

CO and HCN observations of circumstellar envelopes. A catalogue – mass loss rates and distributions

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Abstract. — We have searched the literature for all observations of the $^{12}\text{CO}(1-0)$, $^{12}\text{CO}(2-1)$, and $\text{HCN}(1-0)$ lines in circumstellar envelopes of late type stars published between January 1985 and September 1992. We report data for 1361 observations (stellar velocity, expansion velocity, peak intensity, integrated area, noise level). This CO-HCN sample now contains 444 sources. 184 are identified as oxygen-rich, 205 as carbon-rich, and there are 9 S stars. About 85% of the sources are AGB stars. There are 32 planetary nebulae and about thirty post-AGB stars candidates. Besides results of millimeter observations, we also list identifications, coordinates, IRAS data, chemical and spectral types for every source. For AGB stars, we have estimated (or compiled) bolometric fluxes and distances for 349 sources, and mass loss rates deduced from CO results for 324 sources, taking into account the influence of the CO photodissociation radius. We also list mass loss rates derived from detailed models of CO emission which we could find in the literature.

Key words: catalogues — millimetre lines — molecules — stars: carbon — stars: circumstellar matter — stars: evolution of — stars: late type — stars: mass loss — infrared radiation

1. Introduction

Molecular line emission of late type stars, first detected by Solomon et al. (1971) in IRC+10216, has now been found in hundreds of sources and many molecules are now detected besides CO. Most of these however are only found in a few prominent sources, notably IRC+10216. CO and HCN on the other hand are readily detected. Observations are listed in many papers and it is therefore difficult to establish whether a given star has been detected in these lines. We originally compiled this catalogue as an aid to our observational programs and assume it will be useful to others as well. While several catalogues of observations for stellar masers have been published, in particular the catalogue by Benson et al. (1990) which reports on observations for the H_2O , SiO , and OH maser emission in almost 3000 sources, this work is the first attempt to publish a complete catalogue of CO observations of circumstellar envelopes. For oxygen-rich stars, the information contained in the catalogue of Benson et al. (1990) and in this catalogue should be quite complementary.

We have searched the literature for all observations of the $^{12}\text{CO}(1-0)$, $^{12}\text{CO}(2-1)$ and $\text{HCN}(1-0)$ lines in circumstellar envelopes of late type stars published from 1985 through September 1992. Older observations are usu-

ally of inferior quality and have normally been repeated with improved sensitivity. The search is complete between these dates for the *Astrophysical Journal* (24 Refs.), *Astronomy and Astrophysics* (59 Refs.), the *Monthly Notices of the Royal Astronomical Society* (2 Ref.s), and the *Astronomical Journal* (1 Ref.). We also include 1 paper in *Nature*, as well as 3 preprints (to be published in A&A).

The main body of the catalogue consists of four tables, presented in Sect. 2. Table 1 gives several alternate source names and positions. Table 2 contains the spectral information: IRAS data, an estimate of the distance and bolometric flux, the chemical and spectral types. Millimetre observations are presented in Table 3 and the list of observational references is given in Table 4. We list a total of 1361 individual observations for 444 detected or tentatively detected sources. 184 are oxygen-rich, and 205 are carbon-rich. About 85% of the sources are on the Asymptotic Giant Branch (AGB); the others are more often planetary nebulae (PNe) or post-AGB stars candidates (PPNe) (or peculiar objects).

In Sect. 3, we describe our estimates of bolometric fluxes and distances. These estimates are limited to AGB stars. Sect. 4 is devoted to the calculation of CO photodissociation radii and mass loss rates. In Sect. 5, we present statistical distributions (and biases) of the CO-HCN sam-

ple: IRAS colours, galactic distributions, expansion velocities, and correlations of IRAS properties with distances and CO mass loss rates.

2. Tables content

All tables are ordered by increasing right ascension. For cross referencing, the first column always lists a source number, constructed from equatorial coordinates. The second column lists what we consider as the main source name. Besides a general description of Tables 1 to 4, this section also mentions some particular cases (LRS misclassification, unusual dust features, peculiar CO emission, etc...).

2.1. Table 1: identifications and coordinates

This table contains source names and positions. Astronomical nomenclature being a well known headache, we have tried to find as many alternate names as feasible. Columns (2) to (4) list up to three of them for each source, and Cols. (5) and (6) give the IRC (Neugebauer & Leighton 1969) and RAFGL (Price & Murdock 1983) number. We systematically looked for identifications in the General Catalogue of Variable Stars (Kukarkin et al. 1958, 1960, 1971), the General Catalogue of Cool Carbon Stars (“CCS”; Stephenson 1973), the HD catalogue, as well as OH, IRC and RAFGL identifications.

The remaining columns in Table 1 contain coordinates. Columns (7) and (8) give (B1950.0) equatorial coordinates, Cols. (9) and (10) give (J2000.0) coordinates, and Cols. (11) and (12) galactic coordinates. The last column is a code for the position reference. Although we cannot claim our search was exhaustive, we have tried to compile the best coordinates for each source. The code for the position reference is one digit and one letter, with the digit a rough indication of position accuracy: “1” if it is better than 1”, “2” in the 1 - 5” range, and “3” if it is worse than 5”. Only 16% of the sources have class 1 positions. These good positions were obtained from classical optical astrometry or radio interferometric observations of OH, SiO, or HCN masers. 46% of the objects are in class 2, and there are still 38% with inaccurate coordinates. Many of them only have an IRAS position. These are usually good to about 10”, but 20” errors are not uncommon. This accuracy level is now hardly sufficient to observations with large single dish telescopes. The list of position references, together with their quoted accuracy, is given at the end of the table.

2.2. Table 2: IRAS observations, distances, chemical and spectral types

Table 2 summarizes the information obtained by the IRAS satellite and optical spectroscopic classification. Columns (3) to (6) give the broad band photometry of the IRAS Point Source Catalogue at 12, 25, 60 and 100 μm if the source was detected; none of the observations with a flux quality of 1 (upper limit only) are listed (cf. *the IRAS Explanatory Supplement* 1985). IRAS-PSC flux densities (in Jy, represented by S_{12} , S_{25} , S_{60} , and S_{100}) are not colour corrected. Column (7) gives an estimate of the total flux radiated in the wavelength range covered by the 4 IRAS bands (7-130 μm), F_{IRAS} , while Col. (8) is an estimate of the bolometric flux, F_{total} . The next column is a code for the method used to estimate F_{total} . The distance in Col. (10) is then derived by assuming a typical bolometric luminosity for an AGB star. Details are given in Sect. 3.

Column (11) lists the LRS class (*IRAS Atlas of Low Resolution Spectra*, Olnon and Raimond, 1986) and Col. (12) gives the location of the source in the IRAS colour-colour diagram [S_{60}/S_{25}] versus [S_{25}/S_{12}] in terms of the regions defined by van der Veen & Habing (1988). Columns (13) and (14) give the chemical type (C for carbon-rich, O for oxygen-rich, S for sources with $[\text{C}/\text{O}] \sim 1$), and the spectral type. The chemical type was determined from the LRS type (chemical composition of dust), the spectral type, OH and HCN observations (see e.g. Omont et al. 1993, Pr1), and , for some sources, with photometric data (Fouqué et al. 1992; Guglielmo et al. 1992). Spectral types were taken from the Simbad database at the “*Centre de Données astronomiques de Strasbourg*” (CDS), complemented by references listed in millimetre observational papers. In addition to the spectral type, we note whether the source is a known M supergiant (“[SG]”, 7 sources) or a planetary nebula (“[PN]”, 32 sources).

A few sources, Y Hya (0948–22), IRC-10236 (1014–14), NML Cyg (2044+39), NGC 7027 (2105+42), IRC+40483 (2125+36), and NGC 7293 (2226–21), happen to lie in the 4% of the sky which was never observed by IRAS. M1-8 (0650+03), RU Cam (0716+69), and OH 0.3–0.2 (1743–28) were not detected. CRL 2688 (2100+36) has no PSC flux densities, but it has an LRS spectrum (Volk & Cohen 1989). IRC+10216 (0945+13) saturated the 12 μm detector. Conversely, the emission in the 12 μm band of M1–7 (0634+24), VV 47 (0753+53), Frosty Leo (0937+12), NGC 6563 (1808–33), and M4–9 (1811–05) is below the sensitivity limit.

About a hundred sources have no spectrum in the LRS atlas. Most of them however have published LRS spectra in Volk & Cohen (1989), Kwok et al. (1989), Volk et al. (1991), and Omont et al. (1993, Pr1). We have extracted 8 additional spectra from the IRAS-LRS database presented in Fig. 1. They have been individually normalised

to the 12 μm PSC flux density: a synthetic 12 μm flux was computed from the LRS spectrum and compared to the measured PSC flux to determine a correction factor. Correction factors are generally less than 20%, but occasionally reach 50%, and sometimes a factor of two. These large corrections are presumably due to the large uncertainty in the cross scan calibration factor for sources observed near the edge of the LRS detectors. For sources with no spectrum in the LRS atlas, we determine the LRS main class (first digit in the LRS code), but do not attempt to determine a subclass (second digit). For instance, a spectrum with the 9.7 μm silicates feature in emission on a “blue” continuum is quoted as “2n”. (The LRS classification method is described in detail in the LRS Atlas).

Besides, there are also a few peculiar or misclassified spectra in the LRS atlas which we would like to discuss in some detail:

(i) The LRS class of 17125–4814, RAFGL 2199 (1833+05), 18585+0900 is 42 or 41 according to the automatic LRS classification. They are however oxygen-rich. Their spectra display the 18 μm silicate band in emission, and the first half of the 9.7 μm band in absorption, yielding a fake 11.4 μm SiC feature. The well known O-rich star IRC+10011 (0103+12), and 18196–1608, have similar LRS spectrum (Volk & Cohen 1989; Volk et al. 1991). We list the LRS class of such sources as “4no” in Table 2.

(ii) A few visual carbon stars, VX And (0017+44), Z Psc (0113+25), IRC-20101 (0639–22), CIT 6 (1013+30), U Ant (1032–39), T Lyr (1830+36), UX Dra (1923+76) and Y Pav (2119–69), have LRS classes 2n ($n = 1, 4$) or 04. They are actually misclassified, and their LRS types should be 1n (featureless blue spectrum) or 4n (SiC in emission). Together with the LRS atlas classification, we also list what we believe to be the right classification.

(iii) Some optically thick infrared carbon stars (in the sense that the central star is invisible), AFGL 190 (0114+66), 03313+6058, AFGL 865 (0601+07), 06582+1507, 08074–3615, AFGL 5250 (0817–21), 15194–5115, AFGL 5416 (1753–30), AFGL 2333 (1907+09), AFGL 2477 (1954+30), 21318+5631, and AFGL 3068 (2316+16), have LRS classes 12, 13, 21, 22, 02, or 04. Some of them actually display a weak SiC emission, and we classified them as “4n”. For the others, the SiC band is probably self-absorbed, due to the great opacity of the dust shell (Chan & Kwok 1990; Omont et al. 1993, Pr1). For a few of them, LRS spectra appear featureless, but they often have more complicated spectra (Omont et al. 1993, Pr1; Loup 1993). We then did not change the LRS atlas classification. 17582–2201 and 19480+3239 have LRS spectra characteristic of very young pre-planetary nebulae in the early stage of shell detachment (Loup, 1993). Their LRS type is listed as “int” (for intermediate between blue and red spectrum).

(iv) 04296+3429, HD 56126 (SAO 96709, 0713+10), HD 235858 (SAO 34504, 2227+54), and 23304+6147, have very peculiar spectra with a red continuum and a strong feature at 21 μm (Kwok et al. 1989). They are associated with C-rich objects. The automatic LRS classification was not devised with these peculiar spectra in mind and breaks down for them. Their LRS type is listed as “kvh” in Table 2. We tentatively attribute this same classification to 19477+2401 (Fig. 1) and 20000+3239 (Omont et al. 1993, Pr1).

(v) Finally, emission bands attributed to Polycyclic Aromatic Hydrocarbon molecules (PAHs; Léger & Puget 1986) are detected in 11 sources of the CO-HCN sample (de Muizon et al. 1990): IC 418 (0525–12), the Red Rectangle (0617–10), 07027–7934, Roberts 22 (1019–57), M2-9 (1702–10), CPD –56 8032 (1704–56), NGC 6302 (1710–37), BD +303639 (1932+30), NGC 7027 (2105+42), 21282+5050, and IC 5117 (2130+44). These sources are listed as “pah” in the LRS type column (even when they are not detected by IRAS). PAH emission is not always synonymous with carbon richness. The C-O ratio in NGC 6302 is only 0.2 (Zuckerman & Aller 1986), and the 1612 MHz OH maser line is detected in this PN (Payne et al. 1988; Zijlstra et al. 1989), and in 07027–7934 (Zijlstra et al. 1991a). When the C-O ratio is available and > 1 , the chemical type is thus quoted as “C”, when $\text{C-O} < 1$, as “?”, and as “C?” when C-O is unknown.

2.3. Table 3: millimetre observations

Table 3 contains the millimetre wave observational material as extracted from the references (listed in Table 4). Column (3) lists the molecule and the observed transition, and Col. (4) indicates which telescope was used for the observation. Column (5) gives the source velocity ($\text{km} \cdot \text{s}^{-1}$) in the LSR frame, Col. (6) the expansion velocity of the molecular gas ($\text{km} \cdot \text{s}^{-1}$) defined as the half width at zero power, Col. (7) the peak intensity (K), and Col. (8) the integrated area ($K \cdot \text{km} \cdot \text{s}^{-1}$). Column (9) lists a code for the temperature scale used in the reference: 1 for an antenna temperature T_A^* , 2 for a main beam brightness temperature T_{MB} , with $T_{\text{MB}} = T_A^*/\eta_{\text{MB}}$, where η_{MB} is the main beam efficiency. Columns (10) and (11) give the rms noise and a code for the observational paper. Reference codes are constructed from two letters and one number, with the letters indicating the journal (“AP” for the *Astrophysical Journal*, “AA” for *Astronomy and Astrophysics* “MN” for the *Monthly Notices of the Royal Astronomical Society*, “AJ” for the *Astronomical Journal*, “NT” for *Nature*, “Pr” for preprints, and “PC” for thesis and private communications). The number is a chronological sequence number.

Missing peak intensities were measured from the published spectra but other missing data were left blank in the table. Source velocities were rounded to $1 \text{ km} \cdot \text{s}^{-1}$

since their accuracy is seldom better than this. More digits have been retained for expansion velocities, although their accuracy is comparable.

Many papers (more than 50%) do not give the noise level, and some of them even do not quote the observed spectrum itself. Thus, for some observations, we do not know whether the source is well detected, or tentatively detected with a peak intensity below three times the noise level. Then, although our first aim was to only list actually detected sources, we also quote tentative detections. Observations mentioned as tentative detections in the reference are marked by a “(?)” in the reference code, observations with $2 < T_{\text{peak}} < 3$ rms are listed as “(!)”, and observations with $T_{\text{peak}} \leq 2$ rms as “(!!)”. For most of them, the observed line is certainly real, but a few ones are doubtful (in particular for Vy 2-2 (1921+09), and RU Cam (0716+69) which is even not detected by IRAS). Taking into account papers which do not quote the rms, probably at least 250 observations (~20%) have a peak intensity below three times the noise level.

Some references present mapping observations. They have been kept for the sake of completeness, although the format of this catalogue is not well adapted, and have been marked by a “(m)” in the reference code. Interested readers should refer to the original paper. For consistency, we have tried to list the parameters of the stronger peak. This information however could not always be retrieved from the original paper, and was sometimes irrelevant. We have mentioned a few particular cases (marked by a “(n)” in the reference code). NGC 2346 (0706-00) displays two velocity components centered at 2.5 and 24 $\text{km} \cdot \text{s}^{-1}$, so Bachiller et al. (1989a, AA20) provide the values of both components from the (-10, 10) and (10, -10) offsets. BD+30 3639 (1932+30) also displays two velocity components (Bachiller et al. 1991, AA45). Values for the Ring Nebula (1851+32) have been obtained from a spectrum averaged on the different offsets; this spectrum displays three velocity components (Bachiller et al. 1989b, AA22). In the extended PN VV 47 (0753+53), the observations were made at offset positions toward the two symmetric lobes (Huggins & Healy 1989, AP16). The CO profiles of OH 231.8+4.2 (0739-14; Knapp 1986, AP8) and V341 Car (0755-58); Nyman et al. 1992, AA54) have two components centered on the same velocity, a broad pedestal and a strong narrow peak. In a general way, we invite the reader to systematically look at the spectra of post-AGB stars candidates which are often unusual, and the spectra of planetary nebulae which are generally resolved. Among the AGB stars, V Hya (1049-20) and π 1 Gru (2219-46, a S star with a main sequence companion) are bipolar outflows.

3. Estimates of bolometric fluxes and distances

3.1. Total IRAS flux

Column (7) in Table 2 gives an estimate of the total flux radiated by the source in the IRAS wavelength range, 7 – 130 μm . F_{IRAS} is equal to the total flux actually measured by IRAS multiplied by a global correction factor for losses due to the shape of filters. This correction factor was not only determined from the same power and blackbody laws used in the Explanatory Supplement to derive colour corrections, but also from model grids of dust emission for which radiative transfer is solved. More details are given in Appendix A. In the final formula, we neglect the 100 μm IRAS-PSC flux because sometimes only an upper limit is available, and it is often strongly confused by surrounding molecular clouds. F_{IRAS} is given by:

$$4\pi(1 \text{ kpc})^2 F_{\text{IRAS}} = 6.9 S_{12} + 2.6 S_{25} + 1.2 S_{60} L_{\odot} \quad (1)$$

3.2. Bolometric flux

For several sources having available photometric observations, van der Veen & Rugers (1989), and Kastner et al. (1992, Pr3) give an estimate of the bolometric flux, F_{total} , by integrating the emission from 1 to 60 μm . 169 sources of the CO-HCN sample are found to be in common with their samples, and are listed with the references 1 and 4 respectively in Col. (9) of Table 2. For a few sources of the table of van der Veen & Rugers (1989), F_{total} has not been estimated from photometric data, but from bolometric correction formulae derived by van der Veen & Breukers (1989). In principle, all such sources are listed with the reference 2 instead of 1 in Table 2; it is not impossible however that some of them are uncertain. For AGB stars, the wavelength range 1 – 60 μm contains about 90% of the total emission of the source.

van der Veen & Breukers (1989) derived bolometric corrections for O-rich and C-rich sources. Their sample was quite complete for O-rich AGB stars in regions II, IIIa, IIIb, and IV, of the IRAS colour-colour diagram, and C-rich AGB stars in region VII (see Fig. 3). We have however extended their bolometric correction formulae to both O-rich sources in region I and the one located at the limit between regions IIIa and VII, and to a few C-rich sources in region I, the top of region II at the boundary with region VII, and in region VIa. According to van der Veen and Breukers, F_{total} is given by (Ref. 2 in Table 2):

O-rich sources in regions I, II, III, IV and S stars in regions I, II, III:

$$4\pi(1 \text{ kpc})^2 F_{\text{total}} = [0.7 + 2.9 e^{-3.0C_{21}} + 0.9 e^{0.7C_{21}}] \times 7.8 S_{12}(\text{Jy}) L_{\odot} \quad (2a)$$

C-rich sources in regions I, II, VII and S stars in region VII:

$$4\pi(1 \text{ kpc})^2 F_{\text{total}} = [3.5 + 8.10^{-4} e^{-7.6C_{21}}] \times 7.8 S_{12}(\text{Jy}) L_{\odot} \quad (2b)$$

where $C_{21} = 2.5 \log(S_{25}/S_{12})$, and the term between brackets is the bolometric correction. The mean deviation of their sample from equation (2a) is 30%, and 40% from Eq. (2b). F_{total} is estimated in this way for 154 sources of the CO-HCN sample.

No bolometric corrections are available for optically thick infrared carbon stars in regions IIIa and IIIb. However van der Veen & Breukers (1989) give F_{total} for AFGL 190 (0114+66), AFGL 341 (0229+57), AFGL 865 (0601+07), AFGL 2494 (1959+40), AFGL 3068 (2316+16), and AFGL 3099 (2325+10). The bolometric correction for these sources ranges from 1.25 to 4.3, with a mean value of 2.6, whereas Eq. (2b) rather gives 3.5. The $F_{\text{total}}/F_{\text{iras}}$ ratio ranges from 1.1 to 3.4, with a mean value of 2.1. For the 23 other C-rich sources in regions IIIa and IIIb, we then use the following crude approximation (Ref. 3 in Table 2):

C-rich sources in regions IIIa and IIIb:

$$F_{\text{total}} \simeq 2 \times F_{\text{iras}} \quad (2c)$$

The wavelength emission range of planetary nebulae (PNe) is especially large since it includes the emission of the central star (if not completely absorbed by the H_{II} region), the emission from the H_{II} region, and the emission of cold dust at 60 and 100 μm . To estimate the bolometric flux of PNe is then a very special work. Since this catalogue is essentially devoted to AGB stars, we do not give any estimates for PNe. For similar reasons, though to a lesser degree, we do not estimate F_{total} for objects with detached envelopes or/and obvious excesses at 60 μm (PPNe, O-rich sources in regions VII, VI and V, C-rich sources in regions VIb, IV, and V). All sources with unknown chemical type are also excluded.

3.3. Distances

Bolometric fluxes have been estimated or compiled for 349 sources. Distances (Col. (10) in Table 2) are then derived by assuming a bolometric luminosity of $10^4 L_{\odot}$ for AGB stars, and $10^5 L_{\odot}$ for the 7 identified M supergiants. However, our sample should contain a few unidentified supergiants (Jura & Kleinmann 1989) whose distances are obviously underestimated.

Besides uncertainties in bolometric corrections, the main uncertainty in distances comes from our lack of knowledge of the luminosity. In particular, almost all AGB stars are strongly variable. Usually the luminosity varies by a factor of 2 to 4, but in some cases, by a factor larger than 10. As a consequence, our distances are generally uncertain by a factor of 2 or even 3 for a few sources.

4. Estimates of gas mass loss rates

4.1. CO mass loss rate and photodissociation radius formulae

As discussed by Knapp & Morris (1985, AP2), for unresolved optically thick envelopes the gas mass loss rate can be derived from CO observations by:

$$\dot{M} = 1.26 \cdot 10^{-6} T_{\text{MB}} V_e^2 d^2 (f/10^{-4})^{-0.85} M_{\odot} \cdot \text{yr}^{-1} \quad (3)$$

where T_{MB} is the peak CO(1–0) main beam brightness temperature for a 7m telescope, V_e is the expansion velocity in $\text{km} \cdot \text{s}^{-1}$, d is the distance in kpc and f the abundance of CO relative to H₂. Following the suggestion of Zuckerman & Dyck (1986, AP3) based on comparisons between relative abundances in the Sun and O-rich planetary nebulae, we use $f = 5 \cdot 10^{-4}$ for O-rich stars and $f = 10^{-3}$ for both S and C-rich stars, while Knapp and Morris (AP2) used $f = 3 \cdot 10^{-4}$ for O-rich stars, $6 \cdot 10^{-4}$ for S stars, and $8 \cdot 10^{-4}$ for C-rich stars.

As generally done in the literature when a modelling of CO emission is not performed, we first calculated \dot{M} by simply using Eq. (3). We then compared our values with detailed modelling studies when available (Knapp & Morris 1985, AP2; Wannier & Sahai 1986, AP6; Knapp 1986, AP8; Sopka et al. 1989, AA17; Bujarrabal et al. 1989, AA23; Planesas et al. 1990, AP17; Kastner 1990, 1992) taking strictly the same values for all parameters. The values given by Eq. (3) for (\dot{M}/d^2) sometimes differed from detailed modelling by factors of ~ 5 , and even 10 in Mira (0216–03) and R Leo (0944+11). Modelling studies themselves sometimes differ by non negligible factors. The origin for the latter disagreement is mainly the envelope size, R_{CO} , used in the model.

Indeed, we have to keep in mind that the classical Knapp and Morris's formula has been derived by assuming $R_{\text{CO}} = 3 \cdot 10^{17}$ cm. The variation of T_{MB} as a function of R_{CO} is shown in Figs. 16 (optically thick cases) and 20 (optically thin cases) in Knapp & Morris (AP2). For $R_{\text{CO}} > 3 \cdot 10^{17}$ cm, T_{MB} is almost constant. But for smaller values of R_{CO} , T_{MB} varies as $R_{\text{CO}}^{1.6}$. In optically thick cases, the variation of T_{MB} with R_{CO} depends a little on \dot{M} and f . The curve derived in optically thin cases is only given for $10^{17} < R_{\text{CO}} < 6 \cdot 10^{17}$ cm, and is a little flatter than those derived in optically thick cases. Neglecting these faint dependences, T_{MB} can be written as:

$$T_{\text{MB}} = \frac{2 \cdot 10^9 f^{0.85}}{V_e^2 d^2} \times \dot{M} \times F(R_{\text{CO}}) \text{ K} \quad (4)$$

where $F(R_{\text{CO}})$ is a mean curve inferred from Knapp and Morris's Figs. 16, normalised to 1 for $R_{\text{CO}} = 3 \cdot 10^{17}$ cm. This function is plotted in Fig. 2. Eq. (4) is still an approximation, but considerably less crude than to assume $F(R_{\text{CO}}) = 1$.

The envelope size is limited by the photodissociation of CO by the ambient interstellar radiation field. Knapp

& Morris (1985, AP2) and Knapp (1986, AP8) estimated the CO photodissociation radius following calculations of Knapp & Jura (1983), and typically obtained $R_{\text{CO}} =$ a few 10^{17} cm. Under the same basic model assumptions, Wamner & Sahai (1986, AP6) found that, for some sources, an increase of \dot{M} improves the model fit to the CO profiles. They mention this effect can be obtained both by decreasing R_{CO} or by increasing the distance, or by fiddling with the geometry and velocity field. Subsequently, Sopka et al. (1989, AA17) and Bujarrabal et al. (1989, AA23) determined the value of R_{CO} which gives the best fit to the CO profiles. They derive smaller values than those in Knapp and Morris by factors of 2 to 20, and larger (\dot{M}/d^2) by factors of 2 to 10. Bujarrabal et al. conclude that this tends to agree with recent CO photodissociation models performed by Mamont et al. (1988). According to Planesas et al. (1990a, AP17), the numerical results of Mamont et al. can be written as:

$$R_{\text{CO}} = 7.3 \cdot 10^{16} \left(\frac{\dot{M}}{10^{-6}} \right)^{0.58} \left(\frac{10}{V_e} \right)^{0.4} \left(\frac{f}{4 \cdot 10^{-4}} \right)^{0.5} \text{ cm} \quad (5)$$

We then consistently calculated \dot{M} and R_{CO} by solving numerically the system:

$$\dot{M} = \frac{V_e^2 d^2 T_{\text{MB}}}{2 \cdot 10^9 f^{0.85}} \times F^{-1}(R_{\text{CO}}) M_{\odot} \cdot \text{yr}^{-1} \quad (6a)$$

$$\dot{M} = 10^{-6} \left(\frac{R_{\text{CO}}}{7.3 \cdot 10^{16}} \right)^{1/0.58} \left(\frac{V_e}{10} \right)^{1/1.45} \times \left(\frac{4 \cdot 10^{-4}}{f} \right)^{1/1.16} M_{\odot} \cdot \text{yr}^{-1} \quad (6b)$$

Such a self-consistent calculation of \dot{M} has already been done by Kastner (1990, 1992), but in a more accurate way. He uses the results of Mamont et al. (1988) in the shape of Eq. 5, and derives \dot{M} using a detailed model.

4.2. Content of Table 5

Since many sources have been observed several times, it would be necessary to choose among the observational references. However, to try to determine “the best observation” was extremely tricky, mainly because more than a half of papers do not give the rms noise level. We finally decided to calculate (\dot{M}, R_{CO}) for each observation and to give the mean values in Table 5. However, sources for which the chemical type or the distance are unknown were ruled out, as well as sources with a strong $60 \mu\text{m}$ excess (O-rich objects in regions VII, VI, and V, and C-rich objects in regions VIb, IV, and V). In practice, our estimates of mass loss rates are then limited to mass losing AGB stars. In addition, observations for which V_e or T_{MB} are not available were eliminated. Our main concern however has been to fulfil the requirements of Eq.

(6a). We therefore eliminated all CO (2–1) data whenever a CO(1–0) observation was available. When we have to use CO(2–1) data, the intensities are divided by 3, the mean value of the CO(2–1)/CO(1–0) ratio for the whole sample. We emphasize however that this value actually ranges between about 1 and 10. Estimates of \dot{M} using a CO(2–1) observation are marked by the symbol “†” in Table 5. Another difficulty was to ensure that the envelope is indeed unresolved by the telescope. For each observation, the peak temperature was corrected for the main beam efficiencies and telescope diameters in order to derive an equivalent BTL T_{MB} . Eq. (6) then provide an estimate of the photodissociation radius. All observations for which $2 R_{\text{CO}} > 1.5$ times the beam diameter have been eliminated. Observations for which the source is partially resolved ($1 < 2 R_{\text{CO}} < 1.5$ times the beam diameter) were kept however.

The results are presented for 164 C-rich AGB stars in Table 5a, 153 O-rich AGB stars in Table 5b, and 7 S stars in Table 5c. For each source, we give (i) the mean value of the expansion velocity taken on all CO(1–0) and CO(2–1) observations, (ii) the mean values of $T_{\text{MB}}(1-0)$ and $T_{\text{MB}}(2-1)$ for a 7 m antenna, using only observations for which $2 R_{\text{CO}} > 1.5$ times the beam diameter, and (iii) the mean values of R_{CO} and \dot{M} , as well as corresponding uncertainties. When the uncertainty is not given, that means that only one observation can be used. For some sources, uncertainties on V_e , T_{MB} , R_{CO} , and \dot{M} are large. This is due to a disagreement between the various observations, often because one of them has $T_{\text{MB}} \leq 2$ rms (see, for instance, the case of RAFGL 2477, 1954+30). In this case, we invite the reader to look at individual observations in Table 3. We do not want however to eliminate such observations because many rms are not quoted in papers, and it is then impossible to estimate the quality of data listed in these publications.

Besides our estimates, the second part of Table 5 contains the results of more detailed models for specific sources which we could find in the literature. We also quote modelling results for 7 C-rich and 8 O-rich objects for which we do not estimate \dot{M} in this work. RAFGL 2199 (1833+05) was considered as C-rich by Knapp & Morris (1985, AP2). This source was subsequently detected in OH and is now considered as O-rich (van der Veen & Rutgers 1989; Omont et al. 1993, Pr1). We then corrected the Knapp & Morris value of \dot{M} by a factor $(8/5)^{0.85}$ for the abundance of CO relative to H_2 . IRAS 20028+3910 is a PPN candidate located in region V, and its chemical type is unknown. However, Kastner (1990) estimated its mass loss rate assuming it is an O-rich star. We then put this source in Table 5b.

There are many causes of uncertainty in values of \dot{M} derived from Eqs (6):

(i) In principle, Eq. (6a) is reliable only for $10^{-6} \lesssim \dot{M} \lesssim 10^{-5} M_{\odot} \cdot \text{yr}^{-1}$. In optically thin cases, the infrared

pumping is not taken into account and then our values of \dot{M} are systematically overestimated. In optically thick case, $T_{\text{MB}}(1-0)$ is saturated and \dot{M} is no longer simply proportional to it. In addition, Knapp and Morris used a model of kinetic temperature derived for IRC+10216 (0945+13), which is probably not adapted to smaller and larger mass loss rates. Kastner (1990, 1992) uses another model of T_{K} , and finds that $T_{\text{MB}}(1-0)$ is not only saturated for large mass loss rates, but reaches a maximum for $\dot{M} \sim 2 \cdot 10^{-5} M_{\odot} \text{yr}^{-1}$ and decreases for larger \dot{M} . Then, for $\dot{M} \lesssim 10^{-6}$ and $\dot{M} \gtrsim 10^{-5}$, our values have to be considered as upper and lower limits respectively, and the disagreement with the results of Kastner is typically a factor of 2 to 4.

(ii) The distance is known to be a major cause of uncertainty in the derivation of CO mass loss rates. However, one can see with Eqs (6) that the dependence of \dot{M} on d is not so strong that $\dot{M} \propto d^2$. For $10^{16} \leq R_{\text{CO}} \leq 1.25 \cdot 10^{17}$ cm, \dot{M} is proportional to $d^{1.0}$, for $1.25 \cdot 10^{17} \leq R_{\text{CO}} \leq 2.8 \cdot 10^{17}$ cm, $\dot{M} \propto d^{1.3}$, and for $2.8 \cdot 10^{17} \leq R_{\text{CO}} \leq 5 \cdot 10^{17}$ cm, $\dot{M} \propto d^{1.6}$. Then, with a typical uncertainty in d of a factor of 2, the corresponding uncertainty in \dot{M} ranges from a factor of 2 to 3.

(iii) The abundance of CO in circumstellar envelopes of AGB stars is still poorly known. There is probably an uncertainty of a factor of 1.5 to 2, leading to an uncertainty of a factor of 1.4 to 1.8 in \dot{M} .

(iv) The last main cause of uncertainty on \dot{M} comes from measurements. From Table 5, we derive that the average of observational uncertainties in V_e , T_{MB} , R_{CO} , and \dot{M} are respectively 2.2 km/s, $\pm 30\%$, $\pm 13\%$, and $\pm 25\%$. However, this can be considerably worse when the signal-to-noise ratio of observations is small.

5. Statistical distributions

The distribution of Asymptotic Giant Branch (AGB) stars in the IRAS colour-colour diagram has been intensively studied in recent years, and turns out to be a powerful diagnostic of their evolutionary stage and chemical type (see e.g. Olmon et al. 1984; Rowan-Robinson et al. 1986; Bedijn 1987; van der Veen & Habing 1988; Volk & Kwok 1988, 1989; Willems & de Jong 1988; Chan & Kwok 1988, 1990). In this section, we compare the distribution of the CO-HCN sample with general scenarii based on IRAS data. Although there are well established criteria to identify AGB stars from IRAS colours, the millimetre transitions of CO remain one of the few ways to ascertain their classifications. Besides, it immediately provides the systemic velocity and the expansion velocity of the envelope. Our aim is thus to compare the distribution of this CO-HCN sample with that of the larger IRAS sample.

One should be cautious however that this sample does not have any sound statistical basis and merely reflects the personal biases of the various observers in the field.

Sensitivity limitations bias it towards stronger objects and human factors bias it towards peculiar sources such as bipolar outflows. There are strong biases against galactic plane sources, because of the PSC incompleteness in this region, and because the CO emission of circumstellar envelopes becomes difficult to extract from the strong background of molecular clouds. The latitude distribution of existing mm telescopes heavily biases the sample towards the northern sky ($\delta > -30$ deg). The survey for CO emission in AGB stars at SEST (Nyman et al. 1992, AA54) has corrected in part this imbalance.

5.1. The IRAS colour-colour diagram

The sample contains 205 sources identified as C-rich, 184 as O-rich, and 9 as S stars. We were unable to determine a chemical type for 46 objects. Figure 3 shows the IRAS colour-colour diagram for the four chemical types (O, C, S, or indeterminate). The diagrams are drawn as $\log_{10}(12 S_{25}/25 S_{12})$ versus $\log_{10}(25 S_{60}/60 S_{25})$, as this definition of colours is the most frequent. All sources are represented by filled triangles, except that known planetary nebulae are represented by open circles. Some objects, mostly planetary nebulae, are missing in Fig. 3 because they have too high a (S_{60}/S_{25}) ratio. The boundaries of the regions defined by van der Veen & Habing (1988) are overlaid (full lines) and provide convenient landmarks.

In region I, infrared emission is essentially photospheric (with $T_{\text{eff}} \sim 2000 - 3000$ K), with a possible contribution from a very optically thin circumstellar envelope. As expected, very few sources are detected in this region: there is not enough circumstellar material to produce strong CO emission. As the circumstellar shell gets more massive, it becomes easily detectable in CO lines, and the source moves to the right in the colour-colour diagram due to dust emission (Rowan-Robinson et al. 1986; Bedijn 1987; Chan & Kwok 1990). The exact track in the diagram depends on the dust emissivity law, i.e. on the chemical composition. The majority of O-rich sources in this sample lies in region II and in the lower left part of region IIIa. C-rich sources on the other hand are preferentially found in region VII (Zuckerman & Dyck 1986, AP7; van der Veen & Habing 1988). Chemical types are well determined in these regions of the colour-colour diagram: O-rich objects normally have the silicate feature in emission at $9.7 \mu\text{m}$ (sometimes at $18 \mu\text{m}$ too), and most C-rich objects have the SiC feature at $11.4 \mu\text{m}$. In addition the optical extinction by dust grains to stars in these regions is low enough that their spectral type can be readily determined, providing an additional handle on the chemical type.

According to current evolution scenarii (Bedijn 1987; van der Veen & Habing 1988; Volk & Kwok 1988), for O-rich AGB stars mass loss rates continuously increase on the AGB, possibly up to about $10^{-4} M_{\odot} \cdot \text{yr}^{-1}$ (depending

on the initial mass). During this evolution, the total dust opacity increases, the stellar radiation is more and more absorbed, and dust grains globally become colder. As a consequence, the source moves from region II (or the bottom of region IIIa) towards the top of region IV through regions IIIa and IIIb. It is however likely that only the most massive stars can have a sufficient mass loss rate to reach region IV (Likkell 1989). The present sample follows this evolutionary sequence rather well (Fig. 3). Extreme dust-enshrouded stars (regions IIIb and IV) are not generally visible, but their O-richness is easily established by OH maser emission (OH/IR stars) and/or by strong silicate features (in absorption at $9.7 \mu\text{m}$, either in emission or in absorption at $18 \mu\text{m}$).

Although region VII regroups the majority of C-rich sources in the sample, their distribution extends to the upper part of region IIIa, and even to region IIIb (Fig. 3; Omont *et al.* 1993, Pr1). As for O-rich AGB stars, it has been shown that the total dust opacity increases with the (S_{25}/S_{12}) ratio (Rowan-Robinson *et al.* 1986; Chan & Kwok 1990). In the upper part of region IIIa and in region IIIb two-thirds of the sources in the CO-HCN sample are actually C-rich, mainly because they are stronger CO emitters and have been more actively observed (indeed, $\sim 2/3$ of strong IRAS-PSC sources are O-rich in these regions, Omont *et al.* 1993, Pr1). Carbon richness is trickier to establish in these regions than in region VII. While two-thirds of the carbon stars still display the characteristic SiC emission feature, others have more or less featureless LRS spectra, classified as 1n, 21 to 23, or even 02 for RAFGL 3068. Carbon stars in region IIIa probably come close to the top of the AGB sequence, and some have high enough mass loss rates for self-absorption of the SiC feature (Chan & Kwok 1990). The main C-richness criterion is then a strong HCN/ ^{12}CO ratio in the millimetre range (Zuckerman & Dyck 1986, AP7; Omont *et al.* 1993, Pr1).

When the hydrogen envelope of the star is almost completely depleted, it reaches the end of the Asymptotic Giant Branch. Its effective temperature increases at constant luminosity (Iben & Renzini 1983; Schönberner 1983), while the fossil dust envelope moves away from the star, and cools down. These objects are often called pre- (or proto-) planetary nebulae (PPNe), though it is quite possible that some of them will never actually become planetary nebulae (Spergel *et al.* 1983). According to Bedijn (1987), and Volk & Kwok (1989), O-rich objects (with silicate dust) evolve horizontally from the top of region IV (or from region IIIb, depending on the final mass loss rate) towards region V. C-rich PPNe (with amorphous carbon grains) have similar evolutionary tracks (Loup 1993). The tracks start in regions IIIa and IIIb, with the exact starting point depending on the final mass loss rate, and roughly continue straight towards region V through regions IIIb and IV. PPNe are hard to chemically char-

acterize: silicate features disappear when dust emission peaks beyond about $40 \mu\text{m}$, and OH maser emission simultaneously becomes weak (Likkell 1989). Region V thus contains most sources with indeterminate chemical type.

We still have to discuss some objects which do not fit this general picture. Several carbon stars are located in regions VI, and a few O-rich stars are in the upper part of region VII and in regions VI. Those sources display a “60 μm excess” in the sense that their (S_{60}/S_{25}) ratio cannot be explained by the emission of a mass losing star. Their IRAS colours require the presence of cold dust far away from the star, which is now interpreted as the presence of a detached fossil dust shell, meaning that the mass loss rate has strongly decreased in the past, by at least a factor of 100. After the discovery of a few carbon stars associated with silicate dust emission (Little-Marenin 1986; Willems & de Jong 1986), Willems & de Jong (1988) built a scenario where the switching from an O-rich Mira variable into a carbon star would be caused by a thermal pulse; as a consequence, mass loss would stop for about 10^4 years. It has been proved that carbon stars located in region VIa are indeed surrounded by a detached envelope (Olofsson *et al.* 1988, 1990), and then that the mass loss of carbon stars can be discontinuous. On the other hand, that the transition from O- to C-rich stars takes place at the cessation of mass loss is still controversial. Carbon stars with silicate dust shells were also interpreted as binary systems (Little-Marenin 1986; Barnbaum *et al.* 1991). The chemical composition of detached envelopes is very difficult to determine and remains unknown. Finally, from a large sample of ~ 2000 M stars, Zijlstra *et al.* (1992) have discovered the existence of about a hundred O-rich stars displaying a strong 60 μm excess, showing that the phenomenon of interrupted mass loss is a general property of AGB stars, independently of the chemical type.

Despite observational biases, the CO-HCN sample thus has enough stars to mark out the general evolutionary tracks along the AGB. It doesn't, on the other hand, have enough PPNe to strongly constrain the evolution during this transition phase. This is essentially due to the very short duration of this transition stage (\sim a few 10^3 yrs).

5.2. Galactic distributions and distances

Figure 4 presents the galactic distribution of the three chemical types in an Aitoff projection centered on the galactic center. It has still a coverage gap at southern declinations, despite the recent southern SEST survey (Nyman *et al.* 1992, AA54). Galactic latitude histograms are displayed only for O- and C-rich objects. While selection of late type stars from the IRAS-PSC catalogue produces a distribution which is extremely concentrated towards the galactic plane, with a prominent bulge (Habing *et al.* 1985), the CO-HCN sample is obviously too local a pop-

ulation to match this distribution. This is not surprising, in view of the LRS classifications. According to Volk & Kwok (1988), sources with LRS type 2n (10 μm silicate feature in emission) have $|b_{\text{II}}|$ broadly distributed between $\sim \pm 40^\circ$, while sources with LRS type 3n (10 μm silicate feature in absorption) are almost all contained in ± 5 to 10° . These two classes roughly correspond to optical miras and OH/IR stars respectively. With only 20 objects of LRS type 3n (mean galactic latitude 5°), and almost all other O-rich sources of type 2n, the O-rich CO-HCN subsample matches the distribution for types 2n. The C-rich subsample is more concentrated towards the galactic plane than the O-rich one (see also Fig. 5), but a little less than the samples of optical carbon stars and sources having a LRS type 4n (11.4 μm SiC feature in emission; Chan & Kwok 1990). Histograms of the height to the galactic plane are displayed in Fig. 5 and confirm those general trends. For both O-rich and C-rich objects, about 85% of the sources are contained in $z < 400$ pc (the 7 identified M supergiants were ruled out). We note that the bias against sources close to the galactic plane has been significantly decreased by the recent survey of Kastner et al. (1992, Pr3) devoted to sources with $|b_{\text{II}}| \leq 5^\circ$.

Figure 6 is a plot of distances versus (S_{25}/S_{12}). It is rather surprising to note that, very clearly for O-rich sources, but also for C-rich sources, the distance increases when (S_{25}/S_{12}) increases, i.e. when the total dust opacity increases (all PPNe and PNe are excluded). There is an obvious bias: optically thin sources have no strong CO emission and are not seen at large distances. On the other hand, there are very few optically thick sources at short distances. This cannot be attributed to an observational bias, and we have to conclude that such objects are rare. Two explanations can be envisaged, or a combination of both: (i) more massive stars have larger mass loss rates, and our plot corresponds to a stellar mass sequence; (ii) not only \dot{M} increases with time, but also \dot{M} , so that the phase with large \dot{M} is brief; then our plot corresponds to a time sequence. One can also note that C-rich sources have on average larger distances than O-rich sources.

5.3. Expansion velocities and CO mass loss rates

Figure 7 presents expansion velocity histograms for O- and C-rich sources (M supergiants are removed). Both distributions are quite different. Most O-rich sources (86%) have an expansion velocity ranging from 5 to 20 km/s, and the distribution peaks between 10 and 20 km/s. 92% of C-rich sources have V_e ranging from 5 to 30 km/s, and the peak of the distribution occurs at 10-15 km/s. The main difference between both chemical classes is that the V_e distribution of O-rich sources drops drastically for V_e larger than 20-25 km/s, while it is quite continuous up to $V_e \sim 35$ km/s for C-rich objects. The existence of a "class" of carbon stars having large expansion velocities was first

pointed out by Zuckerman & Dyck (1989, AA16). In a recent paper, Barnbaum et al. (1991) have studied expansion velocities of a sample of 124 CO detected carbon stars. They note that sources with large V_e , $V_e \geq 17.5$ km/s, have low galactic latitudes, $|b_{\text{II}}| \leq 20^\circ$, and show that the scale height of sources with large expansion velocities is half that of sources with $V_e \leq 17.5$ km/s. Then they conclude that carbon stars having large V_e are more massive. We have verified the distribution of the CO-HCN sample of C stars (194 sources with available V_e) in a V_e versus $|b_{\text{II}}|$ plot, and also note that carbon stars with large V_e have low galactic latitudes, although the cutoffs are rather 20 km/s and 30° . Sources with $V_e \geq 20$ km/s are indeed more concentrated towards the galactic plane since 95% of them have $z < 200$ pc, for only 61% for the whole sample. Carbon stars with large expansion velocities are thus probably more massive.

In Figure 8, we have plotted our estimates of CO mass loss rates versus the expansion velocity. For both O- and C-rich AGB stars, the expansion velocity globally increases when \dot{M} increases. However this correlation is quite better for O-rich sources than for the C-rich ones. For these latter, there is a bulk of sources with $12 \lesssim V_e \lesssim 26$ km/s and $2 \cdot 10^{-6} \lesssim \dot{M} \lesssim 2 \cdot 10^{-5} M_\odot \cdot \text{yr}^{-1}$ for which V_e does not depend on \dot{M} . For instance, the infrared carbon stars AFGL 190 (0114+66) and AFGL 3068 (2316+16) are among the most optically thick C-rich sources in the near-infrared range (Lebofsky & Rieke 1977; Lebofsky et al. 1978), and have quite typical expansion velocities, 18 and 14 km/s respectively. Conversely, IRC+60041 (0110+62), 07217-1246, and S Cep (2135+78) have $V_e \simeq 25$ km/s, but are located in the lower left part of region VII and are not optically thick in the near-IR range. Barnbaum et al. (1991) concluded that carbon stars with large expansion velocities generally have larger mass loss rates than C stars with low V_e . From Fig. 8, the only thing we may conclude is that C stars having $\dot{M} \lesssim 10^{-6} M_\odot \cdot \text{yr}^{-1}$ also have $V_e \lesssim 12$ km/s, while for larger mass loss rates, there is still a rough correlation between \dot{M} and V_e , but the spread in V_e is very large.

One fundamental question is the correlation between CO and dust mass loss rates. As already mentioned in Sect. 5.1, the (S_{25}/S_{12}) ratio should be most of the time an increasing function of the mass loss rate and provides an approximate estimate of the dust mass loss rate. Then we have plotted in Fig. 9 the CO mass loss rate as a function of this IRAS flux ratio. In Figure 9a, \dot{M} was calculated by using Eq. (3), although we have explained in Sect. 4.1 why this expression is wrong, in order to show the differences with the more accurate values derived from Eqs. (6) which are quoted in Fig. 9b. In the latter, \dot{M} and R_{CO} were consistently calculated. As a consequence, compared to Fig. 9a, the spread in the plot is considerably reduced and the smallest mass loss rates are increased by a factor of 10. The values thus derived for the mass loss

rates of O-rich AGB stars typically range between 10^{-7} and $5 \cdot 10^{-5} M_{\odot} \cdot \text{yr}^{-1}$, between 10^{-6} and $10^{-5} M_{\odot} \cdot \text{yr}^{-1}$ for the few S stars identified, and between $3 \cdot 10^{-7}$ and $5 \cdot 10^{-5}$ for C-rich AGB stars.

As expected, for O-rich sources, \dot{M} increases when (S_{25}/S_{12}) increases. There is however a strong deficiency of CO emission for the most optically thick OH/IR stars located in regions IIIb and IV as discussed by Heske *et al.* (1990, AA36). This could be due in part to the saturation of T_{MB} in very optically thick cases as discussed in Knapp & Morris (1985, AP2) and in Sect. 4. However, the order of magnitude of the effect (Fig. 9b) implies other causes such as a very low kinetic temperature or a possible recent strong increase in the mass loss rate (Heske *et al.* 1990; Kastner 1990, 1992). Concerning C-rich AGB stars, the correlation between \dot{M} derived from CO observations and dust infrared properties is less clear. For optically thin carbon stars with $\log(12 S_{25}/25 S_{12}) \leq -0.8$, \dot{M} spreads between $\sim 3 \cdot 10^{-7}$ and $\sim 6 \cdot 10^{-6} M_{\odot} \cdot \text{yr}^{-1}$. For C stars having $\log(12 S_{25}/25 S_{12}) \geq -0.8$, it is possible that the value of \dot{M} derived from Eqs. (6) still slightly increases with (S_{25}/S_{12}) , but it remains rather constant with a typical value of $\sim 6 \cdot 10^{-6} M_{\odot} \cdot \text{yr}^{-1}$, without the spectacular discontinuity observed in the most coldest O-rich envelopes. However, we want to emphasize that, by using Eqs. (6), we systematically overestimate the smallest mass loss rates and underestimate the largest ones (Sect. 4). As a consequence, the correlation between CO mass loss rates and dust properties should be better than shown in Fig. 9b, and the observed behavior of \dot{M} for cold C-rich envelopes is probably explainable by the discussed effects of saturation and low kinetic temperature, as well as possible variations of the gas-to-dust ratio or changes in \dot{M} .

6. Conclusions

This sample of stars detected in CO or HCN is now quite large since it contains 444 detected or tentatively detected sources, for 1361 observations listed in 90 papers. One can however regrets the lack of coordination between the various works, particularly those devoted to systematic surveys. For instance, several sources have been observed many times in the CO(1–0) transition, but never in CO(2–1). Conversely, there are still powerful IRAS sources that were never observed. We also note that less than 50% of the papers give the rms noise level. Comparison between various observations show that the source velocity and the expansion velocity are relatively well determined, but not with an accuracy better than 2 or 3 km/s. Main beam brightness temperatures are uncertain by typically 20–50%. Such a large dispersion is probably due to errors or uncertainties in the calibration, and, generally to a lesser degree, to the noise of the ob-

servations, and to pointing uncertainties mainly for the smallest beams.

As expected, the CO-HCN sample is biased towards stronger CO emitters (in particular towards C-rich sources and against M supergiants and very optically thick OH/IR stars) due to sensitivity limitations, towards peculiar sources due to their special interest and to human factors, and against sources located in the galactic plane because of the confusion with CO emission of molecular clouds and of their accumulation in the same time observational windows. However, the most important regions of the IRAS colour-colour diagram are well sampled by the observed sources.

For AGB stars, we have estimated bolometric fluxes, distances, and heights above the galactic plane, assuming a luminosity of $10^4 L_{\odot}$. Since AGB luminosities are not well known and can vary up to a factor of 4, our distances are generally uncertain by typically a factor of 2. Because of the various mentioned observational biases, this CO-HCN sample is much less concentrated towards the galactic plane than the whole IRAS-PSC sample. There is a close correlation between the mean distance of the observed sources and their infrared colours: d increases with (S_{25}/S_{12}) . Optically thin sources are mainly local because there are too weak to be detected at large distances. Cold sources are intrinsically stronger, but rarer, either because they are more massive, or because the duration of large \dot{M} is short. The mean distance of presently detected C-rich AGB stars is larger than that of O-rich AGB stars, and it is thus not surprising that they are more concentrated towards the galactic plane.

O-rich AGB stars also differ from the C-rich ones by their expansion velocity. V_e is continuously distributed from 5 to 20 km/s for O-rich sources, and from 5 to 35 km/s for C-rich sources. Excluding M supergiants, there are only 4 O-rich stars with V_e above 25 km/s. On the other hand, 23 C-rich objects have expansion velocities larger than 25 km/s. It is not impossible that they are more massive than others, as it has been suggested from their galactic latitude distribution (Barnbaum *et al.* 1991).

From their CO intensities, we have derived rough estimates of the mass loss rate \dot{M} for 284 AGB stars. We basically followed the classical derivation of Knapp & Morris (1985). However, their algebraical formula used in most subsequent papers was inferred for a given value of the CO photodissociation radius ($R_{\text{CO}} = 3 \cdot 10^{17}$ cm) appropriate for large mass loss rates, although the introduction of a correct photodissociation radius increases the derived value of \dot{M} by an order of magnitude for the lowest mass loss rates. We therefore consistently calculated \dot{M} and R_{CO} . Despite this improvement, our values of \dot{M} are still extremely uncertain, possibly by an order of magnitude for the smallest and the largest mass loss rates, for many reasons. Some of them, such as errors in the calibration of radio intensities or the variability

of infrared fluxes, should introduce a random dispersion. Others can introduce important biases: the distances are inferred from the assumption of a uniform bolometric luminosity ($10^4 L_\odot$); the saturation of CO lines for large \dot{M} and the infrared pumping for small \dot{M} are not taken into account; the model of kinetic temperature, derived for IRC+10216, is certainly inappropriate for smaller and larger mass loss rates. The general effect of such biases should be to underestimate the largest mass loss rates and overestimate the smallest ones. The values of \dot{M} thus derived range from 10^{-7} to $5 \cdot 10^{-5} M_\odot \cdot \text{yr}^{-1}$ for O-rich AGB stars, and from $3 \cdot 10^{-7}$ to $5 \cdot 10^{-5} M_\odot \cdot \text{yr}^{-1}$ for C-rich AGB stars. As expected, despite important biases, it is generally found that \dot{M} increases with the total dust opacity, but, although the most optically thick OH/IR stars display a strong deficiency of CO emission (Heske et al. 1990), this tendency is much clearer for O-rich sources than for C-rich ones.

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7. Appendix A: total IRAS flux

Following the procedure described in the Explanatory Supplement (p. VI 27), the flux measured by a detector is given by:

$$F_0 = \frac{10^{-19} c}{\lambda_0(\mu)} \times S_{\lambda_0}(\text{Jy}) \times I_0 \quad \text{erg} \cdot \text{s}^{-1} \cdot \text{cm}^{-2} \quad (\text{A.1a})$$

$$I_0 = \int_{\text{band}} \frac{R(\lambda)}{\lambda} d\lambda \quad (\text{A.1b})$$

where c is the light velocity in $\text{cm} \cdot \text{s}^{-1}$, λ_0 is the effective wavelength of the band (12, 25, 60, or $100 \mu\text{m}$), S_{λ_0} is the flux density quoted in the PSC (and derived assuming that the flux density with wavelength goes as λ^{-1}), and $R(\lambda)$ is the relative system response. After numerical integration, I_0 values are: $I_{12} = 0.55$, $I_{25} = 0.44$, $I_{60} = 0.49$, and $I_{100} = 0.32$. The total flux measured by IRAS in the 4 bands is then given by:

$$4\pi(1 \text{ kpc})^2 F_{\text{iras}}^{\text{measured}} = 4.34 S_{12} + 1.64 S_{25} + 0.77 S_{60} + 0.30 S_{100} L_\odot \quad (\text{A.2})$$

Our aim is not to estimate the flux measured by IRAS, but the flux actually radiated between 7 and $130 \mu\text{m}$, i.e. to estimate the non measured part of the flux, due to bandpass shapes and imperfect overlapping between the bands. Of course, this contribution cannot be exactly

derived since we do not know *a priori* the intrinsic energy distribution of the source. We have then used the same blackbody and power laws presented in the Explanatory Supplement for colour correction estimates, and derived the $(F_{\text{iras}}^{\text{actual}}/F_{\text{iras}}^{\text{measured}})$ ratio. We found this one is well limited in all cases:

$$1.48 \leq \frac{F_{\text{iras}}^{\text{actual}}}{F_{\text{iras}}^{\text{measured}}} \leq 1.80 \quad (\text{A.3})$$

In addition, we derived this ratio in more realistic cases. We used of modelling of C-rich AGB stars and PPN with amorphous carbon grains (Loup 1991, 1993). Radiative transfer is solved, and a large range of parameters has been envisaged: calculations were performed for optically thin and optically thick cases ($\dot{M} = 10^{-7} - 10^{-4} M_\odot \cdot \text{yr}^{-1}$), the maximum temperature of grains goes from 1000 (AGB) to 50 K (detached envelopes), and the effective temperature of the central star varies from 2000 to 20000 K, depending on the evolution stage we consider. Model spectra are convolved by $R(\lambda)$ and integrated over IRAS bands in order to derive equivalent PSC flux densities. Results are displayed in Fig. A versus S_{25}/S_{12} . Since the CO-HCN sample mostly contains AGB stars with $\log_{10}(12 S_{25}/25 S_{12}) \leq 0$, we roughly estimate $F_{\text{iras}}^{\text{actual}}$ by:

$$F_{\text{iras}}^{\text{actual}} \equiv F_{\text{iras}} = 1.6 F_{\text{iras}}^{\text{measured}} \pm 25\% \quad (\text{A.4})$$

taking into account the PSC calibration uncertainties ($\sim 10 - 15\%$). This estimate should not change a lot for sources displaying one or several features in the 12 and $25 \mu\text{m}$ bands (silicates at $10 \mu\text{m}$, SiC, PAHs, and unidentified feature at $21 \mu\text{m}$) since both filters are more or less square. On the other hand, the silicate feature at $18 \mu\text{m}$ occurs just between the 12 and $25 \mu\text{m}$ bands. Therefore, when the $18 \mu\text{m}$ silicate band is in emission, the factor 1.6 is underestimated, and vice-versa. The $100 \mu\text{m}$ flux is often contaminated by cirrus, and then not always reliable. Besides, infrared emission of AGB stars occurs at 12 or $25 \mu\text{m}$, and the S_{100} coefficient is small as seen from Eq. (A.2). We have then preferred to neglect S_{100} , and F_{iras} is finally given by:

$$4\pi(1 \text{ kpc})^2 F_{\text{iras}} = 6.9 S_{12} + 2.6 S_{25} + 1.2 S_{60} L_\odot \quad (\text{A.5})$$

IRAS flux from PPNs and PNe is underestimated by this formula since their emission occurs at 60 or/and $100 \mu\text{m}$. Fig. A shows that the correction factor for PPNs is rather 1.8 than 1.6. However, since most PNe are located close to the galactic plane and strongly confused by surrounding molecular clouds, S_{100} is not reliable, and there is not really an appropriate way to derive F_{iras} .

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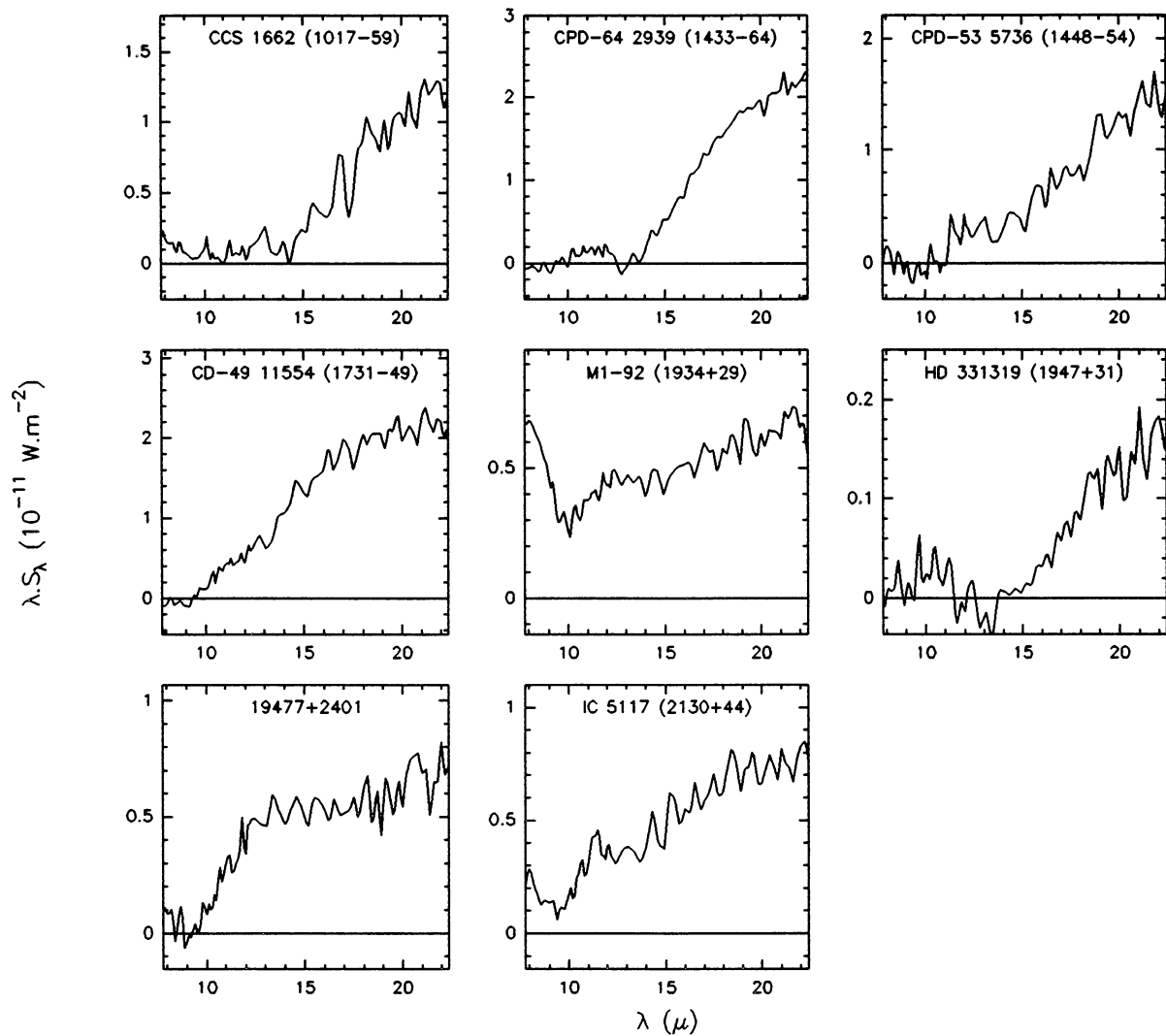


Fig. 1. New LRS spectra extracted from the LRS database. They are normalised to the 12 μm flux density for consistency with IRAS-PSC observations

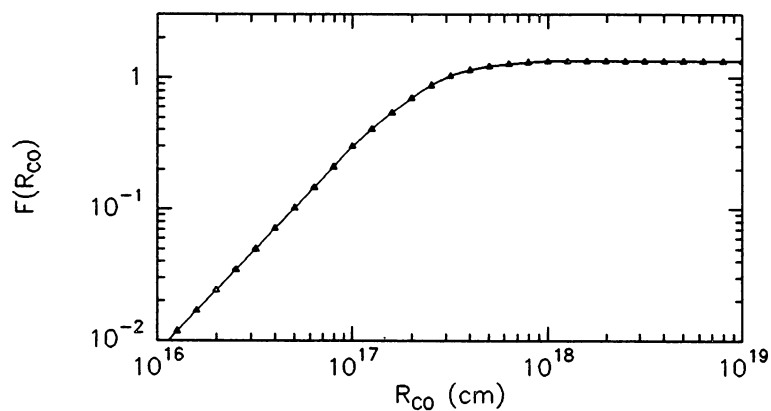


Fig. 2. T_{MB} depends not only on \dot{M} , V_e , f , and d , but also on R_{CO} , the CO photodissociation radius: $T_{\text{MB}} \propto (\dot{M}/d^2) \times F(R_{\text{CO}})$ (see Eq. 4). In the figure, $F(R_{\text{CO}})$ is normalised to 1 for $R_{\text{CO}} = 3 \cdot 10^{17}$ cm. This curve is an average on curves plotted in the Knapp & Morris's Fig. 16 (1985, AP2)

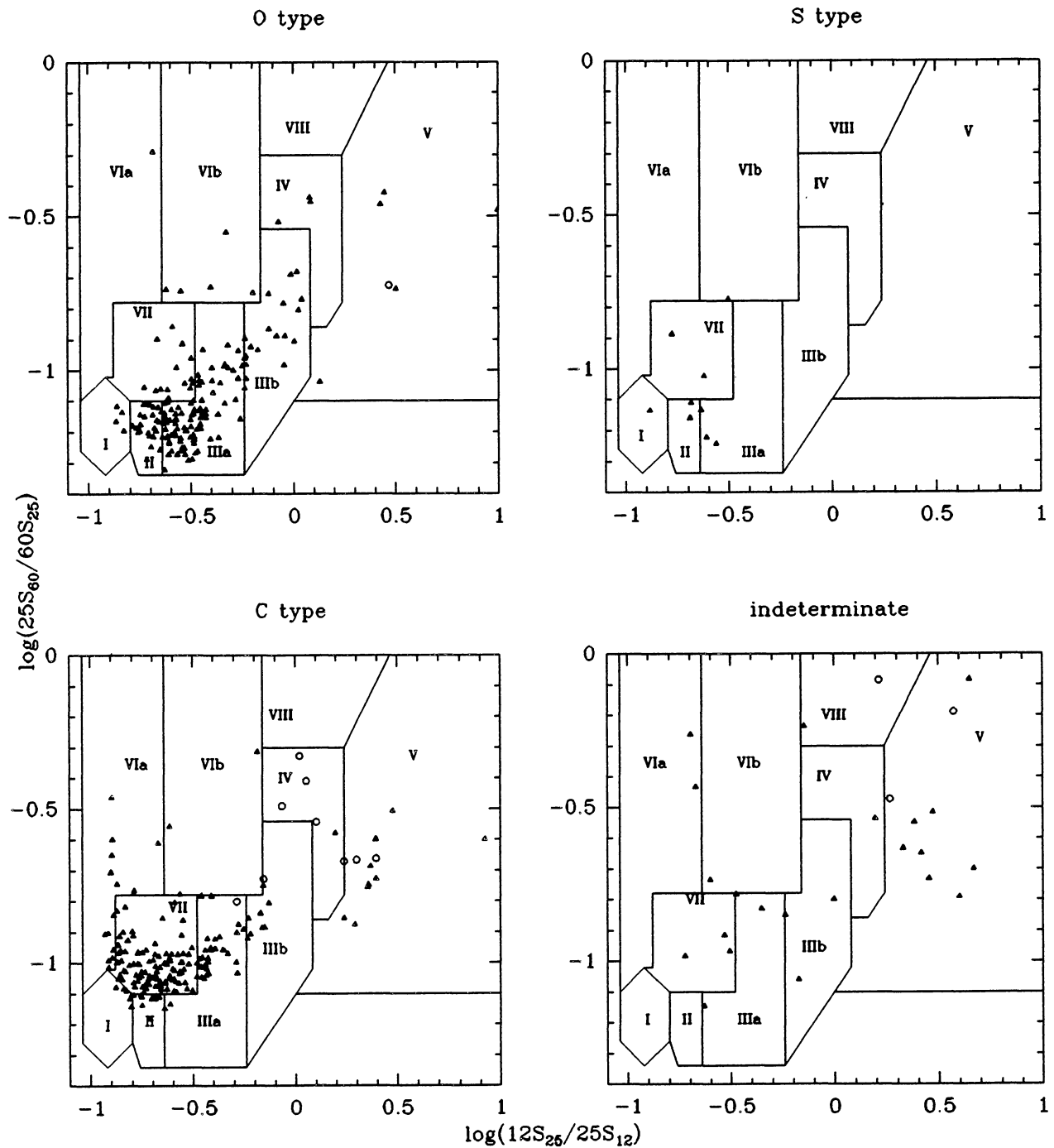


Fig. 3. Distribution of the CO-HCN sample in the IRAS colour-colour diagram for O, S, C, and indeterminate chemical types. Planetary nebulae are represented by open circles. Regions defined by van der Veen & Habing (1988) are drawn as landmarks. S_{12} , S_{25} , and S_{60} are the IRAS-PSC flux densities, not colour corrected

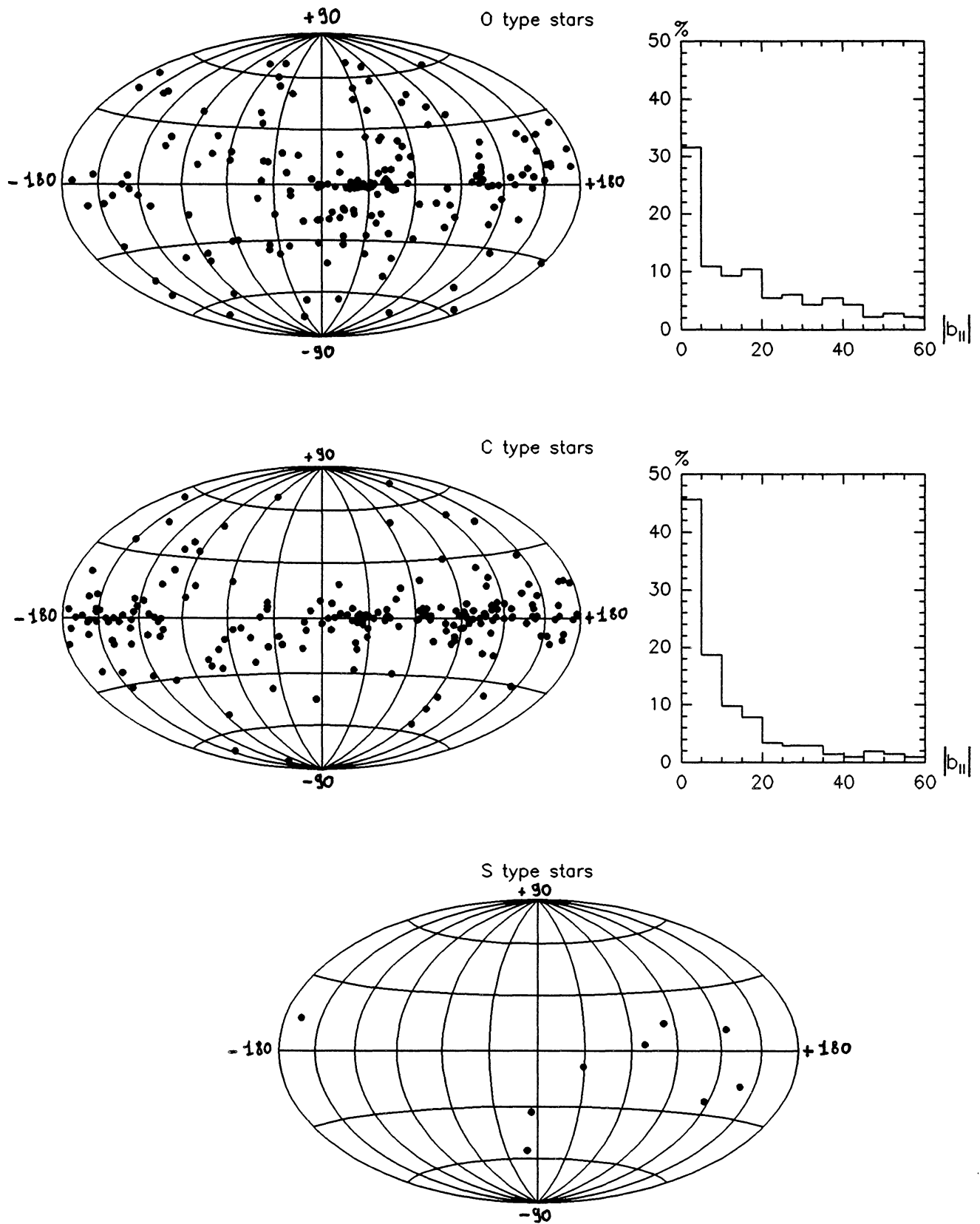


Fig. 4. Galactic distributions of the CO-HCN sample displayed on an Aitoff projection centered on the galactic center for the three chemical types (O, C, S). We also present latitude histograms for O- and C-rich sources

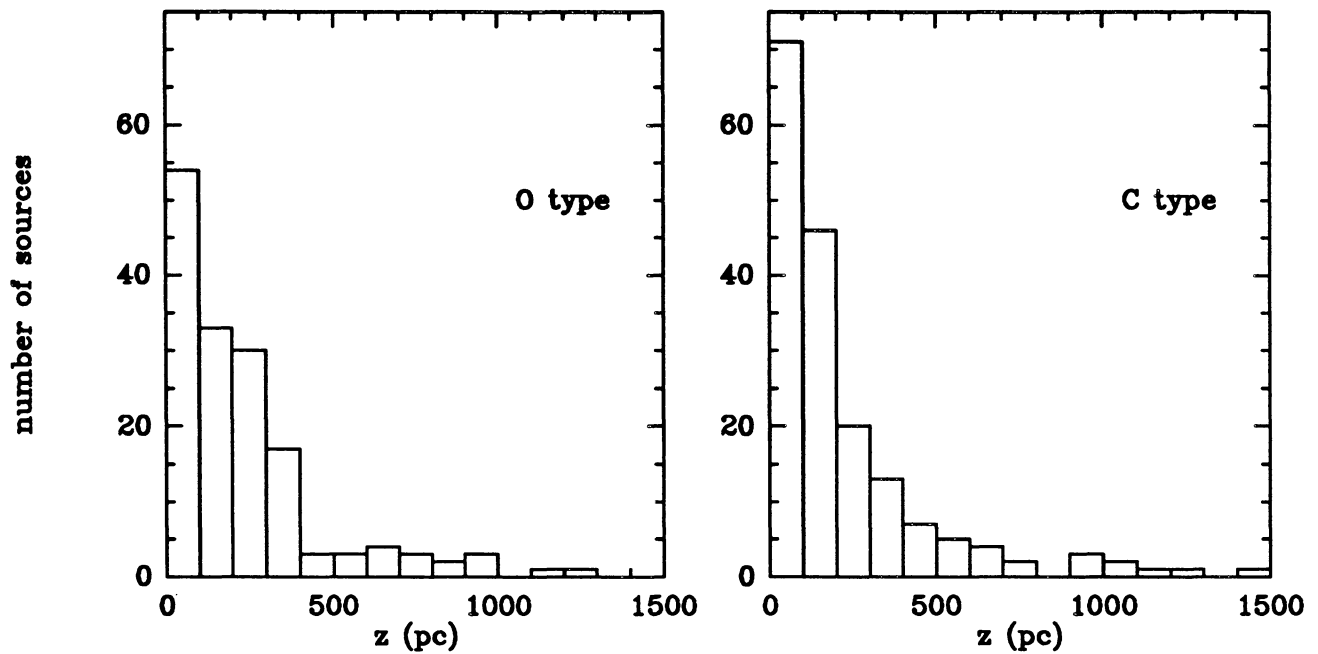


Fig. 5. Histograms of heights to the galactic plane for O- and C-rich AGB stars. We excluded the 7 identified M supergiants in the sample

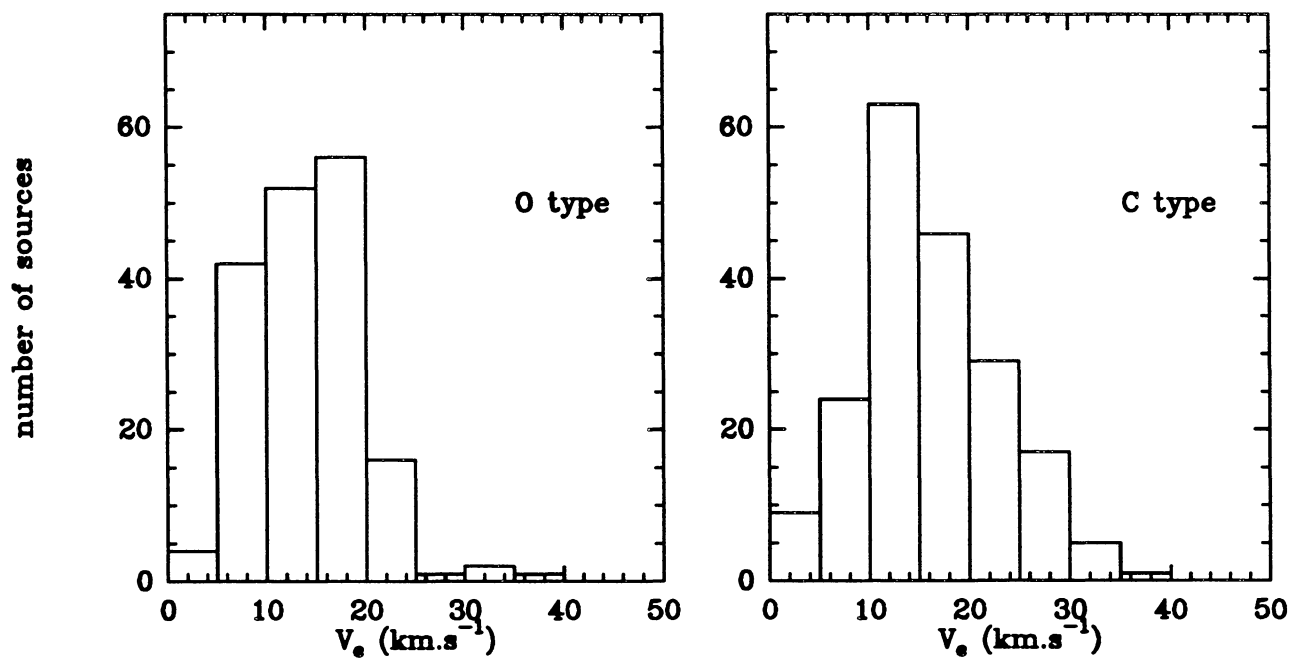


Fig. 7. Expansion velocity histograms. M supergiants and post-AGB stars are removed

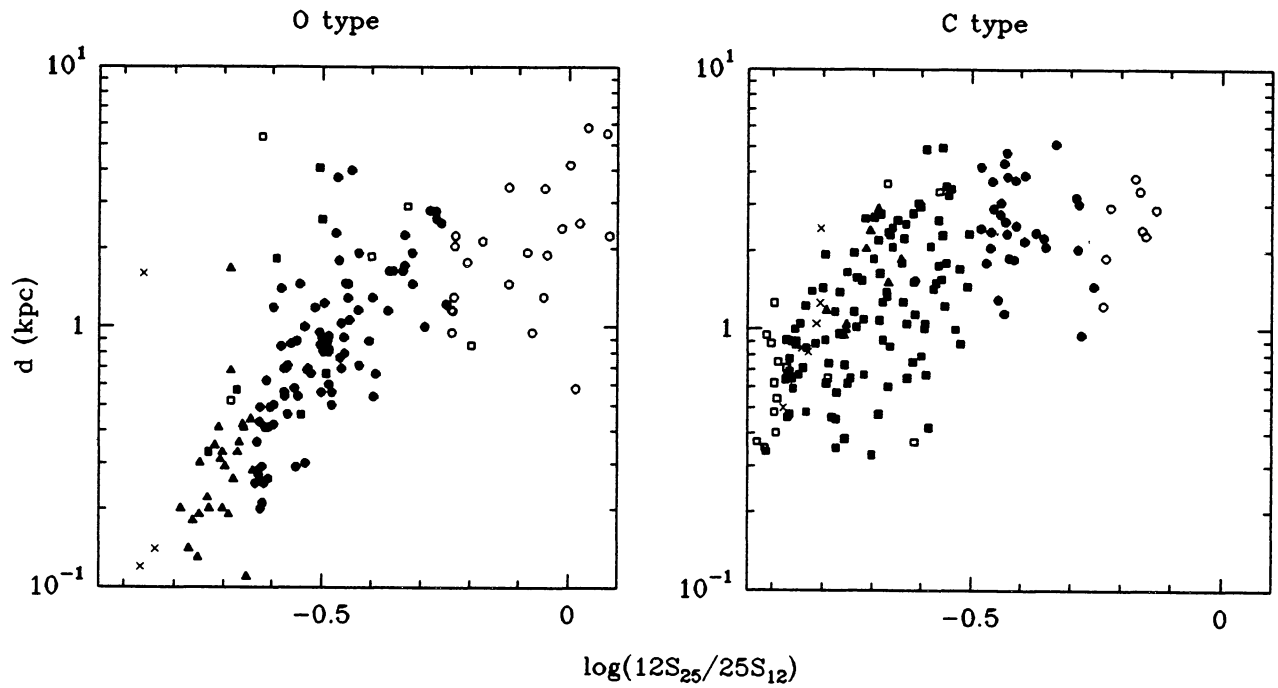


Fig. 6. Correlation between distances and IRAS properties for O- and C-rich AGB stars. Crosses: region I, full triangles: region II, full squares: region VII, full circles: region IIIa, open circles: regions IIIb and IV, open squares: regions VI (see also Fig. 3)

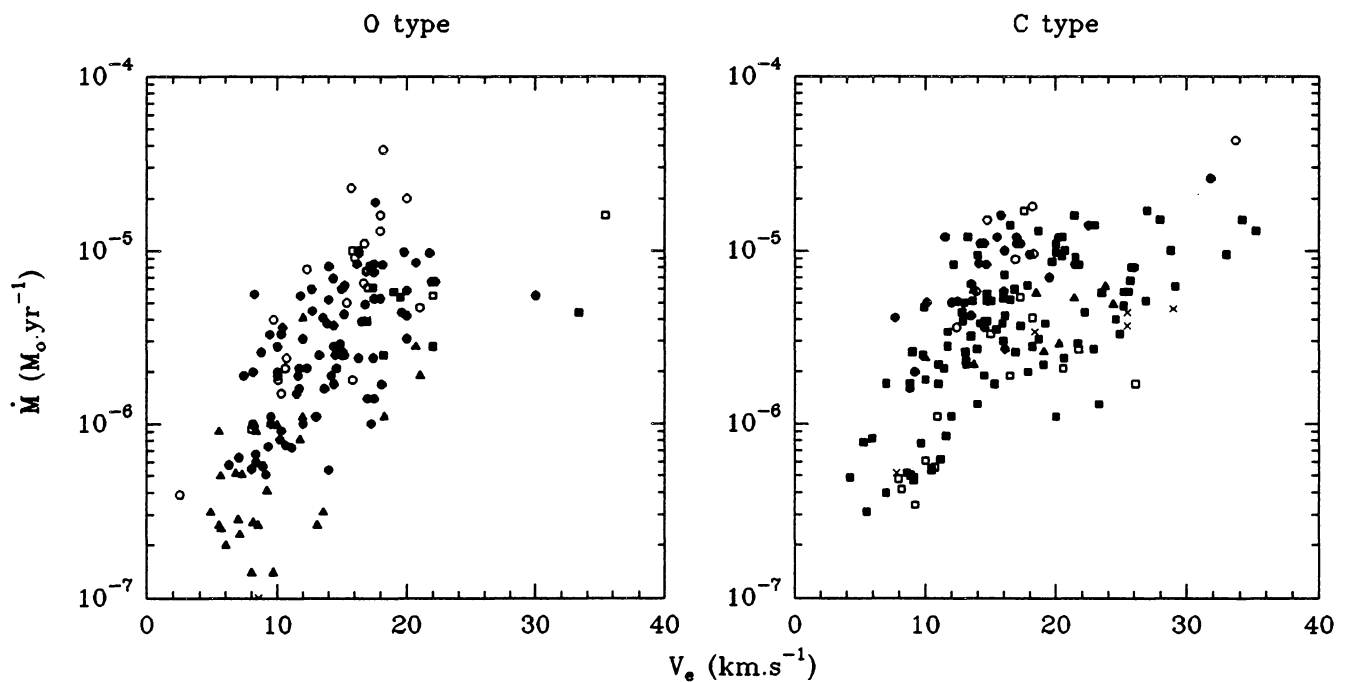


Fig. 8. Correlation between the expansion velocity and the mass loss rate derived from Eqs. (6) for O- and C-rich AGB stars. Symbols are defined in the Fig. 6 caption

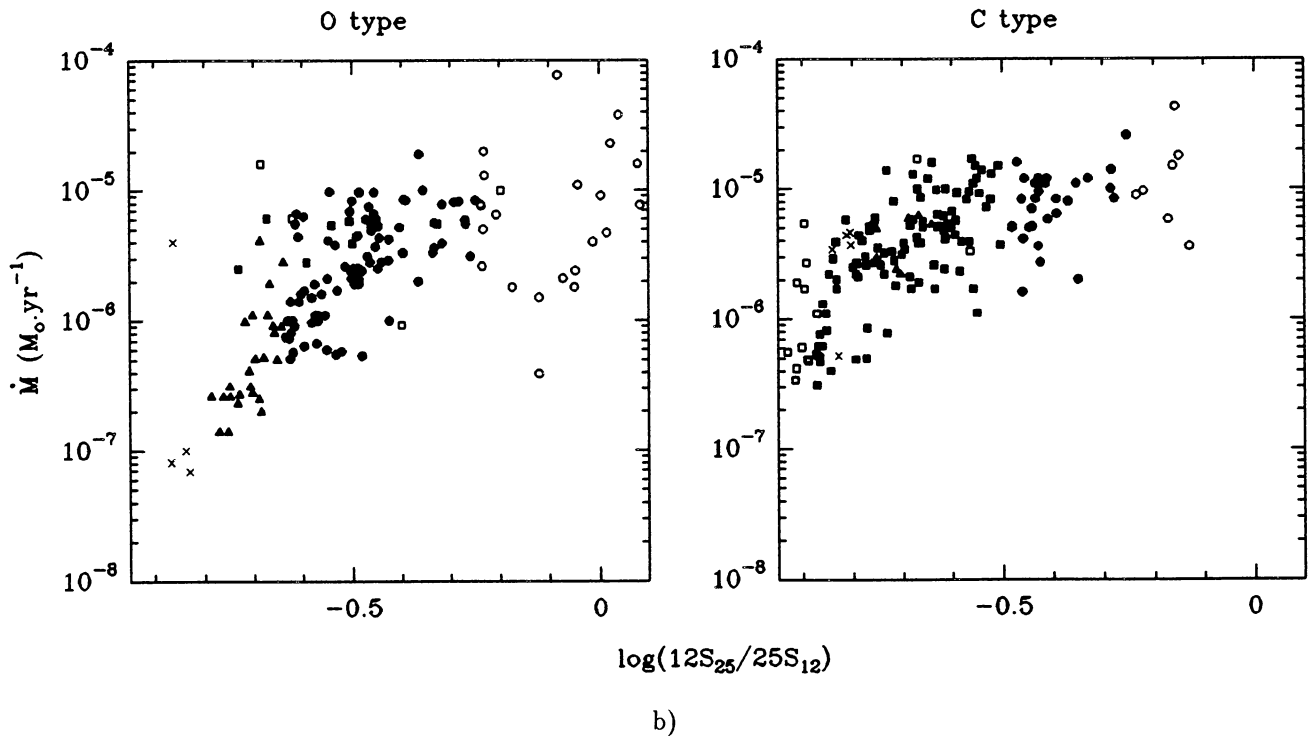
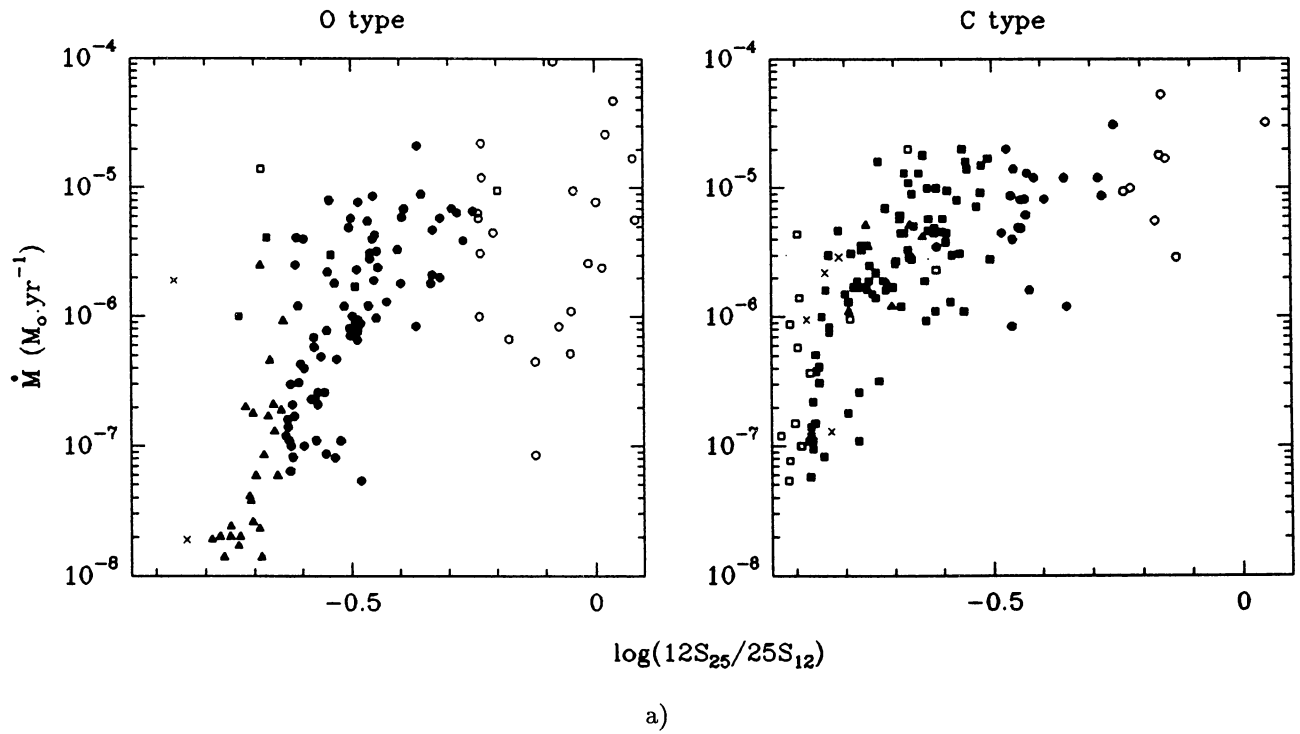


Fig. 9a,b. Correlation between mass loss rates and IRAS properties. In Fig. 9a, \dot{M} was calculated assuming $R_{\text{CO}} = 3 \cdot 10^{17}$ cm (Eq. 3 in Sect. 4). In Fig. 9b, \dot{M} and R_{CO} were consistently calculated (Eqs. 6). Symbols are defined in the Fig. 6 caption

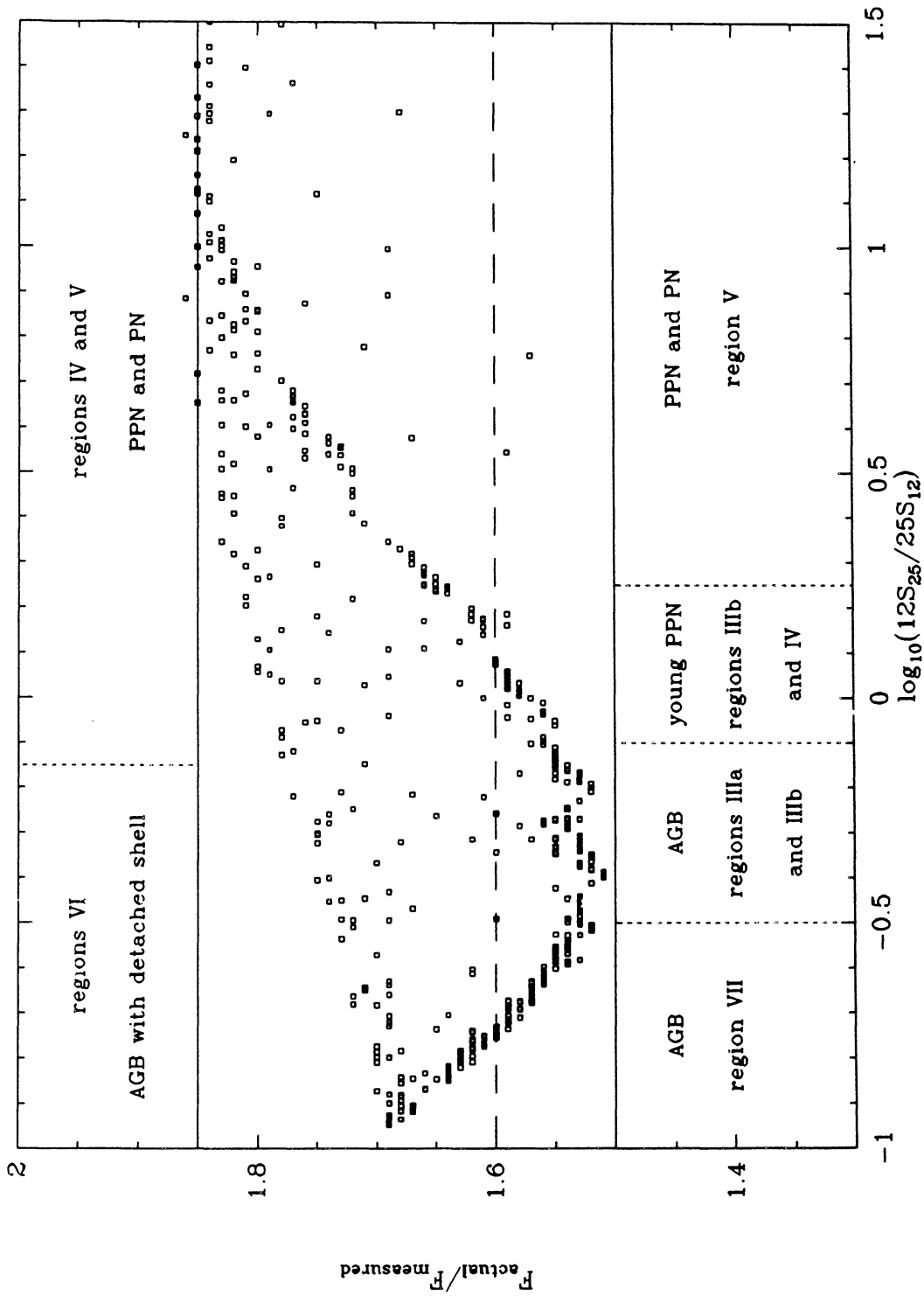


Fig. A.

Table 1.

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l_{II}	b_{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0004+42	KU And	CIT 1	...	+40004	14	00 : 04 : 17.70	+42 : 48 : 18.0	00 : 06 : 52.94	+43 : 04 : 60.0	+114.3	-19.0	3e
0017+44	VX And	CCS 11	HD 1546	+40006	50	00 : 17 : 15.10	+44 : 25 : 56.0	00 : 19 : 54.15	+44 : 42 : 35.0	+117.1	-17.8	2m
0019-40	00193-4033	...	...	...	...	00 : 19 : 18.67	-40 : 33 : 54.0	00 : 21 : 47.30	-40 : 17 : 15.8	-034.0	-75.5	2p
0020+55	T Cas	HD 1845	SAO 21343	+60009	57	00 : 20 : 31.21	+55 : 30 : 56.2	00 : 23 : 14.26	+55 : 47 : 33.9	+118.9	-06.9	2a
0021+62	00210+6221	...	...	...	...	00 : 21 : 04.90	+62 : 21 : 39.0	00 : 23 : 51.19	+62 : 38 : 16.4	+119.8	-00.1	3e
0021+38	R And	HD 1967	SAO 53860	+40009	59	00 : 21 : 23.02	+38 : 18 : 02.7	00 : 24 : 01.99	+38 : 34 : 40.0	+117.1	-24.0	2e,2a
0024-06	UY Cet	HD 2326	SAO 128767	-10009	66	00 : 24 : 33.60	-06 : 52 : 52.3	00 : 27 : 06.44	-06 : 36 : 16.4	+106.1	-68.7	2a
0024+69	RAFGL 67	...	...	...	67	00 : 24 : 47.00	+69 : 22 : 16.0	00 : 27 : 41.15	+69 : 38 : 51.7	+120.9	+06.9	2f
0103+12	IRC+10011	WX Psc	CIT 3	+10011	157	01 : 03 : 48.09	+12 : 19 : 51.4	01 : 06 : 25.96	+12 : 35 : 53.5	+128.6	-50.1	1e
0107+65	IRC+70018	01071+6551	...	+70018	163	01 : 07 : 04.00	+65 : 51 : 17.0	01 : 10 : 22.03	+66 : 07 : 14.5	+124.8	+03.3	Pr3
0108+30	AW Psc	NSV 426	...	+30021	168	01 : 08 : 30.60	+30 : 22 : 10.0	01 : 11 : 16.14	+30 : 38 : 06.0	+128.0	-32.0	2k
0110+62	IRC+60041	CCS 59	NSV 438	+60041	177	01 : 10 : 30.30	+62 : 41 : 43.0	01 : 13 : 44.31	+62 : 57 : 36.0	+125.5	+00.2	2m
0113+25	Z Psc	CCS 63	HD 7561	+30025	188	01 : 13 : 21.02	+25 : 30 : 20.1	01 : 16 : 05.02	+25 : 46 : 09.6	+129.9	-36.8	2a
0114+63	01142+6306	...	...	...	...	01 : 14 : 16.50	+63 : 06 : 18.0	01 : 17 : 33.31	+63 : 22 : 05.8	+125.9	+00.6	Pr3
0114+66	RAFGL 190	01144+6658	...	...	190	01 : 14 : 26.30	+66 : 58 : 08.0	01 : 17 : 51.62	+67 : 13 : 55.4	+125.5	+04.5	3a
0115+72	S Cas	HD 7769	SAO 4374	+70024	194	01 : 15 : 57.76	+72 : 20 : 55.8	01 : 19 : 41.99	+72 : 36 : 40.8	+125.1	+09.9	2e,2a
0124-32	R Scl	CCS 68	HD 8879	-30015	215	01 : 24 : 40.02	-32 : 48 : 06.8	01 : 26 : 58.07	-32 : 32 : 34.0	-109.8	-80.6	2a
0130+62	OH 127.8+0.0	...	...	...	230	01 : 30 : 27.63	+62 : 11 : 31.2	01 : 33 : 51.21	+62 : 26 : 53.5	+127.8	-00.0	1e
0155+45	BD+44 398	HD 11979	SAO 37673	+50049	278	01 : 55 : 37.33	+45 : 11 : 31.9	01 : 58 : 44.11	+45 : 26 : 06.0	+135.1	-15.8	2a
0214+44	W And	HD 14028	...	+40037	310	02 : 14 : 22.92	+44 : 04 : 26.8	02 : 17 : 32.96	+44 : 18 : 17.8	+138.8	-15.9	1n
0215+28	02152+2822	...	...	...	...	02 : 15 : 12.50	+28 : 22 : 59.0	02 : 18 : 06.60	+28 : 36 : 48.3	+145.0	-30.5	3e
0216-03	O Cet	HD 14386	SAO 129825	+00030	318	02 : 16 : 49.11	-03 : 12 : 22.4	02 : 19 : 20.79	-02 : 58 : 36.6	+167.8	-58.0	1n,11,1f
0227-26	R For	CCS 103	...	-30021	337	02 : 27 : 01.20	-26 : 19 : 13.0	02 : 29 : 15.11	-26 : 05 : 52.9	-144.2	-68.1	2m
0229+57	RAFGL 341	...	...	...	341	02 : 29 : 21.10	+57 : 48 : 53.0	02 : 33 : 00.16	+58 : 02 : 05.0	+136.1	-02.2	3a
0231+64	V656 Cas	CIT 4	NSV 857	+60092	349	02 : 31 : 41.60	+64 : 55 : 54.0	02 : 35 : 44.55	+65 : 08 : 59.1	+133.6	+04.5	2k
0235-27	UU For	NSV 878	...	-30023	357	02 : 35 : 10.80	-27 : 11 : 41.0	02 : 37 : 22.99	-26 : 58 : 42.9	-141.3	-66.5	2k
0235+59	02358+5928	...	...	...	...	02 : 35 : 48.80	+59 : 28 : 09.0	02 : 39 : 34.78	+59 : 41 : 03.2	+136.2	-00.4	3e
0252-50	R Hor	...	...	...	...	02 : 52 : 13.29	-50 : 05 : 33.7	02 : 53 : 52.46	-49 : 53 : 23.8	-094.5	-57.4	1n
0300+56	03008+5637	...	...	...	...	03 : 00 : 51.10	+56 : 37 : 36.0	03 : 04 : 37.67	+56 : 49 : 16.2	+140.4	-01.5	Pr3
0307-87	03074-8732	...	...	...	...	03 : 07 : 24.70	-87 : 32 : 09.0	02 : 52 : 23.02	-87 : 20 : 19.5	-058.6	-29.4	3e
0309+58	03096+5839	...	...	...	...	03 : 09 : 40.30	+58 : 39 : 12.0	03 : 13 : 35.73	+58 : 50 : 23.8	+140.4	+00.9	Pr3
0309+59	03096+5936	...	...	...	...	03 : 09 : 36.50	+59 : 36 : 52	03 : 13 : 35.09	+59 : 48 : 04.0	+139.9	+01.7	Pr3
0311-57	TW Hor	CCS 136	HD 20234	...	...	03 : 11 : 16.90	-57 : 30 : 29.0	03 : 12 : 32.96	-57 : 19 : 18.1	-086.7	-50.9	2g,2a

Table 2.

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4πl _{kpc} ² F _{l_{ras}} (L _⊙)	4πl _{kpc} ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0004+42	KU And	4.7610 ²	3.2410 ²	5.8010 ¹	2.0910 ¹	4.210 ³	1.510 ⁴	1	0.82	26	IIIa	O	M10(M)
0017+44	VX And	5.2810 ¹	1.5410 ¹	4.0310 ⁰	2.0310 ⁰	4.110 ²	1.010 ⁴	2	1.00	24,4n	VII	C	C4,5J(SRaa)
0019-40	00193-4033	3.1210 ²	1.5210 ²	1.7410 ¹	3.4610 ⁰	2.610 ³	7.710 ⁴	2	0.36	28	IIIa	O	M9
0020+55	T Cas	4.2810 ²	1.7910 ²	2.4410 ¹	9.7210 ⁰	3.510 ³	1.210 ⁵	1	0.29	15	II	O	M7.5e(M)
0021+62	00210+6221	4.8510 ¹	5.1910 ¹	1.2510 ¹	...	4.910 ²	9.810 ²	3	3.20	12	IIIa	C?	?
0021+38	R And	3.2710 ²	1.6810 ²	2.4210 ¹	1.0410 ¹	2.710 ³	6.810 ⁴	2	0.38	2n	IIIa	S	S4,6e(M)
0024-06	UY Cet	1.1610 ²	5.9010 ¹	1.1510 ¹	4.4910 ⁰	9.710 ²	...	...	...	14,2n	VII	O	M7
0024+69	RAFGL 67	3.0610 ²	1.5010 ²	2.9610 ¹	6.3010 ⁰	2.610 ³	9.110 ³	2	1.05	43	VII	C	?
0103+12	IRC+10011	1.1610 ³	9.6810 ²	2.1510 ²	7.2110 ¹	1.1110 ⁴	3.410 ⁴	1	0.54	4no	IIIa	O	M7(M)
0107+65	IRC+70018	2.4410 ¹	1.2310 ¹	2.5610 ⁰	...	2.010 ²	...	...	...	15,2n	VII	O	M7
0108+30	AW Psc	1.6510 ²	1.2210 ²	1.8910 ¹	6.2510 ⁰	1.510 ³	4.710 ³	1	1.46	29	IIIa	O	M9(M)
0110+62	IRC+60041	1.4010 ²	4.0310 ¹	8.8510 ⁰	...	1.110 ³	2.910 ⁴	2	0.59	44	VII	C	C6,3:e
0113+25	Z Psc	3.3410 ¹	1.1210 ¹	3.2910 ⁰	1.7210 ⁰	2.710 ²	2.610 ³	2	1.94	22,4n	VII	C	C7,2(SRb)
0114+63	01142+6306	3.0110 ¹	1.8110 ¹	3.7610 ⁰	...	2.610 ²	8.410 ²	2	3.46	42	VII	C	?
0114+66	RAFGL 190	1.4010 ²	2.0610 ²	6.4710 ¹	1.5910 ¹	1.610 ³	1.910 ³	1	2.29	21	IIIb	C	?
0115+72	S Cas	3.4210 ²	1.9510 ²	2.6810 ¹	1.1410 ¹	2.910 ³	1.110 ⁴	1	0.95	22	IIIa	S	Se(M)
0124-32	R Scl	1.6210 ²	8.2110 ¹	5.4810 ¹	2.3210 ¹	1.410 ³	7.210 ⁴	1	0.37	4n	Vlb	C	C6,4(SRaa)
0130+62	OH 127.8+0.0	2.8910 ²	4.5610 ²	1.9410 ²	5.0210 ¹	3.410 ³	4.710 ³	1	1.46	37	IIIb	O	?
0155+45	BD+44 398	4.9910 ²	2.9210 ²	4.2210 ¹	1.5810 ¹	4.310 ³	1.210 ⁵	1	0.29	22	IIIa	O	M8
0214+44	W And	1.6710 ²	7.2110 ¹	1.3410 ¹	5.6110 ⁰	1.410 ³	4.410 ⁴	1	0.48	22	II	S	S8,2e(M)
0215+28	02152+2822	1.2110 ²	1.1210 ²	2.9610 ¹	6.8610 ⁰	1.210 ³	2.310 ³	3	2.07	43	IIIa	C	?
0216-03	O Cet	4.8810 ³	2.2610 ³	3.0110 ²	8.8410 ¹	4.010 ⁴	8.110 ⁵	1	0.11	2n	II	O	M5.5e(M)bin.
0227-26	R For	2.5410 ²	7.5310 ¹	1.6010 ¹	5.0610 ⁰	2.010 ³	2.210 ⁴	1	0.67	43	VII	C	C4,3e(M)
0229+57	RAFGL 341	1.7310 ²	1.6010 ²	4.2210 ¹	9.8610 ⁰	1.710 ³	2.010 ³	1	2.24	42	IIIa	C	C
0231+64	V656 Cas	4.8110 ²	3.1410 ²	4.5810 ¹	1.3410 ¹	4.210 ³	1.110 ⁴	1	0.95	2n	IIIa	O	M8(M)
0235-27	UU For	4.1910 ²	2.5510 ²	3.4410 ¹	9.5010 ⁰	3.610 ³	1.010 ⁴	1	1.00	29	IIIa	O	M9
0235+59	02353+5928	1.1310 ¹	4.9010 ⁰	...	...	...	2.910 ²	4	5.87	...	...	?	?
0252-50	R Hor	7.2810 ²	3.1110 ²	5.3610 ¹	2.1910 ¹	5.910 ³	2.710 ⁵	2	0.19	24	II	O	M7IIIe(M)
0300+56	03008+5637	1.0710 ¹	5.3410 ⁰	2.3510 ⁰	3.7010 ⁰	9.110 ¹	3.510 ²	4	5.35	29	Vlb	O	M9
0307-87	03074-8732	8.9610 ¹	8.6510 ¹	1.6310 ¹	4.5910 ⁰	8.710 ²	3.410 ³	2	1.72	27	IIIa	O	?
0309+58	03096+5839	1.4610 ¹	7.8210 ⁰	2.9510 ⁰	...	1.310 ²	4.210 ²	2	4.91	14	VII	C	C
0309+59	03096+5936	1.6310 ¹	1.0010 ¹	2.9210 ⁰	...	1.410 ²	8.210 ²	4	3.49	14,7	VII	?	?
0311-57	TW Hor	9.4010 ¹	3.6510 ¹	7.2510 ⁰	2.6810 ⁰	7.610 ²	4.010 ³	2	1.58	43	VII	C	C5II

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l _{II}	b _{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0318+70	RAFGL 482	...	...	...	482	03 : 18 : 38.80	+70 : 16 : 27.0	03 : 23 : 36.57	+70 : 27 : 07.5	+135.1	+11.3	3c
0319+56	03192+5642	...	...	...	...	03 : 19 : 13.60	+56 : 42 : 04.0	03 : 23 : 05.85	+56 : 52 : 44.3	+142.6	-00.1	Pr3
0320+65	OH 138.0+7.3	...	...	...	...	03 : 20 : 41.48	+65 : 21 : 32.8	03 : 25 : 08.43	+65 : 32 : 07.2	+138.0	+07.3	1e
0322+47	IRC+50096	CCS 142	V384 Per	+50096	489	03 : 22 : 59.10	+47 : 21 : 22.0	03 : 26 : 29.53	+47 : 31 : 50.2	+148.2	-07.6	2m
0328-15	03287-1535	...	...	...	...	03 : 28 : 44.80	-15 : 35 : 02.0	03 : 31 : 03.83	-15 : 24 : 51.5	+203.7	-51.2	3e
0329+60	OH 141.7+3.5	...	...	...	5097	03 : 29 : 23.65	+60 : 10 : 04.4	03 : 33 : 30.58	+60 : 20 : 09.5	+141.7	+03.5	1e
0330+56	03301+5658	...	...	...	...	03 : 30 : 11.60	+56 : 58 : 41.0	03 : 34 : 07.73	+57 : 08 : 43.6	+143.6	+01.0	Pr3
0331+60	03313+6058	...	...	...	...	03 : 31 : 20.00	+60 : 58 : 49.0	03 : 35 : 30.69	+61 : 08 : 47.2	+141.5	+04.3	3e
0337+62	U Cam	CCS 154	HD 22611	+60124	505	03 : 37 : 29.09	+62 : 29 : 18.8	03 : 41 : 48.15	+62 : 38 : 55.0	+141.1	+06.0	2a
0344+44	RAFGL 5102	03448+4432	...	...	5102	03 : 44 : 49.20	+44 : 32 : 51.0	03 : 48 : 18.01	+44 : 42 : 02.1	+152.9	-07.6	3e
0348+39	V414 Per	HD 275868	SAO 56767	+40070	527	03 : 48 : 53.70	+39 : 43 : 54.0	03 : 52 : 14.46	+39 : 52 : 50.4	+156.6	-10.9	2m
0350+11	IK Tau	NML Tau	...	+10050	529	03 : 50 : 43.76	+11 : 15 : 31.9	03 : 53 : 28.84	+11 : 24 : 22.6	+178.0	-31.4	1o,1i
0402-15	V Eri	HD 25725	SAO 149350	-20049	542	04 : 02 : 01.50	-15 : 51 : 37.0	04 : 04 : 18.73	-15 : 43 : 27.9	+208.8	-44.0	2g,2a
0408+53	04085+5347	...	...	...	...	04 : 08 : 27.70	+53 : 47 : 23.0	04 : 12 : 22.64	+53 : 55 : 04.2	+149.9	+01.9	Pr3
0429+34	04296+3429	...	...	...	...	04 : 29 : 40.30	+34 : 29 : 83.0	04 : 32 : 56.63	+34 : 36 : 11.3	+166.2	-09.0	3e
0430+62	IRC+60144	...	...	+60144	595	04 : 30 : 45.90	+62 : 10 : 12.0	04 : 35 : 17.45	+62 : 16 : 23.3	+146.0	+09.9	2k
0434+46	04340+4623	...	...	...	...	04 : 34 : 02.70	+46 : 23 : 32.0	04 : 37 : 42.01	+46 : 29 : 31.7	+158.0	-00.4	Pr2
0436-62	R Dor	HR 1492	HD 29712	...	...	04 : 36 : 10.15	-62 : 10 : 33.0	04 : 36 : 45.84	-62 : 04 : 35.7	-087.3	-39.3	1n
0439+36	RAFGL 618	V363 Aur	PK 166-6.1	...	618	04 : 39 : 34.04	+36 : 01 : 16.0	04 : 42 : 53.59	+36 : 06 : 53.7	+166.4	-06.5	1c
0446+68	ST Cam	CCS 240	HD 30243	+70055	633	04 : 46 : 01.26	+68 : 05 : 01.6	04 : 51 : 13.41	+68 : 10 : 08.7	+142.4	+14.9	2a
0453+44	04530+4427	...	...	...	...	04 : 53 : 05.90	+44 : 27 : 59.0	04 : 56 : 42.67	+44 : 32 : 39.9	+161.6	+00.9	3e
0456+56	TX Cam	...	...	+60150	684	04 : 56 : 40.60	+56 : 06 : 28.0	05 : 00 : 50.39	+56 : 10 : 52.6	+152.8	+08.6	3e
0457-14	R Lep	CCS 276	HD 31996	-10080	667	04 : 57 : 19.73	-14 : 52 : 47.5	04 : 59 : 36.38	-14 : 48 : 21.6	-145.7	-31.3	2a
0502+01	W Ori	CCS 284	HD 32786	+00066	683	05 : 02 : 48.66	+01 : 06 : 37.2	05 : 05 : 23.68	+01 : 10 : 39.2	+199.0	-22.8	2a
0505-84	NSV 01835	05052-8420	...	...	...	05 : 05 : 17.60	-84 : 20 : 21.0	04 : 57 : 03.34	-84 : 16 : 06.5	-062.9	-29.8	3e
0507+52	IRC+50137	NV Aur	...	+50137	700	05 : 07 : 19.68	+52 : 48 : 53.9	05 : 11 : 19.43	+52 : 52 : 33.7	+156.4	+07.8	1e
0509-11	RX Lep	HD 33664	SAO 150206	-10084	702	05 : 09 : 02.70	-11 : 54 : 34.0	05 : 11 : 22.70	-11 : 50 : 58.0	+212.5	-27.5	2g,2a
0509-48	S Pic	HD 33894	CPD-48 609	...	...	05 : 09 : 37.70	-48 : 34 : 01.0	05 : 10 : 57.57	-48 : 30 : 25.3	-105.2	-36.3	3e
0509-64	U Dor	HD 271044	...	...	...	05 : 09 : 50.50	-64 : 22 : 41.0	05 : 10 : 08.39	-64 : 19 : 04.0	-085.7	-35.2	3e
0510+20	05104+2055	...	...	...	...	05 : 10 : 26.00	+20 : 55 : 59.0	05 : 13 : 24.76	+20 : 59 : 27.7	+182.7	-10.4	3e
0513+53	R Aur	HD 34019	SAO 25112	+50141	715	05 : 13 : 15.16	+53 : 31 : 56.5	05 : 17 : 17.66	+53 : 35 : 10.9	+156.4	+09.0	2e,2a
0513+47	05136+4712	...	...	...	...	05 : 13 : 36.00	+47 : 12 : 40.0	05 : 17 : 20.62	+47 : 15 : 53.5	+161.6	+05.4	3e
0515+63	IRC+60154	BW Cam	NSV 1910	+60154	724	05 : 15 : 08.60	+63 : 12 : 51.0	05 : 19 : 52.56	+63 : 15 : 55.8	+148.3	+14.6	2k

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4πlpc ² F _{iras} (L _☉)	4πlpc ² F _{total} (L _☉)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0318+70	RAFGL 482	1.4610 ²	9.1210 ¹	2.3310 ¹	6.2910 ⁰	1.310 ³	3.410 ³	1	1.71	42	VII	C	C
0319+56	03192+5642	1.6910 ¹	9.6010 ⁰	3.8610 ⁰	...	1.510 ²	8.810 ²	4	3.37	44	VIIb	C	C
0320+65	OH 138.0+7.3	9.5810 ¹	1.3410 ²	3.7510 ¹	9.9010 ⁰	1.110 ³	2.210 ³	1	2.13	34	IIIb	O	?
0322+47	IRC+50096	5.3510 ²	1.9910 ²	4.0010 ¹	1.1910 ¹	4.310 ³	2.610 ⁴	1	0.62	44	VII	C	C(M)
0328-15	03287+1535	5.2510 ¹	5.0810 ¹	1.2810 ¹	3.8510 ⁰	5.110 ²	2.010 ³	2	2.25	29	IIIa	O	M6
0329+60	OH 141.7+3.5	3.7310 ¹	6.9510 ¹	1.7410 ¹	5.5010 ⁰	4.610 ²	8.710 ²	1	3.39	33	IIIb	O	?
0330+56	03301+5658	1.5110 ¹	1.4710 ¹	3.7810 ⁰	...	1.510 ²	3.810 ²	4	5.13	43	IIIa	C	?
0331+60	03313+6058	3.0910 ¹	4.3410 ¹	1.5110 ¹	6.4010 ⁰	3.510 ²	6.910 ²	3	3.80	22	IIIb	C	?
0337+62	U Cam	1.2110 ²	4.0910 ¹	1.6910 ¹	7.3110 ⁰	9.710 ²	2.410 ⁴	1	0.65	45	VIIa	C	C5,4(SRB)
0344+44	RAFGL 5102	1.3010 ²	9.3910 ¹	2.1910 ¹	6.0310 ⁰	1.210 ³	2.410 ³	3	2.06	42	IIIa	C	?
0348+39	V414 Per	1.4110 ²	3.8910 ¹	7.7910 ⁰	2.0810 ⁰	1.110 ³	4.010 ⁴	2	0.50	42	I	C	K0
0350+11	IK Tau	4.6310 ³	2.3810 ³	3.3210 ²	1.0310 ²	3.910 ⁴	1.510 ⁵	1	0.26	26	IIIa	O	M8c(M)
0402-15	V Eri	3.2610 ²	1.8410 ²	2.3610 ¹	7.1610 ⁰	2.810 ³	4.710 ⁴	1	0.46	22	IIIa	O	M6II(SRC)
0408+53	04085+5347	2.9510 ¹	1.6110 ¹	2.6610 ⁰	...	2.510 ²	5.110 ³	2	1.40	27	IIIa	O	M6:
0429+34	04296+3429	1.2710 ¹	4.5910 ¹	1.5410 ¹	...	2.310 ²	...	...	...	kvh	V	C	?
0430+62	IRC+60144	2.5210 ²	9.2010 ¹	1.7410 ¹	6.6010 ⁰	2.010 ³	1.110 ⁴	1	0.95	45	II	C	?
0434+46	04340+4623	3.8610 ¹	3.1210 ¹	8.2510 ⁰	...	3.610 ²	7.210 ²	3	3.73	42	IIIa	C	?
0436-62	R Dor	5.1610 ³	1.5910 ³	2.4410 ²	8.3410 ¹	4.010 ⁴	5.510 ⁶	2	0.04	1n	I	O	M8eII(SRB)
0439+36	RAFGL 618	4.7110 ²	1.1110 ³	1.0410 ³	3.4010 ²	7.410 ³	7.810 ³	1	1.13	62	IV	C	[PN]B0
0446+68	ST Cam	9.4910 ¹	2.6510 ¹	6.3910 ⁰	4.8810 ⁰	7.410 ²	2.510 ⁴	2	0.64	42	VII	C	C5,3(SRB)
0453+44	04530+4427	1.0010 ²	7.8010 ¹	1.9310 ¹	6.1310 ⁰	9.210 ²	1.810 ³	3	2.33	42	IIIa	C	?
0456+56	TX Cam	1.6410 ³	6.3510 ²	1.3410 ²	3.8610 ¹	1.310 ⁴	9.410 ⁴	1	0.33	27	VII	O	M8.5(M)
0457-14	R Lep	3.8010 ²	1.1610 ²	2.6210 ¹	9.1410 ⁰	3.010 ³	4.410 ⁴	1	0.48	45	VII	C	C7,4c(M)
0502+01	W Ori	1.8410 ²	5.1710 ¹	1.4310 ¹	6.2710 ⁰	1.410 ³	4.710 ⁴	1	0.46	44	VII	C	C5,4(SRB)
0505-84	NSV 01835	2.8210 ²	1.4510 ²	2.0510 ¹	7.3610 ⁰	2.410 ³	5.910 ⁴	2	0.41	27	IIIa	O	?
0507+52	IRC+50137	2.2710 ²	2.7410 ²	7.2410 ¹	2.3010 ¹	2.410 ³	1.110 ⁴	1	0.95	24	IIIb	O	M10(M)
0509-11	RX Lep	2.8010 ²	1.2410 ²	1.9010 ¹	6.5410 ⁰	2.310 ³	9.310 ⁴	2	0.33	22	II	O	M6III(Lb)
0509-48	S Pic	1.9710 ²	9.0310 ¹	1.4810 ¹	5.7410 ⁰	1.610 ³	5.910 ⁴	2	0.41	25	II	O	M7c(M)
0509-64	U Dor	1.2010 ²	7.3410 ¹	1.6010 ¹	6.7310 ⁰	1.010 ³	...	...	...	26	VII	O	M8IIIe
0510+20	05104+2055	9.0010 ¹	3.2310 ¹	7.6710 ⁰	5.4410 ⁰	7.210 ²	5.110 ³	2	1.39	42	VII	C	?
0513+53	R Aur	4.5910 ²	1.8310 ²	2.2610 ¹	1.0710 ¹	3.710 ³	8.410 ⁴	1	0.35	15	II	O	M6.5c(M)
0513+47	05136+4712	5.3110 ¹	2.4310 ¹	4.9110 ⁰	...	4.410 ²	1.710 ³	2	2.45	43	VII	C	?
0515+63	IRC+60154	3.2810 ²	1.7210 ²	2.5610 ¹	8.4310 ⁰	2.810 ³	7.210 ³	1	1.18	29	IIIa	O	M9

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1950} (7)	δ_{1950} (8)	α_{2000} (9)	δ_{2000} (10)	l_{II} (11)	b_{II} (12)	pos.ref. (13)
0523+34	S Aur	CCS 336	HD 35556	+30114	748	05 : 23 : 49.00	+34 : 06 : 29.0	05 : 27 : 07.50	+34 : 08 : 59.4	+173.5	-00.5	2m
0525-12	IC 418	PK 215-24.1	HD 35914	...	...	05 : 25 : 09.31	-12 : 44 : 15.0	05 : 27 : 28.12	-12 : 41 : 48.2	-144.8	-24.3	1a
0540+32	RAFGL 809	V370 Aur	...	...	809	05 : 40 : 33.30	+32 : 40 : 49.0	05 : 43 : 49.78	+32 : 42 : 06.8	+176.6	+01.6	2f
0541+69	BX Cam	NSV 2601	...	+70066	811	05 : 41 : 07.60	+69 : 57 : 15.0	05 : 46 : 44.10	+69 : 58 : 25.2	+143.4	+20.1	3e
0541-46	W Pic	CCS 398	SAO 217489	...	...	05 : 41 : 50.10	-46 : 28 : 30.0	05 : 43 : 13.71	-46 : 27 : 13.7	-107.1	-30.7	2g,2a
0541-32	05418-3224	...	...	...	...	05 : 41 : 51.70	-32 : 24 : 44.0	05 : 43 : 43.14	-32 : 23 : 28.8	-122.8	-27.6	3e
0542+20	Y Tau	CCS 393	HD 38307	+20121	5168	05 : 42 : 40.49	+20 : 40 : 33.2	05 : 45 : 39.38	+20 : 41 : 42.4	+187.1	-04.3	2a
0552+07	α Ori	Betelgeuse	SAO 113271	+10100	836	05 : 52 : 27.88	+07 : 23 : 58.1	05 : 55 : 10.28	+07 : 24 : 25.1	+199.8	-09.0	1n
0555+74	V Cam	HD 39741	...	+70067	849	05 : 55 : 57.51	+74 : 30 : 23.9	06 : 02 : 32.29	+74 : 30 : 27.2	+139.4	+22.9	1n
0555+38	V373 Aur	NSV 2749	...	+40149	850	05 : 55 : 58.00	+38 : 25 : 28.0	05 : 59 : 24.73	+38 : 25 : 38.1	+173.2	+07.3	3e
0601+07	RAFGL 865	...	...	...	865	06 : 01 : 17.40	+07 : 26 : 06.0	06 : 03 : 59.84	+07 : 25 : 54.4	+200.8	-07.0	2d
0607+26	TU Gem	CCS 461	HD 42272	+30143	...	06 : 07 : 46.81	+26 : 01 : 34.7	06 : 10 : 53.13	+26 : 00 : 53.9	+185.3	+03.4	2a
0608+21	TV Gem	HD 42475	SAO 78092	+20134	893	06 : 08 : 50.90	+21 : 52 : 50.0	06 : 11 : 51.42	+21 : 52 : 04.7	+189.1	+01.6	2g,2a
0608+19	06088+1909	...	...	...	...	06 : 08 : 50.90	+19 : 09 : 04.0	06 : 11 : 47.80	+19 : 08 : 18.9	+191.5	+00.3	3e
0617-10	Red Rectangle	HD 44179	SAO 151362	...	915	06 : 17 : 36.98	-10 : 36 : 51.6	06 : 19 : 58.21	-10 : 38 : 13.7	-141.0	-11.8	2a
0619+46	06192+4657	...	...	...	...	06 : 19 : 13.60	+46 : 57 : 07.0	06 : 22 : 58.52	+46 : 55 : 34.9	+167.5	+14.9	3e
0619-03	V654 Mon	NSV 02938	...	+00102	921	06 : 19 : 22.40	-03 : 49 : 12.0	06 : 21 : 51.67	-03 : 50 : 42.0	+213.0	-08.3	3e
0620+09	06206+0931	...	...	...	...	06 : 20 : 38.70	+09 : 31 : 35.0	06 : 23 : 23.87	+09 : 29 : 58.9	+201.3	-01.8	3e
0622+14	BL Ori	CCS 508	HD 44984	+10121	934	06 : 22 : 36.93	+14 : 45 : 04.1	06 : 25 : 28.13	+14 : 43 : 19.2	+196.9	+01.1	2a
0622-09	V636 Mon	HD 45069	SAO 133227	-10122	933	06 : 22 : 38.30	-09 : 05 : 32.0	06 : 25 : 01.37	-09 : 07 : 16.0	-141.9	-10.0	2m
0623-09	RAFGL 935	...	...	...	935	06 : 23 : 04.70	-09 : 30 : 20.0	06 : 25 : 27.28	-09 : 32 : 05.9	-141.4	-10.1	2c,2d
0623+09	06238+0904	...	...	...	940	06 : 23 : 53.00	+09 : 04 : 06.0	06 : 26 : 37.31	+09 : 02 : 15.8	+202.1	-01.3	3e
0626+08	EIC 135	06268+0849	...	...	5196	06 : 26 : 51.10	+08 : 49 : 19.0	06 : 29 : 35.10	+08 : 47 : 15.9	+202.6	-00.8	3e
0629+43	RAFGL 954	...	...	...	954	06 : 29 : 05.80	+43 : 19 : 30.0	06 : 32 : 41.93	+43 : 17 : 15.3	+171.6	+15.1	3c
0629+40	IRC+40156	...	...	+40156	955	06 : 29 : 45.03	+40 : 45 : 08.2	06 : 33 : 15.75	+40 : 42 : 50.9	+174.1	+14.1	1e
0630+60	AP Lyn	NSV 3020	...	+60169	956	06 : 30 : 01.05	+60 : 58 : 47.0	06 : 34 : 33.92	+60 : 56 : 26.2	+154.3	+21.5	2i
0633+38	UU Aur	CCS 537	HD 46687	+40158	966	06 : 33 : 06.64	+38 : 29 : 16.1	06 : 36 : 32.84	+38 : 26 : 44.4	+176.5	+13.8	2a
0634+03	RAFGL 971	...	...	...	971	06 : 34 : 16.50	+03 : 28 : 04.0	06 : 36 : 54.20	+03 : 25 : 29.0	+208.2	-01.7	3c
0634+24	M1-7	PK 189+7.1	...	...	...	06 : 34 : 17.80	+24 : 03 : 07.0	06 : 37 : 20.95	+24 : 00 : 31.0	+189.9	+07.8	2h
0639-22	IRC-20101	GM CMa	...	-20101	4521S	06 : 39 : 08.20	-22 : 13 : 48.0	06 : 41 : 15.00	-22 : 16 : 42.9	-128.0	-12.1	2m
0645-08	HR 2508	HD 49331	SAO 133679	-10139	1014	06 : 45 : 13.79	-08 : 56 : 32.9	06 : 47 : 37.18	-08 : 59 : 54.5	-139.5	-04.9	2a
0648+05	06487+0551	...	...	...	...	06 : 48 : 44.80	+05 : 51 : 10.0	06 : 51 : 25.18	+05 : 47 : 32.7	+207.8	+02.6	3e
0650+08	GX Mon	OH 205.6+4.1	...	+10143	1028	06 : 50 : 03.50	+08 : 29 : 02.0	06 : 52 : 46.91	+08 : 25 : 19.0	+205.6	+04.1	2k

Table 2. continued

α - (1)	name1 (2)	S_{12} (Jy) (3)	S_{25} (Jy) (4)	S_{60} (Jy) (5)	S_{100} (Jy) (6)	$4\pi 1 \text{ kpc}^2 F_{\text{IRas}}$ (L_{\odot}) (7)	$4\pi 1 \text{ kpc}^2 F_{\text{total}}$ (L_{\odot}) (8)	ref. (9)	d (kpc) (10)	LRS type (11)	region (12)	chem. type (13)	spectral type (14)
0523+34	S Aur	1.6210 ²	4.1310 ¹	9.5710 ⁰	1.1610 ¹	1.210 ³	1.110 ⁴	1	0.95	45	V Ia	C	C(e [?])(SRa)
0525-12	IC 418	3.8910 ¹	1.9910 ²	1.0410 ²	3.1210 ¹	9.110 ²	...	...	...	91,pah	V	C	[PN]O7I
0540+32	RAFGL 809	1.9610 ²	1.2710 ²	3.4210 ¹	1.0510 ¹	1.710 ³	4.710 ³	1	1.46	42	VII	C	C
0541+69	BX Cam	8.0110 ²	4.0810 ²	5.2210 ¹	1.5710 ¹	6.710 ³	2.610 ⁴	1	0.62	29	IIIa	O	M9.5
0541-46	W Pic	5.6310 ¹	1.6810 ¹	5.0910 ⁰	3.8010 ⁰	4.410 ²	9.110 ³	2	1.05	41	VII	C	N0var(Lb)
0541-32	05418-3224	6.2610 ¹	2.5310 ¹	3.9910 ⁰	1.4210 ⁰	5.110 ²	2.410 ³	2	2.04	43	II	C	?
0542+20	Y Tau	1.4410 ²	5.0810 ¹	1.3210 ¹	4.1710 ⁰	1.110 ³	3.110 ⁴	1	0.57	45	VII	C	C6,4(SRa)
0552+07	α Ori	4.6810 ³	1.7410 ³	2.9910 ²	9.5910 ¹	3.710 ⁴	2.810 ⁶	1	0.19	02	II	O	[SG]M2Ia/Iab(SRc)
0555+74	V Cam	2.0310 ²	1.0610 ²	1.7410 ¹	5.5810 ⁰	1.710 ³	4.110 ⁴	2	0.49	24	IIIa	O	M4III(M)
0555+38	V373 Aur	1.1810 ²	7.0110 ¹	9.4710 ⁰	3.1010 ⁰	1.010 ³	4.710 ³	1	1.46	27	IIIa	O	M9-10
0601+07	RAFGL 865	3.2010 ²	2.2610 ²	5.5910 ¹	1.5410 ¹	2.910 ³	3.110 ³	1	1.80	22,4n	IIIa	C	?
0607+26	TU Gem	7.0310 ¹	2.0610 ¹	5.3810 ⁰	3.3810 ⁰	5.510 ²	1.310 ⁴	2	0.87	4n	VII	C	C6,4(SRB)
0608+21	TV Gem	9.6110 ¹	4.1210 ¹	6.0610 ⁰	...	7.810 ²	3.510 ⁴	2	1.68	28	II	O	[SG]M1Iab(SRc)
0608+19	06088+1909	6.0210 ¹	2.5810 ¹	7.1510 ⁰	...	4.910 ²	2.110 ³	2	2.20	43	VII	C	?
0617-10	Red Rectangle	4.2210 ²	4.5610 ²	1.7310 ²	6.6210 ¹	4.310 ³	...	...	...	80,pah	IIIa	C	[PN]B0-A9
0619+46	06192+4657	4.0510 ¹	2.9410 ¹	6.3410 ⁰	1.8310 ⁰	3.710 ²	7.310 ²	3	3.70	42	IIIa	C	?
0619-03	V654 Mon	8.6110 ¹	6.1310 ¹	1.4210 ¹	3.8010 ⁰	7.810 ²	3.110 ³	1	1.80	27	IIIa	O	?
0620+09	06206+0931	3.6310 ¹	1.4610 ¹	3.1810 ⁰	...	2.910 ²	1.410 ³	2	2.66	43	VII	C	?
0622+14	BL Ori	4.4510 ¹	1.4010 ¹	3.9810 ⁰	2.9210 ⁰	3.510 ²	5.110 ³	2	1.40	16	VII	C	C6,3(Lb)
0622-09	V636 Mon	1.2510 ²	3.9910 ¹	9.4210 ⁰	5.5510 ⁰	9.810 ²	1.310 ⁴	2	0.88	43	VII	C	C
0623-09	RAFGL 935	8.2310 ¹	3.5210 ¹	6.4710 ⁰	...	6.710 ²	1.210 ³	1	2.89	44	II	C	N
0623+09	06238+0904	3.7210 ¹	1.9210 ¹	4.9310 ⁰	3.0910 ⁰	3.110 ²	1.110 ³	2	3.05	43	VII	C	?
0626+08	EIC 135	5.2010 ¹	2.9410 ¹	6.6210 ⁰	4.2710 ⁰	4.510 ²	1.510 ³	2	2.62	42	VII	C	?
0629+43	RAFGL 954	1.0710 ²	5.0710 ¹	8.6510 ⁰	1.9910 ⁰	8.810 ²	2.910 ³	1	1.86	43	II	C	C
0629+40	IRC+40156	1.0310 ²	9.4410 ¹	2.0710 ¹	5.7610 ⁰	9.910 ²	3.710 ³	1	1.64	27	IIIa	O	M8
0630+60	AP Lyn	2.9610 ²	2.1310 ²	4.5710 ¹	1.5410 ¹	2.710 ³	2.110 ⁴	1	0.69	28	IIIa	O	M7(M)
0633+38	UU Aur	2.3210 ²	7.1110 ¹	1.8610 ¹	1.0110 ¹	1.810 ³	6.610 ³	1	1.23	43	VII	C	C7,4(SRB)
0634+03	RAFGL 971	2.6610 ²	1.2810 ²	2.6710 ¹	9.1910 ⁰	2.210 ³	6.210 ³	1	1.27	43	VII	C	C
0634+24	M1-7	...	0.8110 ⁰	4.9810 ⁰	4.8510 ⁰	...	...	...	...	...	...	?	[PN]
0639-22	IRC-20101	2.3610 ¹	1.0510 ¹	6.1710 ⁰	2.3810 ⁰	2.010 ²	7.610 ²	2	3.62	28,1n	V Ia	C	C
0645-08	HR 2508	2.8710 ¹	8.2110 ⁰	1.5110 ⁰	...	2.210 ²	3.910 ⁴	2	1.61	17	I	O	[SG]M1Iab
0648+05	06487+0551	6.6410 ¹	2.8810 ¹	6.2910 ⁰	2.9610 ⁰	5.410 ²	1.310 ³	4	2.77	43	VII	C	?
0650+08	GX Mon	6.0110 ²	3.6010 ²	1.0610 ²	4.0410 ¹	5.210 ³	4.710 ⁴	1	0.46	28	VII	O	M9(M)

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l_{II}	b_{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0650-04	06505-0450	...	...	...	...	06 : 50 : 33.50	-04 : 50 : 06.0	06 : 53 : 01.68	-04 : 53 : 50.6	-142.5	-01.9	3e
0650+03	M1-8	PK 210+1.1	...	...	...	06 : 50 : 56.00	+03 : 16 : 00.0	06 : 53 : 33.40	+03 : 12 : 13.5	+210.3	+01.9	4a
0652+06	CL Mon	CCS 615	...	+10144	1038	06 : 52 : 55.60	+06 : 26 : 40.0	06 : 55 : 36.62	+06 : 22 : 44.9	+207.7	+03.8	2m
0653-02	CCS 618	06531-0216	...	...	1039	06 : 53 : 09.30	-02 : 16 : 21.0	06 : 55 : 40.41	-02 : 20 : 16.7	-144.5	-00.1	3e
0656+03	06564+0342	...	...	...	...	06 : 56 : 27.10	+03 : 42 : 08.0	06 : 59 : 04.97	+03 : 37 : 58.0	+210.6	+03.4	3e
0658+15	06582+1507	...	...	...	...	06 : 58 : 17.30	+15 : 07 : 58.0	07 : 01 : 08.44	+15 : 03 : 39.8	+200.5	+08.9	3e
0701-05	HD 53300	SAO 134141	BD-05 1945	...	...	07 : 01 : 51.63	-05 : 13 : 47.5	07 : 04 : 19.43	-05 : 18 : 19.9	-140.9	+00.4	2a
0702-79	07027-7934	...	...	...	...	07 : 02 : 45.30	-79 : 34 : 23.0	06 : 59 : 27.48	-79 : 38 : 47.1	-068.6	-26.3	3e
0704+22	R Gem	HD 53791	SAO 79070	+20171	...	07 : 04 : 20.70	+22 : 46 : 56.0	07 : 07 : 21.29	+22 : 42 : 12.0	+194.1	+13.5	2g,2a
0704-07	RY Mon	CCS 670	...	-10149	1070	07 : 04 : 31.20	-07 : 28 : 41.0	07 : 06 : 56.47	-07 : 33 : 24.5	-138.6	-00.0	2m
0705-11	W CMa	CCS 676	HD 54361	-10152	1075	07 : 05 : 43.20	-11 : 50 : 35.2	07 : 08 : 03.46	-11 : 55 : 23.6	-134.6	-01.8	2a
0706-72	R Vol	CCS 689	He 3-25	...	4070	07 : 06 : 32.30	-72 : 56 : 07.0	07 : 05 : 36.82	-73 : 00 : 52.0	-075.8	-24.8	2g
0706-00	NGC 2346	PK 215+03.1	HD 293373	...	5334	07 : 06 : 49.70	-00 : 43 : 29.0	07 : 09 : 22.57	-00 : 48 : 22.5	-144.3	+03.6	2h
0709-20	RAFGL 1085	...	...	...	1085	07 : 09 : 53.70	-20 : 12 : 18.0	07 : 12 : 03.95	-20 : 17 : 23.5	-126.7	-04.8	2c,2d
0713+10	HD 56126	SAO 96709	...	...	...	07 : 13 : 25.30	+10 : 05 : 09.2	07 : 16 : 10.23	+09 : 59 : 47.9	+206.7	+10.0	2a
0714-14	07145-1428	...	...	...	...	07 : 14 : 35.40	-14 : 28 : 32.0	07 : 16 : 52.76	-14 : 33 : 57.2	-131.2	-01.1	3e
0715-34	RAFGL 1099	NSV 03513	...	...	1099	07 : 15 : 15.80	-34 : 44 : 14.0	07 : 17 : 05.66	-34 : 49 : 41.0	-113.1	-10.3	2d
0716+69	RU Cam	CCS 669	HD 56167	...	...	07 : 16 : 20.28	+69 : 45 : 54.0	07 : 21 : 44.16	+69 : 40 : 15.2	+145.9	+27.9	2e
0718-13	07180-1314	...	...	...	...	07 : 18 : 00.70	-13 : 14 : 33.0	07 : 20 : 19.58	-13 : 20 : 12.4	-131.9	+00.2	3e
0720-18	07200-1846	...	...	...	...	07 : 20 : 03.60	-18 : 46 : 27.0	07 : 22 : 15.96	-18 : 52 : 14.6	-126.8	-02.0	3e
0720-32	07203-3212	...	...	...	...	07 : 20 : 22.10	-32 : 12 : 55.0	07 : 22 : 16.27	-32 : 18 : 43.2	-114.9	-08.2	3e
0720-25	VY CMa	OH 239.3-5.1	HD 58061	-30087	1111	07 : 20 : 54.74	-25 : 40 : 12.3	07 : 22 : 58.32	-25 : 46 : 03.1	-120.6	-05.1	1l,1n,1e
0721-12	07217-1246	...	...	...	...	07 : 21 : 43.90	-12 : 46 : 32.0	07 : 24 : 03.40	-12 : 52 : 26.7	-131.9	+01.2	3e
0724+46	Y Lyn	HD 58521	SAO 41784	+50180	1120	07 : 24 : 33.51	+46 : 05 : 36.2	07 : 28 : 11.66	+45 : 59 : 27.3	+172.3	+25.3	2e,2a
0727-19	IRC-20131	CCS 776	NSV 3610	-20131	1131	07 : 27 : 00.60	-19 : 21 : 32.0	07 : 29 : 12.50	-19 : 27 : 47.9	-125.5	-00.8	2m
0728+24	CCS 779	NQ Gem	HD 59643	...	...	07 : 28 : 52.66	+24 : 36 : 37.7	07 : 31 : 54.57	+24 : 30 : 12.6	+194.6	+19.4	2a
0734-09	M1-16	PK 226+5.1	...	...	...	07 : 34 : 55.48	-09 : 32 : 00.4	07 : 37 : 18.89	-09 : 38 : 48.5	-133.2	+05.6	1q
0737-40	07373-4021	CCS 849	...	...	...	07 : 37 : 22.10	-40 : 21 : 49.0	07 : 39 : 04.06	-40 : 28 : 45.5	-106.0	-09.0	3e
0738-11	M1-17	PK 228+5.1	...	...	...	07 : 38 : 00.76	-11 : 25 : 29.7	07 : 40 : 22.16	-11 : 32 : 30.1	-131.2	+05.4	1q
0739-18	NGC 2440	PK 234+02.1	HD 62166	...	...	07 : 39 : 41.00	-18 : 05 : 23.0	07 : 41 : 54.91	-18 : 12 : 29.7	-125.2	+02.4	1a
0739-14	OH 231.8+4.2	QX Pup	Calabash Neb.	...	5237	07 : 39 : 58.90	-14 : 35 : 44.0	07 : 42 : 16.83	-14 : 42 : 52.1	-128.2	+04.2	1d
0743-18	07434-1847	...	...	...	...	07 : 43 : 27.40	-18 : 47 : 07.0	07 : 45 : 40.65	-18 : 54 : 28.6	-124.1	+02.8	3e
0745-71	07454-7112	...	...	...	...	07 : 45 : 25.70	-71 : 12 : 19.0	07 : 45 : 02.80	-71 : 19 : 43.2	-076.6	-21.5	3e

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	471kpc ² F _{IRas} (L _⊙)	471kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0650-04	06505-0450	2.5810 ¹	1.7810 ¹	4.2710 ⁰	...	2.310 ²	5.710 ²	4	4.19	14,4n?	IIIa	C	?
0650+03	M1-8	...	...	...	...	...	...	...	...	...	...	?	[PN]
0652+06	CL Mon	1.1310 ²	3.0010 ¹	7.4810 ⁰	2.2910 ⁰	8.710 ²	4.410 ⁴	2	0.48	44	Vla	C	C6,3e(M)
0653-02	CCS 618	4.8910 ¹	1.6010 ¹	2.7710 ⁰	...	3.810 ²	6.310 ³	4	1.26	42	I	C	C
0656+03	06564+0342	4.4310 ¹	2.2310 ¹	5.5610 ⁰	...	3.710 ²	1.310 ³	2	2.78	44	VII	C	?
0658+15	06582+1507	3.8710 ¹	5.5510 ¹	1.7310 ¹	4.5010 ⁰	4.410 ²	8.710 ²	3	3.39	22	IIIb	C	?
0701-05	HD 53300	0.7410 ⁰	0.3110 ⁰	0.4110 ⁰	2.8010 ⁰	6.510 ⁰	...	...	...	...	Vla	?	A0Ib
0702-79	07027-7934	2.2710 ¹	8.2010 ¹	4.2010 ¹	1.3610 ¹	4.210 ²	...	...	...	73,pah	IV	C	[PN]
0704+22	R Gem	2.1610 ¹	7.5210 ⁰	2.3410 ⁰	1.4210 ⁰	1.710 ²	1.410 ³	2	2.67	16	VII	S	S3,9e(M)
0704-07	RY Mon	5.8810 ¹	1.6910 ¹	4.9610 ⁰	...	4.610 ²	1.210 ⁴	2	0.90	45	VII	C	C5,5(SRa)
0705-11	W CMa	3.9010 ¹	1.6410 ¹	3.5310 ⁰	...	3.210 ²	1.410 ³	2	2.69	42	VII	C	C6,3(Lb)
0706-72	R Vol	2.0310 ²	7.4910 ¹	1.4010 ¹	4.8610 ⁰	1.610 ³	1.010 ⁴	2	0.99	45	II	C	Ce(M)
0706-00	NGC 2346	0.4710 ⁰	0.8810 ⁰	7.9710 ⁰	1.3410 ¹	1.510 ¹	...	...	...	...	VIII	?	[PN]A5V
0709-20	RAFGL 1085	2.2710 ²	1.0210 ²	1.8910 ¹	...	1.910 ³	4.410 ³	1	1.51	43	II	C	N
0713+10	HD 56126	2.4510 ¹	1.1710 ²	5.0110 ¹	1.8710 ¹	5.410 ²	...	...	...	kvh	V	C	G5
0714-14	07145-1428	1.2410 ¹	4.8910 ⁰	1.2210 ⁰	...	1.010 ²	9.410 ²	4	3.26	17	VII	?	?
0715-34	RAFGL 1099	2.0510 ²	1.0810 ²	1.4210 ¹	4.3110 ⁰	1.710 ³	3.910 ⁴	2	0.50	29	IIIa	O	M
0716+69	RU Cam	...	...	...	...	...	...	...	...	...	...	C	R0p;C0,2p
0718-13	07180-1314	4.0710 ¹	4.6710 ¹	7.8010 ⁰	1.8310 ⁰	4.110 ²	1.610 ³	4	2.50	25	IIIa	O	?
0720-18	07200-1846	2.1610 ¹	1.5310 ¹	2.0110 ⁰	...	1.910 ²	7.210 ²	4	3.73	29	IIIa	O	?
0720-32	07203-3212	3.9710 ¹	2.0710 ¹	4.3710 ⁰	2.4110 ⁰	3.410 ²	1.110 ³	2	2.96	4n	VII	C	?
0720-25	VY CMa	9.9210 ³	6.6510 ³	1.4510 ³	3.3110 ²	8.810 ⁴	2.310 ⁵	1	0.66	24	VII	O	[SG]M5Iae(Lc)
0721-12	07217-1246	1.0410 ²	4.1210 ¹	8.7510 ⁰	2.4310 ⁰	8.410 ²	4.210 ³	2	1.54	42	VII	C	C
0724+46	Y Lyn	1.2210 ²	6.4210 ¹	1.1510 ¹	4.5410 ⁰	1.010 ³	5.610 ⁴	1	0.42	23	IIIa	O	M5(SRc)
0727-19	IRC-20131	9.0910 ¹	2.9310 ¹	5.3910 ⁰	...	7.110 ²	9.110 ³	2	1.05	44	I	C	C
0728+24	CCS 779	3.2810 ⁰	0.8310 ⁰	...	...	...	...	...	...	...	...	C	R9;C6,2
0734-09	M1-16	0.3210 ⁰	2.3310 ⁰	9.4510 ⁰	7.5910 ⁰	2.010 ¹	...	...	...	...	VIII	?	[PN]
0737-40	07373-4021	1.8310 ²	6.7610 ¹	1.1810 ¹	5.1310 ⁰	1.510 ³	9.210 ³	2	1.04	45	II	C	C
0738-11	M1-17	0.3310 ⁰	1.8810 ⁰	4.6610 ⁰	3.5810 ⁰	1.310 ¹	...	...	...	...	VIII	?	[PN]
0739-18	NGC 2440	3.5910 ⁰	2.8010 ¹	4.3510 ¹	2.6310 ¹	1.510 ²	...	...	...	...	V	?	[PN]
0739-14	OH 231.8+4.2	1.9010 ¹	2.2610 ²	5.4810 ²	2.9410 ²	1.410 ³	...	...	...	79	V	O	M6
0743-18	07434-1847	2.4010 ¹	1.8410 ¹	4.0310 ⁰	...	2.210 ²	5.310 ²	4	4.34	14	IIIa	C	?
0745-71	07454-7112	6.1310 ²	3.0810 ²	6.5710 ¹	2.1710 ¹	5.110 ³	1.810 ⁴	2	0.75	43	VII	C	?

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l_{II}	b_{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
0753+53	VV 47	PK 164+31.1	...	...	...	07:53:57.60	+53:33:06.0	07:57:50.28	+53:25:00.5	+164.8	+31.2	2h
0755-58	V341 Car	HD 65750	SAO 235638	...	...	07:55:54.55	-58:59:26.9	07:56:50.88	-59:07:34.3	-087.8	-15.2	2a
0757-40	07576-4054	...	...	...	...	07:57:40.80	-40:55:00.0	07:59:24.07	-41:03:15.6	-103.5	-05.9	3e
0758-19	07582-1933	...	...	...	...	07:58:12.80	-19:33:56.0	08:00:25.85	-19:42:14.6	-121.6	+05.4	3e
0804-15	08045-1524	...	...	...	...	08:04:33.20	-15:24:41.0	08:06:51.13	-15:33:23.6	-124.4	+08.9	3e
0805-28	08050-2838	...	...	...	5240	08:05:03.40	-28:38:54.0	08:07:05.91	-28:47:38.0	-113.1	+01.9	Pr3
0807-36	08074-3615	...	...	...	...	08:07:28.10	-36:15:35.0	08:09:20.20	-36:24:27.6	-106.5	-01.8	3e
0808-32	RAFGL 1235	CCS 1081	08088-3243	...	1235	08:08:51.00	-32:43:06.0	08:10:48.40	-32:52:03.9	-109.3	+00.4	3e
0817-21	RAFGL 5250	08171-2134	...	...	5250	08:17:06.90	-21:34:47.0	08:19:18.77	-21:44:15.5	-117.5	+08.1	3e
0819-36	08191-3653	...	...	...	...	08:19:06.60	-36:53:53.0	08:20:59.12	-37:03:28.0	-104.6	-00.2	Pr3
0852+17	X Cnc	CCS 1338	HD 76221	+20206	1298	08:52:34.04	+17:28:22.1	08:55:22.89	+17:13:52.3	+210.2	+34.9	2a
0903-39	09032-3953	...	...	...	...	09:03:12.40	-39:53:10.0	09:05:07.23	-40:05:11.5	-096.9	+04.7	3e
0907+31	RS Cnc	HD 78712	SAO 61306	+30209	1326	09:07:37.80	+31:10:05.0	09:10:38.83	+30:57:48.6	+194.5	+42.1	2g,2a
0911-24	RAFGL 5254	...	...	...	5254	09:11:40.90	-24:38:54.0	09:13:54.09	-24:51:21.1	-107.2	+16.2	2k
0923-23	LP Hya	NSV 04485	...	-20188	5257	09:23:35.70	-23:47:37.0	09:25:50.86	-24:00:37.9	-106.0	+18.8	3e
0937+12	Frosty Leo	09371+1212	...	...	...	09:37:11.95	+12:12:29.7	09:39:53.96	+11:58:52.4	-138.1	+42.7	1n
0942+34	R LMi	HD 84346	SAO 61669	+30215	1376	09:42:34.78	+34:44:33.9	09:45:34.29	+34:30:42.8	+190.6	+49.8	1n,1f
0942-60	09425-6040	...	...	...	...	09:42:35.20	-60:40:34.0	09:44:01.80	-60:54:23.2	-078.0	-05.9	3e
0942-21	IW Hya	...	...	-20197	5259	09:42:56.45	-21:47:53.6	09:45:15.15	-22:01:44.7	-104.2	+23.4	1n,1e
0944+11	R Leo	HD 84748	SAO 98769	+10215	1380	09:44:52.24	+11:39:40.4	09:47:33.49	+11:25:44.1	-136.3	+44.2	1n,1f
0945+13	IRC+10216	CW Leo	PK 221+45.1	+10216	1381	09:45:14.89	+13:30:40.8	09:47:57.36	+13:16:43.6	-138.6	+45.1	1j
0948-22	Y Hya	CCS 1566	HD 85405	-20199	...	09:48:45.00	-22:46:56.9	09:51:03.55	-23:01:02.0	-102.4	+23.6	2a
0952-75	RAFGL 4098	09521-7508	...	...	4098	09:52:10.40	-75:08:15.0	09:52:29.90	-75:22:25.7	-067.7	-16.4	3e
0953-41	X Vel	CCS 1583	HD 86111	...	...	09:53:23.13	-41:20:59.2	09:55:26.09	-41:35:14.7	-088.9	+10.1	2a
1004-40	NGC 3132	PK 272+12.1	HD 87892	...	...	10:04:55.10	-40:11:29.0	10:07:01.77	-40:26:09.7	-087.9	+12.4	2h
1013+30	CJT 6	CCS 1641	RW LMi	+30219	1403	10:13:10.94	+30:49:16.7	10:16:02.27	+30:34:18.6	+197.7	+56.0	1m
1014-14	IRC-10236	IY Hya	...	-10286	1406	10:14:34.40	-14:24:31.0	10:17:00.52	-14:39:31.4	-103.7	+33.9	2m
1017-59	CCS 1662	Hen 401	10178-5958	...	...	10:17:48.60	-59:58:23.0	10:19:32.61	-60:13:28.9	-074.9	-02.7	3e
1019-57	Roberts 22	OH 284,18-79	Hen 404	...	4104	10:19:45.10	-57:50:28.0	10:21:33.97	-58:05:37.6	-075.8	-00.8	3d
1032-46	10323-4611	...	...	...	...	10:32:22.90	-46:11:57.0	10:34:30.82	-46:27:28.6	-080.3	+10.2	3e
1032-39	U Ant	CCS 1706	HD 91793	...	...	10:32:59.30	-39:18:12.0	10:35:12.91	-39:33:44.7	-083.8	+16.1	2g,2a
1035-13	U Hya	CCS 1714	HD 92055	-10242	1427	10:35:04.97	-13:07:26.2	10:37:33.08	-13:23:02.4	-100.0	+38.1	2a
1041+67	VY UMa	CCS 1736	HD 92839	+70100	1433	10:41:37.14	+67:40:27.3	10:45:03.93	+67:24:40.6	+139.6	+45.4	2a

Table 2. continued

n°	name1	S_{12} (Jy)	S_{25} (Jy)	S_{80} (Jy)	S_{100} (Jy)	$4\pi 1 \text{ kpc}^2 F_{\text{IRAS}}$ (L_{\odot})	$4\pi 1 \text{ kpc}^2 F_{\text{total}}$ (L_{\odot})	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
0753+53	VV 47	...	...	...	2.2010 ⁰	...	...	...	...	...	...	?	[PN]
0755-58	V341 Car	1.0210 ²	4.3910 ¹	5.4210 ¹	1.0310 ²	8.910 ²	3.710 ⁴	2	0.52	22,1n	VIa	O	M0III
0757-40	07576-4054	6.7610 ¹	3.9110 ¹	8.7310 ⁰	...	5.810 ²	1.910 ³	2	2.30	43	VII	C	?
0758-19	07582-1933	8.2010 ¹	4.4710 ¹	8.6310 ⁰	2.0410 ⁰	7.010 ²	2.310 ³	2	2.08	44	VII	C	?
0804-15	08045-1524	4.7810 ¹	1.9710 ¹	3.6310 ⁰	1.5910 ⁰	3.910 ²	1.810 ³	2	2.39	44	II	C	?
0805-28	08050-2838	7.4510 ¹	3.4010 ¹	6.7110 ⁰	...	6.110 ²	2.310 ³	2	2.07	43	VII	C	?
0807-36	08074-3615	1.5610 ²	1.2510 ²	3.3510 ¹	7.6610 ⁰	1.410 ³	2.910 ³	3	1.86	22,4n	IIIa	C	?
0808-32	RAFGL 1235	3.4710 ²	1.5510 ²	3.1510 ¹	9.4010 ⁰	2.910 ³	5.610 ³	1	1.34	4n	VII	C	C
0817-21	RAFGL 5250	1.2010 ²	1.2910 ²	3.8910 ¹	1.0710 ¹	1.210 ³	2.410 ³	3	2.03	22	IIIa	C	?
0819-36	08191-3653	3.6610 ¹	2.8510 ¹	6.8910 ⁰	...	3.410 ²	6.710 ²	3	3.85	42	IIIa	C	?
0852+17	X Cnc	9.0010 ¹	2.5510 ¹	7.0110 ⁰	3.2910 ⁰	7.010 ²	2.110 ⁴	2	0.69	42	VII	C	C5,4(SRb)
0903-39	09032-3953	2.0410 ¹	1.2610 ²	9.2310 ¹	2.8610 ¹	5.810 ²	...	...	...	50	V	?	?
0907+31	RS Cnc	4.8010 ²	2.0910 ²	3.2610 ¹	1.0110 ¹	3.910 ³	1.510 ⁵	1	0.26	22	II	O	M6III(SRc)
0911-24	RAFGL 5254	7.3710 ²	3.9910 ²	8.3410 ¹	2.2410 ¹	6.310 ³	5.610 ⁴	1	0.42	42	VII	C	C
0923-23	LP Hya	1.2310 ²	8.8610 ¹	1.9710 ¹	5.7910 ⁰	1.110 ³	9.510 ³	2	1.03	28	IIIa	O	M9
0937+12	Frosty Leo	...	4.5910 ⁰	7.0710 ¹	2.8210 ¹	...	...	...	...	...	...	O	M4
0942+34	R LMi	4.2610 ²	1.7610 ²	2.6010 ¹	7.9010 ⁰	3.510 ³	9.410 ⁴	1	0.33	24	II	O	M7e(M)
0942-60	09425-6040	2.6810 ¹	5.5510 ¹	2.1210 ¹	5.0510 ⁰	3.610 ²	...	...	...	50	IIIb	?	?
0942-21	IW Hya	6.0510 ²	4.9610 ²	7.1510 ¹	2.0110 ¹	5.610 ³	1.310 ⁴	1	0.88	28	IIIa	O	M9
0944+11	R Leo	2.1610 ³	6.5410 ²	1.1510 ²	3.9310 ¹	1.710 ⁴	5.010 ⁵	1	0.14	1n	I	O	M7e(M)
0945+13	IRC+10216	...	2.3110 ⁴	5.6510 ³	9.2210 ²	...	6.610 ⁵	1	0.12	43	...	C	Ce(M)
0948-22	Y Hya	...	...	...	...	...	...	...	...	...	...	C	C5,4(SRb)
0952-75	RAFGL 4098	3.4510 ²	1.8310 ²	3.5510 ¹	1.1010 ¹	2.910 ³	9.810 ³	2	1.01	43	VII	C	?
0953-41	X Vel	8.8610 ¹	2.4910 ¹	6.0110 ⁰	2.8710 ⁰	6.910 ²	2.210 ⁴	2	0.67	44	VII	C	C,N0(SR)
1004-40	NGC 3132	0.8710 ⁰	4.4610 ⁰	3.9010 ¹	4.3210 ¹	6.610 ¹	...	...	...	...	VIII	?	[PN]A8V
1013+30	CIT 6	3.3210 ³	1.2210 ³	2.7410 ²	8.6110 ¹	2.710 ⁴	6.910 ⁴	1	0.38	04,4n	VII	C	Ce(SRa)
1014-14	IRC-10236	...	...	...	...	...	...	...	...	...	...	C	?
1017-59	CCS 1662	4.1210 ⁰	3.8310 ¹	7.6110 ¹	4.1510 ¹	2.210 ²	...	...	...	5n	V	?	?
1019-57	Roberts 22	2.0010 ²	1.0910 ³	5.8810 ²	...	5.010 ³	...	...	...	71,pah	V	?	A2Iab
1032-46	10323-4611	5.3710 ²	3.6410 ²	6.9610 ¹	2.1410 ¹	4.810 ³	...	...	...	24	VII	O	?
1032-39	U Ant	1.6810 ²	4.4810 ¹	2.7110 ¹	2.1110 ¹	1.310 ³	6.210 ⁴	2	0.40	21,4n	VIa	C	C,N(SR)
1035-13	U Hya	2.0610 ²	7.2410 ¹	1.7210 ¹	1.4510 ¹	1.610 ³	8.110 ⁴	1	0.35	4n	VII	C	C6,4(SRb)
1041+67	VY UMa	5.1910 ¹	1.4010 ¹	4.7910 ⁰	4.9310 ⁰	4.010 ²	1.810 ⁴	2	0.75	42	VIa	C	C6,3(Lb)

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l_{II}	b_{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1049-20	V Hya	CCS 1766	SAO 179278	-20218	1439	10 : 49 : 11.30	-20 : 59 : 04.9	10 : 51 : 37.31	-21 : 15 : 01.3	-091.0	+33.6	2a
1056-18	R Cr1	HD 95384	SAO 156389	-20222	1450	10 : 58 : 05.91	-18 : 03 : 22.4	11 : 00 : 33.89	-18 : 19 : 29.7	-090.7	+37.2	1n
1129-44	11296-4431	...	...	...	...	11 : 29 : 36.00	-44 : 31 : 50.0	11 : 32 : 01.34	-44 : 48 : 24.1	-071.6	+15.8	3e
1130-10	11308-1020	...	...	...	...	11 : 30 : 52.40	-10 : 20 : 26.0	11 : 33 : 24.63	-10 : 37 : 00.9	-086.3	+47.8	3e
1131-72	CCS 1882	11318-7256	...	...	...	11 : 31 : 50.10	-72 : 56 : 41.0	11 : 33 : 57.91	-73 : 13 : 16.3	-062.7	-11.2	3e
1138-55	HD 101884	SAO 239288	...	...	...	11 : 38 : 33.60	-55 : 17 : 46.0	11 : 40 : 58.78	-55 : 34 : 24.4	-067.0	+05.9	2g,2a
1146-35	HD 102608	SAO 202831	NSV 5345	-30163E	4136	11 : 46 : 08.15	-35 : 42 : 31.6	11 : 48 : 39.22	-35 : 59 : 12.3	-071.1	+25.2	2a
1227+04	BK Vir	HD 108849	SAO 119433	+00220	1554	12 : 27 : 48.00	+04 : 41 : 33.0	12 : 30 : 21.05	+04 : 24 : 58.8	-070.5	+66.7	2g,2a
1237-49	12379-4959	...	...	...	...	12 : 37 : 54.60	-49 : 59 : 45.0	12 : 40 : 41.98	-50 : 16 : 12.6	-058.8	+12.6	3e
1238+56	Y UMa	HD 110259	SAO 28471	+60220	1570	12 : 38 : 04.40	+56 : 07 : 14.7	12 : 40 : 21.27	+55 : 50 : 47.1	+126.2	+61.2	2e,2a
1238-45	12384-4536	...	...	...	...	12 : 38 : 29.90	-45 : 36 : 58.0	12 : 41 : 15.50	-45 : 53 : 25.1	-058.9	+16.9	3e
1239-43	CCS 2025	NSV 05868	12394-4338	...	...	12 : 39 : 24.80	-43 : 38 : 40.0	12 : 42 : 09.86	-43 : 55 : 06.4	-058.8	+18.9	3e
1241-54	Boomerang Neb.	12419-5414	...	...	...	12 : 41 : 54.20	-54 : 14 : 47.0	12 : 44 : 45.45	-54 : 31 : 11.4	-058.0	+08.3	3e
1242+45	Y CVn	CCS 2030	HD 110914	+50219	1576	12 : 42 : 47.08	+45 : 42 : 47.9	12 : 45 : 07.81	+45 : 26 : 24.0	+126.4	+71.6	2a
1244+04	RU Vir	CCS 2032	HD 111166	+00224	1579	12 : 44 : 45.70	+04 : 25 : 04.0	12 : 47 : 18.43	+04 : 08 : 41.9	-059.7	+67.0	2m
1254-68	12540-6845	...	...	...	...	12 : 54 : 00.40	-68 : 45 : 40.0	12 : 57 : 15.74	-69 : 01 : 52.9	-056.5	-06.2	3e
1254+66	RY Dra	CCS 2047	HD 112559	+70116	1588	12 : 54 : 28.10	+66 : 15 : 52.0	12 : 56 : 25.65	+65 : 59 : 38.9	+122.1	+51.1	2a
1300+05	RT Vir	HD 113285	SAO 119734	+10262	1594	13 : 00 : 05.87	+05 : 27 : 15.0	13 : 02 : 37.95	+05 : 11 : 08.5	-049.6	+67.9	1n
1311-02	SW Vir	HD 114961	SAO 139236	+00230	1606	13 : 11 : 29.70	-02 : 32 : 31.0	13 : 14 : 04.40	-02 : 48 : 23.1	-045.9	+59.6	2g,2a
1326-23	R Hya	HD 117287	SAO 181695	-20254	1627	13 : 26 : 58.37	-23 : 01 : 24.3	13 : 29 : 42.84	-23 : 16 : 53.0	-045.8	+38.7	1n,1f
1330-06	S Vir	HD 117833	SAO 139403	-10290	1633	13 : 30 : 23.18	-06 : 56 : 18.1	13 : 33 : 00.13	-07 : 11 : 41.2	-039.2	+54.2	1n
1346-28	W Hya	HD 120285	SAO 181981	-30207	1650	13 : 46 : 12.08	-28 : 07 : 08.8	13 : 49 : 02.05	-28 : 22 : 02.6	-042.0	+32.8	1n,1f,1f
1348-67	13482-6716	...	...	...	...	13 : 48 : 15.40	-67 : 16 : 08.0	13 : 52 : 03.31	-67 : 30 : 56.7	-051.3	-05.3	3e
1408-07	RAFGL 1686	...	...	...	1686	14 : 08 : 39.50	-07 : 30 : 42.0	14 : 11 : 18.03	-07 : 44 : 47.3	-025.2	+50.1	2d
1419-43	IC 4406	PK 319+15.1	He 2-110	...	...	14 : 19 : 15.50	-43 : 55 : 26.0	14 : 22 : 26.48	-44 : 09 : 04.9	-040.3	+15.7	AA49
1421+25	RX Boo	HD 126327	SAO 83331	+30257	1706	14 : 21 : 56.78	+25 : 55 : 47.3	14 : 24 : 11.61	+25 : 42 : 14.1	+034.3	+69.2	1n
1433-64	CPD-64 2939	He 3-1013	14331-6435	...	...	14 : 33 : 07.40	-64 : 35 : 01.0	14 : 37 : 09.64	-64 : 48 : 02.3	-046.1	-04.2	3e
1437+32	RV Boo	HD 129004	SAO 64256	+30261	1719	14 : 37 : 09.28	+32 : 45 : 15.4	14 : 39 : 15.75	+32 : 32 : 22.6	+052.5	+66.1	2e
1442-45	14429-4539	...	...	...	...	14 : 42 : 54.90	-45 : 39 : 33.0	14 : 46 : 13.78	-45 : 52 : 07.8	-037.0	+12.5	3e
1448-54	CPD-53 5736	...	...	...	...	14 : 48 : 52.30	-54 : 05 : 25.0	14 : 52 : 28.80	-54 : 17 : 41.9	-039.9	+04.5	2j
1459-44	14591-4438	...	...	...	...	14 : 59 : 12.00	-44 : 38 : 26.0	15 : 02 : 32.72	-44 : 50 : 12.0	-034.0	+12.1	3e
1508-48	RAFGL 4211	15082-4808	...	...	4211	15 : 08 : 13.00	-48 : 08 : 44.0	15 : 11 : 41.89	-48 : 20 : 01.3	-034.4	+08.3	3e
1508-57	15084-5702	...	...	...	...	15 : 08 : 24.10	-57 : 02 : 08.0	15 : 12 : 14.16	-57 : 13 : 24.1	-038.9	+00.6	3e

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4πl ₁ pc ² F _{1ras} (L _⊙)	4πl ₁ pc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1048-20	V Hya	1.1110 ³	4.6010 ²	9.8910 ¹	2.9910 ¹	9.010 ⁵	9.110 ⁴	1	0.33	4n	VII	C	C6.5(SRa)
1058-18	R Crt	6.3810 ²	3.0810 ²	4.9710 ¹	1.9710 ¹	5.310 ⁵	1.610 ⁵	1	0.25	22	IIIa	O	M7(SRb)
1129-44	11296-4431	4.2510 ¹	4.6310 ¹	8.9410 ⁰	2.7710 ⁰	4.310 ²	1.310 ³	2	2.79	24	IIIa	O	?
1130-10	11308-1020	5.7410 ¹	2.1910 ¹	4.9110 ⁰	1.3910 ⁰	4.610 ²	2.610 ³	2	1.97	44	VII	C	?
1131-72	CCS 1882	3.3910 ²	1.1410 ²	2.3610 ¹	1.0610 ¹	2.710 ³	2.610 ⁴	2	0.62	44	VII	C	?
1138-55	HD 101884	9.2610 ¹	1.3810 ²	1.9310 ²	1.0410 ²	1.210 ³	...	...	...	?	VIII	?	F0ep1a
1146-35	HD 102608	3.2010 ²	1.9510 ²	3.0510 ¹	1.0710 ¹	2.810 ³	1.110 ⁵	1	0.30	22	IIIa	O	M7III
1227+04	BK Vir	2.4910 ²	1.0210 ²	1.9010 ¹	7.6510 ⁰	2.010 ³	1.110 ⁵	2	0.31	15	II	O	M7III(Lb)
1237-49	12379-4959	8.4910 ¹	6.3010 ¹	1.2110 ¹	5.9610 ⁰	7.710 ²	6.010 ³	2	1.29	29	IIIa	O	?
1238+56	Y UMa	1.9310 ²	9.1210 ¹	1.6010 ¹	7.5310 ⁰	1.610 ³	5.210 ⁴	2	0.44	15	II	O	M7II-II:(SRb)
1238-45	12384-4536	1.7110 ²	1.5310 ²	2.6510 ¹	6.8210 ⁰	1.610 ³	7.610 ³	2	1.15	24	IIIa	O	?
1239-43	CCS 2025	1.5910 ²	7.0710 ¹	1.4310 ¹	4.8710 ⁰	1.310 ³	5.110 ³	2	1.39	43	VII	C	Ce
1241-54	Boomerang Neb.	4.1710 ⁰	5.5010 ⁰	1.3610 ¹	1.6310 ¹	6.010 ¹	...	...	...	...	Vlb	?	[PN]G0II
1242+45	Y CVn	2.7610 ²	7.0310 ¹	1.7310 ¹	7.8210 ⁰	2.110 ³	8.710 ⁴	1	0.34	42	Vla	C	C5.5J(SRb)
1244+04	RU Vir	2.3010 ²	6.9210 ¹	1.3710 ¹	3.8710 ⁰	1.810 ³	1.410 ⁴	1	0.85	44	I	C	C8.1e(M)
1254-68	12540-6845	2.6410 ²	1.3410 ²	3.2710 ¹	9.5710 ⁰	2.210 ³	7.710 ³	2	1.14	42	VII	C	?
1254+66	RY Dra	1.0810 ²	3.1010 ¹	8.0910 ⁰	4.2310 ⁰	8.410 ²	2.310 ⁴	2	0.65	41	VII	C	C4.5J(SRb)
1300+05	RT Vir	4.6210 ²	2.2610 ²	3.9310 ¹	1.4910 ¹	3.810 ³	1.310 ⁵	1	0.28	21	IIIa	O	M8III(SRb)
1311-02	SW Vir	6.8110 ²	3.4010 ²	4.9510 ¹	1.5210 ¹	5.710 ³	2.210 ⁵	1	0.21	2n	IIIa	O	M7III(SRb)
1326-23	R Hya	1.5910 ³	5.8610 ²	9.0110 ¹	3.0310 ¹	1.310 ⁴	6.210 ⁵	2	0.41	16	II	O	M6.5e(M)
1330-06	S Vir	1.3510 ²	5.4810 ¹	8.2510 ⁰	2.3010 ⁰	1.110 ³	5.910 ⁴	2	0.41	16	II	O	M7IIIe(M)
1346-28	W Hya	4.2010 ³	1.1910 ³	1.9510 ²	7.2310 ¹	3.310 ⁴	7.510 ⁵	1	0.12	02	I	O	M6e(SRa)
1348-67	13482-6716	1.1010 ²	4.7410 ¹	1.1110 ¹	3.4110 ⁰	9.010 ²	3.710 ³	2	1.64	44	VII	C	?
1408-07	RAFGL 1686	1.3910 ²	1.0210 ²	1.7210 ¹	4.8910 ⁰	1.310 ³	4.610 ³	1	1.47	2n	IIIa	O	M6
1419-43	IC 4406	0.3210 ⁰	2.6910 ⁰	2.1110 ¹	2.5410 ¹	3.510 ¹	...	...	...	...	VIII	?	[PN]
1421+25	RX Boo	8.4710 ²	4.1910 ²	6.9210 ¹	2.5810 ¹	7.110 ³	2.610 ⁵	1	0.20	2n	IIIa	O	M7.5-8(SRb)
1433-64	CPD-64 2939	4.0410 ⁰	1.0910 ²	7.0710 ¹	2.0610 ¹	4.010 ²	...	...	...	5n	V	?	Be
1437+32	RV Boo	1.2510 ²	7.0210 ¹	1.0910 ¹	3.5210 ⁰	1.110 ³	2.010 ⁴	2	0.71	22	IIIa	O	M6III:e
1442-45	14429-4539	1.4610 ¹	3.3310 ¹	1.3610 ¹	2.9110 ⁰	2.110 ²	2.910 ²	2	5.83	3n,7n	IIIb	O	?
1448-54	CPD-53 5736	6.5910 ⁰	6.3710 ¹	3.0510 ¹	1.3610 ¹	2.510 ²	...	...	...	5n	V	?	?e
1459-44	14591-4438	3.0410 ²	2.0710 ²	2.9710 ¹	8.7710 ⁰	2.710 ³	2.710 ⁴	2	0.60	26	IIIa	O	?
1508-48	RAFGL 4211	7.9310 ²	4.2410 ²	9.6310 ¹	2.7810 ¹	6.710 ³	2.310 ⁴	2	0.67	42	VII	C	?
1508-57	15084-5702	9.4310 ¹	8.3810 ¹	2.4510 ¹	...	9.010 ²	1.810 ³	3	2.35	42	IIIa	C	?

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1950} (7)	δ_{1950} (8)	α_{2000} (9)	δ_{2000} (10)	l_{II} (11)	b_{II} (12)	pos.ref. (13)
1509-69	X TrA	CCS 2219	HD 134453	...	...	15 : 09 : 29.00	-69 : 53 : 34.0	15 : 14 : 18.99	-70 : 04 : 45.0	-045.4	-10.5	2g,2a
1509-55	15099-5509	...	...	...	...	15 : 09 : 56.80	-55 : 09 : 29.0	15 : 13 : 42.06	-55 : 20 : 40.2	-037.7	+02.1	3e
1514-49	CCS 2232	15148-4940	...	...	...	15 : 14 : 48.60	-49 : 40 : 09.0	15 : 18 : 22.05	-49 : 51 : 04.6	-034.2	+06.4	3e
1519+31	S CrB	HD 136753	SAO 64652	+30272	4990S	15 : 19 : 21.60	+31 : 32 : 45.8	15 : 21 : 23.97	+31 : 22 : 02.8	+049.5	+57.2	1n
1519-51	15194-5115	...	...	...	...	15 : 19 : 26.90	-51 : 15 : 19.0	15 : 23 : 04.91	-51 : 25 : 59.0	-034.5	+04.7	3e
1522-36	RAFGL 1771	NSV 7064	...	...	1771	15 : 22 : 35.90	-36 : 03 : 26.0	15 : 25 : 47.58	-36 : 13 : 56.1	-025.3	+17.0	2d
1525+19	WX Ser	CIT 7	...	+20281	1773	15 : 25 : 31.98	+19 : 44 : 13.0	15 : 27 : 46.99	+19 : 33 : 51.3	+029.5	+53.5	1e
1533-64	15332-6430	...	...	...	...	15 : 33 : 18.00	-64 : 30 : 39.0	15 : 37 : 45.36	-64 : 40 : 29.8	-040.4	-07.3	3e
1547+39	V CrB	CCS 2293	HD 141826	+40273	5311	15 : 47 : 44.08	+39 : 43 : 22.7	15 : 49 : 31.29	+39 : 34 : 19.1	+063.3	+51.2	2a
1548+15	R Ser	HD 141850	SAO 101771	+20285	1801	15 : 48 : 23.24	+15 : 17 : 02.7	15 : 50 : 41.66	+15 : 08 : 02.5	+026.2	+46.8	2a
1549+48	ST Her	HD 142143	SAO 45758	+50246	5313	15 : 49 : 16.74	+48 : 37 : 59.5	15 : 50 : 46.63	+48 : 29 : 01.1	+077.0	+49.4	2e,2a
1601+47	X Her	HD 144205	SAO 45863	+50248	5317	16 : 01 : 08.69	+47 : 22 : 36.2	16 : 02 : 39.39	+47 : 14 : 22.3	+074.5	+47.8	2e,2a
1602-30	OH 345.0+15.7	...	...	...	1822	16 : 02 : 59.60	-30 : 41 : 33.0	16 : 06 : 08.15	-30 : 49 : 36.7	-015.0	+15.7	2d
1609-36	NGC 6072	PK 342+10.1	He 2-148	...	...	16 : 09 : 41.60	-36 : 06 : 01.0	16 : 12 : 58.78	-36 : 13 : 38.6	-017.8	+10.9	2h
1610-42	OH 338.1+6.4	16105-4205	...	...	...	16 : 10 : 34.90	-42 : 05 : 29.0	16 : 14 : 02.56	-42 : 13 : 02.8	-021.9	+06.4	3e
1613-51	Mz 3	PK 331-1.1	He 20154	...	...	16 : 13 : 23.30	-51 : 51 : 44.0	16 : 17 : 13.57	-51 : 59 : 06.1	-028.3	-01.0	2o
1623+19	U Her	HD 148206	SAO 102160	+20298	1858	16 : 23 : 34.69	+19 : 00 : 17.5	16 : 25 : 47.43	+18 : 53 : 32.6	+085.3	+40.4	1f,1i,1n
1626+41	g(30) Her	HD 148783	SAO 46108	+40283	1864	16 : 26 : 59.88	+41 : 59 : 26.3	16 : 28 : 38.37	+41 : 52 : 54.0	+066.2	+43.7	2e,2a
1631-56	16314-5611	...	...	...	...	16 : 31 : 28.90	-56 : 11 : 44.0	16 : 35 : 35.58	-56 : 17 : 53.2	-029.5	-05.9	3e
1641+54	S Dra	HD 151187	BD+55 1870	+50255	1886	16 : 41 : 51.91	+54 : 59 : 48.8	16 : 42 : 55.79	+54 : 54 : 18.9	+083.3	+40.2	2e
1659-46	16594-4656	...	...	...	...	16 : 59 : 26.80	-46 : 56 : 16.0	17 : 03 : 09.78	-47 : 00 : 29.9	-019.6	-03.3	2o
1702-10	M2-9	PK 10+18.2	Butterfly Neb.	...	5334	17 : 02 : 52.63	-10 : 04 : 31.0	17 : 05 : 37.92	-10 : 08 : 32.4	+010.9	+18.1	2n
1704-56	CPD-56 8032	PK 332-9.1	He 3-1333	...	...	17 : 04 : 47.50	-56 : 50 : 57.6	17 : 09 : 00.91	-56 : 54 : 47.7	-027.1	-09.9	1o
1704-24	RAFGL 1922	...	...	...	1922	17 : 04 : 54.60	-24 : 40 : 39.0	17 : 07 : 58.24	-24 : 44 : 31.1	-001.2	+09.3	2d
1707-65	17079-6554	...	...	...	...	17 : 07 : 59.40	-65 : 54 : 33.0	17 : 12 : 59.29	-65 : 58 : 07.8	-034.5	-15.4	3e
1707-32	17079-3243	...	...	...	...	17 : 07 : 59.30	-32 : 43 : 29.0	17 : 11 : 14.98	-32 : 47 : 07.6	-007.3	+04.0	3e
1708+64	TV Dra	HD 155637	SAO 17364	+60249	1930	17 : 08 : 06.35	+64 : 22 : 52.4	17 : 08 : 24.46	+64 : 19 : 08.0	+094.3	+35.3	2e
1710-10	IRC-10359	NSV 08322	BD-10 4457	-10359	1934	17 : 10 : 16.30	-10 : 31 : 13.0	17 : 13 : 02.19	-10 : 34 : 42.9	+011.5	+16.3	3e
1710-37	NGC 6302	PK 349+01.1	HD 155520	...	...	17 : 10 : 21.30	-37 : 02 : 43.0	17 : 13 : 44.41	-37 : 06 : 11.2	-010.5	+01.1	1h,1a
1711+08	V2108 Oph	...	...	+10322	1940	17 : 11 : 55.60	+08 : 59 : 23.0	17 : 14 : 19.01	+08 : 55 : 59.4	+029.9	+25.6	3e
1712-48	17125-4814	...	...	...	...	17 : 12 : 33.50	-48 : 14 : 04.0	17 : 16 : 20.64	-48 : 17 : 21.9	-019.3	-05.8	3e
1715-32	RAFGL 6815S	...	...	...	6815S	17 : 15 : 04.50	-32 : 24 : 12.0	17 : 18 : 19.92	-32 : 27 : 20.2	-006.2	+03.0	2o
1721-39	17217-3916	...	...	...	...	17 : 21 : 45.80	-39 : 16 : 42.0	17 : 25 : 13.52	-39 : 19 : 21.0	-011.0	-02.1	3e

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4πl ₁ pc ² F ₁₀₀ (L _⊙)	4πl ₁ pc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1509-69	X TrA	2.0110 ²	5.7110 ¹	1.4810 ¹	8.6010 ⁰	1.610 ³	4.610 ⁴	2	0.47	42	VII	C	C ₁ N0(Lb)
1509-55	15099-5509	3.2010 ²	2.5010 ²	4.4810 ¹	...	2.910 ³	2.010 ⁴	2	0.71	26	IIIa	O	?
1514-49	CCS 2232	1.8910 ²	6.7710 ¹	1.4610 ¹	7.5110 ⁰	1.510 ³	1.110 ⁴	2	0.96	42	VII	C	?
1519+31	S CrB	2.0110 ²	1.2610 ²	1.9310 ¹	7.1510 ⁰	1.710 ³	2.310 ⁴	2	0.66	24	IIIa	O	M6.5e(M)
1519-51	15194-5115	1.3210 ³	5.6510 ²	1.4510 ²	5.1010 ¹	1.110 ⁴	4.510 ⁴	2	0.47	04,4n	VII	C	?
1522-36	RAFGL 1771	1.6610 ²	1.1210 ²	1.6610 ¹	6.5010 ⁰	1.510 ³	1.510 ⁴	2	0.81	28	IIIa	O	M8.5
1525+19	WX Ser	2.3510 ²	1.5010 ²	1.8410 ¹	5.2910 ⁰	2.010 ³	7.210 ³	1	1.18	29	IIIa	O	M8e(M)
1533-64	15332-6430	6.7110 ¹	5.0010 ¹	1.1010 ¹	3.9710 ⁰	6.110 ²	4.710 ³	2	1.46	26	IIIa	O	?
1547+39	V CrB	1.0410 ²	3.2210 ¹	6.2810 ⁰	2.0510 ⁰	8.110 ²	1.510 ⁴	1	0.82	4n	I	C	C6,2e(M)
1548+15	R Ser	1.9110 ²	7.1110 ¹	1.1410 ¹	3.5910 ⁰	1.510 ³	1.110 ⁵	2	0.30	24	II	O	M6.5e(M)
1549+48	ST Her	1.9910 ²	9.7110 ¹	1.6710 ¹	5.9710 ⁰	1.710 ³	...	...	...	41	IIIa	?	M6IIIa(SRb)
1601+47	X Her	4.8510 ²	2.4110 ²	3.9410 ¹	1.8310 ¹	4.010 ³	1.210 ⁵	1	0.29	24	IIIa	O	M6(SRb)
1602-30	OH 345.0+15.7	1.4210 ²	2.6710 ²	8.3110 ¹	2.4010 ¹	1.810 ³	2.810 ³	2	1.89	32	IIIb	O	M
1609-36	NGC 6072	0.3810 ⁰	2.8710 ⁰	2.4910 ¹	3.1210 ¹	4.110 ¹	...	...	...	...	VIII	?	[PN]
1610-42	OH 338.1+6.4	6.1010 ²	8.0710 ²	3.4710 ²	1.1710 ²	6.810 ³	1.410 ⁴	1	0.85	35	VIb	O	M
1613-51	Mz 3	8.8810 ¹	3.4310 ²	2.7710 ²	1.1310 ²	1.910 ³	...	...	...	92	V	?	[PN]B0
1623+19	U Her	5.0010 ²	1.8010 ²	2.7210 ¹	9.7010 ⁰	4.010 ³	3.210 ⁵	2	0.18	23	II	O	M7IIIe(M)
1626+41	g(30) Her	4.3810 ²	1.4910 ²	2.3610 ¹	6.6010 ⁰	3.510 ³	2.610 ⁵	1	0.20	16	II	O	M6-III(SRb)
1631-56	16314-5611	2.2410 ¹	3.1410 ¹	6.5910 ⁰	...	2.510 ²	...	...	...	42,?	IIIb	?	?
1641+54	S Dra	1.3110 ²	7.3110 ¹	1.2210 ¹	4.5010 ⁰	1.110 ³	2.110 ⁴	2	0.69	24	IIIa	O	M6III
1659-46	16594-4656	4.4910 ¹	2.9810 ²	1.3110 ²	3.4410 ¹	1.310 ³	...	...	...	74	V	O	?e
1702-10	M2-9	5.0510 ¹	1.1010 ²	1.2410 ²	7.5810 ¹	7.910 ²	...	...	...	pah	IV	C?	[PN]Be
1704-56	CPD-86 8032	1.4410 ²	2.5710 ²	1.9910 ²	9.1710 ¹	1.910 ³	...	...	...	80,pah	IV	C	[PN]WC10
1704-24	RAFGL 1922	7.9310 ²	4.9810 ²	1.1810 ²	3.1810 ¹	7.010 ³	1.310 ⁴	1	0.88	42	VII	C	C
1707-65	17079-6554	1.6410 ²	6.2810 ¹	1.2810 ¹	4.0610 ⁰	1.310 ³	7.310 ³	2	1.17	43	VII	C	?
1707-32	17079-3243	1.8710 ²	8.1710 ¹	1.8410 ¹	...	1.510 ³	6.210 ³	2	1.27	42	VII	C	C
1708+64	TV Dra	6.0410 ¹	2.6010 ¹	4.7410 ⁰	2.2510 ⁰	4.910 ²	2.210 ⁴	2	0.68	15	II	O	M(Lb)
1710-10	IRC-10359	1.7110 ²	1.1610 ²	2.0110 ¹	7.5110 ⁰	1.510 ³	1.610 ⁴	2	0.80	27	IIIa	O	M7
1710-37	NGC 6302	3.2110 ¹	3.3610 ²	8.5010 ²	5.3710 ²	2.110 ³	...	...	...	96,pah	V	?	[PN]Ne?
1711+08	V2108 Oph	4.6010 ²	3.1710 ²	4.1010 ¹	9.3010 ⁰	4.110 ³	4.010 ⁴	2	0.50	28	IIIa	O	M9
1712-48	17125-4814	5.1610 ¹	5.7910 ¹	1.6110 ¹	...	5.310 ²	1.510 ³	2	2.60	42,4no	IIIa	O	?
1715-32	RAFGL 6818S	5.7910 ¹	3.2210 ²	2.6810 ²	8.2410 ¹	1.610 ³	...	...	...	74	V	O	M
1721-39	17217-3916	9.6910 ¹	7.0110 ¹	2.7810 ¹	...	8.910 ²	1.810 ³	3	2.37	42	IIIa	C	?

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1950} (7)	δ_{1950} (8)	α_{2000} (9)	δ_{2000} (10)	l_{II} (11)	b_{II} (12)	pos.ref. (13)
1726-19	TW Oph	CCS 2449	HD 158377	-20364	1971	17:26:46.50	-19:26:04.0	17:29:43.60	-19:28:22.4	+006.1	+08.1	2m
1729+17	IRC+20326	NSV 9118	...	+20326	1977	17:29:42.50	+17:47:27.0	17:31:54.98	+17:45:19.7	+040.8	+25.3	3e
1731-49	CD-49 11554	He 3-1428	...	...	...	17:31:11.20	-49:24:25.0	17:35:02.41	-49:26:22.3	-018.6	-09.0	2o
1731-62	OH 329.8-15.8	17319-6234	...	...	...	17:31:55.20	-62:34:04.0	17:36:36.93	-62:35:56.3	-030.1	-15.9	3e
1733+15	MW Her	CIT 9	...	+20328	1988	17:33:24.80	+15:37:02.0	17:35:39.98	+15:35:10.9	+039.0	+23.6	2k
1737-30	17371-3021	...	...	...	...	17:37:06.80	-30:21:26.0	17:40:19.51	-30:22:58.9	-001.8	+00.2	3e
1738-57	V Pav	CCS 2470	HD 160453	...	...	17:38:59.83	-57:42:05.2	17:43:18.94	-57:43:27.5	-025.3	-14.3	2a
1741-31	RAFGL 5379	17411-3154	...	...	5379	17:41:07.40	-31:54:24.0	17:44:22.62	-31:55:39.4	-002.7	-01.3	3e
1743+50	V814 Her	HD 161796	SAO 30548	...	5384	17:43:41.30	+50:03:47.0	17:44:55.43	+50:02:38.4	+077.1	+30.9	2g,2a
1743-15	OH 11.4+6.6	17436-1545	...	...	...	17:43:40.60	-15:45:51.0	17:46:33.16	-15:46:56.1	+011.4	+06.6	3e
1743-28	OH 0.3-0.2	...	...	...	...	17:43:56.60	-28:43:39.0	17:47:06.89	-28:44:42.2	+000.3	-00.2	1p
1744-24	RAFGL 5385	...	...	...	5385	17:44:04.60	-24:11:57.0	17:47:08.31	-24:12:59.9	+004.2	+02.2	2o
1744-29	17443-2949	...	...	...	...	17:44:23.30	-29:49:55.0	17:47:35.28	-29:50:56.2	-000.6	-00.8	3e
1744-40	17446-4048	...	...	...	...	17:44:40.90	-40:48:37.0	17:48:12.24	-40:49:36.3	-009.9	-06.6	3e
1744-78	17446-7809	PK 8+3.1	HD 161944	...	...	17:44:41.90	-78:09:52.0	17:52:34.28	-78:10:41.7	-044.6	-23.6	3e
1746-19	NGC 6445	...	...	...	...	17:46:17.20	-19:59:41.0	17:49:15.21	-20:00:34.5	+008.1	+03.9	2h
1749-25	17495-2534	...	...	...	...	17:49:33.90	-25:34:01.0	17:52:39.57	-25:34:39.9	+003.7	+00.4	3e
1751-25	RAFGL 2023	...	...	...	2023	17:51:13.60	-25:49:04.0	17:54:19.64	-25:49:35.6	+003.7	-00.1	2d
1753-33	AI Sco	HD 320921	CPD-33 4709	...	...	17:53:00.10	-33:48:20.0	17:56:18.56	-33:48:43.4	-003.0	-04.4	3e
1753-30	RAFGL 5416	17533-3030	...	...	5416	17:53:20.00	-30:30:25.0	17:56:33.09	-30:30:47.1	-000.1	-02.8	3e
1753+26	89 Her	HD 163506	SAO 85545	...	2028	17:53:24.00	+26:03:23.0	17:55:25.07	+26:02:58.6	+051.4	+23.2	2g,2a
1755+58	T Dra	CCS 2512	...	+60255	2040	17:55:37.40	+58:13:24.0	17:56:23.29	+58:13:06.5	+086.7	+29.9	2m
1758-17	RAFGL 2047	...	...	...	2047	17:58:11.00	-17:44:22.2	18:01:06.10	-17:44:23.8	+011.5	+02.6	2d
1758-22	17583-2201	...	...	...	...	17:58:21.60	-22:01:05.0	18:01:22.35	-22:01:05.6	+007.8	+00.5	3e
1804-09	FX Ser	...	...	-10396	2067	18:04:04.80	-09:41:42.0	18:06:49.93	-09:41:18.1	+019.2	+05.3	2m
1805-22	VX Sgr	OH 8.3-1.0	HD 165674	-20431	2071	18:05:02.99	-22:13:55.0	18:08:04.01	-22:13:26.3	+008.3	-01.0	1n,11,1f
1806-33	NGC 6563	PK 358-7.1	HD 166449	...	...	18:08:44.60	-33:52:46.0	18:12:03.13	-33:52:00.5	-001.5	-07.3	2h
1809+27	OH 53.8+20.2	18095+2704	...	...	...	18:09:31.00	+27:04:30.0	18:11:30.60	+27:05:16.0	+053.8	+20.2	3f
1810-14	18100-1420	...	...	...	...	18:10:04.70	-14:20:39.0	18:12:55.48	-14:19:48.7	+015.8	+01.8	Pr3
1811-05	M4-9	PK 24+5.1	...	...	...	18:11:37.40	-05:00:17.0	18:14:16.96	-04:59:20.4	+024.2	+05.9	3e
1816-12	18167-1209	OH 18.5+1.4	...	...	...	18:16:47.37	-12:09:27.8	18:19:35.43	-12:08:08.3	+018.5	+01.4	1g,1p
1819-27	RAFGL 2135	...	...	...	2135	18:19:26.70	-27:08:02.0	18:22:34.50	-27:06:30.2	+005.6	-06.2	2d
1819-16	18196-1608	...	...	...	...	18:19:38.70	-16:08:23.0	18:22:31.66	-16:06:50.9	+015.3	-01.1	Pr3

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₈₀ (Jy)	S ₁₀₀ (Jy)	4πl ₁ pc ² F _{ires} (L _⊙)	4πl ₁ pc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1726-19	TW Oph	9.6410 ¹	2.5810 ¹	6.8310 ⁰	...	7.510 ²	3.510 ⁴	2	0.54	43	Via	C	C5,5(SRb)
1729+17	IRC+20326	5.5910 ²	4.0810 ²	7.3710 ¹	2.2810 ¹	5.010 ³	1.610 ⁴	1	0.79	14	IIIa	O	M2(SR)
1731-49	CD-49 11554	1.8310 ¹	1.5110 ²	5.8710 ¹	1.7810 ¹	5.910 ²	...	...	...	5n	V	?	Be
1731-62	OH 329.8-15.8	2.5210 ²	2.9610 ²	7.3710 ¹	2.2510 ¹	2.610 ³	6.810 ³	2	1.22	31	IIIa	O	?
1733+15	MW Her	1.5410 ²	1.0110 ²	1.9010 ¹	6.1710 ⁰	1.410 ³	1.210 ⁴	1	0.91	29	IIIa	O	M8-9(M)
1737-30	17371-3021	1.1510 ²	9.5610 ¹	2.3410 ¹	...	1.110 ³	6.010 ³	2	1.29	42	IIIa	O?	?
1738-57	V Pav	1.1510 ²	4.0310 ¹	1.0410 ¹	5.1810 ⁰	9.210 ²	7.310 ³	2	1.17	45	VII	C	C6
1741-31	RAFGL 5379	1.2610 ³	2.7210 ³	1.3710 ³	4.0610 ²	1.810 ⁴	3.010 ⁴	1	0.58	3n	IIIb	O	?
1743+50	V814 Her	6.1210 ⁰	1.8410 ²	1.5210 ²	4.8710 ¹	7.110 ²	...	...	...	05	V	O	F3Ib
1743-15	OH 11.4+6.6	3.5410 ¹	3.5410 ¹	8.6710 ⁰	...	3.510 ²	2.710 ³	1	1.92	23	IIIa	O	?
1743-28	OH 0.3-0.2	...	...	...	...	...	...	...	...	...	...	O	?
1744-24	RAFGL 5385	4.2810 ¹	1.9110 ²	1.0710 ²	...	9.310 ²	...	...	...	50	V	?	?
1744-29	17443-2949	1.5810 ¹	3.9410 ¹	3.4510 ¹	...	2.610 ²	3.310 ²	2	5.53	39	IV	O	?
1744-40	17446-4048	2.5010 ²	1.2710 ²	2.2410 ¹	8.5310 ⁰	2.110 ³	4.210 ³	3	1.54	4n	IIIa	C	?
1744-78	17446-7809	4.2210 ²	1.9110 ²	4.0010 ¹	1.2310 ¹	3.510 ³	1.310 ⁴	2	0.86	43	VII	C	Ce
1746-19	NGC 6445	1.5010 ⁰	1.5010 ¹	4.4410 ¹	4.3210 ¹	1.010 ²	...	...	...	...	V	?	[PN]Ne
1749-25	17495-2534	2.8910 ¹	6.0610 ¹	1.8110 ¹	...	3.810 ²	5.710 ²	2	4.17	39	IIIb	O	?
1751-25	RAFGL 2023	1.7110 ²	1.3010 ²	...	...	...	...	...	...	4n	...	C	?
1753-33	AI Sco	1.7610 ¹	1.1410 ¹	2.9510 ⁰	...	1.610 ²	...	...	...	1n	VII	?	G4
1753-30	RAFGL 5416	1.9710 ²	2.2910 ²	7.0610 ¹	3.4510 ¹	2.010 ³	4.710 ³	1	1.46	21	IIIa	C	?
1753+26	89 Her	9.7510 ¹	5.4510 ¹	1.3410 ¹	6.0410 ⁰	8.410 ²	...	...	...	23	VII	O	F2Ibe(SRd)
1755+58	T Dra	1.9710 ²	6.6110 ¹	1.5810 ¹	5.6510 ⁰	1.610 ³	1.210 ⁴	1	0.91	45	VII	C	C6,2e(M)
1756-17	RAFGL 2047	5.9110 ¹	2.6810 ¹	6.2210 ⁰	...	4.910 ²	1.910 ³	2	2.31	44	VII	C	?
1758-22	17583-2201	5.1510 ¹	7.9710 ¹	2.9910 ¹	...	6.010 ²	1.210 ³	3	2.88	int	IIIb	C?	?
1804-09	FX Ser	2.1310 ²	8.5110 ¹	2.0610 ¹	...	1.710 ³	8.410 ³	2	1.09	44	VII	C	C(Lb)
1805-22	VX Sgr	2.7410 ³	1.3910 ³	2.6310 ²	8.2310 ¹	2.310 ⁴	6.010 ⁵	2	0.41	26	IIIa	O	[SG]M4Iae(SRb)
1808-33	NGC 6563	...	1.2610 ⁰	1.3610 ¹	2.0510 ¹	...	...	...	...	...	...	?	[PN]
1809+27	OH 53.8+20.2	4.5110 ¹	1.2610 ²	2.7810 ¹	5.6410 ⁰	6.810 ²	...	...	...	69	V	O	F3Ib
1810-14	18100-1420	4.8910 ¹	3.3710 ¹	...	...	...	7.210 ²	4	3.73	43	...	C	?
1811-05	M4-9	...	0.7710 ⁰	7.8310 ⁰	1.1310 ¹	...	...	...	...	...	...	?	[PN]
1816-12	18167-1209	...	1.3910 ¹	2.1310 ¹	...	...	...	...	...	...	...	O	?
1819-27	RAFGL 2135	6.8510 ²	2.6510 ²	7.0110 ¹	2.1510 ¹	5.510 ³	9.710 ³	1	1.02	43	VII	C	?
1819-16	18196-1608	2.5310 ¹	2.2310 ¹	...	...	...	5.710 ²	4	4.19	4no?	...	O	?

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l _{II}	b _{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1821-16	RAFGL 2143	...	...	...	2143	18 : 21 : 38.70	-16 : 17 : 45.0	18 : 24 : 31.84	-16 : 16 : 04.2	+015.4	-01.6	2d
1821-07	18218-0749	...	...	...	...	18 : 21 : 51.10	-07 : 49 : 14.0	18 : 24 : 33.94	-07 : 47 : 32.7	+022.9	+02.4	Pr3
1823-10	18232-1003	...	...	...	...	18 : 23 : 17.90	-10 : 03 : 31.0	18 : 26 : 03.39	-10 : 01 : 43.3	+021.1	+01.0	Pr3
1823-06	RAFGL 2154	...	...	...	2154	18 : 23 : 57.90	-06 : 55 : 55.0	18 : 26 : 39.68	-06 : 54 : 04.5	+024.0	+02.3	2d
1824+23	RAFGL 2155	...	...	...	2155	18 : 24 : 00.80	+23 : 27 : 01.0	18 : 26 : 05.69	+23 : 28 : 50.3	+051.6	+15.8	3c,3b
1824-08	18244-0815	...	...	...	...	18 : 24 : 24.00	-08 : 15 : 03.0	18 : 27 : 07.33	-08 : 13 : 10.6	+022.8	+01.6	Pr3
1824-08	18248-0839	...	...	...	...	18 : 24 : 49.70	-08 : 39 : 19.0	18 : 27 : 33.51	-08 : 37 : 24.7	+022.5	+01.3	3e
1826-12	18269-1257	...	...	...	...	18 : 26 : 57.90	-12 : 57 : 02.0	18 : 29 : 46.85	-12 : 54 : 58.2	+019.0	-01.2	3e
1827-14	OH 17.7-2.0	...	...	...	5497	18 : 27 : 39.77	-14 : 31 : 03.9	18 : 30 : 30.64	-14 : 28 : 57.0	+017.7	-02.0	1e
1827-47	18276-4717	...	...	...	...	18 : 27 : 37.70	-47 : 17 : 48.0	18 : 31 : 23.18	-47 : 15 : 39.3	-012.3	-16.4	3e
1828+21	AC Her	HD 170756	SAO 86134	...	...	18 : 28 : 08.90	+21 : 49 : 52.0	18 : 30 : 16.05	+21 : 51 : 59.4	+050.5	+14.2	2g,2a
1829-10	M3-28	PK 21-0.1	...	...	...	18 : 29 : 55.70	-10 : 08 : 07.0	18 : 32 : 41.24	-10 : 05 : 50.5	+021.8	-00.5	AA85
1830-06	18301-0656	...	...	...	...	18 : 30 : 08.70	-06 : 56 : 01.0	18 : 32 : 50.45	-06 : 53 : 43.7	+024.7	+01.0	Pr3
1830+36	T Lyr	CCS 2608	SAO 67087	+40321	2187	18 : 30 : 36.18	+36 : 57 : 38.9	18 : 32 : 20.06	+36 : 59 : 56.1	+065.3	+19.5	2a
1830-06	RAFGL 5502	18308-0503	...	...	5502	18 : 30 : 50.80	-05 : 03 : 27.0	18 : 33 : 30.36	-05 : 01 : 06.7	+026.4	+01.7	3e
1832-03	RAFGL 7012S	18320-0352	...	...	7012S	18 : 32 : 02.00	-03 : 52 : 40.0	18 : 34 : 40.18	-03 : 50 : 14.7	+027.6	+02.0	Pr3
1832-11	RAFGL 7015S	18325-1138	...	...	7015S	18 : 32 : 34.10	-11 : 38 : 31.0	18 : 35 : 21.42	-11 : 36 : 03.0	+020.8	-01.8	Pr3
1833+05	RAFGL 2199	...	...	...	2199	18 : 33 : 19.20	+05 : 33 : 16.0	18 : 35 : 46.48	+05 : 35 : 46.5	+036.1	+06.0	2d,2o
1834-05	OH 26.5+0.6	V437 Sct	...	...	2205	18 : 34 : 52.47	-05 : 26 : 37.1	18 : 37 : 32.46	-05 : 23 : 59.4	+026.5	+00.6	1e
1834+10	V1111 Oph	...	...	+10365	2206	18 : 34 : 57.70	+10 : 23 : 05.0	18 : 37 : 19.31	+10 : 25 : 42.4	+040.7	+07.8	1f
1835-09	18355-0921	...	...	...	...	18 : 35 : 32.10	-09 : 21 : 10.0	18 : 38 : 16.66	-09 : 18 : 29.3	+023.2	-01.3	Pr3
1836-04	18367-0452	...	...	...	...	18 : 36 : 44.10	-04 : 52 : 16.0	18 : 39 : 23.41	-04 : 49 : 30.3	+027.3	+00.5	Pr3
1837-10	18369-1034	...	...	...	...	18 : 37 : 00.00	-10 : 34 : 51.0	18 : 39 : 46.00	-10 : 32 : 03.9	+022.2	-02.2	Pr3
1837-07	18374-0724	...	...	...	...	18 : 37 : 29.40	-07 : 24 : 23.0	18 : 40 : 11.66	-07 : 21 : 33.9	+025.1	-00.9	Pr3
1839+17	IRC+20370	V821 Her	NSV 11225	+20370	2232	18 : 39 : 41.60	+17 : 38 : 11.0	18 : 41 : 54.39	+17 : 41 : 08.5	+047.8	+10.0	2m
1839-02	IRC+00365	CCS 2642	NSV 11233	+00365	2233	18 : 39 : 48.30	-02 : 20 : 24.0	18 : 42 : 24.68	-02 : 17 : 25.2	+029.9	+01.0	2m
1840-07	18400-0704	...	...	...	...	18 : 40 : 03.30	-07 : 04 : 11.0	18 : 42 : 45.15	-07 : 01 : 10.9	+025.7	-01.3	Pr3
1840+28	FI Lyr	BD+28 3059	...	+30340	2236	18 : 40 : 07.41	+28 : 54 : 30.1	18 : 42 : 04.79	+28 : 57 : 28.9	+058.3	+14.6	simbad
1841+13	IRC+10374	NSV 11263	...	+10374	2241	18 : 41 : 18.90	+13 : 54 : 18.0	18 : 43 : 36.33	+13 : 57 : 22.6	+044.6	+08.0	2k
1841-05	18414-0527	...	...	...	...	18 : 41 : 28.90	-05 : 27 : 27.0	18 : 44 : 08.87	-05 : 24 : 20.9	+027.3	-00.8	Pr3
1841-01	18417-0103	...	...	...	...	18 : 41 : 41.80	-01 : 03 : 33.0	18 : 44 : 16.71	-01 : 00 : 26.1	+031.2	+01.1	Pr3
1842+03	18424+0346	...	...	...	...	18 : 42 : 29.20	+03 : 46 : 25.0	18 : 44 : 58.57	+03 : 49 : 35.1	+035.6	+03.2	3e
1844-05	R Sct	HD 173819	SAO 142620	-10461	5296S	18 : 44 : 48.70	-05 : 45 : 35.0	18 : 47 : 29.00	-05 : 42 : 14.6	+027.4	-01.7	2g,2a

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4πlpc ² F _{IRAS} (L _⊙)	4πlpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1821-16	RAFGL 2143	1.3510 ²	1.7510 ²	5.0110 ¹	...	1.510 ³	3.210 ³	2	1.77	3n?	IIIb	O?	?
1821-07	18218-0749	2.4610 ¹	1.3110 ¹	4.3610 ⁰	...	2.110 ²	3.010 ³	4	1.83	13	VII	O	?
1823-10	18232-1003	1.6010 ¹	1.5710 ¹	1.0610 ¹	...	1.710 ²	1.210 ³	4	2.89	25	VIIb	O	?
1823-06	RAFGL 2154	2.2110 ²	1.2710 ²	3.0510 ¹	...	1.910 ³	4.110 ³	1	1.56	43	VII	C	C
1824+23	RAFGL 2155	7.3110 ²	4.4910 ²	8.8810 ¹	2.4610 ¹	6.410 ³	1.010 ⁴	1	1.00	42	VII	C	C
1824-08	18244-0815	3.9110 ¹	2.3210 ¹	5.3110 ⁰	...	3.410 ²	9.410 ²	4	3.26	4n	VII	C	?
1824-08	18248-0839	1.5310 ²	1.2110 ²	2.6710 ¹	...	1.410 ³	2.810 ³	3	1.88	43	IIIa	C	?
1826-12	18269-1257	7.1710 ¹	5.4110 ¹	1.4310 ¹	...	6.610 ²	1.310 ³	3	2.76	43	IIIa	C	?
1827-14	OH 17.7-2.0	2.2610 ¹	1.3210 ²	1.2010 ²	3.8610 ¹	6.510 ²	...	...	...	05	V	O	?
1827-47	18276-4717	2.5010 ²	8.5010 ¹	1.7110 ¹	5.1310 ⁰	2.010 ³	1.810 ⁴	2	0.74	44	VII	C	?
1828+21	AC Her	4.1410 ¹	6.5310 ¹	2.1410 ¹	8.0410 ⁰	4.810 ²	...	...	...	25	IIIb	O	F4Ibpvar(RVa)
1829-10	M3-28	...	2.5610 ⁰	4.6910 ¹	...	...	...	...	...	...	...	?	[PN]
1830-06	18301-0656	3.7510 ¹	2.2010 ¹	7.2510 ⁰	...	3.310 ²	3.110 ³	4	1.80	42	VII	C	?
1830+36	T Lyr	9.2410 ¹	3.1110 ¹	5.8610 ⁰	2.6610 ⁰	7.310 ²	7.110 ³	2	1.18	04,4n	II	C	C6.5J(Lb)
1830-06	RAFGL 5502	2.8310 ¹	1.6210 ²	6.7710 ²	...	1.510 ³	...	...	...	...	VIII	?	?
1832-03	RAFGL 7012S	5.7010 ¹	6.1910 ¹	1.3810 ¹	...	5.710 ²	1.110 ³	4	3.02	42	IIIa	C	?
1832-11	RAFGL 7015S	3.0010 ¹	2.1110 ¹	3.2610 ⁰	...	2.710 ²	1.910 ³	4	2.29	25	IIIa	O	?
1833+06	RAFGL 2199	2.9910 ²	3.1710 ²	7.6510 ¹	2.1510 ¹	3.010 ³	1.010 ⁴	1	1.00	42,4no	IIIa	O	?
1834-06	OH 26.5+0.6	3.6010 ²	6.3410 ²	4.6310 ²	...	4.710 ³	1.110 ⁴	1	0.95	3n	IV	O	M
1834+10	V1111 Oph	7.2010 ²	3.1910 ²	6.5910 ¹	2.2710 ¹	5.910 ³	3.110 ⁴	1	0.57	26	VII	O	M4III(M)
1835-09	18355-0921	1.8510 ¹	1.5310 ¹	6.8610 ⁰	2.6010 ¹	1.810 ²	2.910 ³	4	1.86	29	VIIb	O	?
1836-04	18367-0452	7.3010 ¹	5.9310 ¹	2.3510 ¹	...	6.910 ²	1.610 ³	4	2.50	42	IIIa	C	?
1837-10	18369-1034	3.0910 ¹	2.6110 ¹	6.9610 ⁰	...	2.910 ²	6.610 ²	4	3.89	42	IIIa	C	?
1837-07	18374-0724	1.7610 ¹	1.3110 ¹	...	...	...	1.010 ³	4	3.16	2n	...	O	?
1839+17	IRC+20370	5.3410 ²	2.3910 ²	6.0110 ¹	2.0510 ¹	4.410 ³	2.810 ⁴	1	0.60	43	VII	C	Ce
1839-02	IRC+00365	5.6010 ²	2.4510 ²	5.2110 ¹	...	4.610 ³	1.210 ⁴	1	0.91	42	VII	C	C
1840-07	18400-0704	3.2410 ¹	2.5210 ¹	6.2910 ⁰	...	3.010 ²	4.410 ²	4	4.77	42	IIIa	C	?
1840+26	FI Lyr	9.3410 ¹	5.4810 ¹	7.2310 ⁰	1.5710 ⁰	8.010 ²	1.310 ⁴	2	0.88	41,2n	IIIa	O	M1
1841+13	IRC+10374	2.2510 ²	1.5210 ²	2.1610 ¹	6.9410 ⁰	2.010 ³	1.310 ⁴	1	0.88	29	IIIa	O	M8III
1841-06	18414-0527	3.5010 ¹	2.3110 ¹	5.2010 ⁰	...	3.110 ²	1.510 ³	4	2.58	25	VII	O	?
1841-01	18417-0103	3.5510 ¹	3.3010 ¹	...	...	...	8.810 ²	4	3.37	25	...	O	?
1842+03	18424+0346	5.2210 ¹	2.5410 ¹	6.5310 ⁰	...	4.410 ²	1.610 ³	2	2.54	44	VII	C	?
1844-05	R Sct	2.0810 ¹	9.2610 ⁰	8.2010 ⁰	...	1.810 ²	...	...	...	19	VIa	?	K0lab-Ibp(RVa)

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1980} (7)	δ_{1980} (8)	α_{2000} (9)	δ_{2000} (10)	l_{II} (11)	b_{II} (12)	pos.ref. (13)
1846-02	OH 30.1-0.7	V1362 Aql	...	...	5535	18 : 46 : 04.91	-02 : 53 : 54.1	18 : 48 : 41.91	-02 : 50 : 28.3	+030.1	-00.7	lg,lp
1846-46	OH 348.2-19.7	18467-4802	...	...	...	18 : 46 : 42.90	-48 : 02 : 42.0	18 : 50 : 29.21	-47 : 59 : 11.0	-011.8	-19.7	3e
1847+09	RAFGL 2259	...	...	...	2259	18 : 47 : 31.60	+09 : 26 : 39.0	18 : 49 : 54.43	+09 : 30 : 10.4	+041.2	+04.7	2d
1847-07	S Sct	CCS 2666	HD 174325	-10467	2260	18 : 47 : 37.09	-07 : 57 : 59.3	18 : 50 : 19.92	-07 : 54 : 26.8	+025.8	-03.4	2a
1848+00	18482+0051	...	...	...	...	18 : 48 : 16.70	+00 : 51 : 33.0	18 : 50 : 49.41	+00 : 55 : 08.0	+033.7	+00.6	Pr3
1849-00	18491-0008	...	...	...	...	18 : 49 : 10.30	-00 : 08 : 45.0	18 : 51 : 44.16	-00 : 06 : 06.1	+032.9	-00.1	Pr3
1849-03	18496-0333	...	...	...	...	18 : 49 : 38.30	-03 : 33 : 32.0	18 : 52 : 16.04	-03 : 29 : 51.0	+029.9	-01.8	Pr3
1849-00	OH 32.8-0.3	V1365 Aql	...	...	5540	18 : 49 : 48.16	-00 : 17 : 55.5	18 : 52 : 22.19	-00 : 14 : 13.9	+032.8	-00.3	1e
1849-00	18499-0021	...	...	...	...	18 : 49 : 55.40	-00 : 21 : 33.0	18 : 52 : 29.50	-00 : 17 : 50.9	+032.8	-00.4	Pr3
1850-01	18501-0134	...	...	...	...	18 : 50 : 11.10	-01 : 34 : 40.0	18 : 52 : 46.58	-01 : 30 : 56.8	+031.7	-01.0	Pr3
1851+32	Ring Neb.	PK 63+13.1	NGC 6720	...	...	18 : 51 : 43.70	+32 : 57 : 56.2	18 : 53 : 35.18	+33 : 01 : 44.5	+063.2	+14.0	AA22
1852+00	18522+0032	...	...	...	...	18 : 52 : 12.50	+00 : 32 : 09.0	18 : 54 : 45.58	+00 : 36 : 00.8	+033.8	-00.5	Pr3
1853+06	18530+0817	EIC 719	...	...	...	18 : 53 : 00.90	+08 : 17 : 16.0	18 : 55 : 25.13	+08 : 21 : 10.9	+040.8	+02.9	Pr3
1855+04	IRC+00402	...	...	+00402	2288	18 : 55 : 55.60	+04 : 35 : 49.0	18 : 58 : 24.08	+04 : 39 : 56.4	+037.9	+00.6	2m
1856-39	IRC-30398	V3953 Sgr	...	-30398	2289	18 : 56 : 03.10	-29 : 54 : 31.0	18 : 59 : 14.00	-29 : 50 : 21.6	+006.6	-14.7	3e
1856+06	OH 39.7+1.5	V1366 Aql	...	...	2290	18 : 56 : 03.98	+06 : 38 : 49.8	18 : 58 : 30.02	+06 : 42 : 57.7	+039.7	+01.5	1e
1856+09	18565+0900	...	...	...	...	18 : 58 : 30.30	+09 : 00 : 45.0	19 : 00 : 53.74	+09 : 05 : 03.1	+042.1	+02.0	Pr3
1859-39	RS CrA	...	...	...	5552	18 : 59 : 34.50	-39 : 47 : 22.0	19 : 03 : 01.83	-39 : 42 : 57.1	-002.7	-19.0	3e
1900-22	SU Sgr	HD 177017	SAO 187624	-20534	2309	19 : 00 : 43.06	-22 : 47 : 10.5	19 : 03 : 43.78	-22 : 42 : 41.7	+013.7	-12.7	1a
1900-38	RAFGL 5553	19007-3826	...	...	5553	19 : 00 : 45.90	-38 : 26 : 38.0	19 : 04 : 10.64	-38 : 22 : 08.2	-001.3	-18.8	3e
1900+07	IRC+10401	CCS 2694	NSV 11689	+10401	2310	19 : 00 : 53.00	+07 : 26 : 19.0	19 : 03 : 18.28	+07 : 30 : 47.2	+041.0	+00.8	2m
1901-05	V Aql	CCS 2695	HD 177336	-10486	2314	19 : 01 : 43.95	-05 : 45 : 38.2	19 : 04 : 24.12	-05 : 41 : 05.9	+029.3	-05.5	2a
1902+06	19029+0839	...	...	...	...	19 : 02 : 57.20	+08 : 39 : 22.0	19 : 05 : 21.10	+08 : 43 : 58.9	+042.3	+00.9	Pr3
1902+06	RAFGL 2316	19029+0808	...	...	2316	19 : 02 : 58.20	+08 : 08 : 28.0	19 : 05 : 22.69	+08 : 13 : 05.0	+041.8	+00.7	2d
1903+06	R Aql	OH 42.0+0.5	HD 177940	+10406	2324	19 : 03 : 57.69	+08 : 09 : 07.9	19 : 06 : 22.18	+08 : 13 : 49.1	+042.0	+00.5	li,ln,1e
1905+09	19052+0922	...	...	...	...	19 : 05 : 15.80	+09 : 22 : 30.0	19 : 07 : 38.91	+09 : 27 : 16.6	+043.2	+00.7	Pr3
1908-22	V3880 Sgr	...	...	-20540	2330	19 : 05 : 54.70	-22 : 19 : 10.0	19 : 08 : 54.62	-22 : 14 : 19.4	+014.7	-13.6	3e
1908+05	19068+0544	...	...	...	...	19 : 06 : 48.10	+05 : 44 : 13.0	19 : 09 : 15.36	+05 : 49 : 06.2	+040.1	-01.3	3e
1907+09	RAFGL 2333	19075+0921	...	...	2333	19 : 07 : 34.00	+09 : 21 : 56.0	19 : 09 : 57.15	+09 : 26 : 52.2	+043.4	+00.2	3e
1908-32	V342 Sgr	...	...	-30404	5556	19 : 09 : 20.90	-32 : 56 : 06.0	19 : 12 : 35.78	-32 : 51 : 00.6	+004.8	-18.4	3e
1911+00	RAFGL 2343	SAO 124414	HD 179821	...	2343	19 : 11 : 24.90	+00 : 02 : 19.0	19 : 13 : 58.53	+00 : 07 : 31.6	+035.6	-05.0	2o
1911+07	19114+0743	...	...	...	...	19 : 11 : 27.10	+07 : 43 : 09.0	19 : 13 : 52.17	+07 : 48 : 21.5	+042.4	-01.4	Pr3
1912-07	W Aql	SAO 143184	...	-10497	2349	19 : 12 : 41.60	-07 : 08 : 08.0	19 : 15 : 23.21	-07 : 02 : 49.8	+029.3	-08.5	2g,2a

Table 2. continued

n°	name1	S ₁₂ (Jy)	S _{2s} (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	471kpc ² F _{iras} (L _⊙)	471kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1846-02	OH 30.1-0.7	1.1110 ²	2.8010 ²	2.3710 ²	...	1.810 ³	2.010 ³	1	2.24	3n	IV	O	?
1846-48	OH 348.2-19.7	2.8510 ²	3.4310 ²	7.2010 ¹	2.2810 ¹	3.010 ³	7.410 ³	2	1.16	22	IIIb	O	?
1847+09	RAFGL 2259	2.2310 ²	1.2510 ²	2.5810 ¹	7.6710 ⁰	1.910 ³	4.410 ³	1	1.51	42	VII	C	C
1847-07	S Sct	6.5310 ¹	1.7310 ¹	9.2810 ⁰	1.4110 ¹	5.110 ²	2.610 ⁴	2	0.62	1n	VIa	C	C6.4(SR)
1848+00	18482+0051	2.7310 ¹	2.2510 ¹	...	...	...	1.210 ³	4	2.89	13,?	...	O?	?
1849-00	18491-0008	3.2810 ¹	2.7910 ¹	...	8.1110 ¹	...	...	...	...	4n?	...	C?	?
1849-03	18496-0333	3.5210 ¹	2.3710 ¹	...	...	...	2.610 ³	4	1.96	2n	...	O	?
1849-00	OH 32.8-0.3	2.2910 ¹	6.5810 ¹	...	...	...	1.410 ³	1	2.67	3n	...	O	?
1849-00	18499-0021	2.5810 ¹	2.1310 ¹	...	...	...	4.710 ²	4	4.61	?	...	O?	?
1850-01	18501-0134	2.4810 ¹	1.2910 ¹	...	...	...	...	...	...	26	...	O	?
1851+32	Ring Neb.	0.8210 ⁰	1.0110 ¹	5.2310 ¹	5.4610 ¹	9.610 ¹	...	...	...	...	V	?	[PN]
1852+00	18522+0032	2.9010 ¹	2.7010 ¹	9.5910 ⁰	...	2.810 ²	...	...	...	?	IIIa	?	?
1853+08	18530+0817	4.3810 ¹	3.4210 ¹	5.7710 ⁰	...	4.010 ²	2.710 ³	2	1.92	04,2n	IIIa	O	?
1855+04	IRC+00402	8.8210 ¹	4.6210 ¹	2.0410 ¹	...	7.610 ²	...	...	...	...	VIIb	?	M2redd.
1856-29	IRC-30398	6.4110 ²	3.3110 ²	6.3710 ¹	1.9910 ¹	5.410 ³	...	...	...	27	VII	O	M9
1856+06	OH 39.7+1.5	2.7410 ²	3.3210 ²	1.0110 ²	...	2.910 ³	7.510 ³	1	1.15	34	IIIb	O	?
1858+09	18585+0900	5.6810 ¹	6.3510 ¹	1.4410 ¹	...	5.810 ²	1.310 ³	4	2.77	41,4no	IIIa	O	?
1859-39	RS CrA	1.7010 ³	8.1310 ²	1.1910 ²	3.6310 ¹	1.410 ⁴	1.310 ⁵	1	0.28	26	II	O	M
1900-22	SU Sgr	1.2210 ²	5.5010 ¹	1.6710 ¹	9.6610 ⁰	1.010 ³	...	...	...	16,2n	VII	O	M7III
1900-38	RAFGL 5553	1.5310 ²	1.0110 ²	2.6610 ¹	9.0810 ⁰	1.410 ³	...	...	...	24	VII	O	?
1900+07	IRC+10401	4.5410 ²	1.8210 ²	3.7310 ¹	...	3.710 ³	2.210 ⁴	1	0.67	43	VII	C	C
1901-05	V Aql	1.5010 ²	3.8010 ¹	1.1410 ¹	5.7810 ⁰	1.210 ³	8.210 ⁴	2	0.35	42	VIa	C	C5.4(SRb)
1902+08	19029+0839	1.8610 ¹	1.0910 ¹	...	...	...	2.510 ³	4	2.00	16,4n	...	C	?
1902+08	RAFGL 2316	8.0610 ¹	6.2210 ¹	1.7910 ¹	...	7.410 ²	1.510 ³	3	2.59	42	IIIa	C	?
1903+08	R Aql	4.0210 ²	2.4510 ²	...	...	...	1.210 ⁵	1	0.29	23	...	O	M6.5e(M)
1906+09	19052+0922	2.4810 ¹	1.8710 ¹	5.2510 ⁰	...	2.310 ²	6.310 ²	4	3.98	2n	IIIa	O	?
1906-22	V3880 Sgr	2.9010 ²	2.1210 ²	3.4010 ¹	1.0810 ¹	2.610 ³	1.210 ⁴	1	0.91	28	IIIa	O	M8:
1906+05	19068+0544	4.7310 ¹	2.2110 ¹	7.4210 ⁰	...	4.010 ²	1.510 ³	2	2.62	45	VII	C	?
1907+09	RAFGL 2383	1.3310 ²	1.6410 ²	5.4910 ¹	...	1.410 ³	2.810 ³	3	1.88	12	IIIb	C?	?
1909-32	V342 Sgr	3.1910 ²	2.1010 ²	3.3110 ¹	1.0410 ¹	2.810 ³	3.210 ⁴	2	0.56	28	IIIa	O	M9
1911+00	RAFGL 2343	3.1310 ¹	6.4810 ²	5.1610 ²	1.6810 ²	2.510 ³	...	...	...	...	V	O	G5
1911+07	19114+0743	1.0610 ¹	6.9010 ⁰	1.4510 ⁰	...	9.310 ¹	6.010 ²	4	4.08	2n	VII	O	?
1912-07	W Aql	1.5810 ³	6.7010 ²	1.1210 ²	3.6010 ¹	1.310 ⁴	5.010 ⁴	1	0.45	22	II	S	S3.9e(M)

Table 1. continued

n _o	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l _{II}	b _{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1915-17	RAFGL 2361	...	...	...	2361	19: 15: 46.50	-17: 06: 36.0	19: 18: 39.58	-17: 01: 04.7	+020.5	-13.6	3c
1916+23	RAFGL 2362	...	...	...	2362	19: 16: 08.63	+23: 43: 57.0	19: 18: 14.57	+23: 49: 28.2	+057.1	+05.1	1k
1916-16	V1942 Sgr	CCS 2721	HD 180953	-20554	2363	19: 16: 17.82	-16: 00: 03.0	19: 19: 09.56	-15: 54: 29.6	+021.6	-13.2	2a
1917-08	IRC-10502	NSV 11912	...	-10502	2368	19: 17: 35.30	-08: 07: 49.0	19: 20: 17.96	-08: 02: 10.6	+029.0	-10.0	2m
1917-26	RAFGL 2370	...	...	...	2370	19: 17: 51.50	-26: 20: 22.0	19: 20: 56.28	-26: 14: 41.7	+012.0	-17.7	2d
1919+09	OH 44.8-2.3	...	...	...	2374	19: 19: 13.20	+09: 22: 12.0	19: 21: 36.52	+09: 27: 56.5	+044.8	-02.3	1p
1921+09	Vy 2-2	PK 45-2.1	MI-70	...	...	19: 21: 59.10	+09: 47: 58.0	19: 24: 21.98	+09: 53: 53.8	+045.5	-02.7	3e
1923+76	UX Dra	CCS 2738	HD 183556	+80036	2384	19: 23: 22.41	+76: 27: 41.7	19: 21: 35.43	+76: 33: 34.7	+108.3	+24.6	2a
1924+11	IRC+10420	V1302 Aql	...	+10420	2390	19: 24: 26.74	+11: 15: 10.9	19: 26: 48.03	+11: 21: 16.7	+047.1	-02.5	1e
1924-17	IRC-20563	19247-1722	...	-20563	2391	19: 24: 47.50	-17: 22: 07.0	19: 27: 40.60	-17: 15: 58.7	+021.2	-15.6	3e
1928+19	OH 55.0+0.7	19283+1944	...	...	2403	19: 28: 18.00	+19: 44: 19.0	19: 30: 29.49	+19: 50: 40.1	+054.9	+00.7	3e
1931-16	AQ Sgr	CCS 2744	HD 184283	-20568	2416	19: 31: 27.10	-16: 29: 02.2	19: 34: 18.93	-16: 22: 27.0	+022.7	-16.7	2a
1932+27	V1129 Cyg	NSV 12165	...	+30374	2417	19: 32: 08.80	+27: 57: 30.0	19: 34: 09.87	+28: 04: 06.3	+062.6	+04.0	2m
1932+30	BD+30 3639	PK 64+5.1	Campbell's star	...	4251	19: 32: 47.50	+30: 24: 20.6	19: 34: 45.17	+30: 30: 59.3	+064.8	+05.0	1a
1934+29	MI-92	Min Footprint	...	...	...	19: 34: 19.25	+29: 26: 07.5	19: 36: 18.41	+29: 32: 52.4	+064.1	+04.3	2n
1934+12	19346+1209	...	...	...	...	19: 34: 39.10	+12: 09: 52.0	19: 36: 59.60	+12: 16: 38.9	+049.1	-04.3	3e
1935+50	R Cyg	HD 185456	SAO 31822	+50301	2422	19: 35: 28.69	+50: 05: 11.7	19: 36: 49.32	+50: 11: 60.0	+082.7	+13.8	2e,2a
1939+32	TT Cyg	CCS 2773	HD 186047	+30382	2432	19: 39: 01.90	+32: 30: 02.2	19: 40: 56.96	+32: 37: 05.7	+067.3	+04.9	2a
1945+29	19454+2920	...	...	...	...	19: 45: 24.20	+29: 20: 43.0	19: 47: 24.25	+29: 28: 11.8	+065.2	+02.1	3e
1947-07	GY Aql	...	...	-10524	2461	19: 47: 24.61	-07: 44: 30.8	19: 50: 06.35	-07: 36: 52.8	+032.7	-16.5	1n
1947+31	HD 331319	19475+3119	...	...	...	19: 47: 32.00	+31: 19: 38.0	19: 49: 29.44	+31: 27: 15.0	+067.2	+02.7	3e
1947+24	19477+2401	...	...	...	...	19: 47: 47.30	+24: 01: 13.0	19: 49: 54.46	+24: 08: 51.3	+060.9	-01.1	3e
1948+25	19480+2504	...	...	...	...	19: 48: 02.00	+25: 04: 16.0	19: 50: 07.86	+25: 11: 55.2	+061.8	-00.6	3e
1948+32	χ Cyg	HD 187796	SAO 68943	+30395	2465	19: 48: 38.53	+32: 47: 09.9	19: 50: 33.95	+32: 54: 51.2	+068.5	+03.3	1n,1l
1950-17	HD 187885	SAO 163075	...	...	...	19: 50: 00.75	-17: 09: 38.5	19: 52: 52.64	-17: 01: 50.1	+024.0	-21.0	2a,2o
1954+30	RAFGL 2477	...	...	...	2477	19: 54: 49.20	+30: 35: 54.0	19: 56: 48.26	+30: 43: 59.2	+067.3	+01.0	3c
1955-02	RR Aql	HD 188915	...	+00458	2479	19: 55: 00.31	-02: 01: 17.5	19: 57: 36.03	-01: 53: 10.4	+038.9	-15.6	1i,1n,1e,1f
1959+40	RAFGL 2494	...	...	...	2494	19: 59: 24.80	+40: 47: 18.0	20: 01: 08.51	+40: 55: 40.2	+076.5	+05.6	3c
2000+32	20000+3239	...	...	...	...	20: 00: 02.80	+32: 39: 07.0	20: 01: 59.44	+32: 47: 32.0	+069.7	+01.2	3e
2002+39	20028+3910	...	...	...	...	20: 02: 48.00	+39: 10: 03.0	20: 04: 34.91	+39: 18: 38.0	+075.5	+04.2	3e
2003-27	V1943 Sgr	HD 190643	SAO 188923	-30425	2508	20: 03: 51.92	-27: 22: 09.2	20: 06: 55.09	-27: 13: 27.8	+014.8	-27.7	2a
2004-42	V2234 Sgr	20042-4241	...	...	5578	20: 04: 15.70	-42: 41: 05.0	20: 07: 41.84	-42: 32: 21.4	-002.3	-31.5	3e
2007+31	RAFGL 2513	...	...	...	2513	20: 07: 15.00	+31: 16: 52.0	20: 09: 14.22	+31: 25: 44.0	+069.4	-00.9	3c

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	471kpc ² F _{res} (L _⊙)	471kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
1915-17	RAFGL 2361	1.3610 ²	8.8910 ¹	1.4810 ¹	4.2610 ⁰	1.210 ³	1.410 ⁴	2	0.85	28	IIIa	O	?
1916+23	RAFGL 2362	1.1210 ²	1.3710 ²	3.1010 ¹	8.0810 ⁰	1.210 ³	2.410 ³	1	2.04	31	IIIb	O	M
1916-16	V1942 Sgr	3.0010 ¹	7.8310 ⁰	3.7110 ⁰	6.2810 ⁰	2.310 ²	1.310 ⁴	2	0.88	18	VIa	C	C6,4(Lb)
1917-08	IRC-10502	3.8410 ²	1.9310 ²	4.7910 ¹	1.5610 ¹	3.210 ³	1.810 ⁴	1	0.75	43	VII	C	Ce
1917-26	RAFGL 2370	7.8910 ¹	9.6910 ¹	2.4310 ¹	8.0410 ⁰	8.310 ²	2.010 ³	2	2.24	26	IIIb	O	M9
1919+09	OH 44.8-2.3	1.2710 ²	1.5510 ²	4.1410 ¹	9.7810 ⁰	1.310 ³	5.910 ³	1	1.30	31	IIIb	O	?
1921+09	Vy 2-2	1.5410 ¹	9.4210 ¹	4.2610 ¹	1.0310 ¹	4.110 ²	...	...	...	69	V	O	[PN]Be
1923+76	UX Dra	6.6410 ¹	1.9410 ¹	4.7410 ⁰	3.8210 ⁰	5.210 ²	1.210 ⁴	2	0.90	23,1n	VII	C	C7,3(SRb)
1924+11	IRC+10420	1.3510 ³	2.3110 ³	7.1810 ²	1.8610 ²	1.610 ⁴	...	...	...	28	IIIb	O	F8Ia:
1924-17	IRC-20563	8.9710 ¹	5.1210 ¹	9.2910 ⁰	5.0410 ⁰	7.710 ²	1.410 ⁴	2	0.86	23	IIIa	O	M8
1928+19	OH 55.0+0.7	8.8510 ¹	1.7910 ²	8.8210 ¹	...	1.210 ³	1.710 ³	2	2.39	39	IIIb	O	?
1931-16	AQ Sgr	5.6610 ¹	1.8710 ¹	5.6910 ⁰	5.8810 ⁰	4.510 ²	4.810 ³	2	1.44	43	VII	C	C7,4(SRb)
1932+27	V1129 Cyg	3.2510 ²	1.7010 ²	3.9010 ¹	1.3510 ¹	2.710 ³	1.610 ⁴	1	0.79	43	VII	C	C(M)
1932+30	BD+30 3639	8.9410 ¹	2.3510 ²	1.6210 ²	7.0110 ¹	1.410 ³	...	...	...	81,pah	IV	C	[PN]WC9
1934+29	M1-92	1.7510 ¹	5.9810 ¹	1.1810 ²	6.8010 ¹	4.210 ²	...	...	...	7n?	VIII	?	[PN]
1934+12	19346+1209	2.8810 ¹	1.6910 ¹	4.3510 ⁰	...	2.510 ²	8.010 ²	2	3.53	43	VII	C	?
1935+50	R Cyg	1.0510 ²	5.2210 ¹	1.1910 ¹	5.6010 ⁰	8.810 ²	2.410 ⁴	1	0.65	22	VII	S	S3,9e(M)
1939+32	TT Cyg	1.5810 ¹	4.1710 ⁰	3.4510 ⁰	4.4110 ⁰	1.210 ²	6.310 ³	2	1.26	17	VIa	C	C5,4(SRb)
1945+29	19454+2920	1.7310 ¹	8.9610 ¹	5.4410 ¹	1.4710 ¹	4.210 ²	...	...	...	05	V	C	?
1947-07	GY Aql	4.6110 ²	2.7210 ²	4.7310 ¹	1.7210 ¹	4.010 ³	3.410 ⁴	1	0.54	28	IIIa	O	M6e(SR)
1947+31	HD 331319	0.5410 ⁰	3.8010 ¹	5.5810 ¹	1.4810 ¹	1.710 ²	...	...	...	?	V	?	F3Ib
1947+24	19477+2401	1.1210 ¹	5.4910 ¹	2.7110 ¹	...	2.610 ²	...	...	...	5n,kvh?	V	C?	?
1948+25	19480+2504	2.0810 ¹	6.7910 ¹	4.3210 ¹	...	3.810 ²	...	...	...	01,int	IV	C	?
1948+32	χ Cyg	1.6910 ³	4.5910 ²	8.0710 ¹	1.7710 ¹	1.310 ⁴	4.410 ⁵	1	0.15	2n	I	S	S7,2e(M)
1950-17	HD 187885	2.7810 ¹	1.6510 ²	7.3410 ¹	1.8210 ¹	7.210 ²	...	...	...	05	V	?	F2/3Iab+A
1954+30	RAFGL 2477	7.5110 ¹	1.0910 ²	4.6710 ¹	1.4210 ¹	8.610 ²	1.710 ³	3	2.41	21	IIIb	C	?
1955-02	RR Aql	3.3210 ²	1.5110 ²	2.7610 ¹	1.0110 ¹	2.710 ³	5.610 ⁴	1	0.42	27	II	O	M7e(M)
1959+40	RAFGL 2494	3.3810 ²	2.6010 ²	5.9910 ¹	1.7410 ¹	3.110 ³	7.510 ³	1	1.15	42	IIIa	C	C
2000+32	20000+3239	1.5010 ¹	7.1010 ¹	3.0010 ¹	...	3.310 ²	...	...	...	5n,kvh?	V	C	?
2002+39	20028+3910	4.1810 ¹	2.1110 ²	1.4310 ²	4.6510 ¹	1.010 ³	...	...	...	50	V	?	?
2003-27	V1943 Sgr	3.9510 ²	1.5210 ²	2.8410 ¹	1.3610 ¹	3.210 ³	2.010 ⁵	2	0.22	15	II	O	M8(Lb)
2004-42	V2234 Sgr	2.2110 ²	1.5810 ²	2.8110 ¹	8.9810 ⁰	2.010 ³	1.710 ⁴	2	0.76	28	IIIa	O	?
2007+31	RAFGL 2513	1.7310 ²	9.5610 ¹	2.4410 ¹	2.0810 ¹	1.510 ³	4.910 ³	2	1.43	43	VII	C	?

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1950} (7)	δ_{1950} (8)	α_{2000} (9)	δ_{2000} (10)	l _{II} (11)	b _{II} (12)	pos.ref. (13)
2007-60	X Pav	HD 191171	SAO 254747	...	...	20 : 07 : 37.70	-60 : 05 : 24.0	20 : 11 : 49.17	-59 : 56 : 26.5	-022.9	-33.2	2g
2007-06	V1300 Aql	...	...	-10529	2514	20 : 07 : 47.40	-06 : 25 : 11.0	20 : 10 : 27.41	-06 : 16 : 15.7	+036.4	-20.4	3e
2013-44	RZ Sgr	HD 192194	CPD-44 9765	...	...	20 : 12 : 00.30	-44 : 33 : 48.0	20 : 15 : 28.79	-44 : 24 : 35.8	-004.3	-33.2	3e
2013-71	NSV 12961	20135-7152	...	...	...	20 : 13 : 35.60	-71 : 52 : 53.0	20 : 18 : 57.70	-71 : 43 : 31.5	-036.9	-32.5	3e
2014-21	RT Cap	CCS 2882	HD 192737	-20585	2542	20 : 14 : 11.00	-21 : 28 : 23.0	20 : 17 : 06.45	-21 : 19 : 03.8	+021.9	-27.9	2m
2023-13	OH 30.7-27.1	20234-1357	...	...	...	20 : 23 : 25.90	-13 : 57 : 50.0	20 : 26 : 12.95	-13 : 47 : 58.0	+030.7	-27.1	3e
2024-75	UU Dra	HD 195351	SAO 9757	+80040	2581	20 : 24 : 53.81	+75 : 05 : 21.6	20 : 24 : 03.66	+75 : 15 : 12.4	+108.5	+20.6	2e
2024-28	T Mic	HD 194676	SAO 189308	-30430	5587	20 : 24 : 52.53	-28 : 25 : 39.2	20 : 27 : 55.19	-28 : 15 : 41.6	+015.2	-32.4	2a
2026-21	OH 63.3-10.2	20267+2105	...	...	...	20 : 26 : 43.80	+21 : 05 : 32.0	20 : 28 : 56.84	+21 : 15 : 34.6	+063.3	-10.2	3e
2039-47	V Cyg	CCS 2923	SAO 49940	+50338	2632	20 : 39 : 41.42	+47 : 57 : 43.2	20 : 41 : 18.30	+48 : 08 : 29.1	+086.5	+03.8	1n
2043-38	20435+3825	...	...	...	...	20 : 43 : 30.40	+38 : 25 : 24.0	20 : 45 : 24.06	+38 : 36 : 23.0	+079.5	-02.7	3e
2044-01	FP Aqr	NSV 13284	...	+00490	2646	20 : 44 : 01.90	-01 : 05 : 13.0	20 : 46 : 36.50	-00 : 54 : 11.1	+046.1	-25.8	3e
2044-39	NML Cyg	OH 80.8-1.9	V1489 Cyg	+40448	2650	20 : 44 : 33.84	+39 : 55 : 57.1	20 : 46 : 25.46	+40 : 06 : 59.6	+080.8	-01.9	1e
2048-72	20484-7202	...	...	...	...	20 : 48 : 29.40	-72 : 02 : 48.0	20 : 53 : 33.69	-71 : 51 : 27.6	-037.9	-35.0	3e
2053-30	UX Cyg	HD 199252	...	+30464	2677	20 : 53 : 00.14	+30 : 13 : 22.0	20 : 55 : 05.53	+30 : 24 : 52.1	+074.3	-09.4	1n
2053-55	20532+5554	...	...	...	...	20 : 53 : 15.80	+55 : 54 : 06.0	20 : 54 : 37.66	+56 : 05 : 35.7	+094.1	+07.1	3e
2054-65	20541-6549	...	...	...	...	20 : 54 : 07.90	-65 : 49 : 45.0	20 : 58 : 28.10	-65 : 38 : 07.8	-030.8	-37.5	3e
2056-27	RAFGL 2686	...	...	...	2686	20 : 56 : 59.80	+27 : 14 : 59.0	20 : 59 : 08.88	+27 : 26 : 41.7	+072.6	-12.0	3c
2100-36	RAFGL 2688	Egg Neb.	PK 80-6.1	...	2688	21 : 00 : 19.90	+36 : 29 : 45.0	21 : 02 : 18.75	+36 : 41 : 37.8	+080.2	-06.5	2b
2100-48	21003+4801	...	...	...	...	21 : 00 : 21.80	+48 : 01 : 03.0	21 : 02 : 03.12	+48 : 12 : 55.4	+088.8	+01.1	3e
2103-00	RV Aqr	CCS 2968	...	+00499	2702	21 : 03 : 17.70	-00 : 24 : 43.0	21 : 05 : 51.68	-00 : 12 : 40.3	+049.6	-29.6	2m
2103-51	V1549 Cyg	CCS 2976	...	+50357	2704	21 : 03 : 32.60	+51 : 36 : 18.0	21 : 05 : 07.63	+51 : 48 : 20.0	+091.8	+03.2	2m
2104-16	RS Cap	HD 200994	SAO 164150	-20596	2708	21 : 04 : 28.00	-16 : 37 : 26.4	21 : 07 : 15.38	-16 : 25 : 19.8	+032.4	-37.3	2a
2105-42	NGC 7027	PK 84-3.1	HD 201272	...	...	21 : 05 : 09.50	+42 : 02 : 04.0	21 : 07 : 01.63	+42 : 14 : 11.3	+084.9	-03.5	AP1,1a
2106-38	RAFGL 5592	21069-3843	...	...	5592	21 : 06 : 57.10	-38 : 43 : 18.0	21 : 10 : 07.14	-38 : 31 : 03.4	+004.3	-42.9	3e
2106-68	T Cep	HD 202012	SAO 19229	+70168	2721	21 : 08 : 52.54	+68 : 17 : 11.2	21 : 09 : 31.89	+68 : 29 : 27.8	+104.8	+13.8	1n
2114-51	21147+5110	...	...	...	...	21 : 14 : 45.80	+51 : 10 : 05.0	21 : 16 : 24.75	+51 : 22 : 40.2	+092.7	+01.6	3e
2116-45	T Ind	CCS 3013	HD 202874	...	5593	21 : 16 : 52.10	-45 : 14 : 03.0	21 : 20 : 09.30	-45 : 01 : 19.4	-004.7	-44.6	2g,2a
2119-69	Y Pav	CCS 3018	HD 203133	...	...	21 : 19 : 47.00	-69 : 56 : 55.0	21 : 24 : 16.48	-69 : 44 : 01.5	-036.8	-38.2	2g,2a
2122-51	21223+5114	...	...	...	...	21 : 22 : 21.70	+51 : 14 : 05.0	21 : 24 : 02.63	+51 : 27 : 01.7	+093.6	+00.8	3e
2125-36	IRC+40483	V1906 Cyg	NSV 13721	+40483	5615	21 : 25 : 25.00	+36 : 28 : 53.0	21 : 27 : 27.92	+36 : 41 : 58.6	+083.7	-10.2	AP2
2128-50	21282+5050	...	...	...	...	21 : 28 : 15.10	+50 : 50 : 47.0	21 : 29 : 58.42	+51 : 03 : 59.8	+094.0	-00.1	3e
2128-10	UU Peg	...	...	+10498	2775	21 : 28 : 38.30	+10 : 55 : 58.0	21 : 31 : 04.08	+11 : 09 : 12.8	+064.3	-28.2	2k

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₈₀ (Jy)	S ₁₀₀ (Jy)	4π1kpc ² F _{1,155} (L _⊙)	4π1kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2007-60	X Pav	5.5710 ²	2.7310 ²	5.1210 ¹	1.9510 ¹	4.610 ³	1.310 ⁵	2	0.27	22	IIIa	O	Me(SR _a)
2007-06	V1300 Aql	1.2610 ³	1.0610 ³	2.1610 ²	6.3710 ¹	1.210 ⁴	2.310 ⁴	1	0.66	23	IIIa	O	M:(M)
2012-44	RZ Sgr	3.8210 ¹	2.5010 ¹	1.0110 ¹	1.6010 ¹	3.410 ²	...	...	...	16	VIIb	S	Se
2013-71	NSV 12961	1.1910 ²	9.2810 ¹	1.6110 ¹	4.9410 ⁰	1.110 ³	7.410 ³	2	1.16	29	IIIa	O	M
2014-21	RT Cap	7.2910 ¹	2.0710 ¹	4.4110 ⁰	3.6110 ⁰	5.710 ²	1.710 ⁴	2	0.77	4n	VII	C	C6,4(SR _b)
2023-13	OH 30.7-27.1	4.6710 ¹	4.4810 ¹	1.1110 ¹	3.2310 ⁰	4.610 ²	3.710 ³	1	1.64	27	IIIa	O	?
2024+75	UU Dra	1.3210 ²	8.9810 ¹	1.3210 ¹	4.8110 ⁰	1.210 ³	1.210 ⁴	2	0.92	23	IIIa	O	M8III:e
2024-28	T Mic	4.9410 ²	1.9210 ²	3.2610 ¹	1.2710 ¹	4.010 ³	2.510 ⁵	2	0.20	15	II	O	M7III
2026+21	OH 63.3-10.2	6.1010 ¹	6.1210 ¹	1.7810 ¹	7.8210 ⁰	6.110 ²	4.710 ³	1	1.46	24	IIIa	O	?
2039+47	V Cyg	6.6510 ²	2.3410 ²	4.9110 ¹	1.7310 ¹	5.310 ³	5.010 ⁴	1	0.45	44	VII	C	C5,3e(M)
2043+38	20435+3825	1.4910 ²	7.5310 ¹	1.6410 ¹	...	1.310 ³	4.310 ³	2	1.52	42	VII	C	?
2044-01	FP Aqr	2.1110 ²	1.1710 ²	1.7310 ¹	5.5710 ⁰	1.810 ³	3.510 ⁴	2	0.54	27	IIIa	O	M9
2044+39	NML Cyg	...	...	...	...	...	...	...	...	...	...	O	[SG]M6
2048-72	20484-7202	1.7910 ²	1.1010 ²	1.4110 ¹	4.3010 ⁰	1.510 ³	2.210 ⁴	2	0.68	29	IIIa	O	?
2053+30	UX Cyg	1.7210 ²	1.0110 ²	4.3910 ¹	2.0010 ¹	1.510 ³	...	...	...	29	VIIb	O	M5e:(M)
2053+55	20532+5554	5.8510 ¹	4.4310 ¹	1.0510 ¹	...	5.410 ²	1.110 ³	3	3.06	42	IIIa	C	?
2054-65	20541-6549	1.8010 ²	8.9010 ¹	1.8010 ¹	4.8010 ⁰	1.510 ³	4.210 ⁴	2	0.49	29	IIIa	O	?
2056+27	RAFGL 2686	2.8010 ²	1.4910 ²	3.1710 ¹	9.3010 ⁰	2.410 ³	9.110 ³	1	1.05	42	VII	C	C
2100+36	RAFGL 2688	...	...	...	...	...	...	...	...	5n	...	C	F5Iae
2100+48	21003+4801	9.4110 ¹	6.4910 ¹	1.4110 ¹	8.8610 ⁰	8.410 ²	1.710 ³	3	2.44	44	IIIa	C	?
2103-00	RV Aqr	3.0810 ²	1.1610 ²	2.2410 ¹	8.5510 ⁰	2.510 ³	2.410 ⁴	1	0.65	45	VII	C	C6,3e(M)
2103+51	V1549 Cyg	2.5410 ²	1.0910 ²	2.2010 ¹	...	2.110 ³	8.610 ³	2	1.08	44	VII	C	Ce(Lb)
2104-16	RS Cap	2.2910 ²	1.1310 ²	1.7510 ¹	6.4710 ⁰	1.910 ³	5.410 ⁴	2	0.43	27	IIIa	O	M6/M7III
2106+42	NGC 7027	...	...	...	...	...	...	...	...	pah	...	C	[PN]
2106-38	RAFGL 5592	1.7110 ²	1.1610 ²	1.6210 ¹	4.3310 ⁰	1.510 ³	1.610 ⁴	2	0.80	29	IIIa	O	?
2108+68	T Cep	7.5310 ²	2.6710 ²	4.1610 ¹	1.5310 ¹	6.010 ³	5.110 ⁵	2	0.14	15	II	O	M6.5e(M)
2114+51	21147+5110	6.5610 ¹	4.8010 ¹	1.2010 ¹	...	6.010 ²	1.210 ³	3	2.90	42	IIIa	C	?
2116-45	T Ind	4.7210 ¹	1.3210 ¹	4.6810 ⁰	3.0510 ⁰	3.710 ²	1.210 ⁴	2	0.91	17	VII	C	C5II(SR _b)
2119-69	Y Pav	7.2410 ¹	2.6810 ¹	6.9510 ⁰	5.0410 ⁰	5.810 ²	3.610 ³	2	1.66	22,1n	VII	C	C5II(SR _b)
2122+51	21223+5114	7.0010 ¹	4.8810 ¹	1.9310 ¹	1.0310 ¹	6.410 ²	...	...	...	42	IIIa	?	?
2125+36	IRC+40483	...	...	...	...	...	...	...	...	...	...	O	M9
2128+50	21282+5050	5.1010 ¹	7.4410 ¹	3.3410 ¹	1.5010 ¹	5.910 ²	...	...	...	80,pah	IIIb	C	[PN]O7
2128+10	UU Peg	1.6110 ²	1.0710 ²	1.8310 ¹	7.5910 ⁰	1.410 ³	1.610 ⁴	2	0.80	26	IIIa	O	M7e(M)

Table 1. continued

n°	name1	name2	name3	IRC	RAFGL	α_{1950}	δ_{1950}	α_{2000}	δ_{2000}	l_{II}	b_{II}	pos.ref.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
2130+44	IC 5117	PK 89-5.1	HD 205211	...	...	21 : 30 : 36.77	+44 : 22 : 28.9	21 : 32 : 30.90	+44 : 35 : 48.2	+089.9	-05.1	1q
2131+56	21318+5631	...	...	...	...	21 : 31 : 50.10	+56 : 31 : 13.0	21 : 33 : 22.98	+56 : 44 : 35.0	+098.2	+03.7	3e
2132+38	V1426 Cyg	CCS 3041	CIT 13	+40485	2781	21 : 32 : 05.90	+38 : 50 : 54.0	21 : 34 : 07.32	+39 : 04 : 17.4	+086.3	-09.4	2m
2135+78	S Cep	CCS 3055	HD 206362	+80048	2785	21 : 35 : 52.65	+78 : 23 : 58.7	21 : 35 : 12.60	+78 : 37 : 28.4	+113.8	+19.4	2a
2137+45	21373+4540	...	...	...	...	21 : 37 : 18.50	+45 : 40 : 51.0	21 : 39 : 12.40	+45 : 54 : 27.6	+091.6	-05.0	3e
2138+54	RU Cyg	HD 206483	SAO 33654	+50390	2790	21 : 38 : 58.64	+54 : 05 : 49.1	21 : 40 : 39.14	+54 : 19 : 29.6	+097.4	+01.2	2e,2a
2139+35	V460 Cyg	CCS 3060	HD 206570	+40489	2793	21 : 39 : 54.35	+35 : 16 : 53.2	21 : 42 : 01.01	+35 : 30 : 36.6	+085.0	-13.1	2a
2141+37	RV Cyg	CCS 3063	HD 206750	+40491	2798	21 : 41 : 12.01	+37 : 47 : 16.9	21 : 43 : 16.31	+38 : 01 : 03.5	+086.9	-11.4	2a
2141+58	μ Cep	HD 206936	SAO 33693	+60325	2802	21 : 41 : 58.51	+58 : 33 : 01.0	21 : 43 : 30.37	+58 : 46 : 48.8	+100.6	+04.3	2e,2a
2143-02	EP Aqr	HD 207076	SAO 145652	+00509	2806	21 : 43 : 56.40	-02 : 26 : 40.0	21 : 46 : 31.63	-02 : 12 : 46.1	+054.2	-39.3	2g,2a
2144+73	PQ Cep	CCS 3070	...	+70177	2805	21 : 44 : 01.20	+73 : 24 : 11.0	21 : 44 : 28.84	+73 : 38 : 02.5	+110.6	+15.4	2m
2144+49	21449+4950	...	...	...	...	21 : 44 : 56.20	+49 : 50 : 08.0	21 : 46 : 46.01	+50 : 04 : 03.4	+095.3	-02.6	3e
2145+64	RT Cep	...	...	+60328	2808	21 : 45 : 36.00	+64 : 22 : 10.0	21 : 46 : 52.58	+64 : 36 : 06.3	+104.7	+08.5	3e
2148+53	21489+5301	...	...	...	...	21 : 48 : 59.20	+53 : 01 : 23.0	21 : 50 : 45.00	+53 : 15 : 28.0	+097.8	-00.6	3e
2155+62	21554+6204	...	...	...	...	21 : 55 : 29.60	+62 : 04 : 24.0	21 : 56 : 58.18	+62 : 18 : 43.6	+104.1	+06.0	3e
2201+28	TW Peg	HD 209598	SAO 90201	+30481	2837	22 : 01 : 43.33	+28 : 06 : 20.2	22 : 03 : 59.51	+28 : 20 : 54.4	+083.8	-21.5	1n
2203+35	SV Peg	HD 209872	SAO 72019	+40501	2845	22 : 03 : 31.00	+35 : 06 : 17.7	22 : 05 : 41.96	+35 : 20 : 55.6	+088.7	-16.3	2e,2a
2209+56	CU Cep	...	...	+60345	2865	22 : 09 : 45.12	+56 : 47 : 28.0	22 : 11 : 31.74	+57 : 02 : 18.3	+102.5	+00.7	2e
2212+56	22125+5608	...	...	...	...	22 : 12 : 33.40	+56 : 08 : 17.0	22 : 14 : 22.28	+56 : 23 : 12.9	+102.4	-00.1	Pr3
2213+56	22130+5634	...	...	...	...	22 : 13 : 00.40	+56 : 34 : 20.0	22 : 14 : 48.71	+56 : 49 : 16.8	+102.7	+00.2	3e
2214+57	M2-51	PK 103+0.1	...	...	...	22 : 14 : 16.60	+57 : 13 : 42.0	22 : 16 : 04.27	+57 : 28 : 41.2	+103.2	+00.7	3e
2217+59	OH 104.9+2.4	...	...	...	...	22 : 17 : 42.70	+59 : 36 : 17.0	22 : 19 : 27.40	+59 : 51 : 22.7	+104.9	+02.4	1p
2219-07	DZ Aqr	HD 212062	SAO 146043	-10580	2889	22 : 19 : 04.31	-07 : 51 : 38.3	22 : 21 : 41.86	-07 : 36 : 29.2	+054.7	-49.5	2a
2219-46	π 1 Gru	SAO 231105	...	...	4289	22 : 19 : 41.10	-46 : 12 : 01.0	22 : 22 : 43.81	-45 : 56 : 50.4	-009.7	-55.2	2g
2222+43	22223+4327	...	...	...	...	22 : 22 : 22.90	+43 : 27 : 49.0	22 : 24 : 30.61	+43 : 43 : 03.6	+096.8	-11.6	3e
2224+60	RAFGL 2901	...	...	...	2901	22 : 24 : 08.10	+60 : 05 : 25.0	22 : 25 : 54.81	+60 : 20 : 42.4	+105.9	+02.4	3a
2226-21	NGC 7293	PK 36-57.1	Helix Neb.	...	...	22 : 26 : 54.80	-21 : 05 : 41.0	22 : 29 : 38.50	-20 : 50 : 17.9	+036.2	-57.1	2h
2227+54	HD 235858	SAO 34504	...	...	...	22 : 27 : 13.40	+54 : 35 : 43.7	22 : 29 : 10.29	+54 : 51 : 06.6	+103.3	-02.5	2a,2o
2230+59	22303+5950	...	...	...	...	22 : 30 : 22.70	+59 : 50 : 36.0	22 : 32 : 12.79	+60 : 06 : 04.1	+106.4	+01.8	3e
2235+59	22354+5911	...	...	...	...	22 : 35 : 23.70	+59 : 11 : 42.0	22 : 37 : 17.21	+59 : 27 : 18.2	+106.6	+00.9	Pr3
2251+66	RAFGL 2985	...	...	...	2985	22 : 51 : 51.90	+66 : 00 : 49.0	22 : 53 : 41.94	+66 : 16 : 48.5	+111.5	+06.1	2f
2252-29	V Psa	HD 216692	SAO 191491	-30456	2989	22 : 52 : 34.90	-29 : 52 : 42.0	22 : 55 : 19.48	-29 : 36 : 41.1	+020.5	-64.4	2g,2a
2255+58	RAFGL 2999	V627 Cas	...	...	2999	22 : 55 : 39.50	+58 : 33 : 28.0	22 : 57 : 43.26	+58 : 49 : 32.3	+108.7	-00.9	3a

Table 2. continued

n°	name1	S ₁₂ (Jy)	S ₂₅ (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	471kpc ² F _{IRAS} (L _⊙)	471kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2130+44	IC 5117	1.1310 ¹	4.7110 ¹	2.4410 ¹	8.7610 ⁰	2.310 ²	...	...	...	pah	V	C	[PN]
2131+56	21318+5631	2.5710 ²	3.1210 ²	9.0010 ¹	2.5410 ¹	2.710 ³	6.610 ³	1	1.23	21	IIIb	C	?
2132+38	V1426 Cyg	2.5710 ²	9.4210 ¹	2.0510 ¹	9.6110 ⁰	2.110 ³	1.910 ⁴	1	0.73	44	VII	C	C7,2e(M)
2135+78	S Cep	3.8310 ²	1.3310 ²	2.9110 ¹	1.2710 ¹	3.010 ³	4.710 ⁴	1	0.46	4n	VII	C	C7,3e(M)
2137+45	21373+4540	1.1510 ²	6.4810 ¹	1.4310 ¹	4.7710 ⁰	9.810 ²	3.210 ³	2	1.76	43	VII	C	?
2138+54	RU Cyg	1.9010 ²	1.0510 ²	1.8210 ¹	...	1.610 ³	3.210 ⁴	2	0.56	24	IIIa	O	M6(SRa)
2139+35	V460 Cyg	7.6010 ¹	2.1310 ¹	9.1910 ⁰	4.9510 ⁰	5.910 ²	2.010 ⁴	2	0.71	42	VIa	C	C6,3(Lb)
2141+37	RV Cyg	1.0310 ²	3.1510 ¹	1.1510 ¹	1.0210 ¹	8.110 ²	1.410 ⁴	2	0.85	4n	VII	C	C6,4(SRb)
2141+58	μ Cep	1.3010 ³	6.0810 ²	1.2710 ²	4.9910 ¹	1.110 ⁴	...	...	...	28	VII	O	[SG]M2Ia(SRc)
2143-02	EP Aqr	6.3710 ²	3.2110 ²	4.7110 ¹	1.6410 ¹	5.310 ³	1.610 ⁵	1	0.25	23	IIIa	O	M7-III(SRb)
2144+73	PQ Cep	1.3810 ²	4.1710 ¹	9.4710 ⁰	4.6710 ⁰	1.110 ³	2.010 ⁴	1	0.71	44	VII	C	C6-3e
2144+49	21449+4950	6.7110 ¹	4.3810 ¹	8.5510 ⁰	...	5.910 ²	1.810 ³	2	2.33	42	VII	C	?
2145+64	RT Cep	1.7510 ²	1.0810 ²	1.6510 ¹	7.1510 ⁰	1.510 ³	2.110 ⁴	2	0.69	28	IIIa	O	M6(M)
2148+53	21489+5301	1.1110 ²	9.3410 ¹	2.6810 ¹	7.9910 ⁰	1.010 ³	2.110 ³	3	2.18	42	IIIa	C	?
2155+62	21554+6204	6.2910 ¹	1.3810 ²	5.2110 ¹	1.5610 ¹	8.610 ²	1.610 ³	1	2.50	38	IIIb	O	M
2201+28	TW Peg	2.6210 ²	1.5210 ²	2.1610 ¹	7.8910 ⁰	2.210 ³	3.010 ⁴	1	0.58	26	IIIa	O	M6/7(SRb)
2203+35	SV Peg	2.6510 ²	1.4610 ²	2.3610 ¹	9.9410 ⁰	2.210 ³	2.110 ⁴	1	0.69	21	IIIa	O	M7(SRa)
2209+56	CU Cep	2.0310 ²	1.3610 ²	1.6710 ¹	...	1.810 ³	6.610 ³	1	1.23	29	IIIa	O	M4(SRb)
2212+56	22125+5608	1.7910 ¹	5.8710 ⁰	1.1110 ⁰	...	1.410 ²	1.710 ³	4	2.43	43	I	C	C
2213+56	22130+5634	1.1010 ¹	1.3310 ¹	4.5210 ⁰	6.8610 ⁰	1.210 ²	1.910 ²	4	7.25	...	IIIb	C?	?
2214+57	M2-51	...	0.3510 ⁰	3.9910 ⁰	9.3810 ⁰	...	...	...	...	...	...	?	[PN]
2217+59	OH 104.9+2.4	1.2310 ²	2.2910 ²	9.0710 ¹	3.5010 ¹	1.610 ³	5.910 ³	1	1.30	38	IIIb	O	?
2219-07	DZ Aqr	8.1310 ¹	4.4310 ¹	6.7210 ⁰	3.1010 ⁰	6.910 ²	1.410 ⁴	2	0.84	25	IIIa	O	M
2219-46	71 Gru	9.0910 ²	4.3710 ²	7.7310 ¹	2.3310 ¹	7.510 ³	2.310 ⁵	2	0.21	42	IIIa	S	SeIII(Lb)+comp
2222+43	22223+4327	2.1210 ⁰	3.7110 ¹	2.2410 ¹	9.5410 ⁰	1.410 ²	...	...	...	?	V	C	?
2224+60	RAFGL 2901	1.8210 ²	1.0610 ²	2.5510 ¹	7.3110 ⁰	1.610 ³	6.610 ³	1	1.23	41	VII	C	C
2226-21	NGC 7293	...	...	...	...	...	...	...	...	...	...	?	[PN]
2227+54	HD 235858	7.3910 ¹	3.0210 ²	9.6610 ¹	4.1010 ¹	1.410 ³	...	...	...	72.kvh	V	C	K
2230+59	22303+5950	5.4510 ¹	6.8410 ¹	2.0410 ¹	...	5.810 ²	1.210 ³	3	2.93	41	IIIb	C	?
2235+59	22354+5911	1.4410 ¹	8.3210 ⁰	2.4610 ⁰	...	1.210 ²	4.010 ²	2	4.99	44	VII	C	?
2251+66	RAFGL 2985	8.0210 ¹	3.3510 ¹	8.2410 ⁰	...	6.510 ²	2.910 ³	2	1.87	44	VII	C	C
2252-29	V Psa	2.4710 ²	1.1010 ²	1.8210 ¹	6.0110 ⁰	2.010 ³	7.910 ⁴	2	0.36	22	II	O	M7III(SRb)
2255+58	RAFGL 2999	1.8910 ²	1.7010 ²	2.4810 ¹	...	1.810 ³	3.710 ³	1	1.64	29	IIIa	O	M

Table 1. continued

n° (1)	name1 (2)	name2 (3)	name3 (4)	IRC (5)	RAFGL (6)	α_{1950} (7)	δ_{1950} (8)	α_{2000} (9)	δ_{2000} (10)	l_{II} (11)	b_{II} (12)	pos.ref. (13)
2257+66	22574+6609	...	...	...	...	22 : 57 : 25.10	+66 : 09 : 42.0	22 : 59 : 18.39	+66 : 25 : 48.2	+112.0	+06.0	3e
2258+64	RAFGL 3011	...	...	...	3011	22 : 58 : 29.70	+64 : 02 : 38.0	23 : 00 : 27.38	+64 : 18 : 45.5	+111.3	+04.0	3a
2314+60	V563 Cas	...	...	+60395	3061	23 : 14 : 43.90	+60 : 09 : 37.0	23 : 16 : 55.19	+60 : 26 : 00.7	+111.5	-00.3	Pr3
2316+16	RAFGL 3068	...	...	...	3068	23 : 16 : 42.40	+16 : 55 : 10.0	23 : 19 : 12.39	+17 : 11 : 35.4	+093.5	-40.4	3c
2317+59	V571 Cas	23174+5941	...	...	...	23 : 17 : 28.20	+59 : 41 : 52.0	23 : 19 : 41.26	+59 : 58 : 17.9	+111.7	-00.9	Pr3
2321+45	RAFGL 4296	NSV 14540	23213-4521	...	4296	23 : 21 : 22.30	-45 : 21 : 29.0	23 : 24 : 06.92	-45 : 04 : 60.0	-018.7	-85.0	3e
2325+10	RAFGL 3099	...	...	...	3099	23 : 25 : 45.60	+10 : 38 : 05.0	23 : 28 : 17.50	+10 : 54 : 36.9	+092.2	-46.9	2d
2326+68	23268+6854	...	...	...	...	23 : 26 : 49.70	+68 : 54 : 24.0	23 : 28 : 59.07	+69 : 10 : 56.4	+115.7	+07.5	3e
2327+53	23279+5336	...	...	...	...	23 : 27 : 56.50	+53 : 36 : 34.0	23 : 30 : 17.98	+53 : 53 : 07.2	+111.0	-07.1	3e
2330+61	23304+6147	...	...	...	...	23 : 30 : 26.70	+61 : 47 : 15.0	23 : 32 : 44.94	+62 : 03 : 49.6	+113.9	+00.6	3e
2332+43	IRC+40540	LP And	NSV 14623	+40540	3116	23 : 32 : 01.30	+43 : 16 : 27.0	23 : 34 : 27.66	+43 : 33 : 02.4	+108.5	-17.1	2m
2332+65	23321+6545	...	...	...	...	23 : 32 : 06.30	+65 : 45 : 15.0	23 : 34 : 22.63	+66 : 01 : 50.4	+115.2	+04.3	3e
2343+03	TX Pac	CCS 3202	HD 223075	+00532	3147	23 : 43 : 50.10	+03 : 12 : 33.7	23 : 46 : 23.57	+03 : 29 : 13.8	+093.3	-85.6	2a
2349+61	IRC+60427	NSV 14731	...	+60427	3165	23 : 49 : 36.00	+61 : 31 : 31.0	23 : 52 : 04.77	+61 : 48 : 12.5	+116.0	-00.3	2k
2355+51	R Cas	HD 224490	SAO 35938	+50484	3188	23 : 55 : 52.07	+51 : 06 : 37.3	23 : 58 : 24.76	+51 : 23 : 19.5	+114.6	-10.6	1n,1l

Position references in col.13 : (1a) Terzian et al., 1974; (1b) Baud, 1981; (1c) Kwok and Feldman, 1981; (1d) Morris et al., 1982; (1e) Bowers et al., 1983; (1f) Soulie and Baudry, 1983; (1g) Baud et al., 1985; (1h) Rodriguez et al., 1985; (1i) Bowers et al., 1989; (1j) Sahai et al., 1989; (1k) Lewis et al., 1990; (1l) Wright et al., 1990; (1m) Carlstrom et al., 1990; (1n) Baudry et al., 1990; (1o) Costa and Loyola, 1989; (1p) Fix and Mutel, 1984; (1q) Isaacman, 1984; (2a) SAO catalogue, 1966 ($\leq 1''$, but not corrected for proper motions); (2b) Ney et al., 1975 ($\pm 1''$); (2c) Lebofsky and Kleinmann, 1976 ($\pm 1''$); (2d) Allen et al., 1977 ($\pm 2''$); (2e) Plaut, 1977 (± 1 to $3''$); (2f) Lebofsky et al., 1978 ($\pm 1''$); (2g) CSI 79 (± 1 to $3''$); (2h) Acker et al., 1982 (see references therein); (2i) Allen et al., 1982 ($\pm 3''$); (2j) Mac Connell, 1981 ($\pm 2''$); (2k) Kleinmann and Joyce, 1984 (± 2 to $3''$); (2l) Stephenson, 1986 (± 1 to $2''$); (2m) Clausen et al., 1987 ($\pm 3''$); (2n) Bowers and Knapp, 1989 (± 1 to $2''$); (2o) van der Veen et al., 1989 (± 1 to $5''$); (2p) Le Berre and Epchtein, 1987; (3a) Gehrz and Hackwell, 1976 ($\pm 5''$); (3b) Low et al., 1976 (± 5 to $10''$); (3c) Joyce et al., 1977 ($\pm 5''$); (3d) Allen et al., 1980 ($\pm 10''$); (3e) IRAS-PSC catalogue, 1983 (± 10 to $20''$); (3f) Hrivnak et al., 1988 ($\pm 7''$).

Table 2. continued

n ^o	name1	S _{1,2} (Jy)	S _{2,5} (Jy)	S ₆₀ (Jy)	S ₁₀₀ (Jy)	4 π 1kpc ² F _{IRas} (L _⊙)	4 π 1kpc ² F _{total} (L _⊙)	ref.	d (kpc)	LRS type	region (12)	chem. type	spectral type
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
2257+66	22574+6609	9.00 10 ⁰	2.95 10 ¹	2.06 10 ¹	7.19 10 ⁰	1.61 10 ²	...	...	...	...	IV	?	?
2258+64	RAFGL 3011	9.11 10 ¹	4.35 10 ¹	1.04 10 ¹	...	7.61 10 ²	3.11 10 ³	1	1.80	43	VII	C	C
2314+60	V563 Cas	2.45 10 ¹	1.30 10 ¹	...	...	...	2.31 10 ³	4	2.09	22	...	O	M6e
2316+16	RAFGL 3068	7.07 10 ²	7.76 10 ²	2.49 10 ²	7.37 10 ¹	7.21 10 ³	1.11 10 ⁴	1	0.95	02	IIIa	C	?
2317+59	V571 Cas	2.25 10 ¹	1.01 10 ¹	2.05 10 ⁰	...	1.91 10 ²	1.81 10 ³	4	2.36	44	VII	C	C
2321-45	RAFGL 4296	1.28 10 ²	9.57 10 ¹	1.68 10 ¹	6.68 10 ⁰	1.21 10 ³	8.91 10 ³	2	1.06	28	IIIa	O	?
2325+10	RAFGL 3099	1.90 10 ²	1.42 10 ²	3.03 10 ¹	7.62 10 ⁰	1.71 10 ³	5.91 10 ³	1	1.30	4n	IIIa	C	?
2326+68	23268+6854	2.67 10 ¹	3.64 10 ¹	4.25 10 ¹	1.80 10 ¹	3.31 10 ²	...	...	...	13	VIIb	C?	?
2327+53	23279+5336	6.71 10 ¹	3.24 10 ¹	6.68 10 ⁰	...	5.61 10 ²	2.01 10 ³	2	2.23	43	VII	C	?
2330+61	23304+6147	1.14 10 ¹	5.91 10 ¹	2.66 10 ¹	...	2.71 10 ²	...	...	...	kvh	V	C	?
2332+43	IRC+40540	9.59 10 ²	4.69 10 ²	1.12 10 ²	3.55 10 ¹	8.01 10 ³	2.41 10 ⁴	1	0.65	42	VII	C	C8,3,4
2332+65	23321+6545	1.37 10 ¹	8.56 10 ¹	6.40 10 ¹	1.93 10 ¹	4.01 10 ²	...	...	...	05	V	C	?
2343+03	TX Psc	1.63 10 ²	3.98 10 ¹	1.19 10 ¹	6.91 10 ⁰	1.21 10 ³	7.21 10 ⁴	1	0.37	1n	VIa	C	C7,2(Lb)
2349+61	IRC+60427	3.69 10 ²	2.55 10 ²	4.53 10 ¹	1.17 10 ¹	3.31 10 ³	3.21 10 ⁴	2	0.56	27	IIIa	O	M9
2355+51	R Cas	1.34 10 ³	5.55 10 ²	1.03 10 ²	3.88 10 ¹	1.11 10 ⁴	2.51 10 ⁵	1	0.20	24	II	O	M7e(M)

Notes to Table 2: See sections 2.2 and 3. References for F_{total} in col.9: 1, estimate by van der Veen and Rugers (1989) based on photometric data between 1 and 60 μ m; 2, estimate from bolometric correction formulae derived by van der Veen and Breukers (1989); 3, F_{total} = 2F_{IRas} for C-rich sources in regions IIIa and IIIb, this paper; 4, estimate by Kastner et al. (1992) based on photometric data between 1 and 60 μ m.

Table 3.

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
0004+42	KU And	CO (1-0)	BTL	- 20	24.2	0.09	2.90	2	0.040	AP2(!)
	IRC+40004	CO (1-0)	FCRAO	- 21	20.0	...	8.68	2	...	AP19
	RAFGL 14	CO (1-0)	OSO	- 20	21.0	0.37	13.70	2	0.103	AA54
0017+44	VX And	CO (2-1)	IRAM	...	...	...	2.50	2	...	AA30
0019-40	00193-4033	CO (1-0)	SEST	-101	17.3	0.06	1.90	2	0.025	AA54(!)
0020+55	T Cas	CO (1-0)	BTL	- 7	10.5	0.02	0.29	2	0.009	AP8(?)
	IRC+60009	CO (1-0)	FCRAO	- 6	6.0	...	1.11	2	...	AP19
	RAFGL 57	CO (2-1)	NRAO	- 7	5.2	0.26	...	2	...	AP3
0021+62	00210+6221	CO (1-0)	FCRAO	- 38	...	0.04	...	1	...	MN1
0021+38	R And	CO (1-0)	BTL	- 16	8.7	0.13	1.40	2	0.050	AP2(!)
	IRC+40009	CO (1-0)	IRAM	- 16	...	1.10	17.20	2	0.100	AA2
	RAFGL 59	CO (1-0)	FCRAO	- 16	11.0	...	3.71	2	...	AP19
	HD 1967	CO (1-0)	OSO	- 15	12.7	0.77	11.70	2	0.107	AA54
0024-06	UY Cet	CO (1-0)	SEST	+ 4	8.1	0.05	0.90	2	0.018	AA54(!)
0024+69	RAFGL 67	CO (1-0)	OSO	- 29	17.8	0.77	17.30	2	0.129	AA54
	...	HCN(1-0)	NRAO	- 25	16.6	0.06	...	2	...	AP7
	...	HCN(1-0)	IRAM	- 25	...	...	8.50	1	0.070	AA7
0103+12	IRC+10011	CO (1-0)	BTL	+ 9	23.0	0.18	5.60	2	0.090	AP2(!!)
	WX Psc	CO (1-0)	OSO	+ 8	21.6	0.92	...	2	...	AA17
	RAFGL 157	CO (1-0)	FCRAO	+ 10	21.0	...	18.13	2	...	AP19
	...	CO (1-0)	OSO	+ 8	21.6	0.92	28.20	2	0.129	AA54
	...	CO (1-0)	IRAM	+ 10	18.3	2.70	92.10	2	0.024	PC1(m)
	...	CO (2-1)	IRAM	+ 10	18.7	3.30	98.00	2	0.032	PC1(m)
	...	HCN(1-0)	IRAM	+ 9	23.0	0.27	2.60	2	0.030	AA19
0107+65	IRC+70018	CO (2-1)	IRAM	- 18	9.0	0.15	1.80	2	...	Pr3
0108+30	AW Psc	CO (1-0)	FCRAO	- 27	13.0	0.15	...	2	...	AP4
	IRC+30021	CO (1-0)	FCRAO	- 26	10.0	...	1.77	2	...	AP19
	RAFGL 168	CO (1-0)	OSO	- 25	15.0	0.23	5.70	2	0.123	AA54(!!)
0110+62	IRC+60041	CO (2-1)	NRAO	- 25	23.3	0.10	...	2	...	AA16
	CCS 59	HCN(1-0)	IRAM	- 25	...	...	13.50	1	0.090	AA7
0113+25	Z Psc	CO (1-0)	OSO	+ 13	3.5	0.18	0.96	2	...	AA5
	IRC+30025	CO (1-0)	OSO	...	...	...	0.96	2	...	AA30
	RAFGL 188	CO (2-1)	NRAO	+ 13	5.0	0.17	...	2	0.027	AP18
0114+63	01142+6306	CO (1-0)	IRAM	- 22	19.0	0.38	4.30	2	...	Pr3
	...	CO (2-1)	IRAM	- 20	14.0	0.72	11.00	2	...	Pr3
	...	HCN(1-0)	IRAM	- 18	16.0	0.06	0.48	2	...	Pr3
0114+66	RAFGL 190	CO (2-1)	NRAO	- 40	19.7	0.54	...	2	...	AP3
	01144+6658	CO (2-1)	IRAM	- 39	16.9	3.06	70.40	2	0.105	Pr1
	...	CO (2-1)	IRAM	- 39	18.0	2.79	67.20	2	0.080	Pr1
	...	HCN(1-0)	NRAO	- 36	14.9	0.07	...	2	...	AP7
	...	HCN(1-0)	IRAM	- 39	...	...	9.00	1	0.080	AA7
	...	HCN(1-0)	IRAM	...	...	0.45	8.80	2	0.031	Pr1
	...	HCN(1-0)	IRAM	...	...	0.51	12.20	2	0.042	Pr1
0115+72	S Cas	CO (1-0)	IRAM	- 37	26.4	0.73	...	1	0.060	AA15
	IRC+70024	CO (1-0)	IRAM	...	...	0.85	...	1	0.180	AA21
	RAFGL 194	CO (1-0)	IRAM	- 31	22.0	0.44	...	2	0.360	AA27(!!)

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	HD 7769	CO (1-0)	FCRAO	- 29	18.0	...	3.43	2	...	AP19
	SAO 4374	CO (1-0)	OSO	- 26	19.0	0.23	6.00	2	0.110	AA54(!)
	...	CO (2-1)	NRAO	- 32	15.3	0.33	...	2	...	AP3
	...	CO (2-1)	IRAM	...	...	0.80	...	1	0.150	AA21
0124-32	R Scl	CO (1-0)	BTL	- 18	24.7	0.32	10.80	2	0.130	AP2(!)
	IRC-30015	CO (1-0)	NRAO	- 18	17.5	0.70	...	2	...	AP7
	RAFGL 215	CO (1-0)	SEST	- 19	17.6	1.20	30.40	2	...	AA8
	CCS 68	CO (1-0)	SEST	- 18	18.5	...	22.00	2	...	AA28
	HD 8879	CO (1-0)	IRAM	- 19	15.5	1.60	55.00	2	...	AA42
	...	CO (2-1)	SEST	- 18	18.5	...	54.00	2	...	AA28
	...	CO (2-1)	IRAM	- 19	15.5	4.30	103.00	2	...	AA42
	...	CO (2-1)	JCMT	- 15	17.9	1.12	29.17	1	...	AA43
	...	HCN(1-0)	IRAM	- 18	...	...	9.80	1	0.090	AA7
	...	HCN(1-0)	SEST	- 16	...	0.06	1.20	2	...	AA30
0130+62	OH 127.8+0.0	CO (1-0)	IRAM	- 54	9.7	0.13	3.60	2	0.050	AA36(!)
	RAFGL 230	CO (2-1)	IRAM	- 54	10.9	0.90	16.30	2	0.110	AA36
0155+45	BD+44 398	CO (1-0)	FCRAO	- 3	8.0	...	2.37	2	...	AP19
	IRC+50049	CO (1-0)	OSO	- 2	9.4	0.30	3.70	2	0.087	AA54
	RAFGL 278	CO (2-1)	NRAO	- 2	7.6	0.96	...	2	...	AP3
0214+44	W And	CO (1-0)	FCRAO	- 35	11.0	0.20	...	2	...	AP4
	IRC+40037	CO (1-0)	OSO	- 35	10.4	0.43	4.50	2	0.087	AA54
0215+28	02152+2822	CO (1-0)	NRAO	- 2	8.9	0.06	...	2	...	AA16
	...	CO (2-1)	NRAO	- 2	9.5	0.14	...	2	...	AP3
	...	HCN(1-0)	IRAM	- 2	...	...	3.40	1	0.070	AA7
0216-03	o Cet	CO (1-0)	BTL	+ 47	6.0	0.38	2.60	2	0.040	AP2
	IRC+00030	CO (1-0)	OSO	+ 48	2.7	1.50	...	2	...	AA17
	RAFGL 318	CO (1-0)	IRAM	+ 47	3.0	7.40	...	2	0.160	AP17(m)
	HD 14386	CO (1-0)	FCRAO	+ 47	9.0	...	8.84	2	...	AP19
	SAO 129825	CO (1-0)	OVI	...	...	...	...	2	...	AP20(m)
	...	CO (1-0)	SEST	+ 46	10.0	1.19	9.10	2	0.021	AA54
	...	CO (2-1)	NRAO	+ 46	4.6	6.00	...	2	...	AP3
	...	CO (2-1)	FCRAO	+ 47	8.3	7.20	...	2	...	AP4
	...	CO (2-1)	CALTECH	+ 46	5.0	3.70	23.90	2	0.150	AP14
	...	CO (2-1)	NRAO	+ 46	4.3	5.60	...	2	...	AA16
	...	CO (2-1)	IRAM	+ 47	3.0	13.60	...	2	0.140	AP17(m)
	...	CO (2-1)	OVI	...	...	...	...	2	...	AP20(m)
0227-26	R For	CO (1-0)	SEST	- 3	20.0	0.16	4.80	2	...	AA8
	IRC-30021	CO (1-0)	SEST	- 3	20.3	0.12	3.10	2	0.015	AA54
	RAFGL 337	CO (2-1)	NRAO	- 3	16.8	0.44	...	2	...	AP3
	CCS 103	HCN(1-0)	SEST	+ 1	...	0.05	1.00	2	...	AA30
0229+57	RAFGL 341	CO (2-1)	FCRAO	+ 7	14.2	0.82	...	2	...	AP4
	...	HCN(1-0)	IRAM	+ 7	...	...	5.20	1	0.060	AA7
0231+64	V656 Cas	CO (1-0)	FCRAO	+ 13	16.8	0.24	...	2	...	AP4
	IRC+60092	CO (1-0)	FCRAO	+ 15	14.0	...	3.96	2	...	AP19
	RAFGL 349	CO (2-1)	FCRAO	+ 15	12.2	0.63	...	2	...	AP4
0235-27	UU For	CO (1-0)	SEST	- 8	16.2	0.10	2.00	2	0.020	AA54

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _K km s ⁻¹ (8)	sc. (9)	rms (10)	ref. (11)
	IRC-30023	CO (2-1)	NRAO	- 8	11.6	0.43	...	2	...	AP3
0235+59	02358+5928	CO (2-1)	IRAM	- 25	20.0	0.13	2.90	2	...	Pr3
0252-50	R Hor	CO (1-0)	SEST	+ 38	5.0	0.23	...	1	...	AA29
	...	CO (1-0)	SEST	+ 36	5.4	0.32	3.30	2	0.021	AA54
	...	CO (2-1)	CALTECH	+ 38	6.6	0.80	5.40	2	0.210	AP14
0300+56	03008+5637	CO (2-1)	IRAM	- 15	17.0	0.08	1.70	2	...	Pr3(?)
0307-87	03074-8732	CO (1-0)	SEST	+ 12	10.5	0.06	...	1	...	AA29
	...	CO (1-0)	SEST	+ 7	10.3	0.10	1.20	2	0.012	AA54
0309+58	03096+5839	CO (1-0)	IRAM	- 72	14.0	0.23	2.10	2	...	Pr3
	...	CO (2-1)	IRAM	- 72	14.0	0.44	8.50	2	...	Pr3
0309+59	03096+5936	CO (1-0)	IRAM	- 71	25.0	0.13	2.20	2	...	Pr3
	...	CO (2-1)	IRAM	- 67	20.0	0.23	6.40	2	...	Pr3
0311-57	TW Hor	CO (1-0)	SEST	+ 1	5.3	0.12	0.95	2	...	AA8
	CCS 136	CO (1-0)	SEST	+ 1	5.3	0.12	1.00	2	0.017	AA54
0318+70	RAFGL 482	CO (1-0)	BTL	- 12	16.0	0.11	2.40	2	0.040	AP2(!)
	...	CO (1-0)	OSO	- 16	8.3	0.83	9.00	2	0.091	AA54
	...	HCN(1-0)	NRAO	- 10	10.8	0.06	...	2	...	AP7
0319+56	03192+5642	CO (1-0)	IRAM	- 53	13.0	0.13	1.50	2	...	Pr3
	...	CO (2-1)	IRAM	- 53	17.0	0.38	6.40	2	...	Pr3
0320+65	OH 138.0+7.3	CO (1-0)	IRAM	- 37	9.2	0.10	1.30	2	0.040	AA36(!)
	...	CO (2-1)	IRAM	- 38	10.9	0.28	5.30	2	0.100	AA36(!)
0322+47	IRC+50096	CO (1-0)	BTL	- 17	16.8	0.21	4.70	2	0.070	AP2
	CCS 142	CO (1-0)	OSO	- 16	14.5	1.00	...	2	...	AA17
	RAFGL 489	CO (1-0)	FCRAO	- 16	16.0	...	14.88	2	...	AP19
	...	CO (1-0)	OSO	- 16	14.5	1.00	25.00	2	0.123	AA54
	...	HCN(1-0)	IRAM	- 17	...	...	20.00	1	0.070	AA7
	...	HCN(1-0)	OSO	- 14	14.5	0.40	...	2	...	AA17
0328-15	03287-1535	CO (1-0)	SEST	- 5	8.2	0.20	1.60	2	0.019	AA54
0329+60	OH 141.7+3.5	CO (2-1)	IRAM	- 58	10.7	0.14	2.40	2	0.040	AA36
0330+56	03301+5658	CO (1-0)	IRAM	- 47	18.0	0.16	2.00	2	...	Pr3
	...	CO (2-1)	IRAM	- 45	16.0	0.28	5.20	2	...	Pr3
0331+60	03313+6058	CO (2-1)	IRAM	- 39	13.9	0.62	13.20	2	0.146	Pr1
	...	HCN(1-0)	IRAM	...	...	0.16	3.50	2	0.045	Pr1
0337+62	U Cam	CO (1-0)	FCRAO	+ 8	22.0	0.16	...	2	...	AP4
	IRC+60124	CO (1-0)	OSO	+ 10	18.8	0.22	5.00	2	...	AA5
	RAFGL 505	CO (1-0)	IRAM	+ 7	25.2	...	23.10	1	...	AA11
	CCS 154	CO (1-0)	OSO	...	...	...	7.30	2	...	AA30
	HD 22611	CO (1-0)	FCRAO	+ 7	9.0	...	2.64	2	...	AP19
	...	CO (1-0)	OSO	+ 10	18.8	0.23	5.00	2	0.029	AA54
	...	CO (2-1)	NRAO	+ 7	29.5	0.66	...	2	0.057	AP18
	...	HCN(1-0)	IRAM	+ 8	...	...	16.70	1	0.070	AA7
	...	HCN(1-0)	OSO	+ 9	...	0.18	6.00	2	...	AA30
0344+44	RAFGL 5102	CO (1-0)	OSO	- 25	16.0	0.37	11.30	2	0.083	AA54
	03448+4432	CO (2-1)	NRAO	- 20	13.3	0.24	...	2	...	AP3
0348+39	V414 Per	CO (2-1)	JCMT	- 23	32.4	0.17	5.40	1	...	AA43
0350+11	IK Tau	CO (1-0)	BTL	+ 35	22.0	0.20	6.00	2	0.040	AP2

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	IRC+10050	CO (1-0)	OSO	+ 35	19.4	1.40	44.50	2	...	AA13
	RAFGL 529	CO (1-0)	OSO	+ 34	19.0	0.84	...	2	...	AA17
	NML Tau	CO (1-0)	IRAM	+ 35	17.3	2.60	63.10	2	0.100	AA23
	...	CO (1-0)	FCRAO	+ 36	22.0	...	22.98	2	...	AP19
	...	CO (1-0)	IRAM	...	...	2.60	74.00	2	0.400	AA48
	...	CO (1-0)	OSO	+ 35	19.4	1.40	44.50	2	0.265	AA54
	...	CO (1-0)	IRAM	+ 34	17.9	2.30	101.00	2	0.026	PC1(m)
	...	CO (2-1)	IRAM	...	...	3.20	83.00	2	0.400	AA48(m)
	...	CO (2-1)	IRAM	+ 34	20.0	4.10	138.00	2	0.029	PC1(m)
	...	HCN(1-0)	FCRAO	+ 32	...	0.05	...	1	...	NT1
	...	HCN(1-0)	OSO	+ 36	20.1	0.11	3.50	2	...	AA13
	...	HCN(1-0)	IRAM	+ 34	17.0	0.40	3.30	2	0.040	AA19
0402-15	V Eri	CO (2-1)	NRAO	- 12	13.0	0.16	...	2	...	AP3
0408+53	04085+5347	CO (1-0)	IRAM	- 13	12.0	0.09	0.74	2	...	Pr3
	...	CO (2-1)	IRAM	- 12	11.0	0.09	1.00	2	...	Pr3
0429+34	04296+3429	CO (2-1)	FCRAO	- 62	15.6	0.40	...	2	...	AA26
	...	CO (2-1)	IRAM	- 66	12.0	0.45	8.30	2	0.128	Pr1
	...	HCN(1-0)	IRAM	...	...	0.10	1.50	2	0.024	Pr1
0430+62	IRC+60144	CO (1-0)	BTL	- 44	20.4	0.12	3.20	2	0.050	AP2(!)
	RAFGL 595	CO (1-0)	NRAO	- 46	14.5	0.34	...	2	...	AP7
	...	CO (1-0)	FCRAO	- 48	24.0	...	7.86	2	...	AP19
	...	CO (1-0)	OSO	- 45	15.0	0.80	18.70	2	0.097	AA54
	...	HCN(1-0)	NRAO	- 45	19.9	0.07	...	2	...	AP7
	...	HCN(1-0)	IRAM	- 45	...	...	17.50	1	0.070	AA7
0434+46	04340+4623	CO (1-0)	IRAM	+ 27	14.0	0.56	4.30	2	...	Pr3
	...	CO (2-1)	IRAM	+ 24	17.0	0.53	12.00	2	...	Pr3
0436-62	R Dor	CO (1-0)	SEST	+ 7	6.1	0.38	5.00	2	...	AA58
	HR 1492	CO (2-1)	SEST	+ 7	6.3	2.50	31.00	2	...	AA58
	HD 29712	HCN(1-0)	SEST	...	...	0.04	0.56	2	...	AA58
0439+36	RAFGL 618	CO (1-0)	BTL	- 21	21.5	0.43	12.30	2	0.120	AP2
	V353 Aur	CO (1-0)	IRAM	- 21	...	4.40	114.00	2	0.080	AA9(m)
	PK 166-6.1	CO (1-0)	IRAM	- 21	...	4.40	114.00	2	0.050	AA12
	...	CO (1-0)	OSO	- 23	19.6	2.40	...	2	...	AA17
	...	CO (1-0)	IRAM	- 21	20.0	7.80	213.00	2	...	AA52
	...	CO (1-0)	OSO	- 23	19.6	2.40	61.40	2	0.124	AA54
	...	CO (1-0)	NRO	...	...	4.70	...	2	...	AA56(m)
	...	CO (2-1)	IRAM	- 22	...	9.30	250.00	2	0.160	AA9(m)
	...	CO (2-1)	IRAM	- 21	...	9.30	250.00	2	0.150	AA12(m)
	...	CO (2-1)	NRAO	- 22	18.0	2.20	53.90	2	0.150	AP16
	...	CO (2-1)	NRAO	- 22	18.6	3.50	...	2	0.260	AP18
	...	CO (2-1)	IRAM	- 21	18.5	6.30	161.00	2	...	AA52
	...	HCN(1-0)	IRAM	- 21	...	0.90	20.10	2	0.020	AA12
	...	HCN(1-0)	OSO	- 21	16.5	0.40	...	2	...	AA17
	...	HCN(1-0)	OSO	...	...	...	...	2	...	AP23
	...	HCN(1-0)	Bure	...	...	...	...	2	...	AA57(m)
0446+68	ST Cam	CO (1-0)	OSO	- 16	10.0	0.13	2.10	2	...	AA5

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
0453+44	IRC+70055	CO (1-0)	OSO	- 15	10.0	0.13	2.10	2	0.019	AA54
	RAFGL 633	CO (2-1)	NRAO	- 14	13.6	0.25	...	2	0.032	AP18
	CCS 240	CO (2-1)	JCMT	- 10	8.2	...	1.44	1	...	AA43
	HD 30243	HCN(1-0)	OSO	- 13	...	0.14	2.50	2	...	AA30
	04530+4427	CO (1-0)	FCRAO	+ 14	19.6	0.14	...	2	...	AP4
	...	CO (1-0)	IRAM	+ 9	20.8	0.56	...	2	...	AA4
	...	CO (2-1)	JCMT	+ 17	20.3	0.33	9.10	1	...	AA43
0456+56	...	HCN(1-0)	IRAM	+ 18	19.1	0.18	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 14	...	...	4.40	1	0.060	AA7
	TX Cam	CO (1-0)	BTL	+ 13	12.5	0.12	2.00	2	0.040	AP2
	IRC+60150	CO (1-0)	IRAM	+ 24	...	0.19	4.00	2	0.060	AA2
	RAFGL 664	CO (1-0)	OSO	+ 9	17.6	0.81	19.60	2	...	AA13
	...	CO (1-0)	FCRAO	+ 10	20.0	...	6.53	2	...	AP19
	...	CO (1-0)	IRAM	+ 12	21.3	1.50	41.00	2	...	AA41
	...	CO (1-0)	OSO	+ 9	17.6	0.81	19.60	2	0.066	AA54
	...	CO (2-1)	NRAO	+ 11	16.9	1.04	...	2	0.130	AP6
	...	CO (2-1)	IRAM	+ 10	21.7	3.80	108.00	2	...	AA41
0457-14	...	HCN(1-0)	OSO	+ 10	23.1	0.16	4.80	2	...	AA13
	R Lep	CO (1-0)	BTL	+ 16	20.5	0.09	2.50	2	0.050	AP2(?)
	IRC-10080	CO (1-0)	SEST	+ 12	18.6	0.23	6.00	2	...	AA8
	RAFGL 667	CO (1-0)	IRAM	+ 12	17.7	...	26.30	1	...	AA11
	CCS 276	CO (1-0)	IRAM	+ 10	18.3	0.55	...	1	0.070	AA15
	HD 31996	CO (1-0)	IRAM	+ 11	17.6	0.66	...	2	0.060	AA27
	...	CO (1-0)	SEST	+ 23	21.4	0.24	6.90	2	0.020	AA54
	...	CO (2-1)	NRAO	+ 15	9.8	0.57	...	2	...	AP3
	...	CO (2-1)	JCMT	+ 16	19.0	0.58	17.03	1	...	AA43
	...	HCN(1-0)	IRAM	+ 16	...	...	16.90	1	0.050	AA7
0502+01	...	HCN(1-0)	SEST	+ 17	...	0.08	2.20	2	...	AA30
	W Ori	CO (1-0)	OSO	+ 5	11.8	0.21	3.70	2	...	AA5
	IRC+00066	CO (1-0)	IRAM	- 1	10.9	...	5.20	1	...	AA11
	RAFGL 683	CO (1-0)	OSO	+ 5	11.8	0.21	3.70	2	0.046	AA54
	CCS 284	CO (2-1)	NRAO	- 1	10.2	0.22	...	2	...	AP3
	HD 32736	HCN(1-0)	IRAM	- 1	...	...	11.50	1	0.080	AA7
	...	HCN(1-0)	OSO	+ 0	...	0.23	4.60	2	...	AA30
0505-84	NSV 01835	CO (1-0)	SEST	+ 12	19.5	0.07	...	1	...	AA29
	05052-8420	CO (1-0)	SEST	- 4	14.5	0.06	1.30	2	0.021	AA54(!)
0507+52	IRC+50137	CO (1-0)	BTL	+ 7	14.7	0.08	1.60	2	0.050	AP2(!!)
	NV Aur	CO (1-0)	FCRAO	+ 3	18.0	...	9.74	2	...	AP19
	RAFGL 700	CO (1-0)	OSO	+ 3	18.0	0.57	19.70	2	0.093	AA54
0509-11	RX Lep	CO (1-0)	IRAM	- 5	18.3	0.18	...	1	0.080	AA15(!)
0509-48	S Pic	CO (1-0)	SEST	+ 0	11.8	0.08	0.80	2	0.019	AA54
0509-64	U Dor	CO (1-0)	SEST	+ 33	6.9	0.16	1.60	2	0.044	AA54
0510+20	05104+2055	CO (1-0)	IRAM	+ 13	25.2	0.28	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 15	21.0	0.18	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 13	...	...	6.90	1	0.070	AA7
0513+53	R Aur	CO (1-0)	BTL	+ 0	10.9	0.06	0.90	2	0.030	AP2(!!)

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	IRC+50141	CO (1-0)	FCRAO	- 1	8.0	...	2.30	2	...	AP19
	RAFGL 715	CO (1-0)	OSO	- 3	11.1	0.23	2.60	2	0.082	AA54(!)
0513+47	05136+4712	CO (1-0)	IRAM	- 44	14.7	0.41	...	2	...	AA4
0515+63	IRC+60154	CO (1-0)	FCRAO	+ 51	7.0	...	0.69	2	...	AP19
	BW Cam	CO (1-0)	OSO	+ 55	18.8	0.21	5.30	2	0.090	AA54(!)
	RAFGL 724	CO (2-1)	NRAO	+ 49	19.9	0.30	...	2	...	AP3
0523+34	S Aur	CO (1-0)	FCRAO	- 21	16.5	0.08	...	2	...	AP4
	IRC+30114	HCN(1-0)	IRAM	- 21	...	...	9.30	1	0.070	AA7
0525-12	IC 418	CO (1-0)	SEST	+ 36	10.1	0.06	1.10	2	0.022	AA54(!)
0540+32	RAFGL 809	CO (1-0)	BTL	- 32	30.0	0.05	1.83	2	0.019	AP8(!)
	V370 Aur	CO (2-1)	NRAO	- 31	26.0	0.65	...	2	...	AP3
	...	HCN(1-0)	NRAO	- 30	22.7	0.13	...	2	...	AP7
	...	HCN(1-0)	IRAM	- 31	...	...	26.60	1	0.090	AA7
0541+69	BX Cam	CO (1-0)	BTL	+ 1	21.1	0.08	2.20	2	0.040	AP2(!!)
	IRC+70066	CO (1-0)	OSO	+ 0	22.2	0.54	15.40	2	...	AA13
	RAFGL 811	CO (1-0)	FCRAO	- 2	22.0	...	6.36	2	...	AP19
	NSV 2601	CO (1-0)	OSO	+ 0	22.2	0.54	15.40	2	0.083	AA54
	...	HCN(1-0)	OSO	- 1	18.6	0.05	1.30	2	...	AA13
0541-46	W Pic	CO (1-0)	SEST	+ 25	7.0	0.04	0.40	2	...	AA8
0541-32	05418-3224	CO (2-1)	JCMT	+ 24	10.0	0.20	2.70	1	...	AA43
0542+20	Y Tau	CO (1-0)	FCRAO	+ 16	10.1	0.17	...	2	...	AP4
	IRC+20121	CO (1-0)	OSO	+ 15	14.9	0.27	6.20	2	...	AA5
	RAFGL 5168	CO (1-0)	SEST	+ 16	10.7	0.22	3.70	2	...	AA8
	CCS 393	CO (1-0)	IRAM	+ 15	11.8	...	6.80	1	...	AA11
	HD 38307	CO (1-0)	IRAM	+ 9	8.9	0.31	...	2	0.150	AA27(!)
	...	CO (2-1)	JCMT	+ 18	13.2	0.30	5.48	1	...	AA43
	...	HCN(1-0)	IRAM	+ 16	...	...	9.90	1	0.070	AA7
	...	HCN(1-0)	OSO	+ 8	...	0.28	3.30	2	...	AA30
	...	HCN(1-0)	SEST	+ 9	...	0.18	2.40	2	...	AA30
0552+07	α Ori	CO (1-0)	BTL	...	...	...	0.30	2	0.020	AP2(?)
	IRC+10100	CO (1-0)	IRAM	...	...	0.21	...	1	0.050	AA21
	RAFGL 836	CO (1-0)	IRAM	+ 2	12.8	0.20	...	2	0.100	AA27(!!)
	Betelgeuse	CO (2-1)	NRAO	+ 4	14.3	0.40	10.40	2	...	AP9
	SAO 113271	CO (2-1)	IRAM	+ 3	13.7	1.00	...	1	0.070	AA18
	...	CO (2-1)	IRAM	...	...	0.70	...	1	0.030	AA21
0555+74	V Cam	CO (1-0)	OSO	+ 8	15.1	0.20	3.70	2	0.076	AA54(!)
	IRC+70067	CO (2-1)	NRAO	+ 10	12.2	0.13	...	2	...	AA16
0555+38	V373 Aur	CO (1-0)	BTL	- 32	19.8	0.03	0.77	2	0.011	AP8(!)
0601+07	RAFGL 865	CO (1-0)	BTL	+ 42	15.3	0.16	3.30	2	0.040	AP2
	...	CO (1-0)	OSO	+ 44	16.3	0.77	...	2	...	AA17
	...	CO (1-0)	OSO	+ 42	16.5	1.23	27.00	2	0.087	AA54
	...	CO (2-1)	NRAO	+ 43	15.1	1.21	...	2	0.110	AP18
	...	HCN(1-0)	NRAO	+ 45	15.4	0.08	...	2	...	AP7
	...	HCN(1-0)	IRAM	+ 42	...	...	7.40	1	0.060	AA7
0607+26	TU Gem	CO (1-0)	OSO	+ 28	11.4	0.19	3.40	2	...	AA5
	IRC+30143	CO (2-1)	NRAO	+ 27	12.6	0.22	...	2	0.045	AP18

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	CCS 461	HCN(1-0)	OSO	+ 30	...	0.13	2.60	2	...	AA30
0608+21	TV Gem	CO (1-0)	IRAM	...	...	0.25	...	1	0.120	AA21(!)
	IRC+20134	CO (1-0)	IRAM	+ 28	12.0	0.35	...	2	0.130	AA27(!)
	RAFGL 893	CO (2-1)	IRAM	...	...	0.15	...	1	0.100	AA21(!)
0608+19	06088+1909	HCN(1-0)	IRAM	+ 61	21.0	0.13	...	2	...	AA4
0617-10	Red Rectangle	CO (1-0)	BTL	+ 14	1.6	0.13	0.22	2	0.030	AP8
	RAFGL 915	CO (1-0)	IRAM	- 1	...	0.20	1.40	2	0.060	AA9
0619+46	06192+4657	CO (1-0)	OSO	- 23	7.7	0.23	2.30	2	0.080	AA54(!)
0619-03	V654 Mon	CO (1-0)	SEST	- 7	17.5	0.08	2.70	2	0.018	AA54
0620+09	06206+0931	CO (1-0)	SEST	+ 12	10.0	0.04	0.23	2	0.012	Pr3
0622+14	BL Ori	CO (2-1)	OSO	...	...	...	2.50	2	...	AA30
0622-09	V636 Mon	CO (2-1)	NRAO	+ 13	25.8	0.52	...	2	...	AA16
	IRC-10122	CO (2-1)	JCMT	+ 13	24.6	0.39	12.35	1	...	AA43
	RAFGL 933	HCN(1-0)	IRAM	+ 13	...	...	12.90	1	0.070	AA7
0623-09	RAFGL 935	CO (1-0)	FCRAO	+ 25	12.9	0.10	...	2	...	AP4
	...	CO (1-0)	SEST	+ 25	14.4	0.08	1.40	2	0.023	AA54
0623+09	06238+0904	CO (1-0)	SEST	+ 35	16.0	0.05	0.47	2	0.015	Pr3
0626+08	EIC 135	CO (1-0)	SEST	+ 35	33.0	0.03	0.76	2	0.070	Pr3
	RAFGL 5196	HCN(1-0)	SEST	+ 42	28.0	0.06	0.70	2	0.050	Pr3
0629+43	RAFGL 954	CO (1-0)	FCRAO	- 39	21.4	0.06	...	2	...	AP4
	...	HCN(1-0)	IRAM	- 39	...	...	4.60	1	0.060	AA7
0629+40	IRC+40156	CO (1-0)	FCRAO	- 15	15.0	...	3.12	2	...	AP19
	RAFGL 955	CO (1-0)	OSO	- 18	17.6	0.27	6.30	2	0.059	AA54
0630+60	AP Lyn	CO (1-0)	BTL	- 22	16.9	0.08	1.90	2	0.030	AP2(!)
	IRC+60169	CO (1-0)	OSO	- 23	15.7	0.49	13.00	2	...	AA13
	RAFGL 956	CO (1-0)	FCRAO	- 23	15.0	...	5.80	2	...	AP19
	NSV 3020	CO (1-0)	OSO	- 23	19.7	0.36	10.00	2	0.089	AA54
	...	HCN(1-0)	OSO	- 22	17.0	0.05	1.20	2	...	AA13
0633+38	UU Aur	CO (1-0)	BTL	+ 7	13.4	0.06	1.10	2	0.029	AP8(!)
	IRC+40158	CO (1-0)	OSO	+ 6	11.4	0.47	8.00	2	...	AA5
	RAFGL 966	CO (1-0)	IRAM	+ 7	11.2	...	15.90	1	...	AA11
	CCS 537	CO (1-0)	FCRAO	+ 8	11.0	...	3.37	2	...	AP19
	HD 46687	CO (1-0)	OSO	+ 10	19.3	0.33	8.30	2	0.116	AA54(!)
	...	CO (2-1)	NRAO	+ 4	11.5	0.66	...	2	...	AP3
	...	CO (2-1)	FCRAO	+ 8	12.4	0.26	...	2	...	AP4
	...	HCN(1-0)	IRAM	+ 8	...	...	21.60	1	0.060	AA7
	...	HCN(1-0)	OSO	+ 7	...	0.23	6.00	2	...	AA30
0634+03	RAFGL 971	CO (2-1)	NRAO	+ 1	9.0	0.74	...	2	...	AP3
	...	HCN(1-0)	IRAM	+ 1	...	...	3.10	1	0.080	AA7
0634+24	M1-7	CO (2-1)	NRAO	- 11	25.0	0.46	17.10	2	0.068	AP16
0639-22	IRC-20101	CO (1-0)	IRAM	+ 48	20.0	0.35	11.90	2	...	AA3
	GM CMa	CO (1-0)	IRAM	+ 49	19.0	0.50	16.00	2	...	AA42
	RAFGL 4521S	CO (2-1)	IRAM	+ 47	13.7	1.40	29.00	2	...	AA42
0645-08	HR 2508	CO (1-0)	IRAM	- 17	17.0	0.10	...	1	0.090	AA15(?)
0648+05	06487+0551	CO (2-1)	IRAM	+ 29	11.0	0.29	3.40	2	...	Pr3
0650+08	GX Mon	CO (1-0)	OSO	- 7	20.0	0.91	30.50	2	...	AA13

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	IRC+10143	CO (1-0)	FCRAO	- 9	20.0	...	13.93	2	...	AP19
	RAFGL 1028	CO (2-1)	NRAO	- 9	18.7	1.20	...	2	...	AP3
	OH 205.6+4.1	CO (2-1)	NRAO	- 9	19.3	1.30	...	2	...	AA16
	...	HCN(1-0)	OSO	...	24.2	0.07	2.30	2	...	AA13
0650-04	06505-0450	CO (1-0)	IRAM	+ 53	12.0	0.19	1.20	2	...	Pr3(?)
0650+03	M1-8	CO (2-1)	NRAO	+ 54	23.0	0.08	2.80	2	0.043	AP16(?)
0652+06	CL Mon	CO (1-0)	SEST	+ 29	27.4	0.08	3.20	2	...	AA8
	IRC+10144	CO (1-0)	NRAO	+ 27	23.9	0.08	...	2	...	AA16
	RAFGL 1038	CO (2-1)	NRAO	+ 27	27.0	0.16	...	2	...	AA16
0653-02	CCS 618	CO (1-0)	IRAM	+ 33	31.0	0.19	4.30	2	...	Pr3
	RAFGL 1039	CO (2-1)	IRAM	+ 39	27.0	0.34	12.00	2	...	Pr3
	06531-0216	HCN(1-0)	SEST	+ 44	...	0.01	0.26	2	0.005	Pr3(!)
0656+03	06564+0342	CO (2-1)	JCMT	+ 31	9.9	0.30	4.20	1	...	AA43
0658+15	06582+1507	CO (1-0)	OSO	+ 19	17.8	0.23	6.00	2	0.107	AA54(!)
	...	CO (2-1)	IRAM	+ 22	12.7	0.46	8.70	2	0.089	Pr1
	...	CO (2-1)	IRAM	+ 22	13.7	0.48	8.80	2	0.049	Pr1
	...	HCN(1-0)	IRAM	...	...	0.15	2.10	2	0.034	Pr1
0701-05	HD 53300	CO (1-0)	SEST	+ 55	6.5	0.15	1.30	2	...	Pr2
0702-79	07027-7934	CO (1-0)	SEST	- 27	10.0	0.04	0.57	2	0.008	AA24
	...	CO (1-0)	SEST	- 22	14.5	0.03	...	2	...	AA38
	...	CO (1-0)	SEST	- 27	14.5	0.07	1.30	2	0.016	AA54
0704+22	R Gem	CO (1-0)	IRAM	- 59	6.0	0.65	...	2	0.100	AA27
0704-07	RY Mon	CO (2-1)	NRAO	- 11	14.0	0.16	...	2	0.032	AP18
0705-11	W CMa	CO (1-0)	SEST	+ 0	11.7	0.07	1.30	2	...	AA8
0706-72	R Vol	CO (1-0)	SEST	- 12	19.3	0.16	5.10	2	...	AA8
	RAFGL 4070	CO (1-0)	SEST	- 3	21.2	0.06	1.60	2	0.020	AA54
	CCS 689	HCN(1-0)	SEST	- 5	...	0.07	1.90	2	...	AA30
0706-00	NGC 2346	CO (1-0)	BTL	+ 12	19.0	0.06	1.91	2	0.020	AP8
	RAFGL 5334	CO (1-0)	IRAM	+ 2	...	0.45	4.20	2	0.025	AA9
	PK 215+03.1	CO (1-0)	IRAM	+ 26	...	0.31	3.80	2	0.025	AA9
	..	CO (1-0)	IRAM	+ 3	7.2	0.85	6.50	1	0.050	AA20(n)
	..	CO (1-0)	IRAM	+ 20	40.0	0.14	6.00	1	0.050	AA20(n)
	...	CO (2-1)	NRAO	+ 13	25.0	0.60	...	2	...	MN2
	...	CO (2-1)	IRAM	+ 2	7.0	1.90	14.20	1	0.050	AA20(m)(n)
	...	CO (2-1)	IRAM	+ 28	40.0	0.14	5.90	1	0.050	AA20(m)(n)
	...	CO (2-1)	NRAO	+ 9	28.0	0.90	18.60	2	...	AP16
	...	HCN(1-0)	IRAM	+ 2	12.0	0.08	1.00	1	0.080	AA20
0709-20	RAFGL 1085	CO (2-1)	NRAO	+ 8	23.8	0.20	...	2	...	AP3
0713+10	HD 56126	CO (1-0)	FCRAO	+ 71	10.0	0.36	...	2	...	AP4
	SAO 96709	CO (1-0)	IRAM	+ 72	...	1.30	21.00	2	0.100	AA53
	...	CO (1-0)	OSO	+ 70	12.0	0.70	10.30	2	0.133	AA54
	...	CO (1-0)	SEST	+ 75	11.0	0.38	5.70	2	0.050	Pr2
	...	CO (2-1)	IRAM	+ 73	...	2.20	28.00	2	0.100	AA53
	...	CO (2-1)	IRAM	+ 73	10.2	3.21	43.90	2	0.097	Pr1
	...	HCN(1-0)	IRAM	+ 78	...	0.25	3.20	2	0.060	AA53
	...	HCN(1-0)	IRAM	...	...	0.31	4.30	2	0.040	Pr1

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
0714-14	07145-1428	CO (1-0)	IRAM	+ 77	27.0	0.07	1.00	2	...	Pr3
	...	CO (2-1)	IRAM	+ 91	35.0	0.11	4.50	2	...	Pr3
0715-34	RAFGL 1099	CO (1-0)	SEST	- 16	18.1	0.07	1.20	2	0.023	AA54
0716+69	RU Cam	CO (2-1)	NRAO	- 30	28.9	0.04	...	2	0.028	AP18(!!)
0718-13	07180-1314	CO (2-1)	IRAM	+ 63	20.0	0.08	1.90	2	...	Pr3
0720-18	07200-1846	CO (2-1)	IRAM	+ 30	12.0	0.13	2.30	2	...	Pr3
0720-32	07203-3212	CO (1-0)	SEST	+ 43	13.0	0.08	1.60	2	0.017	AA54
0720-25	VY CMa	CO (1-0)	SEST	+ 24	30.8	0.06	2.40	2	0.019	AA54
	IRC-30087	CO (2-1)	NRAO	+ 19	35.9	0.48	...	2	...	AP3
	RAFGL 1111	HCN(1-0)	IRAM	+ 16	32.0	0.33	5.80	2	0.040	AA19
0721-12	07217-1246	CO (1-0)	IRAM	+ 21	24.9	0.13	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 27	32.5	0.28	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 21	...	...	11.70	1	0.070	AA7
0724+46	Y Lyn	CO (1-0)	OSO	- 1	8.6	0.20	2.20	2	0.083	AA54(!)
	IRC+50180	CO (2-1)	NRAO	+ 1	5.4	0.41	...	2	0.130	AP6
0727-19	IRC-20131	CO (2-1)	NRAO	+ 21	25.5	0.20	...	2	...	AA16
0728+24	CCS 779	CO (2-1)	NRAO	+ 1	6.9	0.05	...	2	0.031	AP18(!!)
0734-09	M1-16	CO (1-0)	SEST	+ 49	...	0.30	...	2	...	AA59
	PK 226+5.1	CO (2-1)	NRAO	+ 50	25.0	0.88	26.40	2	0.083	AP16
	...	CO (2-1)	SEST	+ 48	...	0.85	26.00	2	...	AA59
0737-40	07373-4021	CO (1-0)	SEST	+ 12	24.4	0.14	5.10	2	0.037	AA54
0738-11	M1-17	CO (1-0)	IRAM	+ 28	39.0	0.80	25.10	2	...	AA45
	PK 228+5.1	CO (2-1)	IRAM	+ 28	39.0	1.80	66.20	2	...	AA45
0739-18	NGC 2440	CO (2-1)	NRAO	+ 44	28.0	0.10	3.60	2	0.032	AP16
0739-14	OH 231.8+4.2	CO (1-0)	BTL	+ 25	68.5	0.04	3.50	2	0.020	AP2(!!)
	RAFGL 5237	CO (1-0)	BTL	+ 35	72.0	0.02	2.94	2	0.010	AP8(?) _(n)
	QX Pup	CO (1-0)	BTL	+ 34	23.0	0.02	2.17	2	...	AP8(?) _(n)
	...	CO (1-0)	IRAM	+ 30	...	1.30	92.50	2	...	AP11
	...	HCN(1-0)	FCRAO	+ 34	...	0.05	...	1	...	NT1
	...	HCN(1-0)	IRAM	+ 30	...	0.65	30.00	2	...	AP11
0743-18	07434-1847	CO (1-0)	IRAM	+ 60	15.0	0.31	2.50	2	...	Pr3
	...	CO (2-1)	IRAM	+ 60	14.0	0.32	4.60	2	...	Pr3
0745-71	07454-7112	CO (1-0)	SEST	- 39	13.6	1.17	23.30	2	0.049	AA54
0753+53	VV 47	CO (2-1)	NRAO	- 55	14.0	0.22	1.50	2	0.036	AP16 _(n)
	PK 164+31.1	CO (2-1)	NRAO	...	...	0.36	3.20	2	0.078	AP16 _(n)
0755-58	V341 Car	CO (1-0)	SEST	+ 1	35.4	0.60	10.40	2	0.026	AA54 _(n)
0757-40	07576-4054	CO (1-0)	SEST	+ 4	7.0	0.11	1.40	2	0.021	AA54
0758-19	07582-1933	CO (1-0)	IRAM	+ 6	14.6	0.28	...	2	...	AA4
	...	CO (1-0)	SEST	+ 9	14.5	0.10	2.00	2	0.016	AA54
	...	HCN(1-0)	IRAM	+ 13	22.9	0.10	...	2	...	AA4
0804-15	08045-1524	CO (1-0)	IRAM	- 22	13.7	0.12	...	2	...	AA4
0805-28	08050-2838	CO (1-0)	SEST	- 11	15.0	0.12	0.94	2	0.030	Pr3
0807-36	08074-3615	CO (1-0)	NRAO	+ 12	17.3	0.20	...	2	...	AP7
	...	HCN(1-0)	IRAM	+ 12	...	...	9.20	1	0.100	AA7
0808-32	RAFGL 1235	CO (2-1)	NRAO	- 21	20.7	0.72	...	2	...	AP3
	CCS 1081	HCN(1-0)	IRAM	- 21	...	...	11.10	1	0.090	AA7

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
0817-21	RAFGL 5250	CO (1-0)	NRAO	- 9	15.8	0.15	...	2	...	AP7
	08171-2134	CO (1-0)	SEST	- 9	16.3	0.33	7.90	2	0.022	AA54
	...	CO (2-1)	NRAO	- 6	16.1	0.40	...	2	...	AP3
	...	HCN(1-0)	NRAO	- 3	15.4	0.05	...	2	...	AP7
	...	HCN(1-0)	IRAM	- 6	...	...	5.80	1	0.080	AA7
0819-36	08191-3653	CO (1-0)	SEST	+ 85	18.0	0.06	0.51	2	0.010	Pr3
0852+17	X Cnc	CO (1-0)	OSO	- 15	12.0	0.15	2.00	2	...	AA5
	IRC+20206	CO (1-0)	NRAO	- 15	8.8	0.10	...	2	...	AA16
	RAFGL 1298	CO (2-1)	NRAO	- 15	8.2	0.28	...	2	0.035	AP18
	CCS 1338	HCN(1-0)	OSO	- 11	...	0.08	1.10	2	...	AA30
0903-39	09032-3953	CO (1-0)	SEST	+ 35	18.0	0.04	0.63	2	0.008	AA24
0907+31	RS Cnc	CO (1-0)	BTL	+ 7	5.3	0.12	1.00	2	0.030	AP2
	IRC+30209	CO (1-0)	FCRAO	+ 7	8.0	...	4.10	2	...	AP19
	RAFGL 1326	CO (1-0)	OSO	+ 7	7.0	0.77	7.30	2	0.068	AA54
0911-24	RAFGL 5254	CO (1-0)	NRAO	+ 0	13.4	0.66	...	2	...	AP7
	...	CO (2-1)	NRAO	+ 0	12.8	2.00	...	2	...	AP3
	...	HCN(1-0)	IRAM	+ 0	...	...	18.80	1	0.090	AA7
0923-23	LP Hya	CO (1-0)	SEST	+ 13	18.0	0.13	3.40	2	0.044	AA54
0937+12	Frosty Leo	CO (1-0)	IRAM	- 10	25.0	0.19	9.90	2	0.020	AA3,AA42
	09371+1212	CO (2-1)	NRAO	- 6	36.6	0.18	...	2	0.031	AP18
0942+34	R LMi	CO (1-0)	IRAM	+ 3	...	0.18	1.90	2	0.040	AA2
	IRC+30215	CO (1-0)	IRAM	+ 0	6.4	0.27	2.50	2	0.040	AA23
	RAFGL 1376	CO (1-0)	FCRAO	+ 2	8.0	...	0.78	2	...	AP19
	HD 84346	CO (1-0)	IRAM	...	...	0.30	2.10	2	0.100	AA48
	SAO 61669	CO (1-0)	OSO	+ 1	6.5	0.18	2.20	2	0.057	AA54
	...	CO (2-1)	IRAM	...	...	1.10	12.00	2	0.200	AA48(m)
0942-60	09425-6040	CO (1-0)	SEST	+ 15	9.9	0.10	1.40	2	0.013	AA54
0942-21	IW Hya	CO (2-1)	NRAO	+ 41	14.0	0.61	...	2	...	AP3
0944+11	R Leo	CO (1-0)	BTL	- 2	4.0	0.05	0.30	2	0.030	AP2(!!)
	IRC+10215	CO (1-0)	IRAM	- 1	...	0.20	1.60	2	0.060	AA2
	RAFGL 1380	CO (1-0)	IRAM	+ 3	12.8	0.59	...	2	0.060	AA15
	HD 84748	CO (1-0)	IRAM	+ 0	5.1	0.45	4.00	2	0.040	AA23
	SAO 98769	CO (1-0)	IRAM	+ 3	12.8	0.59	...	2	0.060	AA27
	...	CO (1-0)	FCRAO	- 1	8.0	...	1.26	2	...	AP19
	...	CO (2-1)	IRAM	...	...	1.60	15.00	2	0.200	AA48(m)
0945+13	IRC+10216	CO (1-0)	BTL	- 26	15.2	5.10	123.10	2	0.050	AP2
	CW Leo	CO (1-0)	FCRAO	- 27	15.0	10.70	...	2	...	AP4
	RAFGL 1381	CO (1-0)	NRAO	- 26	14.1	6.66	...	2	...	AP5
	...	CO (1-0)	IRAM	- 26	...	12.00	292.70	2	0.200	AA2
	...	CO (1-0)	NRAO	- 26	15.9	9.10	...	2	...	AP7
	...	CO (1-0)	SEST	- 27	16.0	10.40	251.40	2	...	AA8
	...	CO (1-0)	IRAM	- 25	...	20.00	484.00	2	0.200	AA9
	...	CO (1-0)	OSO	...	12.6	10.00	...	2	0.100	AP13
	...	CO (1-0)	NRAO	...	12.1	9.60	...	2	0.100	AP13
	...	CO (1-0)	NRAO	- 26	15.6	8.30	...	2	...	AA16
	...	CO (1-0)	IRAM	- 26	...	16.20	421.50	2	0.200	AA23

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
...		CO (1-0)	SEST	...	...	...	264.00	2	...	AA30
...		CO (1-0)	OSO	...	...	...	310.00	2	...	AA30
...		CO (1-0)	FCRAO	- 27	15.2	10.10	...	2	...	AA32
...		CO (1-0)	FCRAO	- 26	17.0	...	231.25	2	...	AP19
...		CO (1-0)	IRAM	- 26	16.0	16.80	...	2	...	AA46(m)
...		CO (1-0)	IRAM	- 26	14.3	16.00	404.00	2	...	AA52
...		CO (1-0)	OSO	- 26	15.7	11.17	275.70	2	0.107	AA54
...		CO (2-1)	NRAO	- 26	14.7	20.70	...	2	...	AP3
...		CO (2-1)	FCRAO	- 25	14.6	12.30	...	2	...	AP4
...		CO (2-1)	NRAO	- 26	14.1	22.07	...	2	...	AP5
...		CO (2-1)	NRAO	- 26	14.8	21.20	...	2	0.340	AP6
...		CO (2-1)	NRAO	...	11.7	21.50	...	2	0.800	AP13
...		CO (2-1)	NRAO	- 26	15.3	20.10	...	2	...	AA16
...		CO (2-1)	NRAO	- 26	15.1	20.90	...	2	...	AA16
...		CO (2-1)	NRAO	- 26	15.2	28.00	...	2	0.190	AP18
...		CO (2-1)	IRAM	- 26	16.0	36.00	...	2	...	AA46(m)
...		CO (2-1)	IRAM	- 26	14.7	44.00	977.00	2	...	AA52
...		HCN(1-0)	NRAO	- 21	...	0.76	...	2	...	AA1
...		HCN(1-0)	NRAO	- 22	16.0	5.00	...	2	...	AP7
...		HCN(1-0)	IRAM	...	...	13.43	268.30	1	0.640	AA6
...		HCN(1-0)	OSO	- 23	...	10.90	246.00	2	...	AA30
...		HCN(1-0)	SEST	- 23	...	7.70	169.00	2	...	AA30
...		HCN(1-0)	FCRAO	- 21	18.2	8.90	...	2	...	AA32
...		HCN(1-0)	OSO	...	...	...	...	2	...	AP23
0948-22	Y Hya	CO (1-0)	SEST	- 7	10.2	0.12	1.60	2	...	AA8
	IRC-20199	CO (2-1)	NRAO	- 7	8.5	0.32	...	2	0.034	AP18
	CCS 1566	HCN(1-0)	SEST	- 6	...	0.06	0.80	2	...	AA30
0952-75	RAFGL 4098	CO (1-0)	SEST	- 4	12.8	0.59	10.60	2	0.048	AA54
0953-41	X Vel	CO (1-0)	SEST	- 17	8.6	0.09	1.30	2	...	AA8
	CCS 1583	CO (1-0)	SEST	- 17	8.6	0.09	1.30	2	0.091	AA54(!!)
1004-40	NGC 3132	CO (2-1)	SEST	- 25	75.0	...	...	2	...	AA34(m)
1013+30	CIT 6	CO (1-0)	BTL	- 2	16.9	0.74	19.90	2	0.020	AP2
	IRC+30219	CO (1-0)	FCRAO	- 1	16.5	2.50	...	2	...	AP4
	RAFGL 1403	CO (1-0)	NRAO	- 2	16.3	1.90	...	2	...	AP7
	CCS 1641	CO (1-0)	IRAM	- 1	...	5.00	143.00	2	0.600	AA9
	RW LMi	CO (1-0)	NRAO	- 2	17.5	1.60	...	2	...	AA16
...		CO (1-0)	OSO	- 2	17.5	2.40	...	2	...	AA17
...		CO (1-0)	FCRAO	- 2	18.0	...	21.85	2	...	AP19
...		CO (1-0)	IRAM	- 2	15.5	6.00	176.00	2	...	AA52
...		CO (1-0)	OSO	- 2	17.5	2.40	77.50	2	0.109	AA54
...		CO (1-0)	IRAM	- 1	15.8	5.70	181.00	2	0.022	PC1(m)
...		CO (2-1)	NRAO	- 2	17.4	3.50	...	2	...	AP3
...		CO (2-1)	FCRAO	- 3	17.8	4.60	...	2	...	AP4
...		CO (2-1)	NRAO	- 1	17.4	4.00	...	2	...	AA16
...		CO (2-1)	NRAO	- 1	17.3	4.00	...	2	...	AA16
...		CO (2-1)	IRAM	- 1	15.1	7.20	188.00	2	...	AA52

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
...		CO (2-1)	IRAM	- 1	16.0	7.10	194.00	2	0.044	PC1(m)
...		HCN(1-0)	NRAO	+ 2	17.1	0.40	...	2	...	AP7
...		HCN(1-0)	IRAM	- 2	...	...	77.40	1	...	AA7
...		HCN(1-0)	OSO	+ 3	18.1	1.10	...	2	...	AA17
...		HCN(1-0)	OSO	...	...	...	...	2	...	AP23
...		HCN(1-0)	NRO	...	...	...	...	2	...	AP23
1014-14	IRC-10236	CO (1-0)	BTL	+ 3	10.9	0.21	3.00	2	0.040	AP2
	IY Hya	HCN(1-0)	IRAM	+ 3	...	...	3.80	1	0.070	AA7
1017-59	CCS 1662	CO (1-0)	SEST	- 36	16.0	0.07	0.66	2	0.016	AA24
	Hen 401	CO (1-0)	SEST	- 27	...	0.04	1.20	2	0.009	AA37
	10178-5958	CO (2-1)	SEST	- 29	...	0.19	5.20	2	0.030	AA37
1019-57	Roberts 22	CO (2-1)	SEST	+ 0	...	0.15	9.00	2	0.040	AA37
1032-46	10323-4611	CO (1-0)	SEST	+ 30	20.4	0.31	9.70	2	0.042	AA54
1032-39	U Ant	CO (1-0)	SEST	+ 24	21.2	0.51	11.20	2	...	AA8
	CCS 1706	CO (1-0)	SEST	+ 25	22.3	...	11.00	2	...	AA28
	HD 91793	CO (1-0)	SEST	+ 24	21.2	0.51	11.10	2	0.030	AA54
	...	CO (2-1)	SEST	+ 25	22.3	...	14.00	2	...	AA28
1035-13	U Hya	CO (1-0)	SEST	- 32	7.9	0.38	4.70	2	...	AA8
	IRC-10242	CO (1-0)	SEST	- 32	7.9	0.39	4.70	2	0.044	AA54
	RAFGL 1427	CO (2-1)	NRAO	- 30	10.7	0.88	...	2	...	AP3
	CCS 1714	HCN(1-0)	SEST	- 30	...	0.15	1.30	2	...	AA30
1041+67	VY UMa	CO (1-0)	OSO	- 3	8.4	0.12	1.40	2	...	AA5
	IRC+70100	CO (2-1)	NRAO	+ 0	7.5	0.15	...	2	0.028	AP18
1049-20	V Hya	CO (1-0)	BTL	- 14	20.9	0.22	5.40	2	0.120	AP2(!!)
	IRC-20218	CO (1-0)	NRAO	- 16	14.2	0.56	...	2	...	AP7
	RAFGL 1439	CO (1-0)	IRAM	- 17	...	...	...	1	...	AP12(m)
	CCS 1766	CO (1-0)	SEST	- 16	15.8	1.40	24.50	2	...	AA8
	SAO 179278	CO (1-0)	IRAM	- 17	13.7	...	50.70	1	...	AA11
	...	CO (1-0)	NRAO	- 17	26.4	0.60	...	2	...	AA16
	...	CO (1-0)	SEST	- 16	15.8	1.40	24.60	2	0.050	AA54
	...	CO (2-1)	NRAO	- 17	24.0	1.40	...	2	...	AA16
	...	HCN(1-0)	SEST	- 18	...	0.08	1.70	2	...	AA30
1058-18	R Crt	CO (1-0)	SEST	+ 11	10.3	0.26	5.00	2	0.019	AA54
	IRC-20222	CO (2-1)	NRAO	+ 11	11.0	0.60	...	2	...	AP3
	RAFGL 1450	HCN(1-0)	SEST	...	...	0.03	0.47	2	...	AA58
1129-44	11296-4431	CO (1-0)	SEST	- 1	17.2	0.04	1.30	2	0.018	AA54(!!)
1130-10	11308-1020	CO (1-0)	IRAM	+ 20	11.0	0.30	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 23	15.3	0.07	...	2	...	AA4
1131-72	CCS 1882	CO (1-0)	SEST	- 2	22.9	0.17	7.00	2	0.015	AA54
1138-55	HD 101584	CO (1-0)	SEST	+ 45	145.0	0.06	14.70	2	0.012	AA24
	SAO 239288	CO (1-0)	SEST	+ 36	150.0	0.05	...	1	0.006	AA33
	...	CO (1-0)	SEST	...	...	...	...	2	0.010	Pr2(m)
	...	CO (2-1)	SEST	...	...	...	...	2	0.010	Pr2(m)
1146-35	HD 102608	CO (2-1)	NRAO	- 2	8.0	0.38	...	2	...	AP3
1227+04	BK Vir	CO (1-0)	FCRAO	+ 18	5.0	...	0.79	2	...	AP19
	IRC+00220	CO (2-1)	NRAO	+ 16	4.7	0.50	...	2	...	AA16

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
1237-49	12379-4959	CO (1-0)	SEST	+ 11	14.5	0.04	1.10	2	0.014	AA54(!)
1238+56	Y UMa	CO (1-0)	FCRAO	+ 20	3.0	...	0.54	2	...	AP19
	IRC+60220	CO (1-0)	OSO	+ 17	8.8	0.33	2.90	2	0.065	AA54
	RAFGL 1570	CO (2-1)	NRAO	+ 19	4.7	0.50	...	2	...	AA16
1238-45	12384-4536	CO (1-0)	SEST	- 39	8.1	0.14	2.00	2	0.048	AA54
1239-43	CCS 2025	CO (1-0)	SEST	- 32	16.1	0.17	5.10	2	0.021	AA54
1241-54	Boomerang Neb.	CO (1-0)	SEST	- 5	...	0.05	2.00	2	0.007	AA37
	12419-5414	CO (2-1)	SEST	- 3	...	0.15	5.00	2	0.020	AA37
1242+45	Y CVn	CO (1-0)	BTL	+ 22	7.9	0.06	0.70	2	0.030	AP2(?)
	IRC+50219	CO (1-0)	OSO	+ 20	9.0	0.34	4.40	2	...	AA5
	RAFGL 1576	CO (1-0)	IRAM	+ 22	7.0	...	8.30	1	...	AA11
	CCS 2030	CO (1-0)	IRAM	...	...	0.75	...	1	0.060	AA21
	HD 110914	CO (1-0)	IRAM	+ 20	9.4	0.65	...	2	0.200	AA27
	...	CO (1-0)	FCRAO	+ 22	9.0	...	2.09	2	...	AP19
	...	CO (1-0)	OSO	+ 22	9.7	0.43	6.30	2	0.061	AA54
	...	CO (2-1)	NRAO	+ 24	6.3	0.37	...	2	...	AP3
	...	CO (2-1)	NRAO	+ 21	7.3	0.35	...	2	0.080	AP6
	...	CO (2-1)	IRAM	...	...	0.85	...	1	0.050	AA21
	...	HCN(1-0)	IRAM	+ 24	...	...	25.30	1	0.060	AA7
	...	HCN(1-0)	OSO	+ 22	...	0.62	9.70	2	...	AA30
	...	HCN(1-0)	NRO	...	...	...	...	2	...	AP23
1244+04	RU Vir	CO (1-0)	BTL	+ 0	16.9	0.07	1.40	2	0.040	AP2(!)
	IRC+00224	CO (1-0)	OSO	- 1	19.9	0.30	8.30	2	0.126	AA54(!)
	RAFGL 1579	HCN(1-0)	IRAM	+ 0	...	...	4.40	1	0.060	AA7
1254-68	12540-6845	CO (1-0)	SEST	- 35	28.8	0.24	9.90	2	0.048	AA54
1254+66	RY Dra	CO (1-0)	OSO	- 6	10.0	0.16	2.50	2	...	AA5
	IRC+70116	CO (1-0)	IRAM	- 4	13.0	...	9.10	1	...	AA11
	RAFGL 1588	CO (2-1)	NRAO	- 5	10.4	0.36	...	2	0.067	AP18
	CCS 2047	HCN(1-0)	OSO	- 2	...	0.20	3.40	2	...	AA30
1300+05	RT Vir	CO (1-0)	BTL	+ 15	11.3	0.08	1.30	2	0.060	AP2(?)
	IRC+10262	CO (1-0)	IRAM	+ 18	...	0.66	10.20	2	0.080	AA2
	RAFGL 1594	CO (1-0)	NRAO	+ 17	8.4	0.15	...	2	...	AP7
	HD 113285	CO (1-0)	IRAM	+ 18	7.3	1.00	13.80	2	0.100	AA23
	SAO 119734	CO (1-0)	FCRAO	+ 19	10.0	...	2.09	2	...	AP19
1311-02	SW Vir	CO (1-0)	FCRAO	- 10	10.0	...	4.41	2	...	AP19
	IRC+00230	CO (1-0)	SEST	- 11	8.5	0.36	5.60	2	0.021	AA54
	RAFGL 1606	CO (2-1)	NRAO	- 11	8.6	0.89	...	2	...	AP3
	HD 114961	CO (2-1)	NRAO	- 11	8.3	0.75	...	2	0.160	AP6
1326-23	R Hya	CO (1-0)	IRAM	- 10	9.2	0.16	...	1	0.060	AA15(?)
	IRC-20254	CO (2-1)	NRAO	- 10	7.2	0.54	...	2	...	AP3
	RAFGL 1627	CO (2-1)	NRAO	- 10	7.5	0.58	...	2	0.120	AP6
1330-06	S Vir	CO (1-0)	IRAM	- 30	9.2	0.11	...	1	0.070	AA15(?)
1346-28	W Hya	CO (1-0)	IRAM	+ 44	...	0.17	1.20	2	0.060	AA2(!)
	IRC-30207	CO (1-0)	IRAM	+ 39	6.0	0.30	1.50	2	0.100	AA23
	RAFGL 1650	CO (2-1)	NRAO	+ 41	8.8	0.55	...	2	...	AP3
	HD 120285	CO (2-1)	NRAO	+ 41	9.7	0.60	...	2	0.090	AP6

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	SAO 181981	HCN(1-0)	SEST	...	...	0.04	0.48	2	...	AA58
1348-67	13482-6716	CO (1-0)	SEST	- 40	16.5	0.16	3.90	2	0.049	AA54
1408-07	RAFGL 1686	CO (1-0)	SEST	- 27	14.4	0.06	1.40	2	0.015	AA54
1419-43	IC 4406	CO (1-0)	SEST	...	...	...	...	2	...	AA49(m)
	PK 319+15.1	CO (2-1)	SEST	- 49	17.5	...	...	2	...	AA47(m)
	He 2-110	CO (2-1)	SEST	- 44	23.0	...	...	2	...	AA49(m)
1421+25	RX Boo	CO (1-0)	BTL	+ 2	11.5	0.09	1.40	2	0.020	AP2
	IRC+30257	CO (1-0)	IRAM	+ 1	...	1.08	15.80	2	0.070	AA2
	RAFGL 1706	CO (1-0)	IRAM	+ 1	8.6	0.70	9.40	2	0.100	AA23
	HD 126327	CO (1-0)	FCRAO	+ 2	10.0	...	4.29	2	...	AP19
	SAO 83331	CO (1-0)	IRAM	...	...	1.30	21.00	2	0.100	AA48(m)
	...	CO (1-0)	OSO	+ 1	10.8	0.70	10.00	2	0.078	AA54
	...	CO (2-1)	IRAM	...	...	3.30	50.00	2	0.100	AA48(m)
1433-64	CPD-64 2939	CO (1-0)	SEST	- 38	15.0	0.11	2.20	2	0.012	AA24
1437+32	RV Boo	CO (1-0)	OSO	+ 6	8.1	0.20	2.00	2	0.067	AA54
1442-45	14429-4539	CO (1-0)	SEST	- 7	18.2	0.06	1.10	2	0.011	AA54
1448-54	CPD-53 5736	CO (1-0)	SEST	- 6	16.0	0.17	3.60	2	0.013	AA24
1459-44	14591-4438	CO (1-0)	SEST	+ 35	15.2	0.16	3.10	2	0.046	AA54
1508-48	RAFGL 4211	CO (1-0)	SEST	- 3	20.4	1.34	42.40	2	0.051	AA54
	15082-4808	CO (2-1)	CALTECH	- 4	20.5	1.90	51.60	2	0.190	AP14
1508-57	15084-5702	CO (1-0)	SEST	- 44	26.0	0.05	0.80	2	0.010	Pr3
	...	HCN(1-0)	SEST	- 49	32.0	0.02	0.30	2	0.007	Pr3(!)
1509-69	X TrA	CO (1-0)	SEST	- 3	9.2	0.20	2.80	2	...	AA8
	CCS 2219	CO (1-0)	SEST	- 2	8.5	0.14	2.10	2	0.017	AA54
1509-55	15099-5509	CO (1-0)	SEST	- 18	20.0	0.14	...	2	0.020	Pr3(?)
1514-49	CCS 2232	CO (1-0)	SEST	- 43	26.9	0.14	6.90	2	0.018	AA54
1519+31	S CrB	CO (1-0)	IRAM	+ 1	...	0.55	4.70	2	0.060	AA2
	IRC+30272	CO (1-0)	IRAM	+ 1	5.5	0.49	4.70	2	0.030	AA23
	RAFGL 4990S	CO (1-0)	FCRAO	+ 2	7.0	...	0.99	2	...	AP19
	HD 136753	CO (1-0)	IRAM	...	...	0.46	4.20	2	0.070	AA48
	SAO 64652	CO (2-1)	IRAM	...	...	1.10	11.00	2	0.080	AA48(m)
1519-51	15194-5115	CO (2-1)	CALTECH	- 15	23.3	1.90	58.50	2	0.230	AP14
1522-36	RAFGL 1771	CO (1-0)	SEST	- 60	15.0	0.09	2.00	2	0.019	AA54
1525+19	WX Ser	CO (1-0)	BTL	+ 1	11.5	0.02	0.37	2	0.021	AP8(?)
	IRC+20281	CO (1-0)	FCRAO	+ 4	6.0	...	0.87	2	...	AP19
1533-64	15332-6430	CO (1-0)	SEST	- 28	17.5	0.07	1.70	2	0.013	AA54
1547+39	V CrB	CO (1-0)	FCRAO	-100	6.5	0.11	...	2	...	AP4
	IRC+40273	CO (1-0)	OSO	- 97	9.1	0.10	2.00	2	0.049	AA54(!)
1548+15	R Ser	CO (2-1)	NRAO	+ 32	5.5	0.24	...	2	0.038	AP18
1549+48	ST Her	CO (1-0)	FCRAO	- 12	6.0	...	0.65	2	...	AP19
	IRC+50246	HCN(1-0)	IRAM	+ 0	...	...	2.60	1	0.090	AA7
1601+47	X Her	CO (1-0)	FCRAO	- 71	9.0	...	0.73	2	...	AP19
	IRC+50248	CO (1-0)	OSO	- 72	11.7	0.46	4.70	2	0.071	AA54
	RAFGL 5317	CO (2-1)	NRAO	- 73	8.8	0.75	...	2	...	AP3
	HD 144205	CO (2-1)	NRAO	- 73	8.5	0.69	...	2	0.150	AP6
1602-30	OH 345.0+15.7	CO (1-0)	SEST	+ 7	17.1	0.13	3.10	2	0.023	AA54

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	RAFGL 1822	CO (2-1)	CALTECH	- 5	14.2	0.50	9.40	2	0.130	AP14
	...	CO (2-1)	NRAO	+ 0	19.0	0.24	...	2	...	AA16
1609-36	NGC 6072	CO (2-1)	NRAO	+ 15	24.0	1.80	28.90	2	0.120	AP16
	PK 342+10.1	CO (2-1)	NRAO	...	...	...	...	2	...	AJ1(m)
	He 2-148	CO (2-1)	SEST	+ 14	15.5	...	...	2	...	AA47(m)
1610-42	OH 338.1+6.4	CO (1-0)	NRAO	- 82	14.0	0.42	...	2	...	AP7
	16105-4205	CO (1-0)	SEST	- 75	17.7	0.81	19.10	2	0.020	AA54
1613-51	Mz 3	CO (2-1)	SEST	- 17	...	0.06	0.70	2	0.015	AA37
1623+19	U Her	CO (1-0)	IRAM	- 21	13.1	0.10	...	1	0.060	AA15(?)
1626+41	g(30) Her	CO (1-0)	FCRAO	+ 18	9.0	...	1.31	2	...	AP19
	IRC+40283	CO (1-0)	OSO	+ 18	7.5	0.23	2.30	2	0.076	AA54
	RAFGL 1864	CO (2-1)	NRAO	+ 22	7.5	0.22	...	2	...	AP3
	HD 148783	CO (2-1)	NRAO	+ 16	10.0	0.20	...	2	0.110	AP6(!)
1631-56	16314-5611	CO (1-0)	SEST	- 25	23.6	0.04	1.40	2	0.014	AA54(!)
1641+54	S Dra	CO (1-0)	OSO	+ 15	8.3	0.09	1.60	2	0.046	AA54(!)
1659-46	16594-4656	CO (1-0)	SEST	- 26	16.0	0.42	6.70	2	0.014	AA24
1702-10	M2-9	CO (1-0)	IRAM	+ 80	...	0.12	1.60	2	0.025	AA9
	RAFGL 5334	CO (2-1)	NRAO	+ 79	13.0	0.12	2.00	2	0.070	AP16(?)
	PK 10+18.2	CO (2-1)	IRAM	+ 80	7.0	0.25	...	2	0.030	AA25(m)
1704-56	CPD-56 8032	CO (1-0)	SEST	- 52	23.0	0.21	3.50	2	0.022	AA24
	PK 332-9.1	CO (1-0)	SEST	- 60	25.0	0.09	...	1	...	AA29
	He 3-1333	CO (1-0)	SEST	- 64	22.6	0.21	10.60	2	0.017	AA54
	...	CO (2-1)	CALTECH	- 56	17.0	0.30	5.80	2	0.170	AP14(?)
1704-24	RAFGL 1922	CO (1-0)	BTL	- 5	20.7	0.25	7.18	2	0.079	AP8
	...	CO (2-1)	FCRAO	- 3	16.6	1.10	...	2	...	AP4
	...	HCN(1-0)	IRAM	- 3	...	...	12.80	1	0.080	AA7
1707-65	17079-6554	CO (1-0)	SEST	- 47	13.5	0.23	4.00	2	0.049	AA54
1707-32	17079-3243	CO (2-1)	NRAO	+ 21	25.6	0.21	...	2	...	AA16
	...	HCN(1-0)	IRAM	+ 21	...	...	6.10	1	0.080	AA7
1708+64	TV Dra	CO (2-1)	IRAM	+ 22	6.0	0.15	1.00	2	0.044	Pr1
1710-10	IRC-10359	CO (1-0)	SEST	- 31	11.7	0.13	2.00	2	0.018	AA54
1710-37	NGC 6302	CO (1-0)	NRAO	- 46	16.4	0.28	...	2	...	AP7
	PK 349+01.1	CO (2-1)	NRAO	- 40	22.5	1.10	...	2	...	AA16
	HD 155520	CO (2-1)	NRAO	- 40	25.0	0.56	19.90	2	0.087	AP16
1711+08	V2108 Oph	CO (2-1)	IRAM	+ 16	14.0	0.19	4.90	2	0.064	Pr1
1712-48	17125-4814	CO (1-0)	SEST	- 1	11.8	0.06	1.10	2	0.016	AA54
1715-32	RAFGL 6815S	CO (1-0)	NRAO	+ 26	25.1	0.11	...	2	...	AP7
1721-39	17217-3916	CO (1-0)	IRAM	- 6	8.8	0.20	...	2	...	AA4
	...	HCN(1-0)	IRAM	+ 0	16.2	0.13	...	2	...	AA4
1726-19	TW Oph	CO (1-0)	SEST	+ 28	9.1	0.11	1.40	2	...	AA8
	IRC-20364	CO (1-0)	SEST	+ 28	9.1	0.11	1.40	2	0.022	AA54
1729+17	IRC+20326	CO (1-0)	BTL	- 5	17.5	0.23	5.40	2	0.110	AP2(!)
	NSV 9118	CO (1-0)	OSO	- 4	15.6	1.00	...	2	...	AA17
	RAFGL 1977	CO (1-0)	FCRAO	- 4	17.0	...	13.70	2	...	AP19
	...	CO (1-0)	OSO	- 4	15.2	1.00	20.80	2	0.161	AA54
1731-49	CD-49 11554	CO (1-0)	SEST	+ 36	11.0	0.09	1.50	2	0.013	AA24

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _K km s ⁻¹ (8)	sc. (9)	rms (10)	ref. (11)
	He 3-1428	CO (1-0)	SEST	+ 35	14.1	0.14	2.70	2	0.049	AA54(!)
1731-62	OH 329.8-15.8	CO (1-0)	SEST	- 9	17.5	0.21	4.90	2	0.052	AA54
1733+15	MW Her	CO (1-0)	FCRAO	- 47	23.3	0.16	...	2	...	AP4
	IRC+20328	CO (1-0)	FCRAO	- 52	13.0	...	2.19	2	...	AP19
1737-30	17371-3021	CO (1-0)	IRAM	+ 8	10.3	0.60	...	2	...	AA4
1738-57	V Pav	CO (1-0)	SEST	+ 19	16.0	0.14	3.70	2	0.037	AA54
1741-31	RAFGL 5379	CO (2-1)	NRAO	- 21	20.5	0.47	...	2	...	AP7
	17411-3154	CO (2-1)	IRAM	- 22	21.5	2.80	81.70	2	0.055	Pr1
1743+50	V814 Her	CO (1-0)	IRAM	- 36	11.5	0.47	9.80	2	...	AA3
	RAFGL 5384	CO (1-0)	IRAM	- 35	14.9	0.80	16.00	2	0.030	AA42
	HD 161796	CO (1-0)	IRAM	- 35	...	0.90	19.00	2	0.100	AA53
	...	CO (2-1)	NRAO	- 37	7.7	0.37	...	2	...	AA16
	...	CO (2-1)	IRAM	- 35	13.2	1.80	33.00	2	0.150	AA42
	...	CO (2-1)	IRAM	- 35	...	2.00	36.10	2	0.040	AA53
1743-15	OH 11.4+6.6	CO (1-0)	IRAM	+ 15	15.5	0.13	3.80	2	0.050	AA36(!)
	17436-1545	CO (2-1)	IRAM	+ 15	17.6	0.23	5.60	2	0.130	AA36(!!)
1743-28	OH 0.3-0.2	CO (1-0)	IRAM	-340	13.0	0.13	2.00	2	...	AA39
	...	CO (2-1)	IRAM	-340	13.0	0.20	3.00	2	...	AA39
1744-24	RAFGL 5385	CO (1-0)	IRAM	+128	9.0	0.60	5.00	2	...	AA42
1744-29	17443-2949	CO (2-1)	IRAM	- 2	18.0	0.30	6.90	2	0.071	Pr1
1744-40	17446-4048	CO (1-0)	SEST	- 47	13.5	0.21	5.90	2	0.050	AA54
1744-78	17446-7809	CO (1-0)	SEST	- 1	15.9	0.38	8.50	2	0.057	AA54
1746-19	NGC 6445	CO (2-1)	NRAO	+ 20	33.0	0.25	11.10	2	0.068	AP16
1749-25	17495-2534	CO (2-1)	IRAM	- 26	16.0	0.30	8.20	2	0.120	Pr1(!)
1751-25	RAFGL 2023	HCN(1-0)	NRAO	+ 7	10.0	0.06	...	2	...	AP7
1753-33	AI Sco	CO (2-1)	IRAM	- 37	...	0.30	1.80	2	0.100	AA40(!)
1753-30	RAFGL 5416	CO (1-0)	NRAO	- 18	31.8	0.24	...	2	...	AP7
1753+26	89 Her	CO (1-0)	IRAM	- 9	4.4	0.27	2.30	2	...	AA3
	RAFGL 2028	CO (1-0)	IRAM	- 8	4.6	0.40	4.10	2	...	AA42
	HD 163506	CO (2-1)	IRAM	- 8	...	1.00	4.60	2	0.070	AA40
	...	CO (2-1)	IRAM	- 8	3.2	0.60	4.10	2	...	AA42
1755+58	T Dra	CO (1-0)	BTL	- 12	14.0	0.07	1.30	2	0.040	AP2(!!)
	IRC+60255	CO (1-0)	FCRAO	- 15	13.0	...	4.46	2	...	AP19
	RAFGL 2040	CO (1-0)	OSO	- 17	12.4	0.20	3.30	2	0.101	AA54(!!)
	CCS 2512	HCN(1-0)	IRAM	- 12	...	...	1.90	1	0.050	AA7
1758-17	RAFGL 2047	CO (1-0)	IRAM	+ 23	16.1	0.15	...	2	...	AA4
	...	CO (1-0)	NRAO	+ 37	23.5	0.05	...	1	0.023	AP10(!!)
	...	CO (2-1)	NRAO	+ 27	19.5	0.06	...	1	0.024	AP10(!)
	...	HCN(1-0)	IRAM	+ 37	...	0.10	...	2	...	AA4
1758-22	17583-2201	CO (2-1)	IRAM	+ 52	12.4	0.70	16.10	2	0.230	Pr1
	...	HCN(1-0)	IRAM	...	...	0.06	1.10	2	0.018	Pr1
1804-09	FX Ser	CO (1-0)	FCRAO	+ 34	22.0	...	7.13	2	...	AP19
	IRC-10396	CO (1-0)	SEST	+ 30	28.4	0.19	7.70	2	0.031	AA54
	RAFGL 2067	CO (2-1)	NRAO	+ 30	27.0	0.33	...	2	...	AA16
	...	HCN(1-0)	IRAM	+ 30	...	...	11.50	1	0.050	AA7
1805-22	VX Sgr	CO (2-1)	CALTECH	+ 6	30.0	0.35	11.20	2	0.070	AP14

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	IRC-20431	HCN(1-0)	IRAM	+ 8	26.0	0.09	1.00	2	0.030	AA19
1808-33	NGC 6563	CO (2-1)	NRAO	- 27	32.0	0.41	18.80	2	0.130	AP16
	PK 358-7.1	CO (2-1)	SEST	- 25	20.0	...	...	2	...	AA47(m)
1809+27	OH 53.8+20.2	CO (1-0)	IRAM	- 8	...	0.08	0.90	2	0.030	AA53(?)
1810-14	18100-1420	CO (2-1)	IRAM	- 3	18.0	0.35	8.10	2	...	Pr3
1811-05	M4-9	CO (2-1)	NRAO	- 15	17.0	0.47	13.20	2	0.072	AP16
1816-12	18167-1209	CO (1-0)	IRAM	+176	12.0	0.12	2.20	2	...	AA39
	OH 18.5+1.4	CO (2-1)	IRAM	+178	12.0	0.16	3.20	2	...	AA39
1819-27	RAFGL 2135	CO (1-0)	BTL	+ 48	23.0	0.17	5.35	2	0.066	AP8(!)
1819-16	18196-1608	CO (2-1)	IRAM	+ 37	14.0	0.21	4.30	2	...	Pr3
1821-16	RAFGL 2143	CO (2-1)	IRAM	- 27	16.7	0.90	19.40	2	0.053	Pr1
1821-07	18218-0749	CO (2-1)	IRAM	+ 32	22.0	0.10	1.80	2	...	Pr3
1823-10	18232-1003	CO (2-1)	IRAM	+ 79	22.0	0.13	0.58	2	...	Pr3(?)
1823-06	RAFGL 2154	CO (1-0)	FCRAO	+ 3	27.0	0.25	...	2	...	AP4
1824+23	RAFGL 2155	CO (1-0)	BTL	+ 60	15.1	0.18	3.60	2	0.060	AP2
	...	CO (1-0)	OSO	+ 60	17.0	1.12	23.20	2	0.117	AA54
	...	HCN(1-0)	IRAM	+ 60	...	...	13.10	1	0.060	AA7
1824-08	18244-0815	CO (1-0)	IRAM	+ 39	23.0	0.17	2.80	2	...	Pr3
	...	CO (2-1)	IRAM	+ 48	20.0	0.36	10.00	2	...	Pr3
1824-08	18248-0839	CO (1-0)	IRAM	+ 31	16.1	0.18	...	2	...	AA4
1826-12	18269-1257	CO (1-0)	IRAM	+ 66	23.5	0.20	...	2	...	AA4
	...	CO (1-0)	IRAM	+ 75	21.0	0.14	2.50	2	...	Pr3
	...	CO (2-1)	IRAM	+ 70	14.0	0.36	7.60	2	...	Pr3
1827-14	OH 17.7-2.0	CO (2-1)	IRAM	+ 62	12.2	1.00	19.20	2	0.170	AA36
1827-47	18276-4717	CO (1-0)	SEST	+ 12	22.2	0.30	7.60	2	0.055	AA54
1828+21	AC Her	CO (2-1)	IRAM	- 10	2.5	0.20	0.70	2	...	AA14
	HD 170756	CO (2-1)	IRAM	- 10	...	0.10	0.50	2	0.030	AA40(?)
1829-10	M3-28	CO (1-0)	SEST	+ 20	...	0.50	...	1	...	AA55(m)(!!)
	PK 21-0.1	CO (2-1)	SEST	+ 20	...	0.60	...	1	...	AA55(!!)
1830-06	18301-0656	CO (2-1)	IRAM	+ 42	20.0	0.07	2.10	2	...	Pr3
1830+36	T Lyr	CO (1-0)	IRAM	+ 8	12.2	...	1.70	1	...	AA11
	IRC+40321	CO (2-1)	IRAM	...	...	...	5.60	2	...	AA30
	RAFGL 2187	CO (2-1)	NRAO	+ 14	26.0	0.06	...	2	0.029	AP18(!!)
	CCS 2608	HCN(1-0)	OSO	...	...	0.04	0.70	2	...	AA30
1830-05	RAFGL 5502	HCN(1-0)	IRAM	+ 42	...	...	32.90	1	0.150	AA7
1832-03	RAFGL 7012S	CO (1-0)	IRAM	+ 64	23.0	0.35	5.20	2	...	Pr3
	18320-0352	CO (2-1)	IRAM	+ 64	22.0	0.58	15.00	2	...	Pr3
1832-11	RAFGL 7015S	CO (1-0)	IRAM	+ 55	14.0	0.24	2.40	2	...	Pr3(?)
	18325-1138	CO (2-1)	IRAM	+ 49	16.0	0.18	4.00	2	...	Pr3(?)
1833+05	RAFGL 2199	CO (1-0)	BTL	+ 36	8.0	0.16	1.90	2	0.060	AP2(!)
	...	CO (1-0)	OSO	+ 30	20.0	0.67	16.70	2	0.260	AA54(!)
1834-05	OH 26.5+0.6	CO (2-1)	IRAM	+ 29	10.6	1.41	26.10	2	0.120	AA36
1834+10	V1111 Oph	CO (1-0)	BTL	- 31	16.7	0.13	3.00	2	0.050	AP2(!)
	IRC+10365	CO (1-0)	OSO	- 30	17.0	1.16	29.40	2	...	AA13
	RAFGL 2206	CO (1-0)	FCRAO	- 30	19.0	...	10.59	2	...	AP19
	...	CO (1-0)	OSO	- 30	17.0	1.16	29.40	2	0.129	AA54

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	...	HCN(1-0)	OSO	- 29	18.5	0.09	2.00	2	...	AA13
1835-09	18355-0921	CO (2-1)	IRAM	+110	8.0	0.17	2.00	2	...	Pr3
1836-04	18367-0452	CO (1-0)	IRAM	+ 28	16.0	0.34	4.00	2	...	Pr3
	...	CO (2-1)	IRAM	+ 30	16.0	0.51	10.00	2	...	Pr3
1837-10	18369-1034	CO (1-0)	IRAM	+ 41	14.0	0.22	1.90	2	...	Pr3
	...	CO (2-1)	IRAM	+ 41	13.0	0.51	7.10	2	...	Pr3
1837-07	18374-0724	CO (2-1)	IRAM	+ 80	12.0	0.15	2.80	2	...	Pr3(?)
1839+17	IRC+20370	CO (1-0)	BTL	- 1	15.6	0.32	6.90	2	0.070	AP2
	V821 Her	CO (1-0)	FCRAO	- 1	14.0	1.10	...	2	...	AP4
	RAFGL 2232	CO (1-0)	NRAO	+ 0	15.6	0.77	...	2	...	AP7
	...	CO (1-0)	OSO	- 1	14.9	0.74	...	2	...	AA17
	...	CO (1-0)	FCRAO	- 1	15.0	...	12.38	2	...	AP19
	...	CO (1-0)	OSO	- 1	15.0	0.74	14.40	2	0.173	AA54
	...	CO (1-0)	IRAM	+ 0	13.2	3.60	83.40	2	0.024	PC1(m)
	...	CO (2-1)	NRAO	+ 2	11.9	1.80	...	2	0.540	AP6
	...	CO (2-1)	NRAO	+ 0	13.7	1.29	...	2	0.210	AP18
	...	CO (2-1)	IRAM	+ 0	13.4	4.60	93.90	2	0.025	PC1(m)
1839-02	IRC+00365	CO (1-0)	FCRAO	+ 3	34.5	0.29	...	2	...	AP4
	CCS 2642	CO (1-0)	FCRAO	+ 3	36.0	...	16.82	2	...	AP19
	RAFGL 2233	HCN(1-0)	IRAM	+ 3	...	...	90.30	1	0.090	AA7
	...	HCN(1-0)	FCRAO	+ 11	34.1	0.27	...	2	...	AA32
1840-07	18400-0704	CO (1-0)	IRAM	+160	12.0	0.09	0.84	2	...	Pr3
	...	CO (2-1)	IRAM	+148	17.0	0.23	4.40	2	...	Pr3
1840+28	FI Lyr	CO (1-0)	OSO	- 30	12.3	0.17	2.70	2	0.072	AA54(!)
1841+13	IRC+10374	CO (1-0)	FCRAO	- 14	18.5	0.11	...	2	...	AP4
	NSV 11263	CO (1-0)	FCRAO	- 19	7.0	...	1.67	2	...	AP19
1841-05	18414-0527	CO (2-1)	IRAM	+ 86	17.0	0.17	2.30	2	...	Pr3
1841-01	18417-0103	CO (2-1)	IRAM	+ 46	17.0	0.10	2.30	2	...	Pr3(?)
1842+03	18424+0346	CO (2-1)	NRAO	+ 8	20.0	0.08	...	1	0.032	AP10(!)
1844-05	R Sct	CO (1-0)	IRAM	+ 56	5.0	0.70	5.60	2	0.050	AA14,AA35
	IRC-10461	CO (1-0)	IRAM	+ 56	4.8	0.50	...	2	0.180	AA27(!)
	RAFGL 5296S	CO (2-1)	IRAM	+ 60	5.0	1.30	8.70	2	...	AA14(m)
	HD 173819	CO (2-1)	IRAM	+ 56	...	1.60	11.00	2	0.160	AA35(m)
1846-02	OH 30.1-0.7	CO (1-0)	IRAM	+ 99	18.1	0.20	5.80	2	0.060	AA36
	RAFGL 5535	CO (2-1)	IRAM	+102	15.9	1.14	29.10	2	0.140	AA36
1846-48	OH 348.2-19.7	CO (1-0)	SEST	- 46	13.6	0.37	7.10	2	0.052	AA54
	18467-4802	CO (2-1)	CALTECH	- 50	11.0	0.50	6.80	2	0.120	AP14
1847+09	RAFGL 2259	CO (1-0)	FCRAO	+ 22	21.8	0.17	...	2	...	AP4
	...	HCN(1-0)	IRAM	+ 22	...	...	6.10	1	0.060	AA7
1847-07	S Sct	CO (1-0)	SEST	+ 15	19.9	0.74	6.50	2	...	AA8
	IRC-10467	CO (1-0)	IRAM	+ 16	6.4	...	1.00	1	...	AA11
	RAFGL 2260	CO (1-0)	SEST	+ 15	20.1	...	5.60	2	...	AA28
	CCS 2666	CO (1-0)	SEST	+ 14	16.2	...	...	2	...	AA50(m)
	HD 174325	CO (2-1)	CALTECH	+ 15	21.0	0.11	3.90	2	0.060	AP14(?)
	...	CO (2-1)	SEST	+ 15	20.1	...	4.40	2	...	AA28
1848+00	18482+0051	CO (2-1)	IRAM	+ 74	16.0	0.11	2.50	2	...	Pr3(?)

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
1849-00	18491-0008	CO (2-1)	IRAM	+126	14.0	0.42	8.50	2	...	Pr3
1849-03	18496-0333	CO (2-1)	IRAM	+ 59	16.0	0.17	3.90	2	...	Pr3
1849-00	OH 32.8-0.3	CO (2-1)	IRAM	+ 63	14.0	0.50	14.00	2	0.100	AA36
1849-00	18499-0021	CO (1-0)	IRAM	+ 73	20.0	0.11	1.50	2	...	Pr3
1850-01	18501-0134	CO (2-1)	IRAM	+ 35	15.0	0.10	...	2	...	Pr3(?)
1851+32	Ring Neb.	CO (1-0)	NRAO	...	...	...	...	2	0.090	AJ1(m)
	PK 63+13.1	CO (2-1)	NRAO	+ 1	24.0	0.23	...	2	...	MN2
	NGC 6720	CO (2-1)	IRAM	- 2	27.0	0.29	...	2	...	AA22(m)(n)
	...	CO (2-1)	NRAO	- 2	22.0	0.27	5.10	2	0.048	AP16
	...	CO (2-1)	NRAO	...	...	...	...	2	0.140	AJ1(m)
1852+00	18522+0032	CO (2-1)	IRAM	+ 70	13.0	0.25	...	2	...	Pr3(?)
1853+08	18530+0817	CO (2-1)	IRAM	- 5	12.0	0.07	1.20	2	...	Pr3
1855+04	IRC+00402	CO (1-0)	FCRAO	+ 84	4.0	...	2.24	2	...	AP19
1856-29	IRC-30398	CO (1-0)	NRAO	- 7	13.2	0.30	...	2	...	AP7
	V3953 Sgr	CO (1-0)	SEST	+ 3	19.6	0.37	10.40	2	0.019	AA54
	RAFGL 2289	HCN(1-0)	SEST	...	...	0.02	0.40	2	...	AA58
1856+06	OH 39.7+1.5	CO (1-0)	IRAM	+ 0	...	0.20	...	2	0.110	AA36
	RAFGL 2290	CO (2-1)	IRAM	+ 21	15.1	0.57	11.60	2	0.120	AA36
1858+09	18585+0900	CO (1-0)	IRAM	+ 77	22.0	0.05	1.20	2	...	Pr3
	...	CO (2-1)	IRAM	+ 82	18.0	0.36	8.10	2	...	Pr3
1859-39	RS CrA	CO (1-0)	NRAO	+ 17	20.7	0.26	...	2	...	AP7
	RAFGL 5552	HCN(1-0)	SEST	...	...	0.05	1.70	2	...	AA58
1900-22	SU Sgr	CO (1-0)	SEST	+ 39	15.9	0.19	3.10	2	0.052	AA54
1900-38	RAFGL 5553	CO (1-0)	SEST	- 51	22.5	0.17	6.40	2	0.022	AA54
1900+07	IRC+10401	CO (1-0)	FCRAO	+ 7	17.4	0.27	...	2	...	AP4
	CCS 2694	CO (1-0)	FCRAO	+ 7	19.0	...	6.22	2	...	AP19
	RAFGL 2310	HCN(1-0)	NRAO	+ 22	28.0	0.27	...	2	...	AP7
	...	HCN(1-0)	IRAM	+ 7	...	...	62.40	1	0.100	AA7
1901-05	V Aql	CO (1-0)	OSO	+ 54	8.2	0.26	3.50	2	...	AA5
	IRC-10486	CO (1-0)	SEST	+ 54	8.0	0.25	2.50	2	...	AA8
	RAFGL 2314	CO (1-0)	IRAM	...	...	0.56	...	1	0.050	AA21
	CCS 2695	CO (1-0)	IRAM	+ 53	8.3	0.25	...	2	0.100	AA27(!)
	HD 177336	CO (1-0)	SEST	+ 64	11.3	0.12	2.30	2	0.023	AA54
	...	CO (2-1)	NRAO	+ 52	10.3	0.23	...	2	...	AA16
	...	CO (2-1)	IRAM	...	...	0.71	...	1	0.040	AA21
	...	HCN(1-0)	IRAM	+ 52	...	...	6.20	1	0.090	AA7
	...	HCN(1-0)	OSO	...	...	0.07	1.00	2	...	AA30
1902+08	19029+0839	CO (2-1)	IRAM	+ 49	25.0	0.09	...	2	...	Pr3(?)
1902+08	RAFGL 2316	CO (1-0)	IRAM	+ 0	17.0	0.63	5.60	2	...	Pr3
	19029+0808	CO (2-1)	IRAM	+ 2	17.0	1.00	23.30	2	0.100	Pr1
	...	CO (2-1)	IRAM	+ 4	17.0	0.84	18.00	2	...	Pr3
1903+08	R Aql	CO (1-0)	IRAM	+ 49	7.2	0.50	...	2	0.100	AA27
	IRC+10406	CO (2-1)	NRAO	+ 47	10.1	1.04	...	2	0.130	AP6
1905+09	19052+0922	CO (2-1)	IRAM	+ 45	10.0	0.15	...	2	...	Pr3(?)
1905-22	V3880 Sgr	CO (1-0)	NRAO	+ 24	22.2	0.09	...	2	...	AP7
1906+05	19068+0544	CO (1-0)	IRAM	+ 65	20.5	0.48	...	2	...	AA4

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
1907+09	RAFGL 2333	HCN(1-0)	NRAO	+ 48	19.0	0.08	...	2	...	AP7
1909-32	V342 Sgr	CO (1-0)	SEST	+ 38	14.2	0.16	3.30	2	0.055	AA54
	IRC-30404	CO (2-1)	CALTECH	+ 40	15.0	0.30	7.30	2	0.100	AP14
1911+00	RAFGL 2343	CO (1-0)	NRAO	+105	33.9	0.21	...	2	...	AP7
	SAO 124414	CO (1-0)	IRAM	+ 99	33.0	1.07	25.20	2	0.120	AA3,AA42
	HD 179821	CO (1-0)	IRAM	+ 99	...	1.70	76.00	2	0.200	AA53
	...	CO (1-0)	SEST	+ 99	30.4	0.32	15.80	2	0.030	Pr2
	...	CO (2-1)	NRAO	+ 94	33.7	0.38	...	2	...	AA16
	...	CO (2-1)	IRAM	+ 99	...	3.40	171.00	2	0.100	AA53(m)
	...	CO (2-1)	IRAM	+ 99	33.7	2.52	126.80	2	0.110	Pr1
	...	CO (2-1)	SEST	+ 99	28.1	0.47	22.80	2	0.070	Pr2
1911+07	19114+0743	CO (2-1)	IRAM	+ 52	19.0	0.10	2.10	2	...	Pr3
1912-07	W Aql	CO (1-0)	BTL	- 25	19.9	0.36	9.60	2	0.060	AP2
	IRC-10497	CO (1-0)	OSO	- 27	15.5	1.13	...	2	...	AA17
	RAFGL 2349	CO (1-0)	IRAM	- 25	19.3	2.31	...	2	0.090	AA27
	SAO 143184	CO (1-0)	FCRAO	- 25	20.0	...	26.20	2	...	AP19
	...	CO (1-0)	SEST	- 24	18.1	0.96	28.40	2	0.050	AA54
	...	CO (2-1)	CALTECH	- 25	21.0	0.80	22.50	2	0.130	AP14
	...	HCN(1-0)	OSO	- 23	15.5	0.26	...	2	...	AA17
1915-17	RAFGL 2361	CO (1-0)	SEST	- 27	16.3	0.06	1.40	2	0.018	AA54
1916+23	RAFGL 2362	CO (1-0)	NRAO	+ 24	20.0	0.12	...	2	...	AP7
1916-16	V1942 Sgr	CO (1-0)	SEST	- 36	10.0	0.05	0.70	2	...	AA8
1917-08	IRC-10502	CO (1-0)	BTL	+ 23	30.5	0.05	2.46	2	0.025	AP8(!)
	NSV 11912	CO (1-0)	FCRAO	+ 20	28.0	...	7.35	2	...	AP19
	RAFGL 2368	CO (1-0)	SEST	+ 28	35.6	0.16	6.90	2	0.021	AA54
	...	CO (2-1)	NRAO	+ 21	22.5	0.45	...	2	...	AP3
1917-26	RAFGL 2370	CO (1-0)	SEST	+ 4	18.0	0.11	2.90	2	0.017	AA54
1919+09	OH 44.8-2.3	CO (1-0)	IRAM	- 72	14.7	0.49	13.90	2	0.070	AA36
	RAFGL 2374	CO (2-1)	IRAM	- 72	16.1	1.40	28.50	2	0.110	AA36
1921+09	Vy 2-2	CO (1-0)	BTL	- 44	12.1	0.02	0.30	2	0.020	AP2(?)
1923+76	UX Dra	CO (1-0)	OSO	+ 14	6.9	0.37	3.00	2	...	AA5
	IRC+80036	CO (2-1)	NRAO	+ 15	5.0	0.25	...	2	0.036	AP18
1924+11	IRC+10420	CO (1-0)	BTL	+ 81	51.7	0.03	2.40	2	0.030	AP2(?)
	V1302 Aql	CO (1-0)	IRAM	+ 73	...	0.70	41.00	2	0.140	AA9
	RAFGL 2390	HCN(1-0)	IRAM	+ 78	33.0	0.45	7.30	2	0.030	AA19
1924-17	IRC-20563	CO (1-0)	SEST	- 37	11.7	0.07	1.20	2	0.016	AA54
1928+19	OH 55.0+0.7	CO (1-0)	IRAM	+ 26	9.7	0.28	5.80	2	0.040	AA42
1931-16	AQ Sgr	CO (1-0)	SEST	+ 25	13.6	0.10	1.70	2	...	AA8
	IRC-20568	CO (2-1)	CALTECH	+ 17	6.0	0.25	2.40	2	0.070	AP14(?)
1932+27	V1129 Cyg	CO (1-0)	FCRAO	- 12	27.0	...	13.15	2	...	AP19
	IRC+30374	CO (2-1)	NRAO	- 12	24.4	0.77	...	2	...	AP3
	RAFGL 2417	HCN(1-0)	IRAM	- 12	...	...	32.20	1	0.100	AA7
1932+30	BD+30 3639	CO (1-0)	IRAM	- 11	52.0	...	5.20	2	...	AA45(n)
	RAFGL 4251	CO (2-1)	IRAM	- 11	52.0	...	4.70	2	...	AA45(n)
1934+29	M1-92	CO (1-0)	BTL	- 1	25.5	0.02	0.80	2	0.008	AP8
1934+12	19346+1209	CO (1-0)	NRAO	+ 73	14.5	0.05	...	1	0.017	AP10(!)

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	...	CO (2-1)	NRAO	+ 71	12.0	0.06	...	1	0.028	AP10(!)
1935+50	R Cyg	CO (1-0)	FCRAO	- 18	9.6	0.19	...	2	...	AP4
	IRC+50301	CO (1-0)	BTL	- 19	11.3	0.03	0.49	2	0.009	AP8
1939+32	TT Cyg	CO (1-0)	SEST	- 27	13.3	...	5.30	2	...	AA28
	IRC+30382	CO (1-0)	OSO	- 27	13.3	...	4.30	2	...	AA28
	RAFGL 2432	CO (1-0)	OSO	...	...	...	6.00	2	...	AA30
	CCS 2773	CO (2-1)	SEST	- 27	13.3	...	5.50	2	...	AA28
1945+29	19454+2920	CO (1-0)	IRAM	+ 20	14.0	0.38	9.90	2	0.110	AA3,AA42
	...	CO (2-1)	IRAM	+ 21	14.5	0.73	14.30	2	0.040	AA42,Pr1
	...	HCN(1-0)	IRAM	...	...	0.13	3.40	2	0.019	Pr1
1947-07	GY Aql	CO (1-0)	FCRAO	+ 33	13.0	...	5.62	2	...	AP19
	IRC-10524	CO (1-0)	SEST	+ 29	16.2	0.40	8.40	2	0.018	AA54
	RAFGL 2461	CO (2-1)	NRAO	+ 34	11.5	1.08	...	2	0.170	AP6
1947+31	HD 331319	CO (1-0)	IRAM	+ 12	17.0	0.20	6.50	2	0.040	AA3,AA42
	19475+3119	CO (2-1)	IRAM	+ 18	14.5	0.72	14.90	2	0.062	AA42,Pr1
1947+24	19477+2401	CO (2-1)	IRAM	+ 19	15.0	0.70	15.00	2	...	AA42
1948+25	19480+2504	CO (1-0)	FCRAO	+ 27	...	0.05	...	1	...	MN1
	...	CO (1-0)	IRAM	+ 42	...	0.15	4.00	2	0.050	AA42(?)
	...	CO (2-1)	IRAM	+ 42	15.4	0.61	12.80	2	0.054	AA42,Pr1
	...	CO (2-1)	IRAM	+ 41	12.3	0.47	9.80	2	0.094	Pr1
	...	HCN(1-0)	IRAM	...	...	0.10	1.40	2	0.029	Pr1
1948+32	χ Cyg	CO (1-0)	BTL	+ 10	10.2	0.29	4.00	2	0.060	AP2
	IRC+30395	CO (1-0)	IRAM	+ 11	...	1.70	19.30	2	0.200	AA2
	RAFGL 2465	CO (1-0)	OSO	+ 10	9.8	1.50	...	2	...	AA17
	HD 187796	CO (1-0)	IRAM	+ 10	8.0	2.50	32.50	2	0.080	AA23
	SAO 68943	CO (1-0)	IRAM	+ 10	10.2	2.20	...	2	0.100	AA27
	...	CO (1-0)	FCRAO	+ 10	10.0	...	10.55	2	...	AP19
	...	CO (1-0)	IRAM	...	...	3.25	48.00	2	0.070	AA48(m)
	...	CO (2-1)	NRAO	+ 10	8.0	2.30	...	2	...	AP3
	...	CO (2-1)	NRAO	+ 10	8.5	2.33	...	2	0.240	AP18
	...	CO (2-1)	IRAM	...	...	6.30	98.00	2	0.100	AA48(m)
	...	HCN(1-0)	OSO	+ 12	9.8	0.45	...	2	...	AA17
1950-17	HD 187885	CO (1-0)	IRAM	+ 25	11.0	0.54	9.80	2	0.100	AA3,AA42
	SAO 163075	CO (1-0)	IRAM	+ 23	...	1.00	21.00	2	0.100	AA53
	...	CO (1-0)	SEST	+ 22	14.4	0.14	3.30	2	0.017	AA54
	...	CO (1-0)	SEST	+ 25	13.0	0.22	3.80	2	0.110	Pr2(!)
	...	CO (2-1)	CALTECH	+ 25	8.0	0.30	3.80	2	0.070	AP14(?)
	...	CO (2-1)	IRAM	+ 24	...	1.90	48.00	2	0.100	AA53
	...	CO (2-1)	IRAM	+ 24	12.8	1.36	23.10	2	0.051	Pr1
	...	CO (2-1)	IRAM	+ 25	12.0	1.23	27.70	2	0.045	Pr1
	...	CO (2-1)	SEST	+ 26	13.2	0.39	7.00	2	0.040	Pr2
	...	HCN(1-0)	IRAM	...	...	0.03	1.60	2	0.010	AA53(?)
1954+30	RAFGL 2477	CO (1-0)	IRAM	+ 3	56.0	0.30	23.90	2	0.160	AA42(?)
	...	CO (2-1)	NRAO	+ 11	22.4	0.55	...	2	...	AA16
	...	CO (2-1)	IRAM	+ 5	22.7	1.70	51.90	2	0.045	AA42,Pr1
	...	HCN(1-0)	IRAM	...	...	0.23	5.70	2	0.024	Pr1

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{Kkm s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
1955-02	RR Aql	CO (1-0)	IRAM	+ 28	...	0.50	4.20	2	0.100	AA2
	IRC+00458	CO (1-0)	IRAM	+ 28	6.3	0.55	6.50	2	0.060	AA23
	RAFGL 2479	CO (1-0)	FCRAO	+ 27	8.0	...	2.36	2	...	AP19
	HD 188915	CO (1-0)	IRAM	...	...	0.70	10.00	2	0.100	AA48
	...	CO (1-0)	SEST	+ 24	11.7	0.21	3.10	2	0.021	AA54
	...	CO (2-1)	NRAO	+ 28	7.4	0.48	...	2	...	AP3
	...	CO (2-1)	IRAM	...	...	2.10	26.00	2	0.100	AA48(m)
1959+40	RAFGL 2494	CO (1-0)	BTL	+ 28	22.5	0.07	2.11	2	0.022	AP8
	...	CO (1-0)	OSO	+ 30	22.1	0.57	19.30	2	0.093	AA54
	...	CO (2-1)	NRAO	+ 30	20.0	1.00	...	2	...	AP3
	...	HCN(1-0)	IRAM	+ 30	...	...	5.10	1	0.090	AA7
2000+32	20000+3239	CO (1-0)	IRAM	+ 5	9.0	0.07	1.40	2	0.050	AA42(?)
	...	CO (2-1)	IRAM	+ 14	12.3	0.70	9.40	2	0.064	AA42,Pr1
	...	HCN(1-0)	IRAM	...	...	0.06	1.80	2	0.018	Pr1
2002+39	20028+3910	CO (2-1)	NRAO	+ 4	10.5	0.16	...	2	...	AP3
	...	CO (2-1)	IRAM	+ 6	16.0	0.75	14.90	2	0.040	AA42,Pr1
2003-27	V1943 Sgr	CO (1-0)	SEST	- 15	6.2	0.13	1.10	2	0.049	AA54(!)
	IRC-30425	CO (2-1)	CALTECH	- 15	8.0	0.20	1.90	2	0.070	AP14(?)
2004-42	V2234 Sgr	CO (1-0)	SEST	- 38	14.4	0.14	3.40	2	0.015	AA54
2007+31	RAFGL 2513	HCN(1-0)	NRAO	+ 19	22.0	0.04	...	2	...	AP7
	...	HCN(1-0)	IRAM	+ 19	...	...	9.30	1	0.060	AA7
2007-60	X Pav	CO (1-0)	SEST	+ 24	10.5	0.12	...	1	...	AA29
	HD 191171	CO (1-0)	SEST	- 18	11.7	0.17	3.70	2	0.043	AA54
2007-06	V1300 Aql	CO (1-0)	BTL	- 15	15.8	0.30	6.70	2	0.100	AP2
	IRC-10529	CO (1-0)	OSO	- 18	16.0	1.15	28.00	2	...	AA13
	RAFGL 2514	CO (1-0)	FCRAO	- 17	16.0	...	8.92	2	...	AP19
	...	CO (1-0)	SEST	- 8	16.9	0.60	14.30	2	0.024	AA54
	...	HCN(1-0)	OSO	- 20	23.5	0.03	1.00	2	...	AA13
2012-44	RZ Sgr	CO (1-0)	SEST	- 29	12.5	0.41	7.40	2	0.050	AA54
2013-71	NSV 12961	CO (1-0)	SEST	- 3	12.5	0.08	...	1	...	AA29
	20135-7152	CO (1-0)	SEST	- 3	17.3	0.03	1.00	2	0.013	AA54(!!)
2014-21	RT Cap	CO (1-0)	SEST	- 20	9.1	0.05	0.64	2	...	AA8
	IRC-20585	CO (1-0)	SEST	- 20	9.1	0.05	0.60	2	0.048	AA54(!!)
2023-13	OH 30.7-27.1	CO (1-0)	IRAM	- 30	11.3	0.31	5.60	2	0.060	AA36
	20234-1357	CO (1-0)	SEST	- 21	10.7	0.08	1.40	2	0.026	AA54
	...	CO (2-1)	IRAM	- 33	6.2	0.24	3.00	2	0.110	AA36(!)
2024+75	UU Dra	CO (1-0)	OSO	- 25	10.0	0.23	3.00	2	0.067	AA54
2024-28	T Mic	CO (1-0)	SEST	+ 23	8.1	0.11	1.40	2	0.021	AA54
2026+21	OH 63.3-10.2	CO (1-0)	IRAM	- 72	18.4	0.46	13.20	2	0.060	AA36
	20267+2105	CO (2-1)	IRAM	- 72	16.1	0.76	19.60	2	0.140	AA36
2039+47	V Cyg	CO (1-0)	BTL	+ 13	13.1	0.37	6.50	2	0.060	AP2
	IRC+50338	CO (1-0)	FCRAO	+ 13	11.7	1.20	...	2	...	AP4
	RAFGL 2632	CO (1-0)	IRAM	+ 15	...	1.17	21.60	2	0.080	AA2
	CCS 2923	CO (1-0)	IRAM	+ 14	14.0	...	63.90	1	...	AA11
	SAO 49940	CO (1-0)	OSO	+ 11	14.5	1.40	...	2	...	AA17
	...	CO (1-0)	FCRAO	+ 14	15.0	...	15.75	2	...	AP19

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
...	...	CO (1-0)	IRAM	...	...	1.90	39.00	2	0.100	AA48(m)
...	...	CO (2-1)	NRAO	+ 15	11.8	1.90	...	2	...	AP3
...	...	CO (2-1)	NRAO	+ 14	11.7	1.80	...	2	...	AA16
...	...	CO (2-1)	NRAO	+ 14	11.9	2.60	...	2	...	AA16
...	...	CO (2-1)	NRAO	+ 14	13.8	2.52	...	2	0.190	AP18
...	...	CO (2-1)	IRAM	...	...	3.90	70.00	2	0.200	AA48(m)
...	...	HCN(1-0)	OSO	+ 18	14.1	0.55	...	2	...	AA17
...	...	HCN(1-0)	OSO	...	...	...	...	2	...	AP23
2043+38	20435+3825	CO (1-0)	IRAM	+ 0	20.6	0.12	...	2	...	AA4
...	...	HCN(1-0)	IRAM	+ 11	21.0	0.18	...	2	...	AA4
...	...	HCN(1-0)	IRAM	+ 0	...	...	5.20	1	0.070	AA7
2044-01	FP Aqr	CO (1-0)	FCRAO	+ 9	13.0	...	3.41	2	...	AP19
...	IRC+00490	CO (1-0)	SEST	+ 9	10.8	0.10	2.30	2	0.044	AA54(!)
...	RAFGL 2646	CO (2-1)	NRAO	+ 10	15.4	0.33	...	2	...	AA16
2044+39	NML Cyg	HCN(1-0)	IRAM	- 1	26.0	0.26	3.90	2	0.030	AA19
2048-72	20484-7202	CO (1-0)	SEST	- 41	14.4	0.07	1.30	2	0.018	AA54
2053+30	UX Cyg	CO (1-0)	FCRAO	- 4	6.0	...	0.51	2	...	AP19
2053+55	20532+5554	CO (1-0)	IRAM	+ 2	11.4	0.42	...	2	...	AA4
...	...	CO (2-1)	NRAO	- 1	13.5	0.13	...	1	0.031	AP10
...	...	HCN(1-0)	IRAM	+ 4	13.4	0.16	...	2	...	AA4
...	...	HCN(1-0)	IRAM	+ 2	...	...	4.10	1	0.060	AA7
2054-65	20541-6549	CO (1-0)	SEST	+ 0	16.0	0.06	...	1	...	AA29
...	...	CO (1-0)	SEST	- 4	19.0	0.04	1.40	2	0.013	AA54
2056+27	RAFGL 2686	CO (2-1)	NRAO	+ 1	23.5	0.37	...	2	...	AP3
...	...	HCN(1-0)	IRAM	+ 1	...	...	18.80	1	0.110	AA7
2100+36	RAFGL 2688	CO (1-0)	BTL	- 36	19.7	1.27	33.70	2	0.130	AP2
...	Egg Neb.	CO (1-0)	IRAM	- 35	...	10.00	266.00	2	0.200	AA9
...	PK 80-6.1	CO (1-0)	IRAM	- 35	...	10.10	266.00	2	0.200	AA12
...	...	CO (1-0)	OSO	- 35	19.3	3.50	...	2	...	AA17
...	...	CO (1-0)	IRAM	- 35	...	8.00	...	2	...	AA31
...	...	CO (1-0)	IRAM	- 34	19.6	10.50	274.00	2	...	AA52
...	...	CO (2-1)	IRAM	- 35	...	15.00	...	2	...	AA31(m)
...	...	CO (2-1)	CSO	...	...	3.50	...	2	0.020	AP24
...	...	CO (2-1)	IRAM	- 36	17.9	8.00	185.00	2	...	AA52
...	...	HCN(1-0)	IRAM	- 35	...	6.50	175.00	2	0.100	AA12
...	...	HCN(1-0)	OSO	- 31	17.3	2.50	...	2	...	AA17
...	...	HCN(1-0)	OSO	...	...	...	...	2	...	AP23
2100+48	21003+4801	CO (2-1)	NRAO	- 5	14.8	0.17	...	2	...	AA16
2103-00	RV Aqr	CO (1-0)	BTL	+ 1	16.4	0.09	2.00	2	0.060	AP2(!!)
...	IRC+00499	CO (1-0)	SEST	+ 1	16.1	0.32	7.90	2	...	AA8
...	RAFGL 2702	CO (1-0)	FCRAO	+ 1	19.0	...	1.93	2	...	AP19
...	CCS 2968	CO (1-0)	SEST	+ 1	16.1	0.31	7.90	2	0.022	AA54
...	...	HCN(1-0)	SEST	+ 0	...	0.12	1.80	2	...	AA30
2103+51	V1549 Cyg	CO (2-1)	NRAO	+ 7	11.4	0.40	...	2	...	AA16
...	IRC+50357	HCN(1-0)	IRAM	+ 7	...	...	4.20	1	0.060	AA7
2104-16	RS Cap	CO (1-0)	SEST	- 5	9.1	0.06	0.80	2	0.018	AA54

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
2105+42	NGC 7027	CO (1-0)	OVI2	+ 26	16.5	2.30	59.00	1	...	AP1(m)
	PK 84-3.1	CO (1-0)	BTL	+ 25	17.9	0.98	23.10	2	0.130	AP2
	HD 201272	CO (1-0)	BTL	+ 25	17.7	1.35	30.50	2	0.131	AP8
	...	CO (1-0)	IRAM	+ 26	...	8.00	215.00	2	0.350	AA9
	...	CO (1-0)	OSO	+ 26	16.9	5.00	...	2	...	AA17
	...	CO (1-0)	NRO	+ 26	...	6.00	...	2	...	AA44(m)
	...	CO (1-0)	BIMA	...	...	...	...	2	...	AP21(m)
	...	CO (1-0)	NRAO	...	...	...	...	2	...	AP21(m)
	...	CO (1-0)	IRAM	+ 25	15.4	14.00	384.00	2	...	AA52
	...	CO (2-1)	OVI1	+ 26	22.5	6.50	145.00	1	...	AP1
	...	CO (2-1)	NRAO	+ 26	16.3	9.50	...	2	1.100	AP6
	...	CO (2-1)	NRAO	+ 26	23.0	11.20	277.90	2	0.260	AP16
	...	CO (2-1)	NRAO	+ 27	17.9	10.62	...	2	0.320	AP18
	...	CO (2-1)	JCMT	+ 25	15.2	12.00	...	2	...	AP22
	...	CO (2-1)	IRAM	+ 27	15.6	10.00	253.00	2	...	AA52
	...	HCN(1-0)	OSO	+ 24	24.0	0.19	...	2	...	AA17
2106-38	RAFGL 5592	CO (1-0)	SEST	- 24	11.6	0.11	1.90	2	0.036	AA54
2108+68	T Cep	CO (1-0)	IRAM	+ 1	17.0	0.20	...	2	0.060	AA15(?)
	IRC+70168	CO (1-0)	FCRAO	- 5	7.0	...	1.37	2	...	AP19
	RAFGL 2721	CO (2-1)	NRAO	- 3	5.0	0.43	...	2	...	AA16
2114+51	21147+5110	CO (2-1)	NRAO	- 49	11.5	0.25	...	1	0.123	AP10(!)
2116-45	T Ind	CO (1-0)	SEST	+ 16	5.5	0.06	0.46	2	...	AA8
2119-69	Y Pav	CO (1-0)	SEST	- 5	9.4	0.14	1.70	2	...	AA8
	CCS 3018	CO (1-0)	SEST	+ 5	14.0	0.12	2.30	2	0.024	AA54
2122+51	21223+5114	CO (1-0)	IRAM	- 16	20.6	0.70	...	2	...	AA4
	...	CO (1-0)	NRAO	- 12	13.0	0.16	...	1	0.022	AP10
	...	CO (2-1)	NRAO	- 7	15.0	0.17	...	1	0.072	AP10(!)
	...	HCN(1-0)	IRAM	- 8	19.1	0.19	...	2	...	AA4
	...	HCN(1-0)	IRAM	- 16	...	...	5.60	1	0.060	AA7
2125+36	IRC+40483	CO (1-0)	BTL	+ 42	18.0	0.04	0.90	2	0.030	AP2(?)
2128+50	21282+5050	CO (1-0)	IRAM	+ 18	16.5	6.40	135.00	2	0.070	AA10
	...	CO (1-0)	NMA	+ 17	...	...	...	2	...	AP15(m)
	...	CO (1-0)	IRAM	+ 18	16.5	6.40	135.00	2	0.050	AA42
	...	CO (2-1)	IRAM	+ 19	15.8	15.10	279.00	2	0.044	AA10(m)
	...	CO (2-1)	NRAO	+ 18	16.0	2.10	40.90	2	0.110	AP16
	...	CO (2-1)	IRAM	+ 19	15.8	15.10	279.00	2	0.240	AA42
2128+10	UU Peg	CO (1-0)	NRAO	+ 30	13.5	0.08	...	2	...	AA16
	IRC+10498	CO (1-0)	FCRAO	+ 31	13.0	...	2.49	2	...	AP19
2130+44	IC 5117	CO (2-1)	NRAO	- 10	16.0	0.22	4.60	2	0.057	AP16
2131+56	21318+5631	CO (1-0)	FCRAO	+ 3	15.6	0.52	...	2	...	AP4
	...	CO (1-0)	OSO	+ 0	18.2	0.95	23.10	2	...	AA13
	...	HCN(1-0)	OSO	+ 7	21.2	0.18	5.00	2	...	AA13
2132+38	V1426 Cyg	CO (1-0)	BTL	- 4	14.9	0.11	2.60	2	0.050	AP2(!)
	IRC+40485	CO (1-0)	FCRAO	- 5	14.0	...	6.68	2	...	AP19
	RAFGL 2781	CO (1-0)	OSO	- 5	13.0	0.60	13.00	2	0.103	AA54
	CCS 3041	HCN(1-0)	IRAM	- 4	...	...	5.80	1	0.080	AA7

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
2135+78	S Cep	CO (1-0)	IRAM	- 15	...	0.67	24.46	2	0.040	AA2
	IRC+80048	CO (1-0)	IRAM	- 15	22.6	1.04	36.10	2	0.040	AA23
	RAFGL 2785	CO (1-0)	FCRAO	- 16	22.0	...	8.53	2	...	AP19
	CCS 3055	CO (1-0)	IRAM	...	...	0.80	26.00	2	0.100	AA48
	HD 206362	CO (1-0)	OSO	- 16	31.3	0.50	20.00	2	0.125	AA54
	...	CO (2-1)	NRAO	- 15	22.4	0.51	...	2	...	AP3
	...	CO (2-1)	IRAM	...	...	1.60	60.00	2	0.200	AA48
	...	HCN(1-0)	IRAM	- 5	...	...	35.20	1	0.080	AA7
2137+45	21373+4540	CO (1-0)	IRAM	- 21	14.7	0.47	...	2	...	AA4
2138+54	RU Cyg	CO (2-1)	NRAO	+ 7	14.2	0.25	...	2	...	AA16
2139+35	V460 Cyg	CO (1-0)	OSO	+ 27	11.4	0.26	4.70	2	...	AA5
	IRC+40489	CO (1-0)	OSO	+ 27	11.4	0.26	4.70	2	0.035	AA54
	RAFGL 2793	CO (2-1)	NRAO	+ 27	10.0	0.32	...	2	0.041	AP18
2141+37	RV Cyg	CO (1-0)	OSO	+ 17	14.7	0.22	4.80	2	...	AA5
	IRC+40491	CO (1-0)	OSO	+ 17	14.7	0.23	4.80	2	0.027	AA54
	RAFGL 2798	CO (2-1)	NRAO	+ 17	16.4	0.19	...	2	0.043	AP18
	CCS 3063	HCN(1-0)	OSO	+ 15	...	0.11	1.70	2	...	AA30
2141+58	μ Cep	CO (2-1)	IRAM	+ 35	10.0	0.20	...	1	0.020	AA18
2143-02	EP Aqr	CO (1-0)	FCRAO	- 34	11.0	...	4.20	2	...	AP19
	IRC+00509	CO (1-0)	SEST	- 35	11.3	0.30	5.00	2	0.052	AA54
	RAFGL 2806	CO (2-1)	NRAO	- 34	8.6	1.20	...	2	...	AP3
2144+73	PQ Cep	CO (1-0)	FCRAO	+ 3	21.7	0.15	...	2	...	AP4
2144+49	21449+4950	CO (1-0)	IRAM	- 30	14.6	0.25	...	2	...	AA4
	...	CO (2-1)	NRAO	- 32	20.0	0.07	...	1	0.025	AP10(!)
2145+64	RT Cep	CO (1-0)	FCRAO	- 40	17.0	...	3.05	2	...	AP19
2148+53	21489+5301	CO (1-0)	IRAM	- 28	20.6	0.42	...	2	...	AA4
	...	CO (2-1)	NRAO	- 28	22.3	0.42	...	2	...	AP3
	...	HCN(1-0)	IRAM	- 27	19.1	0.20	...	2	...	AA4
	...	HCN(1-0)	IRAM	- 28	...	...	6.90	1	0.070	AA7
2155+62	21554+6204	CO (1-0)	OSO	- 18	18.2	0.32	7.70	2	0.093	AA54
	...	CO (2-1)	NRAO	- 17	12.6	0.24	...	2	...	AP3
	...	CO (2-1)	IRAM	- 17	16.4	0.75	17.50	2	0.042	Pr1
2201+28	TW Peg	CO (2-1)	NRAO	- 13	9.5	0.24	...	2	...	AP3
2203+35	SV Peg	CO (1-0)	NRAO	+ 6	11.0	0.11	...	2	...	AP7
	IRC+40501	CO (1-0)	FCRAO	+ 5	9.0	...	1.62	2	...	AP19
2209+56	CU Cep	CO (1-0)	NRAO	- 42	7.4	0.09	...	2	...	AP7
2212+56	22125+5608	CO (1-0)	IRAM	+ 2	26.0	0.06	1.00	2	...	Pr3
	...	CO (2-1)	IRAM	+ 4	25.0	0.06	2.00	2	...	Pr3
2213+56	22130+5634	CO (1-0)	IRAM	- 31	11.0	0.25	1.80	2	...	Pr3
	...	CO (2-1)	IRAM	- 29	11.0	0.32	4.40	2	...	Pr3
	...	HCN(1-0)	IRAM	- 27	14.0	0.08	0.46	2	...	Pr3
2214+57	M2-51	CO (2-1)	NRAO	+ 0	15.0	0.27	4.90	2	0.110	AP16(?)
2217+59	OH 104.9+2.4	CO (1-0)	IRAM	- 26	14.8	0.08	2.20	2	0.040	AA36(!)
	RAFGL 2885	CO (2-1)	IRAM	- 27	16.9	0.49	13.40	2	0.110	AA36
2219-07	DZ Aqr	CO (1-0)	SEST	+ 15	8.2	0.07	0.70	2	0.021	AA54
2219-46	π1 Gru	CO (1-0)	SEST	...	...	0.70	...	2	...	AA51

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T _(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	RAFGL 4289	CO (1-0)	SEST	- 13	19.4	0.33	6.90	2	0.050	AA54
	SAO 231105	CO (2-1)	CALTECH	- 11	14.9	2.10	42.20	2	0.080	AP14
	...	CO (2-1)	SEST	- 12	...	3.20	...	2	...	AA51(m)
2222+43	22223+4327	CO (1-0)	IRAM	- 25	15.0	0.25	2.00	2	0.030	AA42
	...	CO (2-1)	IRAM	- 30	14.0	0.64	12.30	2	0.032	Pr1
	...	HCN(1-0)	IRAM	...	...	0.06	1.80	2	0.016	Pr1
2224+60	RAFGL 2901	CO (1-0)	FCRAO	- 6	34.2	0.20	...	2	...	AP4
	...	HCN(1-0)	IRAM	- 6	...	...	32.30	1	0.090	AA7
	...	HCN(1-0)	FCRAO	+ 2	32.6	0.06	...	2	...	AA32
2226-21	NGC 7293	CO (2-1)	NRAO	- 24	24.0	1.40	7.00	2	...	AP16
	PK 36-57.1	CO (2-1)	NRAO	...	...	...	...	2	...	AJ1(m)
2227+54	HD 235858	CO (1-0)	NRAO	- 31	11.6	0.68	...	2	...	AP4
	SAO 34504	CO (1-0)	OSO	- 28	10.5	1.26	17.50	2	...	AA13
	...	CO (2-1)	FCRAO	- 28	9.6	3.10	...	2	...	AA26
	...	CO (2-1)	IRAM	- 29	9.5	6.03	76.30	2	0.120	Pr1
	...	CO (2-1)	IRAM	- 28	11.8	6.27	80.50	2	0.055	Pr1
	...	HCN(1-0)	OSO	- 24	13.3	0.26	4.50	2	...	AA13
	...	HCN(1-0)	IRAM	...	...	1.00	16.30	2	0.100	Pr1
	...	HCN(1-0)	IRAM	...	...	1.16	16.60	2	0.054	Pr1
2230+59	22303+5950	CO (1-0)	IRAM	- 65	18.3	0.37	...	2	...	AA4
	...	HCN(1-0)	IRAM	- 52	24.9	0.10	...	2	...	AA4
	...	HCN(1-0)	IRAM	- 65	...	...	3.80	1	0.070	AA7
2235+59	22354+5911	CO (1-0)	IRAM	- 42	18.0	0.16	1.60	2	...	Pr3
	...	CO (2-1)	IRAM	- 39	22.0	0.21	5.10	2	...	Pr3
2251+66	RAFGL 2985	CO (2-1)	NRAO	- 22	19.2	0.10	...	2	...	AA16
	...	HCN(1-0)	IRAM	- 22	...	...	4.70	1	0.070	AA7
2252-29	V PsA	CO (2-1)	CALTECH	- 15	21.0	0.17	3.70	2	0.090	AP14(?)
2255+58	RAFGL 2999	CO (1-0)	NRAO	- 58	17.6	0.23	...	2	...	AP7
2257+66	22574+6609	CO (1-0)	IRAM	- 62	24.0	0.30	10.00	2	0.025	AA42
	...	CO (2-1)	IRAM	- 64	15.0	0.50	11.00	2	0.080	AA42
2258+64	RAFGL 3011	CO (1-0)	FCRAO	- 5	21.4	0.28	...	2	...	AP4
2314+60	V563 Cas	CO (2-1)	IRAM	- 24	19.0	0.13	2.90	2	...	Pr3
2316+16	RAFGL 3068	CO (1-0)	BTL	- 31	14.5	0.36	6.90	2	0.060	AP2
	...	CO (1-0)	FCRAO	- 31	12.2	1.60	...	2	...	AP4
	...	CO (1-0)	OSO	- 31	15.0	1.60	...	2	...	AA17
	...	CO (1-0)	OSO	- 31	15.1	1.60	31.00	2	0.123	AA54
	...	CO (1-0)	IRAM	- 31	13.4	4.80	102.00	2	0.032	PC1(m)
	...	CO (2-1)	IRAM	- 30	14.3	6.10	113.00	2	0.043	PC1(m)
	...	HCN(1-0)	IRAM	- 31	...	...	24.80	1	0.060	AA7
	...	HCN(1-0)	OSO	- 29	15.0	0.55	...	2	...	AA17
	...	HCN(1-0)	OSO	...	...	...	...	2	...	AP23
2317+59	V571 Cas	CO (1-0)	IRAM	- 53	14.0	0.09	0.77	2	...	Pr3
	23174+5941	CO (2-1)	IRAM	- 55	15.0	0.21	3.40	2	...	Pr3
2321-45	RAFGL 4296	CO (1-0)	SEST	- 1	11.5	0.11	...	1	...	AA29
	NSV 14540	CO (1-0)	SEST	- 5	18.9	0.11	2.40	2	0.039	AA54(!)
2325+10	RAFGL 3099	CO (1-0)	BTL	+ 47	10.1	0.16	2.10	2	0.040	AP2

Table 3. continued

n° (1)	name1 (2)	line (3)	telescope (4)	V _{lsr} (5)	V _e (6)	T(K) (7)	I _{K km s⁻¹} (8)	sc. (9)	rms (10)	ref. (11)
	...	HCN(1-0)	IRAM	+ 47	...	...	8.10	1	0.060	AA7
2326+68	23268+6854	HCN(1-0)	IRAM	- 30	27.0	0.15	3.30	2	0.030	Pr1
2327+53	23279+5336	CO (1-0)	IRAM	- 32	8.8	0.25	...	2	...	AA4
2330+61	23304+6147	CO (1-0)	IRAM	- 17	8.0	0.60	10.00	2	0.030	AA42
	...	CO (2-1)	FCRAO	- 16	15.5	0.70	...	2	...	AA26
	...	CO (2-1)	IRAM	- 16	11.5	1.60	25.00	2	0.120	AA42
	...	HCN(1-0)	IRAM	...	...	0.24	5.60	2	0.034	Pr1
2332+43	IRC+40540	CO (1-0)	BTL	- 15	14.7	0.47	9.20	2	0.050	AP2
	LP And	CO (1-0)	FCRAO	- 17	13.8	1.70	...	2	...	AP4
	RAFGL 3116	CO (1-0)	OSO	- 17	14.3	1.40	...	2	...	AA17
	...	CO (1-0)	FCRAO	- 17	16.0	...	25.05	2	...	AP19
	...	CO (1-0)	OSO	- 17	14.4	1.40	35.70	2	0.093	AA54
	...	CO (2-1)	NRAO	- 18	14.8	2.00	...	2	...	AA16
	...	CO (2-1)	NRAO	- 17	14.8	1.76	...	2	0.220	AP18
	...	HCN(1-0)	IRAM	- 17	...	...	23.80	1	0.090	AA7
	...	HCN(1-0)	OSO	- 14	14.4	0.40	...	2	...	AA17
	...	HCN(1-0)	OSO	...	...	...	...	2	...	AP23
2332+65	23321+6545	CO (1-0)	IRAM	- 55	14.0	0.71	14.40	2	...	AA3
	...	CO (1-0)	IRAM	- 56	15.2	0.60	14.00	2	0.060	AA42
	...	CO (2-1)	CALTECH	- 59	15.0	0.27	7.50	2	0.110	AP14(?)
	...	CO (2-1)	IRAM	- 55	17.0	1.20	28.00	2	0.120	AA42
	...	HCN(1-0)	IRAM	...	...	0.16	3.80	2	0.025	Pr1
2343+03	TX Psc	CO (1-0)	OSO	+ 11	12.5	0.25	...	2	...	AA1
	IRC+00532	CO (1-0)	NRAO	+ 10	10.6	0.16	...	2	...	AP7
	RAFGL 3147	CO (1-0)	OSO	+ 13	11.8	0.29	4.70	2	...	AA5
	CCS 3202	CO (1-0)	SEST	+ 13	12.1	0.23	3.50	2	...	AA8
	HD 223075	CO (1-0)	IRAM	...	...	0.73	...	1	0.030	AA21(m)
	...	CO (1-0)	IRAM	+ 13	9.0	0.27	...	2	0.100	AA27(!)
	...	CO (1-0)	OSO	+ 13	11.8	0.29	4.70	2	0.044	AA54
	...	CO (2-1)	IRAM	...	...	0.75	...	1	0.030	AA21(m)
	...	CO (2-1)	JCMT	+ 17	7.3	0.33	3.75	1	...	AA43
2349+61	IRC+60427	CO (1-0)	FCRAO	- 15	19.0	...	3.35	2	...	AP19
	NSV 14731	CO (2-1)	CALTECH	- 15	19.0	0.25	6.30	2	0.070	AP14
	RAFGL 3165	CO (2-1)	NRAO	- 10	14.3	0.17	...	2	...	AA16
2355+51	R Cas	CO (1-0)	BTL	+ 26	12.3	0.12	1.90	2	0.040	AP2
	IRC+50484	CO (1-0)	OSO	+ 24	14.3	0.81	14.40	2	...	AA13
	RAFGL 3188	CO (1-0)	IRAM	+ 25	9.5	1.40	21.50	2	0.080	AA23
	HD 224490	CO (1-0)	IRAM	+ 24	10.4	0.95	...	2	0.190	AA27
	SAO 35938	CO (1-0)	FCRAO	+ 25	11.0	...	5.21	2	...	AP19
	...	CO (1-0)	IRAM	...	...	1.60	21.00	2	0.100	AA48
	...	CO (1-0)	OSO	+ 25	14.3	0.81	14.40	2	0.049	AA54
	...	CO (2-1)	IRAM	...	...	4.30	78.00	2	0.100	AA48(m)
	...	HCN(1-0)	OSO	+ 26	16.4	0.06	1.30	2	...	AA13

Notes to Table 3: See section 2.3. Column (9): *code for the temperature scale used in the reference; 1 for an antenna temperature T_A^* , 2 for a main beam brightness temperature T_{MB} , where $T_{MB} = T_A^*/\eta_{MB}$, and η_{MB} is the main beam efficiency.* Column (11): *the correspondance between codes and references is given in Table 4; (?), indicated as a tentative detection in the reference; (!!), $T \leq 2$ rms; (!), 2 rms $< T \leq 3$ rms; (m), a map is presented in the reference; (n) peculiar CO profile, see end of section 2.3.*

Table 4.

year	code	Vol.	page	authors
1985	AP1*	292	464	C.R.Masson, K.W.Cheung, G.L.Berge, M.J.Claussen, G.M.Heiligman, R.B.Leighton, K.Y.Lo, A.T.Moffet, T.G.Phillips, A.I.Sargent, S.L.Scott, D.P.Woody.
	AP2	292	640	G.R.Knapp, M.Morris.
	NT1	317	336	S.Deguchi, P.F.Goldsmith.
1986	AP3	304	394	B.Zuckerman, H.M.Dyck.
	AP4	304	401	B.Zuckerman, H.M.Dyck, M.J.Claussen.
	AP5	304	418	P.J.Huggins, A.P.Healy.
	MN1	220	125	R.Arquilla, D.A.Leahy, S.Kwok.
	AA1	161	305	K.Eriksson, B.Gustafsson, F.Querci, M.Querci, J.H.Baumert, M.Carlsson, H.Olofsson.
	MN2	220	33p	P.J.Huggins, A.P.Healy.
	AA2	162	157	V.Bujarrabal, P.Planesas, J.Gómez-González, J.Martín-Pintado, A. del Romero.
	AP6	311	335	P.G.Wannier, R.Sahai.
	AP7	311	345	B.Zuckerman, H.M.Dyck.
	AP8	311	731	G.R.Knapp
1987	AP9	313	400	P.J.Huggins.
	AA3	173	L11	L.Likkell, A.Omont, M.Morris, T.Forveille.
	AA4	180	117	Nguyen-Q-Rieu, N.Epchtein, Truong-Bach, M.Cohen.
	AA5	183	L13	H.Olofsson, K.Eriksson, B.Gustafsson.
	AP10	320	825	D.A.Leahy, S.Kwok, R.A.Arquilla.
	AP11	321	888	M.Morris, S.Guilloteau, R.Lucas, A.Omont.
1988	AA6	190	167	C.Kahane, J.Gómez-González, J.Cernicharo, M.Guélin.
	AA7	194	230	R.Lucas, S.Guilloteau, A.Omont.
	AP12*	328	L25	C.Kahane, C.Maizels, M.Jura.
	AA8	196	L1	H.Olofsson, K.Eriksson, B.Gustafsson.
	AA9*	196	L5	R.Bachiller, J.Gómez-González, V.Bujarrabal, J.Martín-Pintado.
	AA10*	198	L1	L.Likkell, T.Forveille, A.Omont, M.Morris.
	AA11	201	80	M.Jura, C.Kahane, A.Omont.
	AP13	332	1009	P.J.Huggins, H.Olofsson, L.E.B.Johansson.
	AA12*	204	242	V.Bujarrabal, J.Gómez-González, R.Bachiller, J.Martín-Pintado.
	AA13	205	L15	M.Lindqvist, L.Å.Nyman, H.Olofsson, A.Winnberg.
	AA14*	206	L17	V.Bujarrabal, R.Bachiller, J.Alcolea, J.Martín-Pintado.

Table 4. continued

year	code	Vol.	page	authors	
1989	AA15	208	77	A.Heske.	
	AP14	336	822	G.R.Knapp, B.M.Sutin, T.G.Phillips, B.N.Ellison, J.B.Keene, R.B.Leighton, C.R.Masson, W.Steiger, B.Veidt, K.Young.	
	AA16	209	119	B.Zuckerman, H.M.Dyck.	
	AA17	210	78	R.J.Sopka, H.Olofsson, L.E.B.Johansson, Nguyen-Q-Rieu, B.Zuckerman.	
	AA18	210	198	J.F.Le Borgne, N.Mauron.	
	AA19	210	225	E.Necessian, S.Guilloteau, A.Omont, J.J.Benayoun.	
	AA20*	210	366	R.Bachiller, P.Planesas, J.Martín-Pintado, V.Bujarrabal, M.Tafalla.	
	AA21*	218	L5	A.Heske, P.te Lintel Hekkert, P.R.Maloney.	
	AA22*	218	252	R.Bachiller, V.Bujarrabal, J.Martin-Pintado, J.Gómez-González.	
	AA23	219	256	V.Bujarrabal, J.Gómez-González, P.Planesas.	
	AP15*	345	L55	K.M.Shibata, S.Tamura, S.Deguchi, N.Hirano, O.Kameya, T.Tamura.	
	AP16	346	201	P.J.Huggins, A.P.Healy.	
	1990	AA24	227	L29	C.Loup, T.Forveille, L.Å.Nyman, A.Omont.
		AA25*	227	188	R.Bachiller, J.Martín-Pintado, V.Bujarrabal.
AA26		228	503	A.W.Woodsworth, S.Kwok, S.J.Chan.	
AP17*		351	263	P.Planesas, R.Bachiller, J.Martín-Pintado, V.Bujarrabal.	
AA27		229	494	A.Heske.	
AA28		230	L13	H.Olofsson, U.Carlström, K.Eriksson, B.Gustafsson, L.A.Wilson.	
AA29		230	339	S.Deguchi, Y.Nakada, R.Sahai.	
AA30		230	405	H.Olofsson, K.Eriksson, B.Gustafsson.	
AA31*		230	431	Truong-Bach, D.Morris, Nguyen-Q-Rieu, S.Deguchi.	
AA32		231	73	M.J.Claussen, L.M.Ziurys.	
AA33		233	153	N.R.Trans, W.E.C.J.van der Veen, C.Waelkens, L.B.F.M.Waters, H.J.G.L.M.Lamers.	
AP18		358	251	P.G.Wannier, R.Sahai, B-G Andersson, H.R.Johnson.	
AA34*		234	L1	R.Sahai, A.Wootten, R.E.S.Clegg.	
AA35*		234	355	V.Bujarrabal, J.Alcolea, R.Bachiller.	
AJ1*		100	511	A.P.Healy, P.J.Huggins.	
AP19		361	673	M.Margulis, D.J.van Blerkom, R.L.Snell, S.G.Kleinmann.	
AA36		239	173	A.Heske, T.Forveille, A.Omont, W.E.C.J.van der Veen, H.J.Habing.	
AP20*	364	L9	P.Planesas, J.D.P.Kenney, R.Bachiller.		
1991	AA37	242	247	V.Bujarrabal, R.Bachiller.	
	AA38	243	L9	A.A.Zijlstra, M.J.Gaylard, P.te Lintel Hekkert, J.Menzies, L.Å.Nyman, H.E.Schwartz.	
	AA39	245	195	A.Winnberg, M.Lindqvist, H.Olofsson, C.Henkel.	
	AA40	245	499	J.Alcolea, V.Bujarrabal (and erratum in A&A 253, 333).	
	AA41	245	611	H.Olofsson, M.Lindqvist, L.Å.Nyman, A.Winnberg, Nguyen-Q-Rieu.	
	AA42	246	153	L.Likkel, T.Forveille, A.Omont, M.Morris.	
	AA43	246	447	A.W.Woodsworth, S.Kwok, S.J.Chan, R.Murowinski.	
	AA44*	247	148	J.P.Phillips, A.Mampaso, P.G.Williams, N.Ukita.	
	AA45	247	525	R.Bachiller, P.J.Huggins, P.Cox, T.Forveille.	
	AA46*	249	435	Truong-Bach, D.Morris, Nguyen-Q-Rieu.	
	AP21*	379	271	J.H.Biegging, D.Wilner, H.A.Thronson.	
	AA47*	250	533	P.Cox, P.J.Huggins, R.Bachiller, T.Forveille.	

Table 4. continued

year	code	Vol.	page	authors
1991	AP22*	380	461	P.A.Jaminet, W.C.Danchi, E.C.Sutton, A.P.G.Russell, G.Sandell, J.H.Biegging, D.Wilner.
	AP23	380	593	P.G.Wannier, B-G Andersson, H.Olofsson, N.Ukita, K.Young.
	AA48*	251	536	V.Bujarrabal, J.Alcolea.
	AA49*	251	560	R.Sahai, A.Wootten, H.E.Schwarz, R.E.S.Clegg.
1992	AA50*	253	L17	H.Olofsson, U.Carlström, K.Eriksson, B.Gustafsson.
	AA51*	253	L33	R.Sahai.
	AP24	385	265	K.Young, G.Serabyn, T.G. Phillips, G.R.Knapp, R.Güsten, A.Schulz.
	AA52	256	235	C.Kahane, J.Cernicharo, J. Gómez-González, M.Guélin.
	AA53*	257	701	V.Bujarrabal, J.Alcolea, P.Planesas.
	AA54	93	121	L.-Å.Nyman, R.S.Booth, U.Carlström, H.J.Habing, A.Heske, R.Sahai, R.Stark, W.E.C.J van der Veen, A.Winnberg (A&A Sup).
	AA55*	258	469	Y.Gómez, L.F.Rodriguez, G.Garay.
	AA56*	260	283	J.P.Phillips, P.G.Williams, A. Mampaso, N.Ukita.
	AA57*	262	544	R.Neri, S.García-Burillo, M.Guélin, J.Cernicharo, S.Guilloteau, R.Lucas.
	AA58	263	183	M.Lindqvist, H.Olofsson, A.Winnberg, L.-Å.Nyman.
	AA59	264	L1	H.E.Schwarz.
prep.	Pr1	AA		A.Omont, C.Loup, , T.Forveille, P.te Lintel-Hekkert, J.L.Caswell, H.Habing, P.Sivagnanam.
	Pr2	AA		W.E.C.J. van der Veen, N.R.Trams, L.B.F.M.Waters.
	Pr3	AA		J.H. Kastner, T. Forveille, B. Zuckerman, A. Omont.
PC	PC1*			C.Loup (thesis).

Notes : AP : *The Astrophysical Journal*
AA : *Astronomy and Astrophysics*
MN : *The Monthly Notices of the Royal Astronomical Society*
AJ : *The Astronomical Journal*
NT : *Nature*
Pr : Preprints
PC : Thesis, or private communications.
(★ : mapping)

Table 5a. C-rich sources

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0024+69	RAFGL 67	17.8	0.09	...	1.1	$6.3 \cdot 10^{-6}$	2.7	...	...	...	...
0110+62	IRC+60041	23.3	...	0.03	0.59	$1.3 \cdot 10^{-6} \dagger$	0.97	1.25	$1.8 \cdot 10^{-6}$	0.75	Kast
0113+25	Z Psc	4.3 ± 1.1	0.02	0.06	1.9	$4.9 \cdot 10^{-7}$	1.2	...	...	...	...
0114+63	01142+6306	16.5 ± 3.5	0.02	0.04	3.5	$1.4 \cdot 10^{-5}$	4.1	...	...	...	...
0114+66	RAFGL 190	18.2 ± 1.4	...	0.18	2.3	$1.8 \cdot 10^{-5} \dagger$	4.8	2.08	$1.2 \cdot 10^{-5}$	4.1	Kast
0124-32	R Scl	18.2 ± 2.9	0.27 ± 0.042	...	...	...	...	0.84	$2.7 \cdot 10^{-5}$	15.	AP2
...	...	...	...	...	...	...	...	0.46	$6.0 \cdot 10^{-6}$	2.6	Kast
0215+28	02152+2822	9.2 ± 0.4	0.02	0.05	2.1	$2.0 \cdot 10^{-6}$	1.8	1.80	$1.4 \cdot 10^{-6}$	0.96	Kast
0227-26	R For	19.0 ± 1.9	0.03 ± 0.006	0.15	0.67	$2.2 \cdot 10^{-6} \pm 0.22$	1.4 ± 0.09	0.77	$1.5 \cdot 10^{-6}$	0.77	Kast
0229+57	RAFGL 341	14.2	...	0.21	2.2	$1.1 \cdot 10^{-5} \dagger$	4.0	2.04	$1.5 \cdot 10^{-5}$	4.8	Kast
0309+58	03096+5839	14.0	0.01	0.02	4.9	$9.4 \cdot 10^{-6}$	3.7	...	...	...	...
0311-57	TW Hor	5.3	0.03	...	1.6	$7.8 \cdot 10^{-7}$	1.3	...	...	...	...
0318+70	RAFGL 482	12.2 ± 5.4	0.11 ± 0.006	...	1.7	$8.3 \cdot 10^{-6} \pm 6.16$	3.4 ± 1.0	1.6	$1.5 \cdot 10^{-5}$	14.	AP2
0322+47	IRC+50096	15.4 ± 1.1	0.15 ± 0.051	...	0.62	$3.5 \cdot 10^{-6} \pm 1.21$	2.0 ± 0.32	0.68	$5.5 \cdot 10^{-6}$	8.1	AP2
...	...	...	...	...	...	...	...	0.68	$2.4 \cdot 10^{-6}$	3.0	AA17
0330+56	03301+5658	17.0 ± 1.4	0.01	0.02	5.1	$1.2 \cdot 10^{-5}$	3.8	...	...	...	...
0331+60	03313+6058	13.9	...	0.03	3.8	$5.8 \cdot 10^{-6} \dagger$	2.8	...	...	...	...
0337+62	U Cam	20.6 ± 7.0	0.03 ± 0.007	...	0.65	$2.1 \cdot 10^{-6} \pm 0.57$	1.3 ± 0.15	0.48	$2.0 \cdot 10^{-6}$	0.83	Kast
0344+44	RAFGL 5102	14.7 ± 1.9	0.05	0.08	2.1	$8.3 \cdot 10^{-6}$	3.3	1.73	$2.5 \cdot 10^{-6}$	1.2	Kast
0430+62	IRC+60144	18.5 ± 4.6	0.11 ± 0.012	...	0.95	$5.7 \cdot 10^{-6} \pm 2.12$	2.6 ± 0.33	1.0	$2.0 \cdot 10^{-5}$	8.6	AP2
...	...	...	...	...	...	...	...	1.02	$8.0 \cdot 10^{-6}$	3.3	Kast
0434+46	04340+4623	15.5 ± 2.1	0.03	0.03	3.7	$1.2 \cdot 10^{-5}$	4.4	...	...	...	...
0439+36	RAFGL 618	19.5 ± 1.3	0.43	...	1.13	...	...	1.3	$6.7 \cdot 10^{-5}$	25.	AP2
...	...	...	...	...	...	...	...	1.3	$5.6 \cdot 10^{-5}$	3.0	AA17
0446+68	ST Cam	10.5 ± 2.3	0.02	0.09	0.64	$5.4 \cdot 10^{-7}$	0.81	...	...	...	...
0453+44	04530+4427	20.2 ± 0.6	0.03 ± 0.003	0.11	2.3	$1.2 \cdot 10^{-5} \pm 0.01$	3.6 ± 0.07	1.97	$1.7 \cdot 10^{-5}$	3.2	Kast
0457-14	R Lep	17.9 ± 3.5	0.06 ± 0.023	0.19	0.48	$2.0 \cdot 10^{-6} \pm 0.68$	1.3 ± 0.22	0.45	$1.8 \cdot 10^{-6}$	4.2	AP2
...	...	...	...	...	...	...	...	0.43	$3.5 \cdot 10^{-7}$	0.41	Kast
0502+01	W Ori	11.2 ± 0.8	0.03	0.07	0.46	$6.2 \cdot 10^{-7}$	0.82	0.35	$1.4 \cdot 10^{-7}$	0.24	Kast

n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0510+20	05104+2055	25.2	0.02	...	1.4	$4.8 \cdot 10^{-6}$	2.0	...	...	...	...
0513+47	05136+4712	14.7	0.02	...	2.4	$5.6 \cdot 10^{-6}$	2.7	...	...	...	...
0523+34	S Aur	16.5	0.02	...	0.95	$1.9 \cdot 10^{-6}$	1.4	1.03	$1.9 \cdot 10^{-6}$	0.89	Kast
0540+32	RAFGL 809	28.0 ± 2.8	0.05	0.22	1.5	$1.5 \cdot 10^{-5}$	3.6	1.8	$1.7 \cdot 10^{-5}$	...	AP8
...	...	...	...	...	...	...	...	1.24	$1.3 \cdot 10^{-5}$	3.5	Kast
0541-46	W Pic	7.0	0.01	...	1.0	$4.0 \cdot 10^{-7}$	0.79	...	...	...	...
0541-32	05418-3224	10.0	...	0.07	2.0	$2.4 \cdot 10^{-6} \dagger$	1.9	...	...	...	...
0542+20	Y Tau	11.6 ± 2.2	0.04 ± 0.014	0.10	0.57	$8.5 \cdot 10^{-7} \pm 3.35$	0.98 ± 0.17	0.66	$8.3 \cdot 10^{-7}$	0.68	Kast
0601+07	RAFGL 865	15.8 ± 0.7	0.13 ± 0.036	0.41	1.8	$1.6 \cdot 10^{-5} \pm 0.35$	4.8 ± 0.63	1.6	$2.0 \cdot 10^{-5}$	16.	AP2
...	...	...	...	...	...	...	...	1.6	$1.2 \cdot 10^{-5}$	3.0	AA17
0607+26	TU Gem	12.0 ± 0.8	0.02	0.07	0.87	$1.1 \cdot 10^{-6}$	1.2	...	...	...	...
0619+46	06192+4657	7.7	0.03	...	3.7	$4.1 \cdot 10^{-6}$	2.9	...	...	...	...
0620+09	06206+0931	10.0	0.01	...	2.7	$1.8 \cdot 10^{-6}$	1.6	...	...	...	...
0622-09	V636 Mon	25.2 ± 0.8	...	0.15 ± 0.033	0.88	$5.8 \cdot 10^{-6} \pm 1.09 \dagger$	2.2 ± 0.21	1.31	$1.9 \cdot 10^{-5}$	4.5	Kast
0623-09	RAFGL 935	13.6 ± 1.1	0.02 ± 0.005	...	2.9	$5.9 \cdot 10^{-6} \pm 0.33$	2.9 ± 0.18	2.11	$5.4 \cdot 10^{-6}$	2.8	Kast
0623+09	06238+0904	16.0	0.01	...	3.1	$5.3 \cdot 10^{-6}$	2.5	...	...	...	...
0626+08	EIC 135	33.0	0.01	...	2.6	$9.5 \cdot 10^{-6}$	2.6	...	...	...	...
0629+43	RAFGL 954	21.4	0.02	...	1.9	$5.3 \cdot 10^{-6}$	2.2	1.82	$1.3 \cdot 10^{-5}$	3.6	Kast
0633+38	UU Aur	12.9 ± 2.9	0.05 ± 0.011	0.14 ± 0.113	1.2	$3.9 \cdot 10^{-6} \pm 1.11$	2.2 ± 0.14	0.32	$2.9 \cdot 10^{-7}$	...	AP8
...	...	...	...	...	...	...	...	0.30	$4.6 \cdot 10^{-7}$	0.46	Kast
0634+03	RAFGL 971	9.0	...	0.25	1.3	$2.6 \cdot 10^{-6} \dagger$	2.1	1.45	$2.3 \cdot 10^{-6}$	1.3	Kast
0639-22	IRC-20101	17.6 ± 3.4	0.02 ± 0.006	0.08	3.6	$1.7 \cdot 10^{-5} \pm 0.26$	4.6 ± 0.47	...	...	...	...
0648+05	06487+0551	11.0	...	0.02	2.8	$1.7 \cdot 10^{-6} \dagger$	1.5	...	...	...	...
0650-04	06505-0450	12.0	0.01	...	4.2	$5.0 \cdot 10^{-6}$	2.7	...	...	...	...
0652+06	CL Mon	26.1 ± 1.9	0.02 ± 0.007	0.05	0.48	$1.7 \cdot 10^{-6} \pm 0.07$	1.1 ± 0.07	1.13	$6.0 \cdot 10^{-6}$	1.1	Kast
0653-02	CCS 618	29.0 ± 2.8	0.01	0.02	1.3	$4.6 \cdot 10^{-6}$	1.8	...	...	...	...
0656+03	06564+0342	9.9	...	0.10	2.8	$4.7 \cdot 10^{-6} \dagger$	2.8	...	...	...	...
0658+15	06582+1507	14.7 ± 2.7	0.03	0.03 ± 0.001	3.4	$1.5 \cdot 10^{-5}$	4.5	...	...	...	...
0704-07	RY Mon	14.0	...	0.05	0.90	$1.3 \cdot 10^{-6} \dagger$	1.2	...	...	...	...

Table 5a. continued

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0705-11	W CMa	11.7	0.02	...	2.7	$3.4 \cdot 10^{-6}$	2.2	...	...	...	...
0706-72	R Vol	20.3 ± 1.3	0.02 ± 0.015	...	0.99	$2.9 \cdot 10^{-6} \pm 0.88$	1.6 ± 0.33	...	...	...	...
0709-20	RAFGL 1085	23.8	...	0.07	1.5	$6.2 \cdot 10^{-6} \dagger$	2.4	1.33	$5.2 \cdot 10^{-6}$	2.1	Kast
0713+10	HD 56126	10.7 ± 1.1	...	...	...	...	...	3.90	$5.0 \cdot 10^{-5}$	7.9	Kast
0720-32	07203-3212	13.0	0.02	...	3.0	$5.0 \cdot 10^{-6}$	2.6	...	...	...	...
0721-12	07217-1246	24.9	0.01	...	1.5	$3.3 \cdot 10^{-6}$	1.6	...	...	...	...
0727-19	IRC-20131	25.5	...	0.07	1.1	$4.4 \cdot 10^{-6} \dagger$	1.9	1.43	$7.3 \cdot 10^{-6}$	2.5	Kast
0737-40	07373-4021	24.4	0.03	...	1.0	$4.9 \cdot 10^{-6}$	2.0	1.07	$2.5 \cdot 10^{-6}$	1.0	Kast
0743-18	07434-1847	14.5 ± 0.7	0.02	0.02	4.3	$1.1 \cdot 10^{-5}$	4.0	...	...	...	...
0745-71	07454-7112	13.6	0.25	...	0.75	$5.1 \cdot 10^{-6}$	2.6	...	...	...	...
0757-40	07576-4054	7.0	0.02	...	2.3	$1.7 \cdot 10^{-6}$	1.8	...	...	...	...
0758-19	07582-1933	14.6 ± 0.1	0.02 ± 0.005	...	2.1	$3.9 \cdot 10^{-6} \pm 0.59$	2.2 ± 0.20	...	...	...	...
0804-15	08045-1524	13.7	0.01	...	2.4	$2.2 \cdot 10^{-6}$	1.6	...	...	...	...
0805-28	08050-2838	15.0	0.03	...	2.1	$5.1 \cdot 10^{-6}$	2.5	...	...	...	...
0807-36	08074-3615	17.3	0.07	...	1.9	$1.1 \cdot 10^{-5}$	3.7	1.58	$1.5 \cdot 10^{-5}$	4.5	Kast
0808-32	RAFGL 1235	20.7	...	0.24	1.3	$1.0 \cdot 10^{-5} \dagger$	3.4	0.98	$6.3 \cdot 10^{-6}$	2.4	Kast
0817-21	RAFGL 5250	16.1 ± 0.3	0.06 ± 0.015	0.14	2.0	$1.0 \cdot 10^{-5} \pm 0.24$	3.7 ± 0.47	1.81	$1.3 \cdot 10^{-5}$	3.9	Kast
0819-36	08191-3653	18.0	0.01	...	3.9	$9.5 \cdot 10^{-6}$	3.4	...	...	...	...
0852+17	X Cnc	9.7 ± 2.0	0.03 ± 0.011	0.10	0.69	$7.7 \cdot 10^{-7} \pm 0.55$	0.98 ± 0.05	0.64	$4.6 \cdot 10^{-7}$	0.51	Kast
0911-24	RAFGL 5254	13.1 ± 0.4	0.22	...	0.42	$2.3 \cdot 10^{-6}$	1.6	1.05	$1.2 \cdot 10^{-5}$	4.3	Kast
0945+13	IRC+10216	14.7 ± 1.3	...	...	0.12	...	...	0.29	$4.8 \cdot 10^{-5}$	25.	AP2
...	...	...	...	...	...	...	...	0.22	$2.2 \cdot 10^{-5}$	3.9	Kast
0952-75	RAFGL 4098	12.8	0.13	...	1.0	$4.4 \cdot 10^{-6}$	2.5	...	...	...	...
0953-41	X Vel	8.6	0.02	...	0.67	$5.2 \cdot 10^{-7}$	0.84	...	...	...	...
1013+30	CIT 6	16.8 ± 0.9	0.74	...	0.38	$6.0 \cdot 10^{-6}$	2.6	0.19	$2.6 \cdot 10^{-6}$	5.5	AP2
...	...	...	...	...	...	...	...	0.39	$4.8 \cdot 10^{-6}$	1.5	AA17
...	...	...	...	...	...	...	...	0.48	$7.5 \cdot 10^{-6}$	3.1	Kast
1032-39	U Ant	21.8 ± 0.6	0.11	...	0.40	$2.7 \cdot 10^{-6}$	1.5	...	...	...	...
1035-13	U Hya	8.8 ± 1.6	0.08 ± 0.002	0.30	0.35	$5.0 \cdot 10^{-7} \pm 0.05$	0.85 ± 0.00	0.31	$2.8 \cdot 10^{-7}$	0.43	Kast

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
1041+67	VY UMa	7.9 ± 0.6	0.01	0.05	0.75	$4.8 \cdot 10^{-7}$	0.81	...	...	...	...
1049-20	V Hya	18.7 ± 5.1	0.20 ± 0.015	...	0.33	$3.1 \cdot 10^{-6} \pm 1.42$	1.6 ± 0.25	0.40	$3.5 \cdot 10^{-6}$	5.8	AP2
...	...	...	...	...	...	...	...	0.34	$1.7 \cdot 10^{-6}$	0.86	Kast
1130-10	11308-1020	11.0	0.02	...	2.0	$2.2 \cdot 10^{-6}$	1.8	...	...	...	...
1131-72	CCS 1882	22.9	0.04	...	0.62	$2.7 \cdot 10^{-6}$	1.5	...	...	...	...
1239-43	CCS 2025	16.1	0.04	...	1.4	$4.2 \cdot 10^{-6}$	2.2	...	...	...	...
1242+45	Y CVn	8.2 ± 1.2	0.05 ± 0.011	0.12 ± 0.005	0.34	$4.2 \cdot 10^{-7} \pm 0.52$	0.73 ± 0.04	0.35	$2.8 \cdot 10^{-7}$	1.7	AP6
...	...	...	...	...	...	...	...	0.35	$1.4 \cdot 10^{-6}$	0.10	AP6
...	...	...	...	...	...	...	...	0.41	$1.2 \cdot 10^{-7}$	0.26	Kast
1244+04	RU Vir	18.4 ± 2.1	0.05 ± 0.024	...	0.85	$3.4 \cdot 10^{-6} \pm 0.35$	1.8 ± 0.20	1.47	$8.3 \cdot 10^{-6}$	9.9	AP2
1254-68	12540-6845	28.8	0.05	...	1.1	$1.0 \cdot 10^{-5}$	2.9	...	...	...	...
1254+66	RY Dra	11.1 ± 1.6	0.02	0.12	0.65	$6.2 \cdot 10^{-7}$	0.87	...	...	...	...
1348-67	13482-6716	16.5	0.03	...	1.6	$5.2 \cdot 10^{-6}$	2.5	...	...	...	...
1508-48	RAFGL 4211	20.5 ± 0.1	0.29	...	0.67	$9.3 \cdot 10^{-6}$	3.2	...	...	...	...
1508-57	15084-5702	26.0	0.01	...	2.4	$8.0 \cdot 10^{-6}$	2.6	...	...	...	...
1509-69	X TrA	8.9 ± 0.5	0.04 ± 0.009	...	0.47	$5.1 \cdot 10^{-7} \pm 1.05$	0.82 ± 0.08	...	...	...	...
1514-49	CCS 2232	26.9	0.03	...	0.96	$5.1 \cdot 10^{-6}$	2.0	...	...	...	...
1547+39	V CrB	7.8 ± 1.8	0.02 ± 0.011	...	0.82	$5.2 \cdot 10^{-7} \pm 0.15$	0.88 ± 0.07	1.02	$5.8 \cdot 10^{-7}$	0.66	Kast
1704-24	RAFGL 1922	18.7 ± 2.9	0.25	0.28	0.88	$1.3 \cdot 10^{-5}$	3.8	1.1	$2.9 \cdot 10^{-5}$	...	AP8
...	...	...	...	...	...	...	...	0.95	$4.3 \cdot 10^{-6}$	2.2	Kast
1707-65	17079-6554	13.5	0.05	...	1.2	$3.2 \cdot 10^{-6}$	2.0	...	...	...	...
1707-32	17079-3243	25.6	...	0.07	1.3	$5.8 \cdot 10^{-6} \dagger$	2.2	1.31	$5.0 \cdot 10^{-6}$	2.0	Kast
1721-39	17217-3916	8.8	0.01	...	2.4	$1.6 \cdot 10^{-6}$	1.6	...	...	...	...
1726-19	TW Oph	9.1	0.02	...	0.54	$4.9 \cdot 10^{-7}$	0.79	...	...	...	...
1738-57	V Pav	16.0	0.03	...	1.2	$3.0 \cdot 10^{-6}$	1.8	...	...	...	...
1744-40	17446-4048	13.5	0.05	...	1.5	$4.2 \cdot 10^{-6}$	2.4	...	...	...	...
1744-78	17446-7809	15.9	0.08	...	0.86	$3.8 \cdot 10^{-6}$	2.1	...	...	...	...
1753-30	RAFGL 5416	31.8	0.08	...	1.5	$2.6 \cdot 10^{-5}$	4.8	1.41	$4.2 \cdot 10^{-5}$	6.4	Kast

Table 5a. continued

Estimates (present work)									Modelling			
n°_	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.	
1755+58	T Dra	13.1 ± 0.8	0.05 ± 0.032	...	0.91	2.2 10 ⁻⁶ ± 1.17	1.6 ± 0.46	0.52	1.1 10 ⁻⁶	3.8	AP2	
1758-17	RAFGL 2047	19.7 ± 3.7	0.02 ± 0.016	0.05	2.3	8.6 10 ⁻⁶ ± 7.76	2.8 ± 1.4	...	...	...	...
1758-22	17583-2201	12.4	...	0.04	2.9	3.6 10 ⁻⁶ †	2.2	...	...	...	...
1804-09	FX Ser	25.8 ± 3.4	0.04	0.11	1.1	8.0 10 ⁻⁶	2.5	1.15	1.2 10 ⁻⁵	3.3	Kast	
1810-14	18100-1420	18.0	...	0.02	3.7	5.8 10 ⁻⁶ †	2.5	...	...	...	...
1819-27	RAFGL 2135	23.0	0.17	...	1.0	1.4 10 ⁻⁵	3.9	0.81	9.3 10 ⁻⁶	...	AP8	
1823-06	RAFGL 2154	27.0	0.06	...	1.6	1.7 10 ⁻⁵	4.0	1.25	1.3 10 ⁻⁵	3.4	Kast	
1824+23	RAFGL 2155	16.1 ± 1.3	0.16 ± 0.030	...	1.0	7.2 10 ⁻⁶ ± 0.01	3.0 ± 0.10	1.3	1.5 10 ⁻⁵	14.	AP2	
1824-08	18244-0815	21.5 ± 2.1	0.01	0.02	3.3	9.2 10 ⁻⁶	3.0	...	...	...	...
1824-08	18248-0839	16.1	0.01	...	1.9	2.7 10 ⁻⁶	1.7	...	...	...	...
1826-12	18269-1257	19.5 ± 4.9	0.01 ± 0.002	0.02	2.8	7.0 10 ⁻⁶ ± 2.05	2.6 ± 0.36	...	...	...	...
1827-47	18276-4717	22.2	0.07	...	0.74	4.4 10 ⁻⁶	2.0	...	...	...	...
1830-06	18301-0656	20.0	...	0.00	1.8	1.1 10 ⁻⁶ †	0.90	...	...	...	...
1830+36	T Lyr	19.1 ± 9.8	...	0.02	1.2	2.6 10 ⁻⁶ †	1.4	...	...	...	...
1832-03	RAFGL 7012S	22.5 ± 0.7	0.02	0.03	3.0	1.4 10 ⁻⁵	3.9	...	...	...	...
1836-04	18367-0452	16.0	0.02	0.03	2.5	5.8 10 ⁻⁶	2.6	...	...	...	...
1837-10	18369-1034	13.5 ± 0.7	0.01	0.03	3.9	6.4 10 ⁻⁶	3.0	...	...	...	...
1839+17	IRC+20370	14.2 ± 1.2	0.21 ± 0.109	0.53 ± 0.123	0.60	3.8 10 ⁻⁶ ± 1.49	2.1 ± 0.47	0.79	9.1 10 ⁻⁶	11.	AP2	
...	...	...	...	...	...	...	...	0.79	2.4 10 ⁻⁶	2.0	AA17
...	...	...	...	...	...	...	...	0.64	6.0 10 ⁻⁶	2.9	Kast
1839-02	IRC+00365	35.3 ± 1.1	0.07	...	0.91	1.3 10 ⁻⁵	3.1	0.82	1.7 10 ⁻⁵	3.6	Kast	
1840-07	18400-0704	14.5 ± 3.5	0.00	0.01	4.8	3.6 10 ⁻⁶	2.2	...	...	...	...
1842+03	18424+0346	20.0	...	0.07	2.5	9.8 10 ⁻⁶ †	3.3	...	...	...	...
1847+09	RAFGL 2259	21.8	0.04	...	1.5	8.3 10 ⁻⁶	2.9	1.42	1.5 10 ⁻⁵	4.1	Kast	
1847-07	S Sct	17.3 ± 5.6	0.16	0.05	0.62	5.4 10 ⁻⁶	2.3	...	...	...	...
1900+07	IRC+10401	18.2 ± 1.1	0.07	...	0.67	2.8 10 ⁻⁶	1.7	0.93	6.1 10 ⁻⁶	2.6	Kast	
1901-05	V Aql	9.2 ± 1.5	0.03 ± 0.017	0.08	0.35	3.4 10 ⁻⁷ ± 1.05	0.64 ± 0.11	0.55	5.9 10 ⁻⁷	0.57	Kast	
1902+08	19029+0839	25.0	...	0.00	2.0	1.9 10 ⁻⁶ †	1.2	...	...	...	...
1902+08	RAFGL 2316	17.0	0.03	0.05 ± 0.006	2.6	1.1 10 ⁻⁵	3.7	...	...	...	...

n°_	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
1906+05	19068+0544	20.5	0.03	...	2.6	1.2 10 ⁻⁵	3.7	...	...	...	...
1916-16	V1942 Sgr	10.0	0.01	...	0.88	6.1 10 ⁻⁷	0.87	...	...	...	...
1917-08	IRC-10502	29.1 ± 5.4	0.04 ± 0.011	0.15	0.75	6.2 10 ⁻⁶ ± 0.03	2.1 ± 0.08	0.80	5.7 10 ⁻⁶	...	AP8
...	...	...	...	...	...	...	...	0.82	4.2 10 ⁻⁶	1.8	Kast
1923+76	UX Dra	6.0 ± 1.3	0.05	0.09	0.90	8.2 10 ⁻⁷	1.2	...	...	...	...
1931-16	AQ Sgr	9.8 ± 5.4	0.02	0.11	1.4	2.5 10 ⁻⁶	1.7	...	...	...	...
1932+27	V1129 Cyg	25.7 ± 1.8	...	0.26	0.79	6.7 10 ⁻⁶ †	2.4	1.03	2.2 10 ⁻⁵	4.8	Kast
1934+12	19346+1209	13.3 ± 1.8	0.03	0.05	3.5	1.2 10 ⁻⁵	4.2	...	...	...	...
1954+30	RAFGL 2477	33.7 ± 19.	0.02	0.19	2.4	4.3 10 ⁻⁵	5.1	2.81	1.1 10 ⁻⁴	8.2	Kast
1959+40	RAFGL 2494	21.5 ± 1.3	0.07 ± 0.000	0.34	1.2	8.4 10 ⁻⁶ ± 0.18	2.9 ± 0.02	1.7	2.4 10 ⁻⁵	...	AP8
...	...	...	...	...	...	...	...	1.31	2.3 10 ⁻⁵	5.2	Kast
2014-21	RT Cap	9.1	0.01	...	0.77	4.7 10 ⁻⁷	0.78	...	...	...	...
2039+47	V Cyg	13.1 ± 1.3	0.28 ± 0.101	...	0.45	2.6 10 ⁻⁶ ± 0.48	1.8 ± 0.20	0.51	3.0 10 ⁻⁶	6.8	AP2
...	...	...	...	...	...	...	...	0.51	3.6 10 ⁻⁶	1.0	AA17
...	...	...	...	...	...	...	...	0.50	1. 10 ⁻⁶	0.80	AA23
...	...	...	...	...	...	...	...	0.54	5.5 10 ⁻⁶	2.9	Kast
2043+38	20435+3825	20.6	0.01	...	1.5	2.4 10 ⁻⁶	1.4	...	...	...	...
2053+55	20532+5554	12.4 ± 1.5	0.02	0.11	3.1	5.1 10 ⁻⁶	2.8	...	...	...	...
2056+27	RAFGL 2686	23.5	...	0.13	1.0	5.7 10 ⁻⁶ †	2.3	1.16	4.5 10 ⁻⁶	2.0	Kast
2100+36	RAFGL 2688	19.5 ± 0.2	...	...	...	...	...	1.0	1.4 10 ⁻⁴	38.	AP2
...	...	...	...	...	...	...	...	1.0	1.2 10 ⁻⁴	2.0	AA17
2100+48	21003+4801	14.8	...	0.06	2.4	5.1 10 ⁻⁶ †	2.5	2.03	2.9 10 ⁻⁶	1.2	Kast
2103-00	RV Aqr	16.9 ± 1.4	0.08 ± 0.012	...	0.65	2.6 10 ⁻⁶ ± 0.29	1.6 ± 0.10	0.90	3.8 10 ⁻⁶	6.8	AP2
2103+51	V1549 Cyg	11.4	...	0.14	1.1	2.1 10 ⁻⁶ †	1.7	1.43	2.2 10 ⁻⁶	1.1	Kast
2105+42	NGC 7027	18.6 ± 2.6	...	...	...	...	...	1.0	9.7 10 ⁻⁵	33.	AP2
...	...	...	...	...	...	...	...	1.09	1.4 10 ⁻⁴	30.	AA17
2114+51	21147+5110	11.5	...	0.21	2.9	1.2 10 ⁻⁵ †	4.5	...	...	...	...
2116-45	T Ind	5.5	0.01	...	0.91	3.1 10 ⁻⁷	0.74	...	...	...	...
2119-69	Y Pav	11.7 ± 3.3	0.03 ± 0.003	...	1.7	2.8 10 ⁻⁶ ± 0.96	1.9 ± 0.18	...	...	...	...

Table 5a. continued

Estimates (present work)								Modelling			
n ^o	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\overline{M} ($M_{\odot}\text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\overline{M} ($M_{\odot}\text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
2131+56	21318+5631	16.9 ± 1.8	0.12 ± 0.010	...	1.2	8.9 10 ⁻⁶ ± 1.10	3.3 ± 0.10	1.24	2.1 10 ⁻⁵	4.0	Kast
2132+38	V1426 Cyg	14.0 ± 1.0	0.09 ± 0.026	...	0.73	2.7 10 ⁻⁶ ± 0.84	1.8 ± 0.26	0.78	2.3 10 ⁻⁶	5.6	AP2
2135+78	S Cep	24.6 ± 4.5	0.06	0.17	0.46	4.0 10 ⁻⁶	1.6	0.40	2. 10 ⁻⁶	1.0	AA23
...	...	...	...	...	...	...	...	0.39	1.6 10 ⁻⁶	0.74	Kast
2137+45	21373+4540	14.7	0.03	...	1.8	3.9 10 ⁻⁶	2.2	...	...	...	...
2139+35	V460 Cyg	10.9 ± 0.8	0.03	0.11	0.71	1.1 10 ⁻⁶	1.1	...	...	...	...
2141+37	RV Cyg	15.3 ± 1.0	0.03 ± 0.001	0.06	0.85	1.7 10 ⁻⁶ ± 0.03	1.4 ± 0.01	...	...	...	...
2144+73	PQ Cep	21.7	0.04	...	0.71	2.9 10 ⁻⁶	1.6	0.67	2.8 10 ⁻⁶	1.0	Kast
2144+49	21449+4950	17.3 ± 3.8	0.01	0.06	2.3	3.7 10 ⁻⁶	2.1	...	...	...	...
2148+53	21489+5301	21.5 ± 1.2	0.02	0.14	2.2	8.3 10 ⁻⁶	3.0	1.98	2.3 10 ⁻⁵	5.2	Kast
2212+56	22125+5608	25.5 ± 0.7	0.00	0.00	2.4	3.7 10 ⁻⁶	1.7	...	...	...	...
2224+60	RAFGL 2901	34.2	0.05	...	1.2	1.5 10 ⁻⁵	3.4	1.40	4.0 10 ⁻⁵	6.0	Kast
2227+54	HD 235858	10.6 ± 1.1	...	...	...	...	...	2.35	5.0 10 ⁻⁵	7.4	Kast
2230+59	22303+5950	18.3	0.02	...	2.9	9.6 10 ⁻⁶	3.4	...	...	...	...
2235+59	22354+5911	20.0 ± 2.8	0.01	0.01	5.0	1.1 10 ⁻⁵	3.7	...	...	...	...
2251+66	RAFGL 2985	19.2	...	0.03	1.9	3.8 10 ⁻⁶ †	1.9	1.53	1.0 10 ⁻⁵	3.2	Kast
2258+64	RAFGL 3011	21.4	0.07	...	1.8	1.6 10 ⁻⁵	4.2	1.96	3.0 10 ⁻⁵	6.1	Kast
2316+16	RAFGL 3068	14.1 ± 1.1	0.29 ± 0.107	...	0.95	8.4 10 ⁻⁶ ± 1.82	3.4 ± 0.47	0.57	6.4 10 ⁻⁶	9.4	AP2
...	...	...	...	...	...	...	...	1.0	1.2 10 ⁻⁵	2.0	AA17
...	...	...	...	...	...	...	...	1.04	2.1 10 ⁻⁵	6.2	Kast
2317+59	V571 Cas	14.5 ± 0.7	0.00	0.01	2.4	1.9 10 ⁻⁶	1.4	...	...	...	...
2325+10	RAFGL 3099	10.1	0.16	...	1.3	5.0 10 ⁻⁶	2.9	0.50	1.3 10 ⁻⁶	5.1	AP2
2327+53	23279+5336	8.8	0.01	...	2.2	1.7 10 ⁻⁶	1.6	...	...	...	...
2332+43	IRC+40540	14.7 ± 0.7	0.31 ± 0.160	...	0.65	5.1 10 ⁻⁶ ± 1.89	2.6 ± 0.55	0.96	2.1 10 ⁻⁵	17.	AP2
...	...	...	...	...	...	...	...	0.96	8.0 10 ⁻⁶	2.0	AA17
...	...	...	...	...	...	...	...	0.77	1.7 10 ⁻⁵	5.2	Kast
2343+03	TX Psc	10.7 ± 1.9	0.04 ± 0.014	0.11	0.37	5.6 10 ⁻⁷ ± 1.60	0.78 ± 0.12	0.42	4.7 10 ⁻⁷	0.48	Kast

Table 5b. O-rich sources

Estimates (present work)								Modelling			
n ^o	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\overline{M} ($M_{\odot}\text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\overline{M} ($M_{\odot}\text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0004+42	KU And	21.7 ± 2.2	0.07 ± 0.032	...	0.82	9.7 10 ⁻⁶ ± 4.34	2.2 ± 0.49	1.1	2.4 10 ⁻⁵	8.6	AP2
0019-40	00193-4033	17.3	0.01	...	0.36	1.0 10 ⁻⁶	0.67	...	...	...	...
0020+55	T Cas	7.2 ± 2.9	0.02	0.09	0.29	5.1 10 ⁻⁷	0.54	0.16	6.4 10 ⁻⁸	...	AP8
...	...	...	...	...	...	...	...	0.28	2.6 10 ⁻⁷	0.27	Kast
0103+12	IRC+10011	20.7 ± 1.8	0.14 ± 0.039	...	0.54	8.5 10 ⁻⁶ ± 2.39	2.1 ± 0.26	0.51	1.2 10 ⁻⁵	6.3	AP2
...	...	...	...	...	...	...	...	0.51	2.4 10 ⁻⁵	0.50	AA17
0108+30	AW Psc	12.7 ± 2.5	0.03 ± 0.007	...	1.5	6.0 10 ⁻⁶ ± 0.16	2.0 ± 0.05	1.48	9.0 10 ⁻⁶	2.6	Kast
0130+62	OH 127.8+0.0	10.3 ± 0.8	0.01	0.05	1.5	1.5 10 ⁻⁶	1.0	...	...	...	...
0155+45	BD+44 398	8.3 ± 0.9	0.04	0.33	0.29	6.0 10 ⁻⁷	0.62	0.31	2.4 10 ⁻⁷	0.33	Kast
0216-03	o Cet	5.6 ± 2.7	0.28 ± 0.139	...	0.11	5.0 10 ⁻⁷	0.94	0.08	5.7 10 ⁻⁷	0.15	AP2
...	...	...	...	...	...	...	...	0.08	1.0 10 ⁻⁶	0.03	AA17
...	...	...	...	...	...	...	...	0.08	1. 10 ⁻⁷	0.4	AP17
...	...	...	...	...	...	...	...	0.08	2.1 10 ⁻⁶	0.89	Kast
0231+64	V656 Cas	14.3 ± 2.3	0.06	0.16	0.95	6.9 10 ⁻⁶	2.0	0.99	1.1 10 ⁻⁵	2.7	Kast
0235-27	UU For	13.9 ± 3.3	0.02	0.15	1.0	3.8 10 ⁻⁶	1.5	1.02	2.6 10 ⁻⁶	0.88	Kast
0252-50	R Hor	5.7 ± 0.8	0.07 ± 0.003	0.36	0.19	2.5 10 ⁻⁷ ± 0.13	0.47 ± 0.00	...	...	...	...
0307-87	03074-8732	10.4 ± 0.1	0.02 ± 0.002	...	1.7	3.6 10 ⁻⁶ ± 0.12	1.7 ± 0.04	...	...	...	...
0320+65	OH 138.0+7.3	10.1 ± 1.2	0.01	0.02	2.1	1.8 10 ⁻⁶	1.2	...	...	...	...
0328-15	03287-1535	8.2	0.04	...	2.3	5.6 10 ⁻⁶	2.4	...	...	...	...
0329+60	OH 141.7+3.5	10.7	...	0.01	3.4	2.4 10 ⁻⁶ †	1.3	...	...	...	...
0350+11	IK Tau	19.6 ± 1.7	0.20	...	0.26	4.4 10 ⁻⁶	1.4	0.27	4.5 10 ⁻⁶	3.9	AP2
...	...	...	...	...	...	...	...	0.27	4.0 10 ⁻⁶	0.30	AA17
...	...	...	...	...	...	...	...	0.35	1. 10 ⁻⁵	2.0	AA23
0402-15	V Eri	13.0	...	0.05	0.46	1.1 10 ⁻⁶ †	0.76	0.48	4.8 10 ⁻⁷	0.32	Kast
0408+53	04085+5347	11.5 ± 0.7	0.00	0.00	1.4	1.5 10 ⁻⁶	0.97	...	...	...	...
0436-62	R Dor	6.2 ± 0.1	0.08	...	0.04	6.9 10 ⁻⁸	0.21	...	...	...	...
0456+56	TX Cam	18.2 ± 3.2	0.11 ± 0.012	...	0.33	2.5 10 ⁻⁶ ± 0.76	1.2 ± 0.07	0.36	9.3 10 ⁻⁷	2.4	AP2
...	...	...	...	...	...	...	...	0.36	3.0 10 ⁻⁶	3.6	AP6
...	...	...	...	...	...	...	...	0.36	4.7 10 ⁻⁵	0.1	AP6

Table 5b. continued

Estimates (present work)								Modelling			
n°	name1	\bar{V}_e (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0505-84	NSV 01835	17.0 ± 3.5	0.02 ± 0.007	...	0.41	1.4 10 ⁻⁶ ± 0.65	0.78 ± 0.16	...	...	...	...
0507+52	IRC+50137	16.9 ± 1.9	0.07 ± 0.007	...	0.95	7.6 10 ⁻⁶ ± 1.18	2.2 ± 0.07	0.82	5.7 10 ⁻⁶	5.4	AP2
0509-11	RX Lep	18.3	0.01	...	0.33	1.1 10 ⁻⁶	0.67	...	...	...	...
0509-48	S Pic	11.8	0.02	...	0.41	8.1 10 ⁻⁷	0.68	...	...	...	...
0513+53	R Aur	10.0 ± 1.7	0.04 ± 0.023	...	0.35	9.8 10 ⁻⁷ ± 2.53	0.77 ± 0.12	0.37	4.6 10 ⁻⁷	1.8	AP2
0515+63	IRC+60154	15.2 ± 7.2	0.03	0.10	1.2	6.3 10 ⁻⁶	1.8	1.10	9.3 10 ⁻⁶	2.4	Kast
0541+69	BX Cam	21.9 ± 0.5	0.07 ± 0.008	...	0.62	6.6 10 ⁻⁶ ± 0.15	1.8 ± 0.04	0.80	1.0 10 ⁻⁵	6.0	AP2
0552+07	α Ori	13.6 ± 0.8	0.01	0.14	0.19	3.1 10 ⁻⁷	0.38	0.40	1.2 10 ⁻⁶	0.6	AP2
0555+74	V Cam	13.7 ± 2.1	0.02	0.04	0.49	1.6 10 ⁻⁶	0.92	0.95	1.4 10 ⁻⁶	0.58	Kast
0555+38	V373 Aur	19.8	0.03	...	1.5	9.8 10 ⁻⁶	2.3	2.2	1.6 10 ⁻⁵	...	AP8
0608+21	TV Gem	12.0	0.02	...	1.7	4.1 10 ⁻⁶	1.7	...	...	...	...
0619-03	V654 Mon	17.5	0.02	...	1.8	7.5 10 ⁻⁶	2.1	...	...	...	...
0629+40	IRC+40156	16.3 ± 1.8	0.03	...	1.6	1.0 10 ⁻⁵	2.5	...	...	...	...
0630+60	AP Lyn	16.8 ± 2.1	0.06 ± 0.018	...	0.69	4.9 10 ⁻⁶ ± 0.68	1.6 ± 0.13	0.75	5.5 10 ⁻⁶	4.9	AP2
0645-08	HR 2508	17.0	0.01	...	1.6	4.0 10 ⁻⁶	1.5	...	...	...	...
0650+08	GX Mon	19.5 ± 0.6	0.11	...	0.46	5.4 10 ⁻⁶	1.6	0.66	6.1 10 ⁻⁶	1.8	Kast
0715-34	RAFGL 1099	18.1	0.02	...	0.50	1.7 10 ⁻⁶	0.87	...	...	...	...
0718-13	07180-1314	20.0	...	0.00	2.5	3.1 10 ⁻⁶ †	1.2	...	...	...	...
0720-18	07200-1846	12.0	...	0.01	3.7	3.1 10 ⁻⁶ †	1.5	...	...	...	...
0720-25	VY CMa	33.4 ± 3.6	0.01	...	0.66	4.4 10 ⁻⁶	1.2	...	...	...	...
0724+46	Y Lyn	7.0 ± 2.3	0.02	0.14	0.42	6.4 10 ⁻⁷	0.67	0.56	3.8 10 ⁻⁷	2.2	AP6
...	...	...	...	...	...	...	...	0.46	1.6 10 ⁻⁶	0.16	AP6
0739-14	OH 231.8+4.2	54.5 ± 27.3	...	...	...	...	...	1.3	1.1 10 ⁻⁴	11.	AP2
...	...	...	...	...	...	...	...	1.3	8.8 10 ⁻⁵	...	AP8
...	...	...	...	...	...	...	...	1.3	2.5 10 ⁻⁵	...	AP8
0755-58	V341 Car	35.4	0.13	...	0.52	1.6 10 ⁻⁵	2.5	...	...	...	...
0907+31	RS Cnc	6.8 ± 1.4	0.11 ± 0.018	...	0.26	5.2 10 ⁻⁷ ± 0.94	0.68 ± 0.02	0.41	2.5 10 ⁻⁷	1.9	AP2
0923-23	LP Hya	18.0	0.03	...	1.0	5.3 10 ⁻⁶	1.7	...	...	...	...
0942+34	R LMi	7.0 ± 0.9	0.02 ± 0.005	...	0.33	2.8 10 ⁻⁷ ± 0.47	0.47 ± 0.04	0.35	5. 10 ⁻⁷	0.25	AA23

Estimates (present work)								Modelling			
n°	name1	\bar{V}_e (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0942-21	IW Hya	14.0	...	0.21	0.88	5.2 10 ⁻⁶ †	1.8	0.84	3.7 10 ⁻⁶	1.1	Kast
0944+11	R Leo	8.5 ± 4.2	0.04 ± 0.018	...	0.14	1.0 10 ⁻⁷ ± 4.32	0.30 ± 0.20	0.30	8.0 10 ⁻⁸	1.2	AP2
...	...	...	...	...	...	...	...	0.24	6. 10 ⁻⁷	0.2	AA23
1058-18	R Crt	10.7 ± 0.5	0.06	0.20	0.25	7.5 10 ⁻⁷	0.68	0.29	1.2 10 ⁻⁶	0.52	Kast
1129-44	11296-4431	17.2	0.01	...	2.8	8.2 10 ⁻⁶	2.2	...	...	...	...
1146-35	HD 102608	8.0	...	0.13	0.30	5.5 10 ⁻⁷ †	0.63	0.52	4.6 10 ⁻⁷	0.37	Kast
1227+04	BK Vir	4.8 ± 0.2	...	0.17	0.31	3.1 10 ⁻⁷ †	0.56	0.40	3.7 10 ⁻⁷	0.34	Kast
1237-49	12379-4959	14.5	0.01	...	1.3	2.5 10 ⁻⁶	1.2	...	...	...	...
1238+56	Y UMa	5.5 ± 3.0	0.04	0.17	0.44	9.0 10 ⁻⁷	0.81	0.46	2.0 10 ⁻⁷	0.29	Kast
1238-45	12384-4536	8.1	0.03	...	1.1	2.0 10 ⁻⁶	1.3	...	...	...	...
1300+05	RT Vir	9.3 ± 1.8	0.06 ± 0.016	...	0.28	7.4 10 ⁻⁷ ± 3.38	0.70 ± 0.12	0.97	1.3 10 ⁻⁶	2.9	AP2
...	...	...	...	...	...	...	...	1.0	6. 10 ⁻⁶	1.0	AA23
...	...	...	...	...	...	...	...	0.32	4.9 10 ⁻⁷	0.38	Kast
1311-02	SW Vir	8.9 ± 0.8	0.08	0.28 ± 0.034	0.21	5.7 10 ⁻⁷	0.63	0.37	6.6 10 ⁻⁷	2.4	AP6
...	...	...	...	...	...	...	...	0.37	2.7 10 ⁻⁶	0.15	AP6
...	...	...	...	...	...	...	...	0.20	5.6 10 ⁻⁷	0.39	Kast
1326-23	R Hya	8.0 ± 1.1	0.01	0.19 ± 0.010	0.13	1.4 10 ⁻⁷	0.27	0.13	6.1 10 ⁻⁸	0.79	AP6
...	...	...	...	...	...	...	...	0.13	6.6 10 ⁻⁶	0.02	AP6
...	...	...	...	...	...	...	...	0.15	1.2 10 ⁻⁷	0.18	Kast
1330-06	S Vir	9.2	0.01	...	0.41	4.1 10 ⁻⁷	0.50	...	...	...	...
1346-28	W Hya	8.2 ± 1.9	0.02	...	0.12	8.1 10 ⁻⁸	0.23	0.10	5.1 10 ⁻⁸	0.63	AP6
...	...	...	...	...	...	...	...	0.10	6.8 10 ⁻⁶	0.02	AP6
...	...	...	...	...	...	...	...	0.25	6. 10 ⁻⁷	0.30	AA23
...	...	...	...	...	...	...	...	0.13	9.4 10 ⁻⁸	0.19	Kast
1408-07	RAFGL 1686	14.4	0.01	...	1.5	3.7 10 ⁻⁶	1.5	...	...	...	...
1421+25	RX Boo	10.2 ± 1.2	0.09 ± 0.003	...	0.20	8.1 10 ⁻⁷ ± 4.47	0.69 ± 0.21	0.22	3.3 10 ⁻⁷	1.5	AP2
...	...	...	...	...	...	...	...	0.45	2. 10 ⁻⁶	0.7	AA23
1437+32	RV Boo	8.1	0.02	...	0.71	1.0 10 ⁻⁶	0.90	...	...	...	...

Table 5b. continued

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
1442-45	14429-4539	18.2	0.01	...	5.8	$3.8 \cdot 10^{-5}$	5.3	...	...	...	...
1459-44	14591-4438	15.2	0.03	...	0.60	$2.5 \cdot 10^{-6}$	1.2	...	...	...	...
1509-55	15099-5509	20.0	0.03	...	0.71	$4.2 \cdot 10^{-6}$	1.4	...	...	...	...
1519+31	S CrB	6.3 ± 1.1	0.03	...	0.66	$5.8 \cdot 10^{-7}$	0.76	0.42	$6 \cdot 10^{-7}$	0.30	AA23
1522-36	RAFGL 1771	15.0	0.02	...	0.81	$2.5 \cdot 10^{-6}$	1.2	...	...	...	...
1525+19	WX Ser	8.8 ± 3.9	0.02	...	1.2	$2.6 \cdot 10^{-6}$	1.4	0.72	$5.3 \cdot 10^{-7}$	...	AP8
1533-64	15332-6430	17.5	0.02	...	1.5	$5.3 \cdot 10^{-6}$	1.7	...	...	...	...
1548+15	R Ser	5.5	...	0.08	0.30	$2.6 \cdot 10^{-7} \dagger$	0.47	...	...	...	...
1601+47	X Her	9.5 ± 1.5	0.06	0.24 ± 0.014	0.29	$1.0 \cdot 10^{-6}$	0.78	0.45	$8.9 \cdot 10^{-7}$	2.9	AP6
...	...	...	...	...	...	...	...	0.45	$2.0 \cdot 10^{-5}$	0.08	AP6
...	...	...	...	...	...	...	...	0.31	$5.9 \cdot 10^{-7}$	0.39	Kast
1602-30	OH 345.0+15.7	16.8 ± 2.4	0.03	0.15 ± 0.102	1.9	$1.1 \cdot 10^{-5}$	2.6	1.90	$2.5 \cdot 10^{-5}$	4.5	Kast
1623+19	U Her	13.1	0.01	...	0.18	$2.6 \cdot 10^{-7}$	0.33	...	...	...	...
1626+41	g(30) Her	8.5 ± 1.2	0.03	0.07 ± 0.005	0.20	$2.6 \cdot 10^{-7}$	0.42	0.33	$1.9 \cdot 10^{-7}$	1.2	AP6
...	...	...	...	...	...	...	...	0.33	$2.1 \cdot 10^{-7}$	0.62	AP6
...	...	...	...	...	...	...	...	0.18	$8.9 \cdot 10^{-8}$	0.15	Kast
1641+54	S Dra	8.3	0.01	...	0.69	$6.7 \cdot 10^{-7}$	0.70	...	...	...	...
1708+64	TV Dra	6.0	...	0.01	0.68	$2.0 \cdot 10^{-7} \dagger$	0.40	...	...	...	...
1710-10	IRC-10359	11.7	0.03	...	0.80	$2.1 \cdot 10^{-6}$	1.2	...	...	...	...
1711+08	V2108 Oph	14.0	...	0.01	0.50	$5.4 \cdot 10^{-7} \dagger$	0.50	...	...	...	...
1712-48	17125-4814	11.8	0.01	...	2.6	$5.5 \cdot 10^{-6}$	2.0	...	...	...	...
1715-32	RAFGL 6815S	25.1	...	...	...	...	...	2.42	$2.2 \cdot 10^{-5}$	3.4	Kast
1729+17	IRC+20326	16.3 ± 1.1	0.16 ± 0.062	...	0.79	$9.7 \cdot 10^{-6} \pm 3.79$	2.5 ± 0.47	1.2	$2.0 \cdot 10^{-5}$	15.	AP2
...	...	...	...	...	...	...	...	1.2	$1.6 \cdot 10^{-5}$	3.0	AA17
1731-62	OH 329.8-15.8	17.5	0.05	...	1.2	$8.4 \cdot 10^{-6}$	2.2	...	...	...	...
1733+15	MW Her	18.1 ± 7.3	0.04	...	0.91	$8.3 \cdot 10^{-6}$	2.0	1.05	$1.8 \cdot 10^{-5}$	3.1	Kast
1737-30	17371-3021	10.3	0.03	...	1.3	$3.3 \cdot 10^{-6}$	1.6	...	...	...	...
1741-31	RAFGL 5379	21.0 ± 0.7	...	0.16	0.58	$4.7 \cdot 10^{-6} \dagger$	1.5	0.65	$8.7 \cdot 10^{-6}$	2.1	Kast

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
1743-15	OH 11.4+6.6	16.6 ± 1.5	0.01	0.01	1.9	$3.9 \cdot 10^{-6}$	1.5	...	...	...	...
1744-29	17443-2949	18.0	...	0.02	5.5	$1.6 \cdot 10^{-5} \dagger$	3.3	...	...	...	...
1749-25	17495-2534	16.0	...	0.02	4.2	$9.1 \cdot 10^{-6} \dagger$	2.4	...	...	...	...
1805-22	VX Sgr	30.0	...	0.16	0.41	$5.5 \cdot 10^{-6} \dagger$	1.4	...	...	...	...
1819-16	18196-1608	14.0	...	0.01	4.2	$5.9 \cdot 10^{-6} \dagger$	2.0	...	...	...	...
1821-16	RAFGL 2143	16.7	...	0.05	1.8	$6.5 \cdot 10^{-6} \dagger$	2.0	...	...	...	...
1821-07	18218-0749	22.0	...	0.01	1.8	$2.8 \cdot 10^{-6} \dagger$	1.1	...	...	...	...
1832-11	RAFGL 7015S	15.0 ± 1.4	0.01	0.01	2.3	$6.0 \cdot 10^{-6}$	2.0	...	...	...	...
1833+05	RAFGL 2199	14.0 ± 8.5	0.12 ± 0.055	...	1.0	$8.1 \cdot 10^{-6} \pm 5.18$	2.3 ± 0.33	2.0	$1.6 \cdot 10^{-5}$	17.	AP2
1834-05	OH 26.5+0.6	10.6	...	0.08	0.95	$2.1 \cdot 10^{-6} \dagger$	1.2	...	...	...	...
1834+10	V1111 Oph	17.4 ± 1.1	0.14 ± 0.007	...	0.57	$6.1 \cdot 10^{-6} \pm 0.28$	1.9 ± 0.04	0.50	$5.5 \cdot 10^{-6}$	5.0	AP2
1837-07	18374-0724	12.0	...	0.01	3.2	$2.8 \cdot 10^{-6} \dagger$	1.4	...	...	...	...
1840+28	FI Lyr	12.3	0.02	...	0.88	$2.1 \cdot 10^{-6}$	1.2	...	...	...	...
1841+13	IRC+10374	12.8 ± 8.1	0.03	...	0.88	$4.5 \cdot 10^{-6}$	1.5	1.07	$6.5 \cdot 10^{-6}$	1.9	Kast
1841-05	18414-0527	17.0	...	0.01	2.6	$3.9 \cdot 10^{-6} \dagger$	1.5	...	...	...	...
1841-01	18417-0103	17.0	...	0.01	3.4	$3.9 \cdot 10^{-6} \dagger$	1.5	...	...	...	...
1846-02	OH 30.1-0.7	17.0 ± 1.6	0.01	0.06	2.2	$7.7 \cdot 10^{-6}$	2.1	...	...	...	...
1846-48	OH 348.2-19.7	12.3 ± 1.8	0.08	0.23	1.2	$7.8 \cdot 10^{-6}$	2.4	...	...	...	...
1848+00	18482+0051	16.0	...	0.01	2.9	$3.2 \cdot 10^{-6} \dagger$	1.3	...	...	...	...
1849-03	18496-0333	16.0	...	0.01	2.0	$2.6 \cdot 10^{-6} \dagger$	1.2	...	...	...	...
1849-00	OH 32.8-0.3	14.0	...	0.03	2.7	$5.8 \cdot 10^{-6} \dagger$	2.0	...	...	...	...
1849-00	18499-0021	20.0	0.01	...	4.6	$1.6 \cdot 10^{-5}$	3.1	...	...	...	...
1853+08	18530+0817	12.0	...	0.00	1.9	$1.0 \cdot 10^{-6} \dagger$	0.77	...	...	...	...
1856-29	IRC-30398	16.4 ± 4.5	...	...	...	...	...	0.83	$8.2 \cdot 10^{-6}$	2.5	Kast
1856+06	OH 39.7+1.5	15.1	...	0.03	1.2	$2.6 \cdot 10^{-6} \dagger$	1.2	...	...	...	...
1858+09	18585+0900	20.0 ± 2.8	0.00	0.02	2.8	$5.9 \cdot 10^{-6}$	1.7	...	...	...	...
1859-39	RS CrA	20.7	0.09	...	0.28	$2.8 \cdot 10^{-6}$	1.1	0.15	$1.1 \cdot 10^{-6}$	0.42	Kast

Table 5b. continued

Estimates (present work)									Modelling			
n°	name1	\bar{V}_e (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_{\odot} \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_{\odot} \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.	
1903+08	R Aql	8.7 ± 2.1	0.03	0.35	0.29	3.6 10 ⁻⁷	0.51	0.20	5.6 10 ⁻⁷	2.1	AP6	
...	...	...	...	...	...	...	...	0.20	3.8 10 ⁻⁵	0.03	AP6
1905+09	19052+0922	10.0	...	0.01	4.0	2.8 10 ⁻⁶ †	1.5	...	...	...	...
1905-22	V3880 Sgr	22.2	0.03	...	0.91	6.6 10 ⁻⁶	1.8	1.17	1.3 10 ⁻⁵	2.6	Kast	
1909-32	V342 Sgr	14.6 ± 0.6	0.03	0.14	0.56	2.1 10 ⁻⁶	1.1	...	...	...	...
1911+07	19114+0743	19.0	...	0.01	4.1	5.8 10 ⁻⁶ †	1.7	...	...	...	...
1915-17	RAFGL 2361	16.3	0.01	...	0.85	2.4 10 ⁻⁶	1.1	...	...	...	...
1916+23	RAFGL 2362	20.0	0.04	...	2.0	2.0 10 ⁻⁵	3.5	1.91	2.2 10 ⁻⁵	3.7	Kast	
1917-26	RAFGL 2370	18.0	0.02	...	2.2	1.3 10 ⁻⁵	2.8	...	...	...	...
1919+09	OH 44.8-2.3	15.4 ± 1.0	0.03	0.08	1.3	5.0 10 ⁻⁶	1.8	...	...	...	...
1921+09	Vy 2-2	12.0	...	...	...	...	...	1.0	2.1 10 ⁻⁶	2.6	AP2
1924+11	IRC+10420	51.7	0.03	...	...	...	...	3.4	2.6 10 ⁻⁴	19.	AP2
1924-17	IRC-20563	11.7	0.02	...	0.86	1.6 10 ⁻⁶	1.0	...	...	...	...
1928+19	OH 55.0+0.7	9.7	0.02	...	2.4	4.0 10 ⁻⁶	1.9	...	...	...	...
1947-07	GY Aql	13.6 ± 2.4	0.09	0.37	0.54	4.1 10 ⁻⁶	1.5	0.90	6.7 10 ⁻⁶	7.3	AP6	
...	...	...	...	...	...	...	...	0.90	3.6 10 ⁻⁵	0.30	AP6
1955-02	RR Aql	8.4 ± 2.3	0.04 ± 0.011	0.16	0.42	9.1 10 ⁻⁷ ± 6.35	0.77 ± 0.20	0.67	1. 10 ⁻⁶	0.70	AA23	
...	...	...	...	...	...	...	...	0.51	9.1 10 ⁻⁷	0.55	Kast
2002+39	20028+3910	13.2 ± 3.9	...	...	...	...	...	2.93	1.8 10 ⁻⁵	4.2	Kast
2003-27	V1943 Sgr	7.1 ± 1.3	0.03	0.09	0.22	2.3 10 ⁻⁷	0.42	...	...	...	...
2004-42	V2234 Sgr	14.4	0.03	...	0.76	2.8 10 ⁻⁶	1.3	...	...	...	...
2007-60	X Pav	11.1 ± 0.8	0.04 ± 0.001	...	0.27	7.3 10 ⁻⁷ ± 0.66	0.65 ± 0.01	...	...	...	...
2007-06	V1300 Aql	16.2 ± 0.5	0.19 ± 0.095	...	0.66	8.4 10 ⁻⁶ ± 2.36	2.3 ± 0.39	0.62	1.3 10 ⁻⁵	7.9	AP2	
2013-71	NSV 12961	14.9 ± 3.4	0.02 ± 0.013	...	1.2	2.9 10 ⁻⁶ ± 0.65	1.3 ± 0.29	...	...	...	...
2023-13	OH 30.7-27.1	9.4 ± 2.8	0.02 ± 0.000	0.01	1.6	3.3 10 ⁻⁶ ± 0.14	1.6 ± 0.02	...	...	...	...
2024+75	UU Dra	10.0	0.03	...	0.92	2.0 10 ⁻⁶	1.2	...	...	...	...
2024-28	T Mic	8.1	0.02	...	0.20	2.7 10 ⁻⁷	0.41	0.21	2.1 10 ⁻⁷	0.26	Kast	

Estimates (present work)									Modelling			
n°	name1	\bar{V}_e (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\dot{M} ($M_{\odot} \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\dot{M} ($M_{\odot} \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.	
2026+21	OH 63.3-10.2	17.3 ± 1.6	0.03	0.04	1.5	7.8 10 ⁻⁶	2.1	...	...	...	...
2044-01	FP Aqr	13.1 ± 2.3	0.02	0.11	0.54	1.1 10 ⁻⁶	0.82	0.94	4.0 10 ⁻⁶	1.0	Kast	
2048-72	20484-7202	14.4	0.02	...	0.68	1.7 10 ⁻⁶	0.95	...	...	...	...
2053+30	UX Cyg	6.0	...	...	...	...	...	1.06	3.2 10 ⁻⁶	0.84	Kast
2054-65	20541-6549	17.5 ± 2.1	0.01 ± 0.007	...	0.49	1.4 10 ⁻⁶ ± 0.18	0.80 ± 0.10	...	...	...	...
2104-16	RS Cap	9.1	0.01	...	0.43	5.1 10 ⁻⁷	0.57	...	...	...	...
2106-38	RAFGL 5592	11.6	0.02	...	0.80	1.9 10 ⁻⁶	1.1	...	...	...	...
2108+68	T Cep	9.7 ± 6.4	...	0.15	0.14	1.4 10 ⁻⁷ †	0.34	0.14	5.6 10 ⁻⁸	0.13	Kast	
2125+36	IRC+40483	18.0	...	...	...	...	...	1.1	7.2 10 ⁻⁶	5.5	AP2
2128+10	UU Peg	13.3 ± 0.4	0.03	...	0.80	2.5 10 ⁻⁶	1.2	1.18	2.8 10 ⁻⁶	0.86	Kast	
2138+54	RU Cyg	14.2	...	0.09	0.56	1.9 10 ⁻⁶ †	1.0	0.51	3.6 10 ⁻⁷	0.35	Kast	
2143-02	EP Aqr	10.3 ± 1.5	0.07	...	0.25	9.1 10 ⁻⁷	0.73	0.22	3.9 10 ⁻⁷	0.33	Kast	
2155+62	21554+6204	15.7 ± 2.9	0.04	0.06 ± 0.029	2.5	2.3 10 ⁻⁵	3.9	2.80	1.5 10 ⁻⁵	3.6	Kast	
2201+28	TW Peg	9.5	...	0.08	0.58	1.1 10 ⁻⁶ †	0.87	0.67	5.9 10 ⁻⁷	0.41	Kast	
2203+35	SV Peg	10.0 ± 1.4	0.04	...	0.69	1.9 10 ⁻⁶	1.1	0.46	8.8 10 ⁻⁷	0.48	Kast	
2209+56	CU Cep	7.4	0.03	...	1.2	1.9 10 ⁻⁶	1.3	1.05	1.3 10 ⁻⁶	0.69	Kast	
2217+59	OH 104.9+2.4	15.9 ± 1.5	0.00	0.03	1.3	1.8 10 ⁻⁶	0.98	...	...	...	...
2219-07	DZ Aqr	8.2	0.02	...	0.84	9.7 10 ⁻⁷	0.87	...	...	...	...
2252-29	V PsA	21.0	...	0.08	0.36	1.9 10 ⁻⁶ †	0.87	...	...	...	...
2255+58	RAFGL 2999	17.6	0.08	...	1.6	1.9 10 ⁻⁵	3.6	1.55	3.2 10 ⁻⁵	4.9	Kast	
2314+60	V563 Cas	19.0	...	0.01	2.1	3.1 10 ⁻⁶ †	1.2	...	...	...	...
2321-45	RAFGL 4296	15.2 ± 5.2	0.03 ± 0.008	...	1.1	4.3 10 ⁻⁶ ± 1.48	1.6 ± 0.10	...	...	...	...
2349+61	IRC+60427	17.4 ± 2.7	...	0.09 ± 0.039	0.56	2.4 10 ⁻⁶ ± 1.27†	1.1 ± 0.26	0.87	1.6 10 ⁻⁶	0.76	Kast	
2355+51	R Cas	12.0 ± 2.0	0.12	...	0.20	1.1 10 ⁻⁶	0.80	0.22	4.5 10 ⁻⁷	1.6	AP2	
...	...	...	...	...	...	...	...	0.27	9. 10 ⁻⁷	0.90	AA23

Table 5c. S stars

Estimates (present work)								Modelling			
n°	name1	$\overline{V_e}$ (km/s)	$\overline{T_{MB}(1-0)}$ (K)	$\overline{T_{MB}(2-1)}$ (K)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	$\overline{r_{CO}}$ (10^{17}cm)	d (kpc)	\overline{M} ($M_\odot \cdot \text{yr}^{-1}$)	r_{CO} (10^{17}cm)	ref.
0021+38	R And	10.8 ± 2.0	0.11 ± 0.025	...	0.38	9.6 10 ⁻⁷ ± 2.41	1.1 ± 0.04	0.31	3.2 10 ⁻⁷	2.3	AP2
0115+72	S Cas	20.1 ± 4.2	0.03 ± 0.003	0.11	0.95	3.1 10 ⁻⁶ ± 4.51	1.7 ± 0.87	0.86	3.5 10 ⁻⁶	1.2	Kast
0214+44	W And	10.7 ± 0.4	0.05 ± 0.002	...	0.48	8.0 10 ⁻⁷ ± 0.29	0.99 ± 0.00	0.63	9.7 10 ⁻⁷	0.72	Kast
0704+22	R Gem	6.0	0.04	...	2.7	2.1 10 ⁻⁶	2.2	...	...	...	...
1912-07	W Aql	19.0 ± 1.9	0.24 ± 0.113	...	0.45	3.9 10 ⁻⁶ ± 1.98	2.0 ± 0.51	0.47	8.6 10 ⁻⁶	8.7	AP2
...	...	...	...	...	...	...	...	0.47	1.0 10 ⁻⁶	2.0	AA17
1935+50	R Cyg	10.5 ± 1.2	0.04 ± 0.012	...	0.65	9.1 10 ⁻⁷ ± 0.17	1.1 ± 0.06	0.42	1.6 10 ⁻⁷	...	AP8
...	...	...	...	...	...	...	...	1.00	1.8 10 ⁻⁶	1.1	Kast
1948+32	χ Cyg	9.2 ± 1.0	0.29	...	0.15	5.6 10 ⁻⁷	0.82	0.39	1.5 10 ⁻⁶	4.7	AP2
...	...	...	...	...	...	...	...	0.39	4.0 10 ⁻⁶	0.40	AA17
...	...	...	...	...	...	...	...	0.15	5. 10 ⁻⁷	0.60	AA23
...	...	...	...	...	...	...	...	0.17	3.5 10 ⁻⁷	0.44	Kast

Note to Tables 5: We recommend the reader to read in detail section 4 before to use those tables, and to keep in mind that there are many causes of large uncertainties on parameters listed here (model, distance, CO abundance, observations). Uncertainties given in Tables 5 are only those of observations. We know they are sometimes quite large, more often due to a disagreement between the various observations. In this case, we invite the reader to look at individual observations in Table 3, or/and to look at the observed spectra in the original papers, and to decide by himself/herself which observations are reliable or not. In the column "ref.", the reference "Kast" corresponds to Kastner (1990, thesis), and Kastner et al. (in preparation).