14	8.0	1333	91	45	-11.19	23	3.7
12	04269+3550	4 26 57.2	35 50 27	164.9	-8.5	3.41	10.49	20.63	14.7	3333	106	218	-10.50	116	1.7
13	04274+3553	4 27 25.2	35 53 21	164.9	-8.4	0.48	1.67	2.80	10.3	3331	113	33	-11.32	17	4.3
14	04381+2834	4 38 8.8	28 34 18	172.0	-11.6	0.25	1.17	1.38	3.1	1331	131	21	-11.52	11	5.5
15	04568+2701	4 56 48.9	27 1 35	175.8	-9.4	0.25	0.84	1.01	7.8	1231	130	15	-11.66	8	6.4
16	05345+2657	5 34 34.3	26 57 28	180.7	-2.5	0.42	1.88	4.47	5.2	3333	97	42	-11.21	22	3.8
17	05465+2318	5 46 31.4	23 18 52	185.3	-2.1	0.25	1.06	2.55	2.5	1331	97	24	-11.46	12	5.1
18	06044+2938	6 4 28.0	29 38 31	181.8	4.5	0.25	0.77	1.43	7.5	1331	108	16	-11.64	8	6.3
19	06047-0546	6 4 44.1	-5 46 54	213.1	-12.5	0.25	1.84	4.86	3.9	1332	93	43	-11.20	22	3.8
20	06252+1248	6 25 15.5	12 48 18	198.9	0.7	0.25	0.83	0.88	6.8	1331	137	14	-11.68	7	6.6
21	06502+3058	6 50 16.4	30 58 51	185.1	14.0	0.25	0.80	0.66	1.0	1331	150	13	-11.72	6	6.9
22	06507+0302	6 50 45.4	3 2 20	210.5	1.8	0.25	0.93	0.53	8.5	1321	172	14	-11.70	7	6.7
23	06518-1041	6 51 52.0	-10 41 48	222.8	-4.3	0.64	2.78	2.25	9.2	3331	151	45	-11.19	23	3.7
24	06530-0213	6 53 0.9	-2 13 35	215.4	-0.1	7.40	26.52	11.91	3.7	3333	188	375	-10.26	200	1.3
25	06549-2330	6 54 59.8	-23 30 15	234.7	-9.3	0.43	1.89	1.94	4.0	3331	138	32	-11.33	17	4.4
26	07097+0836	7 9 42.8	8 36 11	207.7	8.5	0.25	0.80	0.57	1.0	1321	158	12	-11.74	6	7.0
27	07104-0737	7 10 25.7	-7 37 36	222.2	1.2	0.25	0.74	1.09	9.8	1331	119	14	-11.69	7	6.7
28	07121-1158	7 12 6.6	-11 58 44	226.3	-0.5	2.13	7.46	16.41	15.5	3331	101	162	-10.63	86	2.0
29	07171+1823	7 17 6.8	18 23 2	199.5	14.4	0.41	1.32	0.66	1.0	1331	181	19	-11.56	10	5.7
30	07302-1711	7 30 17.0	-17 11 3	232.9	0.9	0.28	0.80	2.22	10.9	1331	91	19	-11.56	10	5.7
31	07305-1921	7 30 32.4	-19 21 1	234.9	-0.1	0.33	0.98	2.50	26.4	1321	94	23	-11.48	12	5.2
32	07479-3339	7 47 59.2	-33 39 52	249.2	-3.8	0.39	1.38	2.66	35.9	1331	107	28	-11.38	15	4.7
33	07528-3441	7 52 53.0	-34 41 56	250.6	-3.5	0.66	21.16	45.72	144.0	1331	102	456	-10.18	243	1.2
34	07577-2806	7 57 44.3	-28 6 39	245.6	0.8	0.72	2.78	1.40	9.1	3331	180	40	-11.23	21	3.9
35	07582-4059	7 58 13.3	-40 59 8	256.6	-5.9	3.43	14.28	8.11	2.6	3332	172	212	-10.51	113	1.7
36	08008-3423	8 0 48.1	-34 23 18	251.2	-2.0	2.90	34.68	95.82	201.0	1321	91	827	-9.92	442	0.9
37	08071-3808	8 7 11.0	-38 8 57	255.1	-2.9	0.30	0.94	2.12	8.9	1331	100	21	-11.52	11	5.5
38	08143-3942	8 14 22.6	-39 42 33	257.2	-2.6	0.34	3.01	2.65	12.8	3331	146	49	-11.14	26	3.5
39	08143-4406	8 14 23.1	-44 6 43	260.8	-5.1	0.66	9.68	5.42	3.6	3331	173	143	-10.68	76	2.1
40	08281-4850	8 28 8.3	-48 50 0	266.1	-5.8	2.71	9.14	3.30	15.0	3331	203	124	-10.74	66	2.2
41	08355-4027	8 35 35.1	-40 27 30	260.2	0.2	0.70	8.03	6.97	10.4	3333	147	131	-10.72	70	2.2
42	08439-4025	8 43 56.8	-40 25 44	261.1	1.5	0.25	0.93	2.46	37.6	1331	93	22	-11.50	11	5.3
43	08485-4414	8 48 30.3	-44 14 41	264.6	-0.2	2.92	8.52	20.32	33.9	3321	97	191	-10.56	102	1.8
44	08487-4623	8 48 45.2	-46 23 48	266.3	-1.6	0.25	0.97	2.25	33.1	1321	99	22	-11.50	11	5.4
45	08517-4816	8 51 43.6	-48 16 18	268.0	-2.4	0.86	2.78	5.77	42.4	3331	103	59	-11.07	31	3.2
46	09055-4629	9 5 34.2	-46 29 13	268.3	0.5	0.89	2.92	1.35	32.0	3331	186	42	-11.22	22	3.9
47	09119-5150	9 11 56.1	-51 50 12	272.9	-2.4	0.95	3.79	2.23	25.3	3321	170	57	-11.08	30	3.3
48	09171-4818	9 17 8.6	-48 18 6	270.9	0.7	0.25	1.67	4.62	20.5	1331	91	40	-11.24	21	3.9
49	09500-5236	9 50 2.6	-52 36 32	277.7	1.0	0.71	2.38	4.45	18.2	3331	108	49	-11.15	26	3.6
50	10017-5615	10 1 46.9	-56 15 15	281.3	-0.9	0.54	1.98	2.82	26.2	3331	121	37	-11.27	19	4.1
51	10115-5640	10 11 31.7	-56 40 33	282.6	-0.4	1.13	6.92	5.14	66.3	3331	156	109	-10.80	58	2.4
52	10378-6039	10 37 53.9	-60 39 5	287.6	-2.0	0.38	3.77	10.75	137.0	1321	89	91	-10.88	48	2.6
53	10458-5925	10 45 49.6	-59 25 36	287.9	-0.5	1.28	16.55	39.41	144.0	1321	97	370	-10.27	198	1.3
54	10474-5933	10 47 26.0	-59 33 54	288.2	-0.5	1.14	6.65	13.33	55.0	3331	105	139	-10.69	74	2.1
55	11046-6055	11 4 40.9	-60 55 17	290.7	-0.8	1.12	4.66	11.45	61.2	3321	96	106	-10.81	56	2.4
56	11201-6545	11 20 10.3	-65 45 21	294.0	-4.7	1.16	18.89	8.27	5.4	3331	189	266	-10.41	142	1.5
57	11288-6102	11 28 51.5	-61 2 38	293.5	0.1	0.69	10.26	4.12	57.7	3331	195	142	-10.68	76	2.1
58	11339-6004	11 33 59.9	-60 4 19	293.8	1.2	2.39	8.12	3.92	22.5	3331	183	117	-10.77	62	2.3
59	11353-5456	11 35 20.2	-54 56 31	292.5	6.2	0.25	1.17	1.15	9.1	1331	140	20	-11.54	10	5.6
60	11353-6037	11 35 21.2	-60 37 14	294.1	0.7	0.25	15.17	18.48	37.5	1331	129	272	-10.40	145	1.5

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TABLE IV *(continued)*.

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR	$LogF_{\beta}$	S mJy	D kpc
61	11531-6111	11 53 7.6	-61 11 33	296.3	0.7	0.29	2.58	1.55	50.9	1331	169	39	-11.25	20	4.0
62	11555-6031	11 55 31.0	-60 31 9	296.5	1.4	0.26	2.23	1.23	35.3	1321	174	33	-11.32	17	4.3
63	12085-6331	12 8 34.4	-63 31 49	298.5	-1.3	0.83	3.11	2.99	114.0	3321	142	52	-11.12	27	3.4
64	12145-5834	12 14 34.3	-58 34 46	298.5	3.7	0.28	2.17	1.55	20.7	1331	158	34	-11.31	18	4.3
65	12190-6356	12 19 5.6	-63 56 26	299.7	-1.5	0.33	2.90	5.50	77.3	1331	107	60	-11.06	31	3.2
66	12238-4907	12 23 48.2	-49 7 27	298.8	13.3	0.25	1.67	0.99	6.0	1331	170	25	-11.44	13	5.0
67	12262-6417	12 26 13.6	-64 17 2	300.5	-1.8	3.07	8.97	7.15	16.0	3331	152	144	-10.68	76	2.1
68	12316-6401	12 31 42.0	-64 1 42	301.1	-1.5	7.36	35.46	42.75	20.0	3331	130	633	-10.04	338	1.0
69	12447-6520	12 44 43.4	-65 20 21	302.6	-2.7	0.28	1.96	4.55	17.9	1331	98	43	-11.20	23	3.8
70	12454-6822	12 45 29.5	-68 22 44	302.7	-5.8	0.25	0.72	1.56	14.7	1331	102	16	-11.65	8	6.3
71	12481-4903	12 48 7.2	-49 3 32	302.8	13.5	0.25	1.24	1.43	1.9	1331	132	22	-11.50	11	5.3
72	13010-6012	13 1 0.1	-60 12 38	304.5	2.4	0.74	2.64	1.46	29.9	3331	174	39	-11.25	20	4.0
73	13171-6334	13 17 8.1	-63 34 1	306.1	-1.1	1.50	4.99	2.75	26.3	1321	175	74	-10.97	39	2.9
74	13427-6531	13 42 46.7	-65 31 23	308.5	-3.5	0.60	6.51	3.92	9.8	3331	169	98	-10.85	52	2.5
75	14031-6253	14 3 7.8	-62 53 58	311.3	-1.5	0.41	4.45	5.09	44.5	1321	132	78	-10.94	41	2.8
76	14072-5446	14 7 14.9	-54 46 19	314.2	6.1	0.25	5.21	4.31	12.1	1331	150	84	-10.91	45	2.7
77	14109-5915	14 10 56.5	-59 15 5	313.3	1.7	2.10	6.93	2.88	48.7	1331	193	97	-10.85	51	2.5
78	14130-5755	14 13 4.2	-57 55 36	314.0	2.9	0.45	2.61	4.52	23.7	1331	112	52	-11.12	27	3.4
79	14132-5839	14 13 16.3	-58 39 16	313.8	2.2	0.32	3.45	1.74	38.9	1331	180	50	-11.14	26	3.5
80	14150-6718	14 15 0.8	-67 18 11	311.2	-6.1	0.25	0.74	0.93	2.4	1331	128	13	-11.71	7	6.8
81	14177-5824	14 17 44.0	-58 24 42	314.4	2.2	1.32	10.89	12.88	46.7	3331	131	193	-10.55	103	1.8
82	14204-5936	14 20 28.2	-59 37 0	314.3	1.0	0.57	2.06	2.68	54.0	1321	126	38	-11.26	20	4.1
83	14224-6631	14 22 25.2	-66 31 59	312.1	-5.6	0.32	8.59	6.25	13.4	1331	157	135	-10.71	72	2.1
84	14322-6024	14 32 16.7	-60 24 27	315.4	-0.3	1.70	6.56	18.05	145.0	3331	91	156	-10.64	83	2.0
85	14341-6211	14 34 10.7	-62 11 47	314.9	-2.1	3.40	12.57	5.26	72.9	3331	193	175	-10.59	93	1.9
86	14482-5725	14 48 13.5	-57 25 58	318.5	1.5	2.07	6.39	2.79	127.0	3331	190	90	-10.88	48	2.6
87	14580-6303	14 58 4.9	-63 3 35	317.0	-4.0	0.28	1.10	1.63	20.3	1331	119	21	-11.52	11	5.4
88	15144-5812	15 14 25.9	-58 12 10	321.2	-0.8	9.30	36.39	34.91	149.0	3331	142	611	-10.05	326	1.0
89	15154-5258	15 15 27.7	-52 58 56	324.1	3.5	2.71	13.56	13.05	8.4	3331	142	228	-10.48	121	1.6
90	15204-5735	15 20 28.4	-57 35 45	322.2	-0.7	1.63	5.84	10.14	174.0	1331	112	116	-10.77	62	2.3
91	15212-5551	15 21 16.2	-55 51 42	323.2	0.7	1.49	6.62	12.71	130.0	1331	107	137	-10.70	73	2.1
92	15229-5433	15 22 55.1	-54 33 55	324.2	1.6	0.49	3.92	2.11	80.2	2331	176	58	-11.08	30	3.3
93	15232-6747	15 23 16.6	-67 47 30	316.8	-9.4	0.31	1.15	0.57	1.3	1331	182	17	-11.62	8	6.1
94	15261-6051	15 26 9.9	-60 51 21	321.0	-3.9	0.26	0.94	1.86	32.2	1331	105	20	-11.55	10	5.6
95	15284-6026	15 28 29.3	-60 26 56	321.5	-3.7	2.55	10.31	10.54	31.8	3331	138	176	-10.59	94	1.9
96	15338-5202	15 33 49.0	-52 2 25	326.9	2.8	0.56	11.74	4.48	9.5	1231	199	161	-10.63	86	2.0
97	15359-5226	15 35 58.3	-52 26 52	327.0	2.2	0.64	3.36	2.23	17.6	2331	163	52	-11.12	27	3.5
98	15367-5420	15 36 47.7	-54 20 36	325.9	0.6	2.24	6.43	13.12	159.0	3331	104	136	-10.70	72	2.1
99	15377-5234	15 37 44.6	-52 34 14	327.1	2.0	0.27	3.98	6.18	19.9	1331	117	77	-10.95	40	2.8
100	15387-5233	15 38 43.7	-52 33 10	327.2	1.9	0.35	4.83	10.19	26.8	1331	103	103	-10.82	55	2.4
101	15389-6015	15 38 56.0	-60 15 47	322.6	-4.3	0.30	1.69	3.61	4.9	1331	102	36	-11.28	19	4.1
102	15445-4729	15 44 32.2	-47 29 6	331.1	5.3	0.27	0.81	1.55	4.9	1331	107	17	-11.61	8	6.1
103	15499-5112	15 49 54.5	-51 12 15	329.4	1.9	0.28	4.96	7.14	46.6	1331	121	93	-10.87	49	2.6
104	15534-5422	15 53 26.6	-54 22 1	327.8	-0.9	1.25	9.00	11.91	353.0	3321	125	165	-10.62	88	1.9
105	15579-5445	15 57 55.4	-54 45 16	328.1	-1.6	0.87	8.10	6.19	211.0	3331	154	129	-10.73	68	2.2
106	16053-5528	16 5 21.4	-55 28 15	328.4	-2.8	0.46	5.94	12.20	14.1	3332	104	126	-10.74	67	2.2
107	16127-5021	16 12 43.8	-50 21 26	332.7	0.1	3.49	19.69	19.28	201.0	3331	141	332	-10.32	177	1.4
108	16130-4620	16 13 5.9	-46 20 31	335.5	3.0	5.75	19.78	16.66	87.9	3331	149	321	-10.33	171	1.4
109	16209-4714	16 20 55.6	-47 14 36	335.8	1.4	1.26	20.65	20.51	63.7	3331	140	350	-10.29	187	1.3
110	16245-3859	16 24 30.2	-38 59 7	342.2	6.7	4.53	26.74	28.75	15.1	3333	136	462	-10.17	247	1.2
111	16290-4214	16 29 1.8	-42 14 36	340.4	3.9	0.34	2.46	4.91	15.1	1331	105	51	-11.13	27	3.5
112	16311-4311	16 31 10.0	-43 11 47	340.0	2.9	0.32	3.21	5.07	91.4	1331	116	62	-11.04	33	3.2
113	16316-2749	16 31 39.3	-27 49 19	351.6	13.2	0.25	1.10	0.93	12.7	1231	149	18	-11.58	9	5.9
114	16478-4108	16 47 48.6	-41 8 13	343.6	2.0	1.38	7.50	7.21	36.2	1331	142	126	-10.74	67	2.2
115	16478-3217	16 47 51.7	-32 17 58	350.4	7.6	0.25	2.74	4.05	3.6	1331	119	52	-11.12	27	3.4
116	16484-4543	16 48 27.8	-45 43 49	340.1	-1.1	1.64	6.56	16.31	425.0	3331	95	150	-10.66	79	2.0
117	16507-4810	16 50 43.8	-48 10 24	338.5	-2.9	1.23	13.17	8.52	13.2	3222	164	201	-10.53	107	1.8
118	16517-3626	16 51 44.0	-36 26 43	347.7	4.4	1.84	5.57	2.07	11.2	3331	201	76	-10.96	40	2.9
119	16529-4341	16 52 59.6	-43 41 35	342.2	-0.4	1.48	22.33	21.71	343.0	3331	141	376	-10.26	201	1.3
120	16552-3050	16 55 15.7	-30 50 35	352.6	7.3	3.00	10.63	9.30	16.6	3331	147	174	-10.60	93	1.9

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TABLE IV *(continued)*.

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy)				FQ	Td	FIR	$LogF_\beta$	S	D
						12	25	60	100					mJy	kpc
121	16567-3627	16 56 47.1	-36 27 47	348.3	3.6	0.83	6.23	4.49	21.2	3331	158	98	-10.85	52	2.5
122	17005-4631	17 0 33.4	-46 31 42	340.8	-3.2	0.44	1.40	3.09	87.6	1321	101	30	-11.35	16	4.5
123	17007-3229	17 0 45.6	-32 29 4	352.0	5.4	0.30	2.08	4.28	4.6	1331	104	44	-11.19	23	3.7
124	17017-3208	17 1 47.1	-32 8 7	352.4	5.4	0.29	4.58	3.35	4.7	1331	157	72	-10.98	38	2.9
125	17021-3109	17 2 10.2	-31 9 15	353.2	5.9	4.00	12.39	14.89	7.3	3333	130	221	-10.49	118	1.7
126	17021-3054	17 2 11.5	-30 54 10	353.4	6.1	1.45	5.14	2.29	16.5	3331	188	73	-10.98	38	2.9
127	17025-3925	17 2 33.3	-39 25 40	346.7	0.9	0.52	4.88	13.69	57.3	1331	90	117	-10.77	62	2.3
128	17052-3245	17 5 17.0	-32 45 53	352.3	4.4	3.81	11.07	11.42	9.9	3331	138	189	-10.56	101	1.8
129	17067-3759	17 6 43.6	-37 59 38	348.3	1.1	2.37	10.98	10.53	68.1	3331	142	184	-10.57	98	1.8
130	17084-3025	17 8 29.5	-30 25 15	354.6	5.3	0.78	7.80	2.69	7.2	2321	206	105	-10.82	56	2.4
131	17088-4227	17 8 48.3	-42 27 7	345.0	-1.9	1.17	22.85	15.34	107.0	3331	162	352	-10.29	188	1.3
132	17097-3624	17 9 44.4	-36 24 25	350.0	1.5	1.84	6.96	9.86	230.0	3331	121	130	-10.72	69	2.2
133	17103-3338	17 10 20.8	-33 38 53	352.3	3.1	0.32	10.22	16.75	19.5	1331	114	200	-10.54	106	1.8
134	17104-3434	17 10 24.4	-34 34 58	351.5	2.5	0.42	2.30	2.99	36.1	1321	126	42	-11.21	22	3.8
135	17123-3929	17 12 19.9	-39 29 43	347.8	-0.7	1.09	5.37	3.55	359.0	3321	163	82	-10.92	44	2.7
136	17131-3330	17 13 9.4	-33 30 9	352.7	2.7	0.97	8.78	21.27	37.1	3331	96	198	-10.54	105	1.8
137	17149-3053	17 14 58.6	-30 53 31	355.1	3.9	2.58	11.19	7.45	20.6	3331	163	172	-10.60	92	1.9
138	17150-2739	17 15 1.3	-27 39 6	357.7	5.7	0.27	5.41	7.22	30.2	1331	124	99	-10.84	53	2.5
139	17164-2245	17 16 24.5	-22 45 12	2.0	8.3	0.30	1.07	1.12	17.0	1331	137	18	-11.57	9	5.8
140	17164-3226	17 16 25.4	-32 26 53	354.0	2.7	1.12	10.50	17.90	45.3	3331	112	208	-10.52	111	1.7
141	17175-2819	17 17 33.1	-28 19 38	357.5	4.9	4.11	13.80	4.84	10.1	3331	205	186	-10.57	99	1.8
142	17178-2600	17 17 50.1	-26 0 33	359.4	6.2	0.56	2.24	3.16	6.8	3331	122	42	-11.22	22	3.8
143	17194-3137	17 19 27.5	-31 37 8	355.0	2.7	1.74	6.48	8.00	38.3	1331	128	116	-10.77	62	2.3
144	17207-2856	17 20 45.4	-28 56 47	357.4	4.0	2.47	7.97	7.45	21.2	1331	143	133	-10.71	71	2.2
145	17218-2612	17 21 50.4	-26 12 19	359.8	5.3	0.39	6.57	4.17	10.1	1331	166	100	-10.84	53	2.5
146	17223-3225	17 22 23.3	-32 25 30	354.7	1.7	1.13	11.84	11.10	91.3	1331	143	198	-10.54	105	1.8
147	17234-4008	17 23 26.1	-40 8 31	348.5	-2.8	1.73	13.11	9.91	82.3	3331	155	208	-10.52	111	1.7
148	17238-3328	17 23 49.5	-33 28 4	354.0	0.9	1.01	7.22	19.81	136.0	1331	91	172	-10.60	91	1.9
149	17248-2254	17 24 52.1	-22 54 53	2.9	6.6	0.38	1.20	2.39	5.6	1331	105	25	-11.44	13	5.0
150	17258-2500	17 25 47.9	-25 0 15	1.3	5.2	0.57	10.52	18.98	11.2	1333	110	213	-10.51	113	1.7
151	17267-2608	17 26 46.0	-26 8 56	0.5	4.4	0.39	2.19	3.81	10.3	1331	111	44	-11.20	23	3.8
152	17269-2235	17 26 57.5	-22 35 25	3.5	6.3	0.77	16.71	19.48	8.1	2333	131	295	-10.37	158	1.4
153	17277-2838	17 27 44.2	-28 38 21	358.5	2.9	2.45	10.22	11.84	28.1	1331	132	180	-10.58	96	1.9
154	17283-3322	17 28 18.3	-33 22 30	354.6	0.1	3.52	31.50	41.79	349.0	1331	125	578	-10.08	309	1.0
155	17291-2402	17 29 9.5	-24 2 52	2.5	5.1	2.44	20.72	20.77	11.0	3333	139	352	-10.29	188	1.3
156	17300-3509	17 30 1.9	-35 9 2	353.3	-1.1	1.13	9.22	18.13	264.0	3331	106	192	-10.55	102	1.8
157	17310-3432	17 31 0.3	-34 32 56	353.9	-1.0	0.95	11.72	10.34	390.0	3331	146	193	-10.55	103	1.8
158	17317-2743	17 31 44.9	-27 43 15	359.7	2.6	1.02	30.64	27.29	17.2	3331	146	505	-10.13	270	1.1
159	17324-2309	17 32 28.8	-23 9 55	3.7	5.0	0.34	0.98	1.18	8.8	1331	130	17	-11.60	9	6.0
160	17332-2215	17 33 16.9	-22 15 33	4.5	5.3	1.63	15.97	13.13	7.4	3331	150	258	-10.43	138	1.5
161	17335-3534	17 33 33.4	-35 34 35	353.4	-2.0	2.25	7.29	7.92	93.7	1331	135	126	-10.74	67	2.2
162	17339-3424	17 33 56.2	-34 24 2	354.4	-1.4	2.22	10.96	11.42	109.0	1331	137	188	-10.56	100	1.8
163	17341-3417	17 34 8.3	-34 17 47	354.5	-1.4	2.78	7.97	12.18	115.0	1331	118	153	-10.65	81	2.0
164	17349-2444	17 34 57.3	-24 44 16	2.7	3.6	1.19	14.77	19.03	14.6	3331	126	269	-10.41	143	1.5
165	17350-2718	17 35 1.4	-27 18 38	0.5	2.2	3.77	20.29	10.28	29.3	1331	180	294	-10.37	157	1.5
166	17358-2854	17 35 50.2	-28 54 59	359.2	1.2	4.14	13.12	22.88	361.0	3331	111	262	-10.42	140	1.5
167	17364-1238	17 36 27.8	-12 38 54	13.2	9.7	0.25	1.32	0.62	2.3	1331	185	19	-11.56	10	5.7
168	17364-4222	17 36 28.0	-42 22 31	347.9	-6.1	0.27	0.90	1.05	24.5	1331	132	16	-11.63	8	6.2
169	17370-3357	17 37 0.9	-33 57 44	355.1	-1.7	0.90	8.13	8.95	217.0	3331	134	142	-10.69	75	2.1
170	17371-2625	17 37 7.2	-26 25 8	1.5	2.3	1.52	5.37	5.82	8.5	3331	135	93	-10.87	49	2.6
171	17381-3308	17 38 11.4	-33 8 56	355.9	-1.5	1.55	9.75	6.17	302.0	1331	166	148	-10.67	79	2.0
172	17385-3332	17 38 34.2	-33 32 13	355.6	-1.7	3.50	13.27	9.29	235.0	3331	160	206	-10.52	110	1.7
173	17393-2727	17 39 23.8	-27 27 5	0.9	1.3	2.12	19.81	37.88	85.8	2331	107	408	-10.23	218	1.2
174	17400-3202	17 40 5.5	-32 2 40	357.1	-1.2	2.24	8.18	5.72	182.0	3321	160	127	-10.73	68	2.2
175	17416-2112	17 41 39.7	-21 12 44	6.5	4.2	1.00	14.79	16.41	8.5	3331	134	258	-10.43	138	1.5
176	17440-3310	17 44 5.2	-33 10 8	356.6	-2.5	4.08	21.83	29.53	155.0	1331	124	403	-10.23	215	1.2
177	17448-2131	17 44 49.6	-21 31 24	6.6	3.4	0.78	10.30	7.91	18.5	3333	154	164	-10.62	87	1.9
178	17456-3004	17 45 38.3	-30 4 24	359.4	-1.2	3.96	13.51	25.53	471.0	1331	108	277	-10.39	148	1.5
179	17456-2037	17 45 41.5	-20 37 14	7.5	3.7	3.68	14.30	9.48	11.0	3331	163	220	-10.50	117	1.7
180	17458-2656	17 45 48.2	-26 56 13	2.1	0.4	4.43	16.32	19.27	445.0	1331	131	290	-10.38	154	1.5

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TABLE IV *(continued)*.

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR	$LogF_{\beta}$	S mJy	D kpc
181	17471-3235	17 47 10.2	-32 35 20	357.4	-2.8	2.18	9.14	6.95	138.0	1331	155	145	-10.68	77	2.1
182	17482-2501	17 48 17.4	-25 1 6	4.0	0.9	1.63	5.53	11.50	387.0	2331	103	117	-10.77	62	2.3
183	17487-1922	17 48 47.3	-19 22 58	8.9	3.7	2.51	19.30	6.70	11.6	3331	206	260	-10.42	139	1.5
184	17488-1741	17 48 53.4	-17 41 40	10.4	4.6	0.28	5.43	7.63	6.5	1331	122	101	-10.83	54	2.5
185	17497-2727	17 49 44.4	-27 27 7	2.1	-0.6	4.30	18.12	24.58	222.0	1331	124	334	-10.31	178	1.4
186	17498-2526	17 49 53.6	-25 26 50	3.8	0.4	4.67	14.04	11.31	359.0	1331	151	226	-10.48	120	1.7
187	17506-2955	17 50 37.1	-29 55 0	0.1	-2.0	1.96	6.46	6.33	193.0	3331	141	109	-10.80	58	2.4
188	17514-1555	17 51 28.0	-15 55 20	12.2	4.9	4.64	15.61	13.32	7.8	3331	148	255	-10.43	136	1.6
189	17516-3601	17 51 37.8	-36 1 5	354.9	-5.3	0.41	2.60	2.71	24.6	1331	137	45	-11.19	23	3.7
190	17520-2109	17 52 3.8	-21 9 2	7.8	2.2	2.13	8.43	7.28	24.5	1331	148	138	-10.70	73	2.1
191	17523-3404	17 52 21.0	-34 4 49	356.7	-4.5	0.87	14.17	28.66	16.9	3333	105	298	-10.36	159	1.4
192	17534-3447	17 53 25.2	-34 47 56	356.1	-5.0	0.41	1.25	1.08	5.3	1331	148	20	-11.53	10	5.5
193	17540-2753	17 54 4.9	-27 53 57	2.2	-1.7	1.64	15.69	25.46	337.0	2331	115	306	-10.35	163	1.4
194	17542-2829	17 54 14.8	-28 29 43	1.7	-2.0	2.13	13.87	13.00	196.0	1331	143	232	-10.47	123	1.6
195	17548-2753	17 54 48.6	-27 53 4	2.3	-1.8	1.43	18.51	21.14	172.0	3331	132	325	-10.32	174	1.4
196	17555-3621	17 55 31.3	-36 21 3	355.0	-6.2	0.86	2.69	1.27	21.4	3331	184	38	-11.25	20	4.0
197	17560-2027	17 56 5.7	-20 27 12	8.9	1.7	1.86	16.43	17.48	40.4	3331	136	283	-10.38	151	1.5
198	17576-2653	17 57 42.0	-26 53 11	3.5	-1.9	3.43	15.03	5.16	287.0	3331	207	202	-10.53	108	1.7
199	17578-1745	17 57 49.5	-17 45 15	11.4	2.7	0.41	2.08	2.46	12.2	1321	131	37	-11.27	19	4.1
200	17580-2707	17 58 0.6	-27 7 26	3.3	-2.0	2.23	12.19	15.03	209.0	1331	128	219	-10.50	117	1.7
201	17580-3111	17 58 5.4	-31 11 18	359.8	-4.1	3.93	14.86	7.51	14.9	3331	180	215	-10.50	115	1.7
202	17581-2926	17 58 6.1	-29 26 33	1.3	-3.2	0.97	6.68	8.22	73.9	2231	129	120	-10.76	64	2.3
203	17582-2619	17 58 14.4	-26 19 36	4.0	-1.7	1.66	9.61	7.48	292.0	3331	153	153	-10.65	81	2.0
204	17593-2721	17 59 18.3	-27 21 59	3.2	-2.4	1.91	19.07	23.54	213.0	1331	128	343	-10.30	183	1.3
205	17597-1442	17 59 45.8	-14 42 10	14.3	3.8	2.16	15.99	15.29	60.8	3331	142	268	-10.41	143	1.5
206	18019-3042	18 1 58.4	-30 42 29	0.6	-4.6	0.57	2.07	5.26	49.4	1331	94	48	-11.16	25	3.6
207	18020-3207	18 2 4.5	-32 7 15	359.4	-5.3	0.26	6.00	8.66	46.7	1331	120	113	-10.78	60	2.3
208	18023-3409	18 2 19.5	-34 9 47	357.6	-6.3	0.26	3.04	1.68	25.0	1331	174	45	-11.19	24	3.7
209	18036-2001	18 3 38.0	-20 1 15	10.1	0.4	2.66	10.49	9.02	383.0	1331	148	171	-10.60	91	1.9
210	18042-0855	18 4 15.5	-8 55 59	19.9	5.7	0.40	3.40	4.87	5.6	1331	121	64	-11.03	34	3.1
211	18042-3429	18 4 17.7	-34 29 25	357.5	-6.8	0.25	0.93	1.01	18.9	1331	135	16	-11.63	8	6.2
212	18044-1303	18 4 26.0	-13 3 55	16.3	3.6	0.34	2.73	5.19	14.6	1331	107	56	-11.09	30	3.3
213	18061-2505	18 6 6.1	-25 5 7	6.0	-2.6	7.19	20.92	21.78	163.0	3331	137	359	-10.28	191	1.3
214	18063-3049	18 6 23.6	-30 49 27	1.0	-5.4	0.25	3.48	6.96	5.2	1331	105	73	-10.97	38	2.9
215	18068-1349	18 6 48.9	-13 49 9	15.9	2.7	0.40	2.54	4.81	31.8	1331	108	52	-11.12	27	3.4
216	18079-3003	18 7 59.3	-30 3 39	1.8	-5.4	0.26	5.50	4.41	7.9	1331	152	88	-10.89	47	2.6
217	18090-0049	18 9 4.6	0-49 50	27.6	8.5	0.25	0.74	0.53	2.6	1321	158	12	-11.77	6	7.3
218	18096-3230	18 9 41.5	-32 30 52	359.8	-6.9	0.45	9.66	13.70	13.4	2331	121	181	-10.58	96	1.8
219	18108-3248	18 10 53.2	-32 48 32	359.7	-7.2	0.60	1.80	3.71	4.0	3332	104	38	-11.26	20	4.0
220	18111-1137	18 11 10.2	-11 37 40	18.3	2.9	0.51	15.48	16.61	59.8	1331	136	268	-10.41	143	1.5
221	18113-2503	18 11 21.2	-25 3 51	6.6	-3.6	3.50	15.08	12.43	28.7	3331	150	244	-10.45	130	1.6
222	18131-1957	18 13 10.2	-19 57 7	11.3	-1.6	2.45	11.24	14.03	272.0	1331	128	203	-10.53	108	1.7
223	18151-0649	18 15 7.1	-6 49 33	23.0	4.3	0.27	1.11	1.35	9.0	1321	129	20	-11.54	10	5.6
224	18167-1209	18 16 46.1	-12 9 29	18.5	1.4	2.20	14.89	21.13	335.0	1331	121	279	-10.39	149	1.5
225	18186-2946	18 18 36.5	-29 46 42	3.1	-7.3	0.25	6.60	4.52	10.8	1331	161	102	-10.83	54	2.5
226	18186-0833	18 18 36.8	-8 33 12	21.9	2.7	0.67	8.93	5.48	23.1	3331	168	135	-10.71	72	2.1
227	18197-0158	18 19 46.1	-1 58 32	27.9	5.6	2.70	8.40	13.70	14.4	3333	115	164	-10.62	87	1.9
228	18207-0951	18 20 44.1	-9 51 38	21.0	1.6	1.32	3.87	7.85	34.7	1331	104	82	-10.93	43	2.8
229	18213-2257	18 21 18.9	-22 57 23	9.5	-4.6	1.05	9.84	10.94	9.7	1332	134	172	-10.60	91	1.9
230	18216-0156	18 21 37.5	-1 56 6	28.1	5.2	1.26	11.96	29.03	17.6	3333	96	270	-10.41	144	1.5
231	18231-1047	18 23 11.7	-10 47 15	20.5	0.7	3.56	12.41	15.30	227.0	1331	128	223	-10.49	119	1.7
232	18234-1444A	18 23 24.9	-14 44 17	17.0	-1.2	1.02	21.96	24.53	285.0	1331	134	384	-10.25	205	1.3
233	18240-1659	18 24 0.7	-16 58 59	15.1	-2.4	0.41	1.98	4.38	188.0	1321	100	43	-11.20	23	3.8
234	18248-2857	18 24 48.4	-28 57 10	4.5	-8.1	0.29	8.07	5.27	4.5	1331	164	124	-10.75	66	2.2
235	18250-0940	18 25 1.1	-9 40 8	21.7	0.8	1.91	10.08	12.42	87.6	3331	128	181	-10.58	96	1.8
236	18256-0004	18 25 40.1	0 -4 45	30.2	5.1	0.65	2.09	3.08	6.3	3331	119	40	-11.24	21	4.0
237	18267+0016	18 26 42.8	0 16 19	30.7	5.1	0.25	0.80	2.07	28.8	1331	93	18	-11.57	9	5.8
238	18268-0140	18 26 48.2	-1 40 58	28.9	4.1	0.28	0.84	1.98	8.5	1331	98	19	-11.57	10	5.8
239	18271-2107	18 27 8.8	-21 7 13	11.8	-5.0	0.32	1.04	1.72	44.8	1331	114	20	-11.53	10	5.5
240	18277-0729	18 27 47.8	-7 29 44	23.9	1.2	0.46	10.71	8.72	59.3	1331	151	173	-10.60	92	1.9

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TABLE IV *(continued)*.

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR	$LogF_{\beta}$	S mJy	D kpc
241	18278-0156	18 27 48.4	-1 56 17	28.8	3.8	0.31	0.94	2.38	44.9	1321	95	22	-11.50	11	5.3
242	18320+0005	18 32 4.6	0 5 35	31.1	3.8	0.25	0.83	1.66	41.4	1321	105	17	-11.60	9	6.0
243	18321-1401	18 32 6.9	-14 1 15	18.6	-2.8	0.36	1.14	1.47	114.0	1331	126	21	-11.52	11	5.5
244	18326-0642	18 32 38.5	-6 42 28	25.2	0.5	2.80	10.79	21.85	251.0	3321	104	227	-10.48	121	1.7
245	18331-1202	18 33 10.9	-12 2 9	20.5	-2.1	1.30	16.27	19.37	196.0	1331	130	289	-10.38	154	1.5
246	18334-0004	18 33 28.7	0 -4 58	31.1	3.4	0.25	0.99	2.57	46.6	1331	94	23	-11.48	12	5.2
247	18340-1302	18 34 2.4	-13 2 3	19.7	-2.7	0.34	9.81	13.15	143.0	1231	124	181	-10.58	96	1.9
248	18371-3159	18 37 6.7	-31 59 38	2.9	-11.8	0.25	6.88	4.31	1.8	1333	166	104	-10.82	55	2.4
249	18376+0026	18 37 39.5	0 26 41	32.1	2.7	0.81	2.56	2.16	13.3	3331	149	42	-11.22	22	3.9
250	18385+1350	18 38 34.5	13 50 0	44.2	8.6	0.60	3.52	3.49	3.7	3333	140	60	-11.06	31	3.2
251	18395-1418	18 39 33.9	-14 18 11	19.2	-4.5	0.25	1.93	3.71	32.5	1331	107	40	-11.24	21	3.9
252	18401-1109	18 40 10.3	-11 9 56	22.1	-3.2	0.57	3.64	6.03	66.5	2331	114	72	-10.98	38	2.9
253	18411+0343	18 41 6.9	3 43 35	35.4	3.5	1.45	4.35	6.57	5.2	3332	118	83	-10.92	44	2.7
254	18415-1945	18 41 31.7	-19 45 53	14.5	-7.4	0.49	4.11	8.43	5.4	1323	104	87	-10.90	46	2.7
255	18420-0512	18 42 1.6	-5 12 24	27.6	-0.9	1.02	29.42	25.33	239.0	3331	148	481	-10.16	257	1.1
256	18430-0636	18 43 5.7	-6 36 10	26.5	-1.7	1.35	7.20	12.45	164.0	1331	112	143	-10.68	76	2.1
257	18452-0101	18 45 13.3	-1 1 9	31.7	0.4	4.28	16.42	32.11	437.0	3331	106	341	-10.30	182	1.3
258	18454+0001	18 45 27.8	0 1 24	32.6	0.8	0.85	15.82	13.22	389.0	2331	149	257	-10.43	137	1.6
259	18483-0810	18 48 20.0	-8 10 58	25.6	-3.6	0.28	4.14	2.43	46.9	1331	170	62	-11.05	33	3.2
260	18485+0642	18 48 32.8	6 42 19	38.9	3.2	4.29	23.01	24.91	60.6	3331	135	399	-10.24	213	1.2
261	18489-0629	18 48 58.0	-6 29 48	27.2	-3.0	0.28	5.03	7.36	77.4	1331	120	95	-10.86	50	2.6
262	18506+0640	18 50 36.1	6 40 30	39.1	2.7	0.35	1.01	1.02	16.1	1331	139	17	-11.60	9	6.0
263	18514+0019	18 51 24.5	0 19 36	33.6	-0.4	5.98	23.39	16.36	153.0	3331	160	364	-10.28	194	1.3
264	18524+0544	18 52 26.8	5 44 16	38.5	1.9	0.46	6.02	4.81	39.5	3331	152	97	-10.85	51	2.5
265	18527+0106	18 52 45.1	1 6 50	34.4	-0.3	2.07	9.66	7.57	129.0	1331	153	154	-10.65	82	2.0
266	18528+0425	18 52 51.6	4 25 30	37.4	1.2	0.58	3.42	6.30	186.0	2331	109	70	-10.99	37	3.0
267	18539+0549	18 53 56.1	5 49 22	38.7	1.6	0.38	5.11	12.21	27.9	1331	97	115	-10.78	61	2.3
268	18545+0705	18 54 31.9	7 5 53	39.9	2.0	0.29	1.02	2.89	168.0	1331	90	25	-11.45	13	5.0
269	18552+0443	18 55 14.8	4 43 20	37.9	0.8	2.41	10.70	8.62	148.0	1331	151	172	-10.60	92	1.9
270	18559+0515	18 55 56.0	5 15 37	38.5	0.9	0.69	3.95	9.81	75.5	1331	95	90	-10.88	48	2.6
271	18580+0818	18 58 0.9	8 18 30	41.4	1.8	1.09	3.31	2.19	16.3	3331	163	51	-11.13	27	3.5
272	18582+0001	18 58 14.4	0 1 53	34.1	-2.0	0.76	6.05	7.75	82.8	3331	126	110	-10.80	58	2.4
273	18586+0821	18 58 41.4	8 21 15	41.5	1.7	0.30	8.76	7.18	16.3	1331	150	142	-10.69	75	2.1
274	18592+0121	18 59 12.2	1 21 15	35.4	-1.6	7.84	22.89	40.55	134.0	3331	111	460	-10.17	245	1.2
275	18596+0315	18 59 36.2	3 15 51	37.1	-0.8	3.12	15.10	22.18	111.0	3331	120	286	-10.38	152	1.5
276	18599+1013	18 59 56.2	10 13 8	43.3	2.3	0.26	3.11	5.55	8.7	1331	110	63	-11.04	33	3.1
277	19001+0807	19 0 7.7	8 7 22	41.5	1.3	0.43	6.25	15.91	29.4	1331	94	144	-10.68	76	2.1
278	19013+0629	19 1 17.9	6 29 41	40.2	0.3	6.18	17.67	15.84	78.9	3331	145	292	-10.37	156	1.5
279	19035+0801	19 3 31.5	8 1 17	41.8	0.5	0.99	3.71	7.79	92.7	1331	103	79	-10.94	42	2.8
280	19037+0824	19 3 47.3	8 24 27	42.2	0.6	2.78	10.65	14.40	26.5	3331	124	196	-10.54	105	1.8
281	19041+1038	19 4 10.7	10 38 40	44.2	1.6	0.30	1.54	3.18	26.0	1331	104	33	-11.32	17	4.4
282	19075+0432	19 7 31.2	4 32 9	39.2	-2.0	6.30	29.29	28.28	13.5	3333	141	493	-10.14	263	1.1
283	19079-0315	19 7 55.0	-3 15 14	32.3	-5.7	2.73	11.24	3.84	16.2	3331	207	151	-10.66	80	2.0
284	19083+0119	19 8 22.1	1 19 42	36.4	-3.7	2.79	16.18	11.81	4.3	3332	157	254	-10.43	136	1.6
285	19084+0422	19 8 24.1	4 22 26	39.1	-2.3	0.25	1.26	2.52	76.6	1331	105	26	-11.42	14	4.8
286	19092+1326	19 9 17.6	13 26 6	47.2	1.8	1.78	7.30	7.03	14.8	3331	141	123	-10.75	65	2.2
287	19094+1627	19 9 29.6	16 27 50	49.9	3.1	0.95	5.09	2.51	5.8	3331	181	73	-10.97	39	2.9
288	19100+0809	19 10 0.1	8 9 56	42.7	-0.9	0.35	1.13	3.01	42.2	1321	93	27	-11.41	14	4.8
289	19108+1321	19 10 50.2	13 21 35	47.3	1.4	1.23	6.46	5.05	20.4	1331	153	103	-10.82	55	2.4
290	19110+1534	19 11 2.8	15 34 27	49.3	2.4	0.79	2.28	2.14	9.3	3331	143	38	-11.26	20	4.0
291	19112+0816	19 11 12.7	8 16 32	42.9	-1.1	0.48	8.15	6.23	73.7	1331	154	129	-10.72	69	2.2
292	19121+2638	19 12 8.3	26 38 49	59.3	7.3	0.27	1.32	1.33	1.8	1331	139	22	-11.49	11	5.3
293	19132+1842	19 13 16.6	18 42 24	52.4	3.4	0.25	0.74	0.73	6.8	1331	140	13	-11.74	6	7.0
294	19154+2704	19 15 29.7	27 4 31	60.0	6.8	0.28	0.81	1.52	2.8	1333	108	17	-11.62	8	6.1
295	19170+1706	19 17 4.9	17 6 11	51.4	1.8	0.38	6.64	12.71	19.6	1231	107	137	-10.70	73	2.1
296	19176+1251	19 17 36.4	12 51 56	47.7	-0.3	0.96	10.48	3.65	70.9	3331	206	141	-10.69	75	2.1
297	19177+2258	19 17 41.9	22 58 26	56.6	4.4	0.25	1.41	2.09	16.8	1331	119	27	-11.41	14	4.8
298	19190+1102	19 19 3.8	11 2 56	46.3	-1.5	1.86	15.02	23.84	19.6	3333	116	291	-10.37	155	1.5
299	19193+1804	19 19 18.3	18 4 24	52.5	1.8	0.58	10.28	15.73	58.4	3331	118	197	-10.54	105	1.8
300	19200+3457	19 20 5.1	34 57 3	67.6	9.5	0.25	2.18	1.37	1.4	1331	166	33	-11.32	17	4.3

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TABLE IV *(continued)*.

PM1	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR	LogF$_{\beta}$	S mJy	D kpc
301	19204+1122	19 20 29.0	11 22 3	46.7	-1.6	0.30	0.95	1.14	47.2	1331	130	17	-11.61	9	6.0
302	19255+1355	19 25 33.3	13 55 18	49.5	-1.5	0.30	1.05	0.77	90.3	1321	157	16	-11.62	8	6.1
303	19264+1609	19 26 26.4	16 9 42	51.6	-0.6	0.85	3.47	2.22	73.9	1331	165	53	-11.11	28	3.4
304	19269+1848	19 26 58.4	18 48 15	54.0	0.6	0.49	2.34	6.68	71.9	2331	89	57	-11.08	30	3.3
305	19295+2237	19 29 33.7	22 37 13	57.6	1.9	0.25	1.94	2.65	9.7	1331	123	36	-11.28	19	4.2
306	19315+2235	19 31 33.4	22 35 34	57.8	1.5	1.26	5.77	4.24	8.7	3331	157	91	-10.88	48	2.6
307	19315+4054	19 31 33.9	40 54 32	74.0	10.2	0.25	0.93	2.30	1.5	1331	96	21	-11.51	11	5.4
308	19336-0400	19 33 39.5	-4 0 8	34.6	-11.7	0.38	8.68	4.70	2.1	1333	175	128	-10.73	68	2.2
309	19353+2302	19 35 21.5	23 2 53	58.6	0.9	0.26	1.59	0.96	47.5	1331	169	24	-11.46	12	5.1
310	19367+2458	19 36 46.9	24 58 36	60.5	1.6	2.48	8.35	5.80	9.7	3331	160	130	-10.72	69	2.2
311	19391+2406	19 39 7.1	24 6 6	60.0	0.7	0.64	2.53	3.80	44.5	3321	118	48	-11.15	25	3.6
312	19422+1438	19 42 14.2	14 38 8	52.1	-4.7	0.25	1.80	1.61	1.8	1331	145	30	-11.37	15	4.6
313	19434+2251	19 43 26.1	22 51 11	59.4	-0.8	0.35	2.25	2.61	13.4	1331	132	40	-11.24	21	3.9
314	19447+2445	19 44 47.5	24 45 59	61.2	-0.1	1.09	3.40	4.02	43.2	3331	131	60	-11.06	32	3.2
315	19589+4020	19 58 58.4	40 20 45	76.1	5.4	0.98	9.61	4.47	41.2	3331	185	137	-10.70	73	2.1
316	19589+3419	19 58 58.6	34 19 59	71.0	2.2	0.44	8.32	6.89	37.1	3331	150	135	-10.71	72	2.1
317	20043+3225	20 4 22.1	32 25 31	70.0	0.3	0.44	1.40	3.94	60.4	2331	90	34	-11.31	18	4.3
318	20077+3722	20 7 42.4	37 22 22	74.5	2.4	0.26	0.85	1.91	50.7	1321	100	19	-11.57	9	5.8
319	20085+3128	20 8 35.3	31 28 36	69.7	-1.0	0.27	0.79	2.23	73.6	1331	90	19	-11.56	10	5.7
320	20088+4402	20 8 53.2	44 2 51	80.2	5.9	0.25	1.12	1.85	129.0	1331	114	22	-11.50	11	5.3
321	20103+3419	20 10 21.3	34 19 0	72.2	0.3	1.28	16.21	35.88	56.9	3333	100	353	-10.29	188	1.3
322	20124+1154	20 12 28.9	11 54 37	53.6	-12.4	0.25	0.88	0.96	1.2	1331	135	15	-11.65	8	6.4
323	20168+3227	20 16 52.9	32 27 1	71.5	-1.9	0.37	1.88	3.69	82.0	1331	106	39	-11.25	20	4.0
324	20210+1121	20 21 2.1	11 21 50	54.3	-14.5	0.40	1.50	3.30	2.7	3333	101	33	-11.32	17	4.4
325	20266+3856	20 26 39.4	38 56 54	77.9	0.2	2.80	16.93	14.49	170.0	1331	148	276	-10.40	147	1.5
326	20404+4527	20 40 26.1	45 27 57	84.6	2.1	0.85	14.10	32.73	42.1	3322	98	312	-10.34	167	1.4
327	20461+4737	20 46 8.3	47 37 19	86.9	2.7	0.64	2.06	5.66	7.8	1331	91	49	-11.15	26	3.6
328	20461+3853	20 46 11.1	38 53 52	80.2	-2.8	2.54	10.77	4.26	4.3	3331	197	149	-10.66	79	2.0
329	20490+5934	20 49 4.3	59 34 33	96.6	9.9	0.86	3.81	5.01	3.6	3332	125	70	-10.99	37	3.0
330	20519+4131	20 51 55.2	41 31 23	82.9	-2.0	0.34	1.43	2.64	101.0	1321	109	29	-11.37	15	4.6
331	21124+5247	21 12 26.2	52 47 6	93.6	3.0	1.00	8.63	19.52	17.3	3332	99	189	-10.56	101	1.8
332	21326+5224	21 32 41.4	52 24 1	95.5	0.6	0.25	1.14	1.01	25.0	1331	146	19	-11.56	10	5.7
333	21394+5844	21 39 28.7	58 44 56	100.5	4.7	0.27	1.36	1.24	32.6	1331	145	23	-11.48	12	5.2
334	21537+6435	21 53 44.4	64 35 38	105.5	8.1	8.36	24.97	11.31	5.9	3331	187	354	-10.29	189	1.3
335	21540+5744	21 54 3.4	57 44 13	101.3	2.7	1.53	7.66	20.89	19.3	3333	91	182	-10.58	97	1.8
336	21541+5736	21 54 7.0	57 36 51	101.2	2.6	1.64	8.72	19.24	56.5	3331	101	189	-10.56	101	1.8
337	22276+6451	22 27 40.5	64 51 36	108.7	6.3	0.36	1.36	3.45	33.0	1321	94	31	-11.34	16	4.5
338	22321+5829	22 32 8.8	58 29 8	105.9	0.5	1.80	7.68	20.13	46.9	3331	93	179	-10.58	95	1.9
339	22568+6141	22 56 51.5	61 41 38	110.1	1.9	2.15	17.11	20.06	44.8	3331	131	303	-10.36	162	1.4
340	23184+5819	23 18 28.0	58 19 14	111.3	-2.2	0.45	1.87	2.65	21.7	2331	121	35	-11.29	18	4.2

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TABLE V. — *Suspected non-PN in the selected sample of possible PN.*

PM2	IRAS NAME	RA -1950-	Dec	l	b	Corrected Fluxes (Jy) 12	25	60	100	FQ	Td	FIR
1	03530+4120	3 53 2.4	41 20 58	156.2	-9.1	0.25	0.75	1.89	3.8	1333	95	17
2	04275+3452	4 27 31.5	34 52 17	165.7	-9.1	0.25	0.72	1.44	9.2	1333	105	15
3	05039+3045	5 3 56.5	30 45 35	173.8	-5.9	0.25	0.72	0.99	2.1	1333	123	13
4	05113+1347	5 11 18.1	13 47 3	188.9	-14.3	4.57	14.17	4.30	1.6	3331	216	186
5	06050-0509	6 5 3.9	-5 9 53	212.6	-12.1	0.39	1.60	4.23	10.2	1333	93	37
6	06059+1309	6 5 58.4	13 9 12	196.4	-3.2	0.71	3.02	6.89	15.9	3332	99	66
7	06484-1816	6 48 24.8	-18 16 55	229.3	-8.4	0.25	1.02	2.79	6.1	1333	91	24
8	07280-1829	7 28 3.8	-18 29 30	233.8	-0.2	35.01	227.39	518.01	992.0	3331	99	5001
9	09032-3953	9 3 12.4	-39 53 9	263.1	4.7	24.32	127.76	75.21	25.8	3333	170	1912
10	10029-5553	10 2 54.7	-55 53 58	281.2	-0.5	7.48	43.19	21.28	50.9	3331	182	623
11	10256-5628	10 25 41.8	-56 28 58	284.1	0.8	4.82	54.33	28.38	40.9	3331	178	793
12	13234-5952	13 23 28.1	-59 52 0	307.3	2.4	0.86	2.65	3.68	18.6	3332	122	49
13	13356-6249	13 35 38.2	-62 49 27	308.3	-0.7	6.00	160.90	108.40	205.0	3331	162	2481
14	13428-6232	13 42 50.3	-62 33 0	309.2	-0.6	23.78	369.19	356.22	188.0	3331	141	6208
15	15066-5532	15 6 41.3	-55 32 51	321.7	2.0	1.32	56.79	39.99	25.8	3332	159	885
16	15210-6554	15 21 0.5	-65 54 43	317.7	-7.7	2.04	7.91	2.16	1.6	3331	224	102
17	16114-4504	16 11 29.7	-45 4 27	336.2	4.1	0.71	5.27	7.09	16.5	3332	124	97
18	16279-4757	16 27 55.7	-47 57 39	336.1	0.1	51.37	266.33	157.87	268.0	3331	170	3992
19	16283-4424	16 28 23.9	-44 24 56	338.8	2.5	1.94	15.30	4.10	34.2	3331	225	197
20	16518-3425	16 51 50.7	-34 25 23	349.3	5.6	1.21	7.05	1.47	5.1	3331	246	87
21	17009-4154	17 0 57.5	-41 54 28	344.5	-0.4	8.46	90.40	63.06	263.0	3331	160	1405
22	17086-2403	17 8 36.4	-24 3 59	359.8	9.0	1.90	10.11	1.88	14.9	3331	256	123
23	17106-3046	17 10 38.9	-30 46 13	354.6	4.7	4.40	66.43	42.39	15.7	3333	165	1012
24	17109-3807	17 10 56.9	-38 7 5	348.7	0.3	7.13	84.02	108.03	271.0	3321	126	1527
25	17154-3703	17 15 24.8	-37 3 16	350.1	0.2	1.90	32.51	89.82	247.0	3331	91	775
26	17223-2659	17 22 18.8	-26 59 25	359.2	4.8	1.64	9.08	2.29	9.7	3331	230	116
27	17245-3951	17 24 35.6	-39 51 16	348.8	-2.8	3.75	47.41	36.88	96.1	3331	153	756
28	17381-1616	17 38 7.0	-16 16 45	10.3	7.5	0.25	5.29	1.10	13.4	1331	246	65
29	17476-4446	17 47 36.2	-44 46 44	346.9	-9.1	0.50	2.79	0.68	10.8	2331	233	35
30	17499-3520	17 49 58.6	-35 20 34	355.3	-4.7	3.42	11.94	3.67	6.0	3331	215	157
31	17532-3045	17 53 15.0	-30 45 27	359.6	-3.0	3.24	14.55	3.91	94.4	1331	225	187
32	17542-0603	17 54 14.4	-6 3 53	21.2	9.2	1.40	4.58	1.37	11.6	3331	217	60
33	17579-3121	17 57 59.0	-31 21 55	359.6	-4.1	1.91	68.86	47.58	14.5	3331	160	1068
34	18025-3906	18 2 35.0	-39 6 15	353.3	-8.7	5.00	42.48	24.28	6.9	3333	172	632
35	18076-1853	18 7 41.8	-18 53 39	11.6	0.1	13.80	142.44	151.04	89.6	1331	136	2455
36	18180-1416	18 18 4.4	-14 16 55	16.8	0.1	10.49	39.39	110.96	292.0	3333	90	948
37	18379-1707	18 37 54.6	-17 7 30	16.5	-5.4	1.84	22.40	6.00	3.6	3331	226	288
38	18505+0125	18 50 30.0	1 25 58	34.4	0.3	7.86	23.89	63.46	198.0	3331	92	560
39	19024+0044	19 2 28.6	0 44 13	35.2	-2.7	3.10	52.39	35.85	14.2	3333	161	811
40	19154+0809	19 15 26.0	8 9 37	43.3	-2.1	4.47	18.27	4.19	5.0	3331	238	229
41	19247+2238	19 24 43.9	22 38 57	57.1	2.9	0.51	1.59	3.42	15.7	1332	102	34
42	19475+3119	19 47 31.8	31 19 37	67.2	2.7	0.50	43.75	46.49	13.3	3333	136	754
43	20028+3910	20 2 47.9	39 10 2	75.5	4.2	50.14	210.21	117.87	42.5	3333	173	3114
44	20144+3526	20 14 27.5	35 26 47	73.7	0.2	28.39	194.83	432.24	352.2	3333	100	4241
45	21034+5941	21 3 24.7	59 41 25	97.8	8.6	0.53	1.58	3.17	11.5	3333	105	33
46	23156+5748	23 15 38.8	57 48 46	110.8	-2.6	1.54	6.61	11.87	26.3	3333	110	133
47	23304+6147	23 30 26.7	61 47 15	113.9	0.6	13.66	56.52	24.92	30.5	3331	189	797
48	23321+6545	23 32 6.2	65 45 15	115.2	4.3	16.33	87.00	51.87	17.3	3333	169	1306

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TABLE VI. — *Sources with IRAS LRS Spectra.*

Source	IRAS Name	Class	Remarks
PM2-9	09032-3953	50	red, featureless
PM2-24	17109-3807	53	featureless
PM2-27	17245-3951	94	S IV line (PN?)
PM2-43	20028+3910	50	red, featureless
PM2-44	20144+3526	79	red, 10μ abs.
PM2-48	23321+6545	05	red, featureless

TABLE VII. — *Identified sources in the PM1 and PM2 samples.*

Source	IRAS Name	Other names/Reference	Remarks
PM1-94	15261-6051	(1)	PN, Opt.
PM1-137	17149-3053	(2)	PN, Radio
PM1-144	17207-2856	(2)	PN, Radio
PM1-149	17248-2254	(2)	PN, Radio
PM1-166	17358-2854	PK 359+1.3, 19W32	PN,Opt./Radio
PM1-177	17448-2131	(2)	PN, Radio
PM1-186	17498-2526	(2)	PN, Radio
PM1-210	18042-0855	(3)	PN, Opt.
PM1-213	18061-2505	PK 5-2.2, Mac1-10	PN, Opt.
PM1-226	18186-0833	PK 21+2.1, Mac1-12	PN, Opt.
PM2-42	19475+3119	(4)	Proto-PN, CO
PM2-48	23321+6545	(4)	Proto-PN, CO

References to table VII :

(1) Hartl and Tritton, 1984.
(2) Pottasch *et al.*, 1988.
(3) Cappellaro *et al.*, 1987.
(4) Likkel *et al.*, 1987.

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