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A catalogue of stellar 1612 MHz maser sources

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Summary. — We present a catalogue of stellar objects with 1612 MHz maser emission extracted from the literature published between 1963 and 1983. A total of 442 sources were found. Some unpublished data are also included. A nearly full reference list (updated to 1987) is given. We discuss briefly the nature of the sources.

Key words : OH/IR stars — masers — long-period variables.

1. Introduction.

In recent years very significant advances have been made in the understanding of the last stages of evolution : the evolution at the asymptotic giant branch (AGB).

Stars at the AGB lose mass at a large rate $\left(\dot{M} > 10^{-5}\ M_{\odot}\ \mathrm{yr}^{-1}\right)$ through a circumstellar envelope (CSE) of dust and gas ; depending on whether or not the stellar envelope contains more oxygen than carbon the CSE is termed "oxygen-rich" or "carbon-rich". The chemistry of CSEs is very rich (e.g. Oloffson, 1985 and 1988) especially that of the carbon-rich stars. The most prominent molecules for the oxygen-rich CSE are H_2O, OH and SiO. The conditions created by the constant and spherical mass loss are favorable for the existence of strong masers : over a large range in distance (typically 10^{16} cm) the velocity field is very regular. OH masers can be observed throughout the Galaxy and even beyond : Wood *et al.* (1986) discovered the first extragalactic OH/IR star in the Large Magellanic Cloud. (For reviews of stellar masers see Reid and Moran, 1981 ; Herman and Habing, 1985 ; Sun and Kwok, 1987, Bedijn, 1987, 1988 and Alcock and Ross, 1986).

Rapid progress in the studies of CSEs occurred after the publication of the IRAS Point Source Catalogue (PSC ; IRAS team 1984). The various far infrared photometers made it possible to classify the AGB stars in a comprehensive way using two IRAS colours (S(60μm)/S(25μm) and S(25μm)/ S(12μm)) e.g. Olnon *et al.* (1984), Zuckerman and Dyck (1987), van der Veen and Habing (1988). As a consequence more and more data have become available from follow up studies on PSC sources selected on their infrared colours – studies in various molecular lines : H_2O (e.g. Engels *et al.*, 1984) ; CO (e.g. Arquilla *et al.*, 1986) ; OH (Lewis *et al.*, 1985 ; te Lintel Hekkert *et al.* 1989 ; Eder *et al.*, 1988). Therefore this seems the right time to catalogue the "pre-IRAS" data and, ultimately, combine these with the information from the follow-up on the IRAS PSC. Most of the pre-IRAS data are scattered over a large number of individual publications. In an attempt to make a list (as complete as possible) of AGB stars we made a reference catalogue of stars with 1612 MHz masers. The 1612 MHz maser is the most observed and strongest radioline in circumstellar shells of AGB stars and the most common in oxygen-rich objects. The stellar nature of the source can easily be recognized from the shape of the 1612 MHz line profile. A further consideration for cataloguing this line is the increasing difficulty of the 1612 MHz observations, because of the disastrous interference from the GLONASS satellite system (see also : Carter 1986).

2. Description of the contents of the catalogue.

The first detections of stellar 1612 MHz masers were made by Wilson and Barrett (1968) in the direction of sources from 2.2 μm survey by Neugebauer and Leighton (1969) – the IRC. These sources were later identified with long period variables, especially with Miras and with supergiants. Around 1972/1973 the increasing quality of the receivers made it possible to make "unbiased" sky surveys without *a priori* information on potentially interesting sources. During this period, which lasted until IRAS flew (1983), the majority of the sources in our catalogue were discovered (about 350) (e.g. Caswell and Haynes, 1975 ; Johansson *et al.*, 1977 ; Bowers, 1978 ; Baud *et al.*, 1979). Most sources have no optical counterpart, but as infrared point sources they can be recovered (e.g. Schultz *et al.*, 1976 ; Evans and Beckwith, 1977 ; Fix and Mutel, 1984) ; hence the

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name OH/IR stars (Schultz *et al.*, 1976). 1612 MHz maser observations in the direction of Miras and (super-) giants (e.g. Bowers and Sinha, 1978) were repeated in the eighties, but only a small number of additional stars were discovered (e.g. Rieu *et al.*, 1979, Olnon *et al.*, 1980 ; Slootmaker *et al.*, 1985) ; these newly detected objects have weak 1612 MHz masers.
The catalogue is given in table I, the reference list in table II.

2.1 SELECTION OF THE SOURCES FROM THE LITERATURE ; SELECTION CRITERIA. — All the sources were taken from articles published in the years starting with 1963 up to and including 1983. A given 1612 MHz maser source was included when it was clear that the maser was not associated with or part of a larger (molecular) complex or HII region. Sources showing absorption in their 1612 MHz profile were excluded, because they are thought to originate in the expanding shells around compact HII (see Reid and Moran, 1981). We did not make any further selection on the basis of the 1612 MHz line profile shape or other available data on the source.

We included in the catalogue the unpublished sources found during the so-called "Strip Survey" by Olnon *et al.* (1981 and 1989). Only double peaked sources were considered by Olnon *et al.* (1981) and are quoted in the catalogue ; the Olnon *et al.* (1989) paper will give the single peak sources as well.

2.2 TYPES OF SOURCES. — It is believed that almost all of these sources are CSEs surrounding long period oxygen rich variables losing mass at a high rate, but at a low outflow velocity (about 15 km s^{-1}) and (averaged over several pulsation periods) in a spherically symmetric way.

A few groups of 1612 MHz point sources have uncertain nature. One group contains objects like W28 (A2) (Zijlstra and Pottasch, 1988 ; Harvey and Forveille, 1988) and K 5–35 (Engels *et al.*, 1985), which may be HII regions. A second group contains sources thought to be either in the transition phase between AGB star and planetary nebulae (PN) or young PN. OH 349.36–0.20 (see Pottash *et al.*, 1987), Vy 2 – 2 (see Seaquist and Davis, 1983) are two of the most prominent examples. A third group consists of 1612 MHz maser sources with very high outflow velocities ; five such objects are now known (te Lintel Hekkert *et al.*, 1988) ; the best known (OH231.8 + 4.2) may also be an object in transition between AGB star and planetary nebula (Morris *et al.*, 1987).

It is clear that the more information comes available, the more complex consistent models will be needed to explain the observed phenomena ; a particular example is Roberts 22 (see Allen *et al.*, 1980).

2.3 THE 1612 MHz MASER INFORMATION : VELOCITIES AND PEAK FLUXES. — As a rule 1612 MHz information has been taken from the discovery paper. We quote the peak fluxes and velocities of the two outermost maser spikes, the system velocity is assumed to be the average of the velocities of the two maser spikes. In the few cases that the source exists of only one spike. The system velocity equals the velocity of the maser spike. Since the distribution of the expansion velocity is strongly peaked between 20 and 40 km s^{-1} (Fig. 1), the error in the system velocity will, in the case of single peaks, be smaller then about 20 km s^{-1}, assuming that the second peak is too weak to be measured. The peak fluxes are given in Janskys. The epoch of the observations is quoted from the literature with the accuracy of one month.

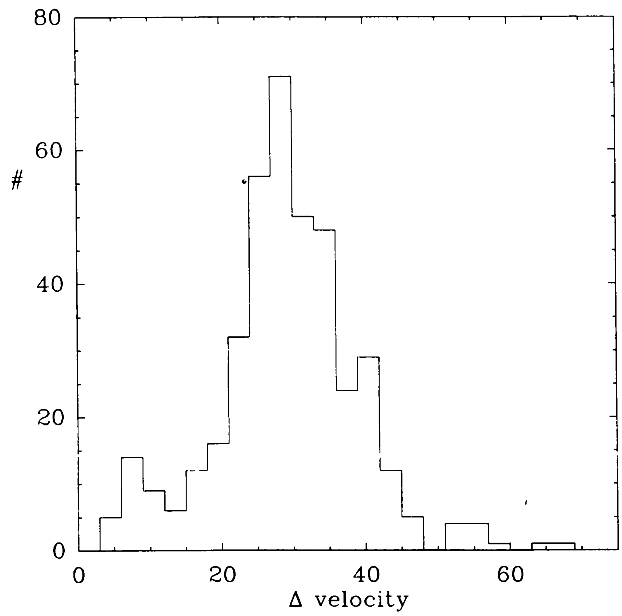

FIGURE 1. — Histogram of the expansion velocity of two peaked sources.

2.4 POSITION INFORMATION. — The most accurate position is quoted, which is not necessarily the position given by the discoverer. Warning : errors up to 10 arcminutes do occur in the quoted positions.

2.5 IRAS IDENTIFICATIONS. — We have searched in the IRAS catalogues for infrared counterparts on basis of positional information only and we give the IRAS source nearest to the catalogued position of the OH maser. A large number of the maser sources do not have accurate positions, so a more suitable tactic would have been to chose the nearest IRAS source with the "right" IR colours. We decided not to do so, since most of the maser sources are in, for IRAS, confused areas in the sky ($|b| < 1\overset{\circ}{.}5$, $|l| < 45\overset{\circ}{.}0$ and $|b| < 2\overset{\circ}{.}5$, $|l| < 10\overset{\circ}{.}0$) and it is not unlikely that the IR counterpart of the OH/IR stars was missed by the IRAS data point source processors. For the same reason we did not use the IRAS information in further determination of the nature of the source. Only 160 out of the 442 sources (36 %) of the sources in the catalogue could be identified with sources from the IRAS point source catalogue within $0\overset{'}{.}3$.

Some of the IRAS identifications could be checked by using the 1612 MHz OH maser surveys of the IRAS PSC by Eder *et al.* (1988), Lewis (private communications)

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and te Lintel Hekkert *et al.* (1989). There are no mis-identifications for sources that are within 0.′3 of an IRAS position.

3. References.

For every entry in the catalogue we tried to give a complete list of references, so the user will easily find other data known for his object. The references are updated to 1987, but are incomplete for literature published prior to the discovery of the source as a 1612 MHz maser source. The numbering of the references is not always sequential because the references given in table II are part of a larger, more general reference list on masers and AGB stars.

4. Reliability.

4.1 THE DETECTION OF THE 1612 MHz MASER LINE. — We included only 1612 MHz sources which were confirmed, either by the discoverers or by others. Since all AGB stars are variables and since they pump the 1612 MHz maser emission via the infrared continuum, the fluxes of the maser lines vary accordingly. The variation of the 1612 MHz maser flux can be as much as 1.5 magnitudes (Herman and Habing, 1985 ; OH127.9–0.0). In addition, there are a few stars known to have flares of maser emission, like U Orionis (Garrigue and Mennessier, 1980). The maser peaks associated with Mira variables and supergiants can vary by large factors (10 to 100), since the associated masers are not always saturated. Thus a source can be missed by one observer and found again a few years later by others.

The velocities of the maser peaks do not vary in velocity. During our research we used the velocities of the peaks as an extra identifier when comparing maser sources in different papers.

4.2 THE STELLAR NATURE OF THE SOURCE. — Four hundred ($\approx$ 90 %) of the sources show a two peaked 1612 MHz profile, characteristic of the spherical geometry of the CSE of AGB stars (Fig. 2a). The distribution of the ratio of the fluxes of the two peaks is very narrow and close to 1 (Fig. 3). A small percentage (about 1 %) of these sources have very irregular line profile shapes (Fig. 2b). Some of these sources with irregular 1612 MHz line profiles could be objects with nonspherical mass outflow like VX Sgr (Chapman and Cohen, 1986).

The remaining $\approx$ 9 % of the sources have only one maser peak detected. For most of these sources a possible second peak was missed due to poor-single-to-noise or strong baseline variations. There are a few well known "real" single peaks, like the young planetary nebula Vy 2–2. For these objects it is thought that the second maser peak is absorbed by the ionised gas around the star.

A few sources lie possibly near or in HII regions. K 3–35 and W28(A2) are possible examples of (fast evolving) compact HII regions.

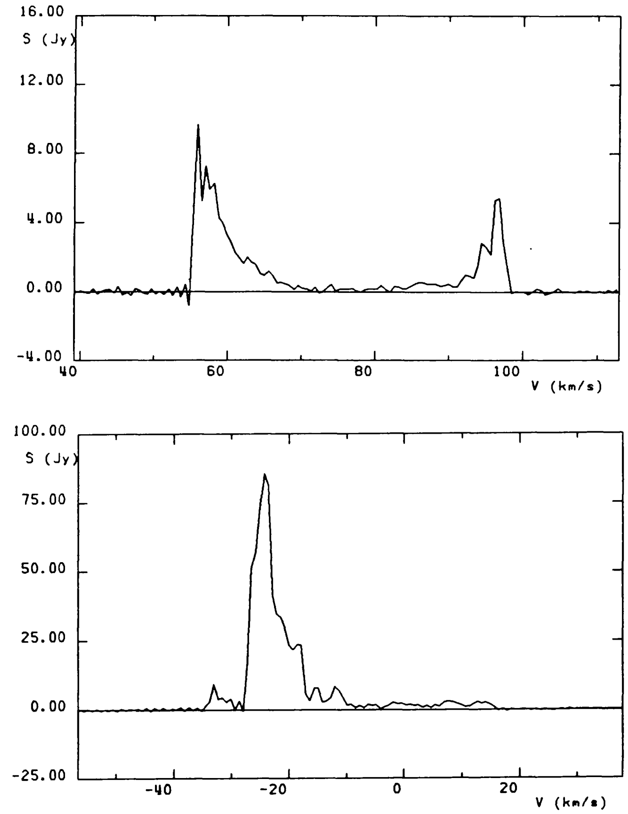

FIGURE 2. — a) A typical 1612 MHz maser line profile from an OH/IR star (# 362, OH 32.0–0.5 ; epoch August 1986) ; b) Roberts 22 (# 28), an example of a more complex 1612 MHz line profile (epoch July 1985).

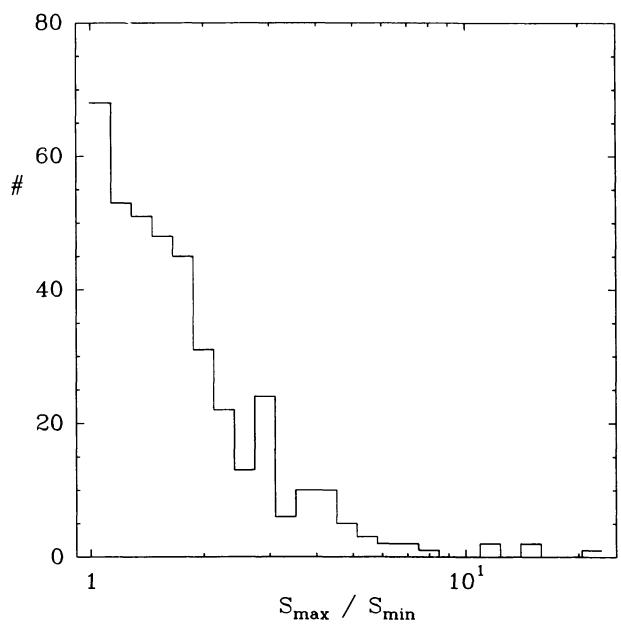

FIGURE 3. — Histogram of S_{max}/S_{min}.

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4.3 Sky coverage and 1612 MHz flux distribution. — Figure 4 gives the spatial distribution of the catalogue sources. The figure shows clearly that not as much observing time has been devoted to the Southern part of the sky as the Northern. The sources at high galactic latitude are predominantly Mira variables and supergiants. Several observers have searched (and found) OH/IR stars near the Galactic Centre (e.g. Habing *et al.*, 1983, Lindquist *et al.*, 1989). The radial velocity distribution is given in figure 5.

The distribution of the flux of the strongest maser spike is given in figure 6 ; it is clear that the sources in the catalogue form an inhomogeneous group.

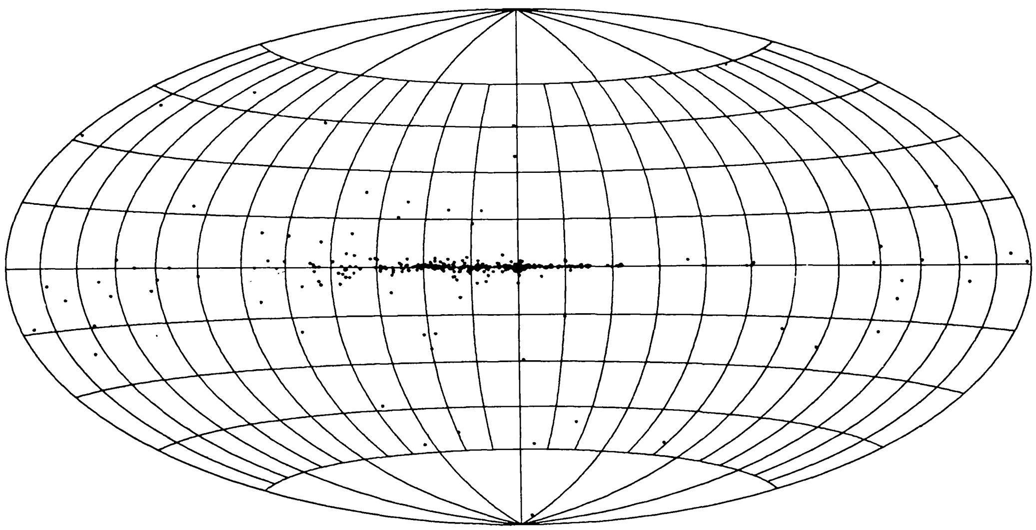

Figure 4. — The distribution of the sources in the catalogue in an Aitoff projection in Galactic coordinates.

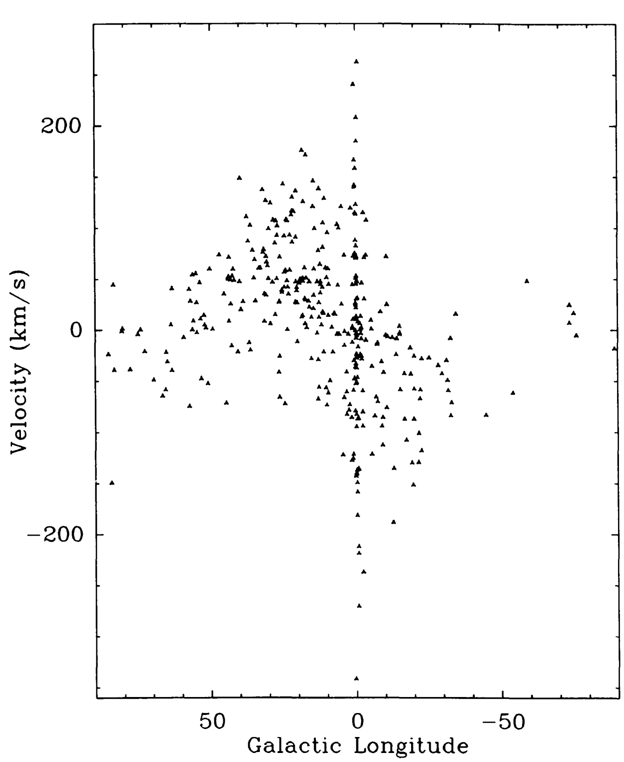

Figure 5. — The radial velocity distribution of the sources in the catalogue.

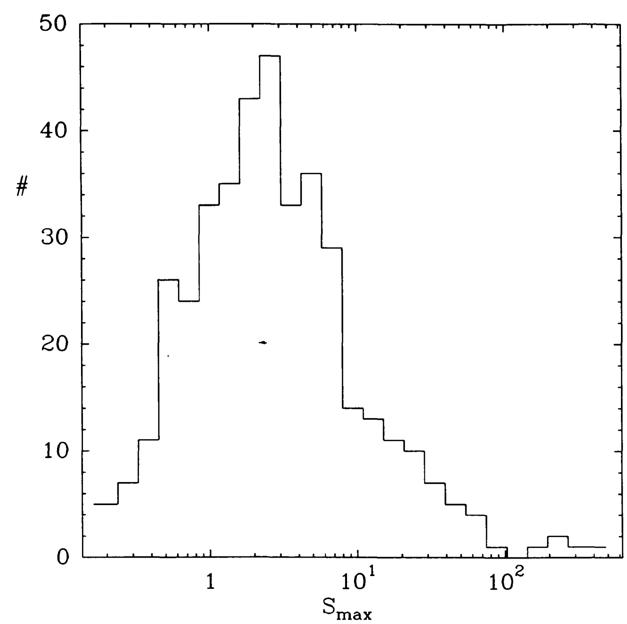

Figure 6. — Histogram of the 1612 MHz maser flux of the strongest 1612 MHz maser peak of the source.

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5. Discussion.

5.1 THE NATURE OF THE 1612 MHz MASER SOURCES. — Assuming that the majority of the sources in the catalogue are AGB stars, it is interesting to see what stars on the AGB do and do not have 1612 MHz maser emission. (See for a recent review: Habing *et al.*, 1989). AGB stars include both oxygen-rich(e.g. Miras and OH/IR stars) and carbon-rich stars objects.

Mira variables are defined as optically identified, long period variables ($P > 150$ d) (for a review on OH masers associated with Miras, see : Sivagnanam and Le Squeren 1988), those with a 1612 MHz maser are included in the catalogue. Most OH/IR stars are also long periods variables (but with longer periods than the visible Miras), but some have been observed not to vary at all or with a small irregular amplitude (the variation is measured by observing the 1612 MHz maser emission since the star is not visible due to the high opacity of the CSE).

Until recently there were no (visible) carbon stars known with a 1612 MHz maser. However, Willems and de Jong (1987) found nine objects in the IRAS LRS atlas identified with carbon star, that are either double stars of a very exceptional kind or objects in the transition phase between Mira variable and carbon star (Willems and de Jong, 1988; see also the discussion in Chan and Kwok, 1988). Two of these objects have been detected to have 1612 MHz maser emission (te Lintel Hekkert, private communications). The scenario given by Iben and Renzini (1983) for the transition from oxygen rich stars to carbon rich stars certainly leaves open the possibility that a few OH/IR stars (so defined because of the 1612 MHz maser emission) are in fact carbon stars with an oxygen rich CSE.

The S and symbiotic type of stars are the least understood classes of stars at the AGB; no OH has been detected from these stars (Norris 1985 *et al.*).

The classification of the supergiants is unclear ; some have 1612 MHz maser emission. The 1612 MHz profile of a supergiant is characterised by a large separation of the maser peaks (Δ velocity > 40 km s^{-1}), although there is a large overlap in expansion velocities with the OH/IR stars.

6. Conclusions.

We have produced a catalogue of 442 stellar maser sources at 1612 MHz. These are all the 1612 MHz maser emission sources discovered in the years 1963 up to and including 1983 (Tab. I). A nearly complete list of references (Tab. II) is given for the maser sources and this will enable the reader to easily find published data. The identification with IRAS PCS sources is only partly succesful, since most of the maser sources are in regions of the sky confused for IRAS.

7. Availability.

The catalogue is available on magnetic tape and can be requested from the authors. The tape contains the catalogue, the full reference list and access software.

Acknowledgements.

A number of people helped us in finding sources and removing mistakes from the earlier version of the catalogue. We thank Lauren Likkel for pointing out the problems with the IRAS identifications. Murray Lewis was the first to use the catalogue at the telescope and communicated (non–) identifications of IRAS sources with 1612 MHz maser sources and/or Mira variables prior to publication. We are especially indebted to Dr. J. H. Cahn, who lent us his unpublished OH maser catalogue. We thank Dr. L. L. E. Braes and Phil Maloney for a careful reading of the manuscript. Part of this research was financially supported through the Neherlands Organization for the Advancement of Pure Research (NWO) via grant 78-218.

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TABLE I

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
1	00:17:07.0	+65:42:54	119.725	3.317	−51.3	27.4	2.30	−65.0	2.10	−37.6	jan 84	0.15	8403 8601		00170+6542	0.14
2	00:42:50.0	+68:54:36	122.442	6.317	−25.5	25.0	1.90	−38.0	1.60	−13.0	may 78	0.70	8003 8003 8407	IRC+70012	00428+6854	0.31
3	01:03:48.0	+12:19:51	128.641	−50.107	8.3	36.3	48.20	26.4	52.10	−9.9	nov 76	0.23	6801 6801 6901 7007 7015 7018 7038 7111 7201 7202 7207 7313 7324 7331 7439 7444 7447 7525 7531 7638 7707 7724 7725 7807 7817 7922 7923 7926 8011 8023 8103 8104 8106 8124 8126 8208 8306	CIT3 WX PSC IRC+10011 OH128.6−50.1	01037+1219	0.02
4	01:30:27.7	+62:11:30	127.815	−0.021	−55.0	22.0	32.00	−66.0	14.00	−44.0	jun 76	2.40	8602 7801 7425 7818 7902 7926 8101 8103 8105 8110 8219 8306 8402 8428 8504 8510 8511 8515 8518 8522 8527 8581 8603 8604 8605 8901	OH127.8+0.0 AFGL230	01304+6211	0.13
5	02:19:16.0	+58:21:30	134.623	−2.195	−38.5	29.0	1.10	−53.0	0.60	−24.0	oct 74	1.46	7511 7511 7417 7418 7519 7520 7525 7541 7638 7719 7721 7732 7926 7928 8107 8119 8124 8126 8221 8515 8610 8901	S PER IRC+60088	02192+5821	0.20
6	02:42:02.0	+12:06:22	161.473	−41.921	20.0	8.0	0.30	16.0	0.90	24.0	jan 76	1.80	7807 7807 7904 7926	RU ARI	02420+1206	0.07
7	03:20:40.7	+65:21:54	137.966	7.260	−37.5	19.0	8.00	−47.0	5.00	−28.0	jun 76	2.40	8105 7801 7818 7902 8009 8101 8103 8306 8402 8426 8510 8527 8604 8605 8901	OH138.0+7.2	03206+6521	0.40
8	03:29:21.9	+60:10:25	141.718	3.522	−57.5	25.0	5.00	−70.0	1.00	−45.0	jun 76	2.40	8105 7801 7818 7902 8009 8101 8103 8306 8402 8426 8505 8527 8605 8901	OH141.7+3.5	03293+6010	0.41
9	03:50:43.4	+11:15:29	177.954	−31.413	34.2	32.9	2.20	17.7	3.30	50.6	nov 76	0.23	8590 7923 6801 6820 7007 7010 7015 7111 7202 7313 7324 7331 7418 7428 7520 7525 7601 7707 7817 7922 7926 7928 8116 8119 8120 8124 8126	NML TAU IRC+10050 IK TAU	03507+1115	0.02
10	05:07:19.0	+52:48:53	156.437	7.834	2.9	33.7	4.30	−13.9	12.00	19.8	sep 70	0.70	7202 7202 7015 7111 7201 7207 7313 7331 7428 7447 7519 7520 7638 7724 7725 7732 7926 8003	IRC+50137 NV AUR	05073+5248	0.11
11	05:13:07.0	+45:30:48	162.952	4.333	−32.8	19.9	17.30	−42.8	1.20	−22.9	jan 85	0.58	8601 8601		05131+4530	0.07
12	05:15:06.0	+63:12:51	148.282	14.563	51.5	29.0	15.00	37.0	11.00	66.0	may 78	0.70	8003 8003 8106 8311 8504 8528 8617	IRC+60154 AFGL 724	05151+6312	0.20
13	05:32:21.0	−05:59:54	209.500	−19.750	7.5		0.31	7.5			nov 77	0.70	7139 8002	YY ORI		
14	05:44:22.6	+27:07:09	181.754	−0.578	−8.0		0.40	−8.0			aug 76	1.80	8590 7815 7904 7926 8003 8412	AW TAU	05443+2707	0.01
15	05:52:50.0	+20:10:06	188.713	−2.495	−42.5	7.0	18.00	−46.0	25.00	−39.0	jan 75	0.16	7725 7725 7111 7127 7129 7131 7211 7313 7331 7402 7418 7435 7447 7519 7520 7611 7707 7731 7817 7904 7917 7918 7921 7922 7926 8010 8022 8103 8114 8116 8208 8209 8214 8218 8221 8306 8319	U ORI IRC+20127	05528+2010	0.20
16	06:29:45.0	+40:45:08	174.114	14.122	−16.0	24.0	4.60	−28.0	2.20	−4.0	aug 69	0.58	7202 7202 7015 7111 7313 7717 7926 8103 8306 8402 8901	IRC+40156	06297+4045	0.16
17	06:30:02.0	+60:58:54	154.309	21.520	−23.5	24.5	1.20	−35.7	0.42	−11.2	nov 77	1.12	7903 7903 7015 7202 7304 7732 7926 8311 8504 8515 8528 8901	IRC+60169 AFGL 956	06300+6058	0.23
18	06:31:59.0	+04:15:09	207.265	−1.808	12.9		0.26	12.9			nov 76	0.23	7923 7923 8207 8405	CRL961	06319+0415	0.01
19	06:50:03.5	+08:29:02	205.576	4.126	−10.5	35.0	3.50	−28.0	5.50	7.0	feb 78	0.70	8590 8003 8105 8124 8617 8901	GX MON IRC+10143	06500+0829	0.01
20	07:05:28.0	−10:39:18	224.342	−1.287	52.0	26.8	0.41	38.6	0.19	65.4	feb 78	1.12	7903 7903 7926 8111 8311 8438 8901	CRL1074 IRC−10151 GL10174	07054−1039	0.16
21	07:20:54.0	−25:40:12	239.351	−5.068	22.4	56.8	200.00	−6.0	100.00	50.8	apr 77	1.16	7914 7914 6904 6911 6923 6924 6925 6927 6929 7002 7003 7004 7005 7009 7014 7015 7016 7025 7028 7033 7104 7111 7112 7113 7120 7121 7136 7201 7209 7210 7215 7313 7317 7321 7324 7403 7404 7418 7424 7445 7447 7448 7510 7519 7520 7524 7528 7538 7541 7611 7624 7626 7634 7707 7709 7724 7806 7811 7817 7926 7928 8004 8103 8104 8106 8107 8119 8124 8126 8128 8208 8210 8212 8215 8216 8220 8221 8306 8312 8320 8323 8402 8406 8412 8420 8507 8510 8512 8514 8515 8517 8518 8519 8527 8603 8604 8606 8610 8613 8614 8617 8901	VY CMA IRC−30087	07209−2540	0.37

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TABLE I (continued).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
22	07:39:58.0	−14:35:43	231.833	4.217	15.9	23.0	0.15	4.4	0.23	27.4	dec 79	1.47	8004 8004 7102 7207 7309 7432 7433 7518 7528 7529 7611 7628 7633 7707 7718 7732 7926 8021 8123 8130 8213 8320 8321 8322 8408 8420 8431 8505 8515 8517 8519 8520 8527 8580 8628	OH0739−14 OH231.8+4.2	07399−1435	0.28
23	07:44:34.0	−26:13:11	242.433	−0.693	82.7	9.5	1.90	77.9	1.00	87.4	mar 76	0.73	7729 7729 7904 7926 8111 8504	SS PUP CRL1192 OH242.4−0.7	07445−2613	0.11
24	07:58:30.0	−12:42:11	232.478	9.058	−15.6	16.3	0.57	−23.7	1.53	−7.4	jan 83	0.54	8590 8504 7202 7925	IRC−10184 U PUP	07585−1242	0.01
25	08:35:44.0	−10:13:40	235.322	18.097	17.8	43.3	1.40	−3.9	2.30	39.4	jul 76	0.73	7729 7729 7903 7926 8504 8511 8605	CRL1274 OH235.3+18.1	08357−1013	0.13
26	09:42:58.3	−21:48:04	255.803	23.356	39.0	24.0	7.50	27.0	5.70	51.0	sep 70	0.29	8590 7202 7015 7018 7111 7210 7313 7331 7447 7519 7638 7707 7713 7926 8003 8103 8106 8132 8306 8311 8412 8515 8617	IRC−20197 IW HYA	09429−2148	0.01
27	10:18:54.9	−34:32:44	271.040	18.604	−17.9	6.8	0.16	−21.3	0.84	−14.5	jun 87	0.90	8419 7331 7520 7638 7707 7731 7817 7819 7904 7926 7928 8023 8126 8802 8901	V ANT	10189−3432	0.59
28	10:19:45.1	−57:50:28	284.176	−0.788	−5.0	40.0	44.00	−25.0	3.00	15.0	aug 78	0.35	8013 8013 6710 6912 6919 7038 7124 7215 7507 7521 7611 7715	ROBERTS 22 RCW 49 OH284.2−0.8	10197−5750	1.61
29	10:28:43.0	−57:34:16	285.054	0.070	17.0	36.0	1.60	−1.0	2.20	35.0	mar 77	0.37	8108 8108 8203 8301 8404		10287−5733	0.91
30	10:38:09.0	−58:17:48	286.501	0.059	25.0	32.0	2.10	9.0	2.30	41.0	mar 77	0.37	8108 8108 8203 8301		10379−5817	1.50
31	12:12:02.0	−05:45:30	286.545	55.659	7.3	7.7	0.38	3.5	0.36	11.2	feb 75	0.73	7904 7904 7926 8003 8412 8505 8901	T VIR IRC−10264	12120−0545	0.09
32	12:31:01.0	−62:33:43	300.930	−0.034	48.5	23.0	2.90	37.0	0.90	60.0	mar 77	0.37	8108 8108 8203 8301		12310−6233	0.37
33	12:56:12.0	+23:24:24	325.547	85.689	16.0	14.0	0.15	9.0	0.45	23.0	jan 76	1.80	7807 7807 7904 7926 8407	T COM	12562+2324	1.03
34	13:15:58.9	−64:21:44	305.915	−1.915	−61.0	30.0	1.80	−76.0	1.30	−46.0	mar 76	0.89	8108 8108 7814 8203 8301	OH305.9−1.9	13157−6421	1.55
35	14:08:39.0	−07:30:42	334.779	50.122	−27.2	27.4	2.50	−40.9	1.90	−13.5	jul 76	0.73	7729 7729 7926 8504 8511	CRL1686	14086−0730	0.09
36	14:24:45.0	+04:53:53	352.664	57.971	−14.0	8.0	2.50	−18.0	7.50	−10.0	feb 78	0.73	8602 8003 7329 7417 7525 7619 7707 7713 7721 7807 7811 7817 7904 7926 8124 8126 8209 8311 8415 8510 8515 8901	RS VIR IRC+00243	14247+0454	0.36
37	14:29:45.0	−60:10:53	315.217	0.013	−83.0	32.0	2.20	−99.0	1.90	−67.0	apr 77	0.37	8108 8108 8203 8301		14297−6010	0.59
38	15:19:21.0	+31:32:45	49.472	57.175	0.8	6.5	4.00	−2.5	0.80	4.0	feb 78	0.70	8003 8003 7111 7127 7131 7211 7227 7313 7418 7435 7447 7519 7520 7525 7713 7721 7811 7817 7904 7922 7926 7928 8012 8116 8124 8126 8127 8402 8412 8416 8518 8606 8608 8614	S CRB IRC+30272	15193+3132	0.12
39	15:25:32.0	+19:44:13	29.515	53.477	6.0	14.8	2.50	−1.4	1.60	13.4	sep 70	0.29	8602 7202 6801 6901 7004 7015 7018 7110 7111 7313 7324 7331 7453 7520 7525 7638 7707 7731 7732 7811 7817 7904 7922 7926 8003 8103 8124	CIT7 WX SER IRC+20281	15255+1944	0.09
40	15:46:49.0	−54:20:10	327.099	−0.252	−71.0	34.0	7.80	−88.0	24.00	−54.0	jul 73	0.70	7507 7507 7706 7707 7818 8019	OH327.1−0.3	15468−5420	0.71
41	15:47:39.0	−54:00:02	327.404	−0.066	−83.5	45.0	3.80	−106.0	2.80	−61.0	jul 73	0.73	7507 7507 7707 7818 7926 8118 8201 8301	OH327.4−0.1	15476−5400	0.29
42	15:50:16.0	−54:24:24	327.447	−0.622	−8.0	28.0	5.00	−22.0	19.00	6.0	jul 73	0.73	7507 7507 7450 7818 7926 8118 8201 8301	OH327.4−0.6	15502−5424	0.32
43	15:51:33.0	−53:23:51	328.232	0.039	−59.0	40.0	104.00	−79.0	236.00	−39.0	jul 73	0.73	7507 7507 7611 7707 7818 7926 8019 8118 8201 8220 8301	OH328.2+0.0	15514−5323	0.82
44	15:53:32.0	−53:29:01	328.405	−0.215	−49.0	38.0	4.90	−68.0	8.90	−30.0	jul 73	0.73	7507 7507 7707 7818 7926 8118 8201 8301	OH328.4−0.2	15535−5328	0.09
45	15:55:18.0	−53:16:43	328.738	−0.227	−29.5	21.0	2.30	−40.0	5.00	−19.0	jul 73	0.73	7507 7507 7707 7818 7926 8118 8201 8301	OH328.7−0.2	15552−5316	0.33
46	15:57:36.0	−12:12:35	358.436	29.525	−3.5	19.8	0.20	−13.4	0.20	6.4	feb 75	1.40	8463 7904 7926	IRC−10329 FS LIB	15576−1212	0.35
47	16:02:01.0	−51:57:54	330.368	0.100	−42.5	29.0	2.60	−57.0	1.80	−28.0	jul 73	0.73	7507 7507 7707 7818 7926 8118 8201 8301	OH330.4+0.1	16019−5157	0.37
48	16:02:59.0	−30:41:33	344.993	15.725	−2.7	25.8	18.00	−15.6	10.50	10.2	jul 76	0.73	7729 7729 7926 8629	CRL1822 OH345.0+15.7	16029−3041	0.14
49	16:09:40.0	−51:22:17	331.645	−0.257	−34.5	19.0	2.00	−44.0	8.90	−25.0	jul 73	0.73	7507 7507 7707 7818 7926 8109 8118 8201 8301	OH331.6−0.3	16097−5122	0.34
50	16:25:59.0	+34:54:36	56.370	43.533	54.3	24.5	3.20	42.0	1.20	66.5	sep 69	0.58	7202 7202 7111 7313 7428 7519 7601 7638 7713 7923 7926 8311 8515 8528	IRC+30292	16260+3454	0.38
51	16:33:26.0	−46:54:43	337.545	0.121	−118.0	52.0	7.10	−144.0	1.70	−92.0	jul 73	0.73	7507 7507 7707 7818 7926 8118	OH337.5+0.1	16333−4654	0.74
52	16:33:47.0	−47:13:56	337.349	−0.140	−28.0	30.0	6.00	−43.0	9.50	−13.0	jul 73	0.73	7507 7507 7707 7818 8118	OH337.4−0.1	16337−4713	0.44

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
53	16:33:58.0	−47:17:43	337.324	−0.205	−152.0		1.90	−152.0			jul 73	0.73	7507 7507 8118 8201 8301	OH337.3−0.2	16339−4717	0.35
54	16:34:02.0	−46:34:54	337.858	0.268	−58.5	39.0	4.30	−78.0	1.00	−39.0	jul 73	0.73	7507 7507 7643 7707 7818 7926 8019 8020 8109 8118 8201 8301	OH337.9+0.3	16340−4634	0.25
55	16:36:01.0	−47:00:12	337.774	−0.267	−95.0		2.00	−95.0			jul 73	0.73	7507 7507	OH337.8−0.3	16361−4658	2.17
56	16:36:18.0	−46:44:06	338.006	−0.123	−67.0	40.0	9.00	−87.0	3.00	−47.0	jul 73	0.73	7450 7450 7105 7215 7507 7707 7818 7926 8118 8201 8301	OH338.0−0.1	16363−4645	1.63
57	16:37:27.0	−46:13:36	338.517	0.069	−129.5	29.0	2.80	−144.0	4.60	−115.0	jul 73	0.73	7507 7507 7106 7202 7326 7707 7715 7818 7926 8118 8201 8301	OH338.5+0.1 OH1637−46	16372−4614	2.33
58	16:38:20.0	−46:26:45	338.454	−0.191	−101.0	54.0	0.70	−128.0	1.30	−74.0	jul 73	0.73	7507 7507 7449 7450 7707 7818 7926 8118 8201 8302	OH338.5−0.2	16383−4626	0.24
59	16:41:31.0	−44:57:53	339.933	0.370	−116.0		2.10	−116.0			sep 77	0.37	8108 8108 8203 8301		16415−4458	0.31
60	16:44:04.0	−45:17:46	339.977	−0.187	−25.5	37.0	2.40	−44.0	3.70	−7.0	mar 77	0.37	8108 8108 8201 8301		16440−4518	0.41
61	16:44:28.0	−45:00:54	340.236	−0.057	−122.0		2.20	−122.0			sep 77	0.37	8108 8108 8203		16445−4459	1.06
62	16:44:59.7	−44:51:05	340.421	−0.022	−151.5	33.0	3.40	−168.0	2.60	−135.0	mar 77	0.37	8413 8108 8201 8203 8301		16449−4451	0.06
63	16:45:31.0	−45:29:18	339.996	−0.505	−57.5	45.0	2.40	−80.0	3.60	−35.0	mar 77	0.37	8108 8108 8201		16455−4531	2.12
64	16:45:47.0	−45:20:21	340.140	−0.444	−87.0	30.0	2.40	−102.0	2.10	−72.0	mar 77	0.37	8108 8108 8203		16457−4519	0.98
65	16:46:18.9	−44:32:35	340.808	−0.001	−130.0	28.0	1.80	−144.0	1.50	−116.0	mar 77	0.37	8413 8108		16462−4432	0.24
66	16:47:26.0	−44:18:25	341.117	−0.002	−43.0	36.0	2.10	−61.0	1.90	−25.0	mar 77	0.37	8108 8108 8201 8203 8301		16474−4418	0.22
67	16:47:30.0	−44:06:22	341.279	0.118	−17.5	29.0	6.40	−32.0	5.00	−3.0	mar 77	0.37	8108 8108		16474−4405	0.46
68	16:49:31.0	−43:27:40	342.007	0.252	−48.0		8.70	−48.0			mar 77	0.37	8108 8108 8203 8206 8315 8326 8404		16494−4327	0.28
69	16:49:52.0	−41:43:47	343.382	1.306	−42.5	43.0	5.50	−64.0	12.00	−21.0	sep 70	0.29	7202 7202 7111 7207 7314 7520 7818	OH1649−41 OH343.4+1.3	16498−4143	0.23
70	16:50:24.0	−43:20:44	342.199	0.202	−81.0		0.80	−81.0			mar 76	0.89	8108 8108		16500−4317	4.87
71	16:53:36.0	−43:04:22	342.779	−0.077	−107.5	39.0	0.90	−127.0	0.80	−88.0	jan 77	0.37	8108 8108		16536−4305	0.76
72	16:54:17.0	−42:23:55	343.382	0.248	−87.0	28.0	1.00	−101.0	1.30	−73.0	mar 77	0.37	8108 8108 8203		16542−4224	1.01
73	16:54:43.0	−42:47:52	343.121	−0.064	−28.0		28.00	−28.0			mar 77	0.37	8108 8108 8020 8326		16547−4247	0.31
74	16:57:35.0	−42:21:06	343.799	−0.199	−28.0		0.50	−28.0			mar 77	0.37	8108 8108		16576−4223	2.47
75	16:58:35.0	−41:45:00	344.386	0.027	−67.0		1.40	−67.0			mar 77	0.37	8108 8108		16586−4142	2.54
76	17:00:25.4	−41:19:50	344.929	0.014	−4.0	38.0	140.00	−23.0	90.00	15.0	mar 77	0.37	8413 8108		17004−4119	0.04
77	17:03:48.5	−40:27:17	346.013	0.040	−8.5	35.0	2.00	−26.0	2.40	9.0	mar 77	0.37	8108 8108 8203 8301		17038−4026	0.47
78	17:04:24.1	−40:19:50	346.180	0.025	−24.0	30.0	0.90	−39.0	0.80	−9.0	aug 78	0.37	8108 8108 8203	OH346.18+0.02	17043−4019	1.29
79	17:06:32.8	−39:29:35	347.097	0.200	−135.5	29.0	2.80	−150.0	5.80	−121.0	mar 77	0.37	8413 8108		17065−3929	0.11
80	17:06:40.1	−39:08:11	347.396	0.395	−188.5	25.0	11.40	−201.0	10.20	−176.0	mar 77	0.37	8108 8108 8201 8203 8301	OH347.40+0.40	17066−3908	0.18
81	17:07:20.2	−42:25:18	344.839	−1.671	−58.5	25.0	4.30	−71.0	2.00	−46.0	mar 77	0.37	8413 8108 8203 8301		17073−4225	0.14
82	17:07:23.2	−39:54:35	346.860	−0.178	−31.0		1.40	−31.0			mar 77	0.37	8108 8108 8203	OH346.86−0.18	17073−3955	0.61
83	17:08:24.7	−39:10:02	347.573	0.106	−7.5	19.0	0.80	−17.0	1.40	2.0	sep 77	0.37	8108 8108 8201 8203 8301	OH347.574+0.106	17084−3909	1.06
84	17:08:49.4	−42:21:36	345.052	−1.855	3.5	29.0	26.00	−11.0	20.00	18.0	mar 77	0.37	8413 8108 8203		17088−4221	0.03
85	17:11:34.3	−33:22:43	352.621	3.013	−70.0	10.0	1.00	−75.0	1.10	−65.0	jul 75	1.40	7720 7720 7106 7707 7729 7817 7926 8127 8901	RW SCO CRL1937	17115−3322	0.17
86	17:11:56.0	+08:59:18	29.942	25.613	20.6		0.10	20.6			jan 82	1.12	8463 8801 7202 7716 7923 7927 8407	IRC+10322 V 2108 OPH	17119+0859	0.15
87	17:12:52.0	−37:48:52	349.180	0.200	−6.5	39.0	4.10	−26.0	5.50	13.0	mar 77	0.37	8413 8108 8201 8203 8301		17128−3748	0.05
88	17:13:40.6	−37:30:29	349.522	0.249	72.0	28.0	3.50	58.0	0.80	86.0	mar 77	0.37	8108 8108 8203	OH349.52+0.25	17136−3731	1.10
89	17:14:20.9	−37:45:40	349.394	−0.006	25.0	26.0	0.80	12.0	0.70	38.0	aug 78	0.37	8108 8108 8203 8301	OH349.39−0.01	17144−3745	1.33
90	17:15:01.9	−37:54:04	349.359	−0.197	−126.0		0.60	−126.0			mar 77	0.37	8108 8108 8203	OH349.36−0.20	17150−3754	0.93
91	17:16:04.7	−37:18:47	349.958	−0.026	39.0		6.00	39.0			mar 77	0.37	8108 8108 8203	OH349.96−0.03	17160−3718	0.56
92	17:16:47.3	−37:58:27	349.500	−0.522	−76.0	30.0	3.80	−91.0	1.50	−61.0	mar 77	0.37	8108 8108 8203	OH349.50−0.52	17168−3757	0.94
93	17:16:49.9	−37:36:20	349.806	−0.317	−5.0	26.0	28.00	−18.0	14.00	8.0	mar 77	0.37	8108 8108 8203	OH349.81−0.32	17168−3736	0.27
94	17:17:09.0	−36:13:18	350.973	0.429	−112.5	27.0	1.70	−126.0	1.20	−99.0	sep 77	0.37	8108 8108 8203		17171−3613	0.55
95	17:17:25.3	−36:46:55	350.547	0.062	−41.5	29.0	6.10	−56.0	2.00	−27.0	mar 77	0.37	8413 8108 8203		17174−3646	0.23
96	17:17:47.2	−36:27:55	350.848	0.184	−85.5	25.0	12.50	−98.0	10.60	−73.0	mar 77	0.37	8413 8108 8201 8301		17177−3627	0.00
97	17:18:34.5	−36:07:03	351.224	0.253	−31.0	26.0	1.70	−44.0	0.80	−18.0	mar 77	0.37	8108 8108 8203		17183−3606	2.72
98	17:19:05.8	−36:17:24	351.142	0.068	−94.0	30.0	6.00	−109.0	4.10	−79.0	mar 77	0.37	8413 8108 8203		17191−3617	0.34
99	17:19:21.0	−35:46:32	351.594	0.320	18.0	20.0	2.00	8.0	1.10	28.0	sep 77	0.37	8108 8108 8203		17193−3546	0.44

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
100	17:23:22.8	−26:02:37	0.122	5.110	−143.0	16.0	2.60	−151.0	1.10	−135.0	aug 77	1.20	8105 7901 7425 7818 8102	OH0.1+5.1	17233−2602	0.21
101	17:24:13.0	−35:13:27	352.609	−0.184	−12.5	33.0	2.30	−29.0	3.20	4.0	mar 77	0.37	8108 8108 8203		17242−3513	0.26
102	17:24:36.0	−34:37:44	353.146	0.085	−65.5	35.0	0.90	−83.0	2.40	−48.0	sep 77	0.37	8108 8108 8203 8301		17244−3438	1.45
103	17:25:40.0	+05:04:42	27.817	20.809	15.0	10.5	2.70	20.2	1.40	9.7	jan 85	0.58	8601 8601 8430 8525		17256+0504	0.07
104	17:26:09.0	−34:44:37	353.229	−0.244	13.0		1.20	13.0			sep 77	0.37	8108 8108 8203 8301	OH353.23−0.24	17260−3445	0.89
105	17:27:08.3	−34:25:28	353.607	−0.235	−84.0	36.0	16.30	−102.0	8.50	−66.0	mar 77	0.37	8413 8108 8201 8203 8302 8404		17271−3425	0.09
106	17:27:09.2	−34:39:18	353.417	−0.366	−16.0		1.70	−16.0			mar 77	0.37	8202 8108 7030 7215 7216 7314 7316 7451 7611 7715 7911 8020 8326	OH 353.41−0.36	17271−3439	0.12
107	17:27:48.0	−33:19:46	354.595	0.258	−121.5	29.0	1.60	−136.0	2.10	−107.0	mar 77	0.37	8108 8108 8203		17278−3319	0.72
108	17:28:32.0	−33:30:33	354.530	0.031	−35.5	33.0	0.70	−52.0	2.70	−19.0	sep 77	0.37	8108 8108 8201 8203		17285−3330	0.35
109	17:29:17.8	−33:01:07	355.027	0.168	20.0		2.00	20.0			mar 77	0.37	8108 8108 8203	OH355.03+0.17	17292−3259	1.28
110	17:29:31.0	−33:21:56	354.763	−0.061	1.0	28.0	2.90	−13.0	7.60	15.0	mar 77	0.37	8413 8108 8203		17295−3321	0.14
111	17:30:35.3	−32:46:24	355.381	0.076	−190.0		1.00	−190.0			mar 77	0.37	8108 8108 8203	OH355.38+0.08	17309−3245	4.51
112	17:30:49.0	+08:22:42	31.589	21.156	8.4	11.4	0.80	14.1	1.70	2.7	jan 85	0.58	8601 8601 8430 8525		17308+0822	0.13
113	17:31:42.0	−27:43:00	359.748	2.639	48.5	23.0	4.70	37.0	5.30	60.0	aug 77	1.20	7901 7901 8102	OH359.8+2.6	17317−2743	0.67
114	17:31:45.0	−33:31:33	354.884	−0.539	9.5	29.0	116.00	−5.0	322.00	24.0	mar 77	0.37	8413 8108 8201 8203 8220 8302 8579		17317−3331	0.14
115	17:32:19.0	−31:48:59	356.382	0.293	107.5	27.0	1.40	94.0	1.60	121.0	mar 77	0.37	8108 8108		17322−3149	0.49
116	17:32:33.6	−32:21:40	355.953	−0.046	−13.0		5.40	−13.0			mar 77	0.37	8108 8108 8203	OH355.95−0.05	17324−3221	1.20
117	17:34:18.3	−30:09:55	358.000	0.832	−28.5	29.0	0.80	−43.0	0.70	−14.0	jun 79	2.90	8701 8701 8133		17342−3011	1.27
118	17:34:49.1	−30:51:41	357.474	0.363	115.0	28.0	4.10	101.0	3.70	129.0	mar 77	0.37	8203 8108 8413		17348−3051	0.26
119	17:34:56.0	−31:53:03	356.626	−0.210	−10.0	26.0	1.90	−23.0	0.80	3.0	mar 77	0.37	8108 8108		17347−3150	3.81
120	17:35:11.4	−32:07:07	356.458	−0.382	−138.0		0.80	−138.0			mar 77	0.37	8108 8108 8203	OH356.46−0.38	17352−3207	0.28
121	17:35:23.4	−31:55:36	356.643	−0.315	−20.0		1.70	−20.0			mar 77	0.37	8108 8108 7452 7817 8020 8107 8109 8901	OH356.64−0.32 IRC−30308	17354−3155	0.28
122	17:35:36.0	−30:38:38	357.748	0.338	−94.0	24.0	3.00	−106.0	2.00	−82.0	mar 77	0.37	8108 8108 8203		17356−3039	1.21
123	17:35:57.0	−29:02:24	359.141	1.137	−136.0	18.0	1.80	−145.0	1.60	−127.0	aug 77	1.20	7901 7901 8102 8133 8506 8701		17359−2902	0.08
124	17:35:57.7	−32:10:20	356.501	−0.549	73.5	25.0	14.50	61.0	54.00	86.0	aug 78	0.37	8413 8108 7111 7202 7207 7313 7314 7405 7418 7724 7818 8203	OH1735−32 OH356.5−0.6	17359−3210	0.05
125	17:36:00.0	−28:37:00	359.504	1.356	31.5	27.0	1.60	18.0	0.40	45.0	aug 77	1.20	8701 7901 8102 8133		17357−2833	4.91
126	17:36:02.4	−30:12:46	358.162	0.490	2.0	40.0	45.00	−18.0	42.00	22.0	mar 77	0.37	8413 8108 7729 7926 8133 8201 8203 8302 8701	CRL1992 OH358.2+0.5	17360−3012	0.08
127	17:36:44.0	−31:34:36	357.091	−0.367	71.0	22.0	3.60	60.0	2.10	82.0	mar 77	0.37	8108 8108		17367−3134	0.19
128	17:36:54.0	−28:30:00	359.708	1.251	47.5	29.0	0.70	33.0	0.80	62.0	aug 77	1.20	7901 7901 8102 8133 8701	OH359.7+1.3	17369−2828	1.40
129	17:36:55.2	−30:00:33	358.436	0.439	13.5	33.0	4.60	−3.0	4.30	30.0	jun 79	2.90	8701 8701 8133		17368−3000	0.38
130	17:36:59.8	−30:55:01	357.678	−0.061	−237.0	32.0	6.80	−253.0	3.20	−221.0	mar 77	0.37	8413 8108 8201 8203 8301		17368−3057	2.83
131	17:37:08.4	−27:48:30	0.321	1.577	115.0	6.0	0.80	112.0	0.70	118.0	feb 75	2.90	8701 8701 8133		17371−2747	1.13
132	17:37:12.0	−30:30:00	358.054	0.125	−25.5	29.0	1.10	−40.0	1.30	−11.0	aug 77	1.20	7901 7901 8102 8133 8701	OH358.1+0.1	17372−3029	0.73
133	17:37:26.7	−28:00:04	0.194	1.417	26.5	9.0	1.30	22.0	0.70	31.0	feb 75	2.90	8701 8701 8133		17373−2759	1.07
134	17:37:33.0	−30:53:25	357.765	−0.147	−80.0	24.0	2.00	−92.0	2.20	−68.0	mar 77	0.37	8108 8108 8203 8301		17375−3053	0.20
135	17:37:34.8	−30:00:10	358.518	0.322	−26.0	20.0	2.80	−36.0	2.60	−16.0	jun 79	2.90	8701 8701 8133		17375−3000	0.74
136	17:37:35.0	−31:34:52	357.185	−0.523	30.5	23.0	1.80	19.0	2.00	42.0	sep 77	0.37	8108 8108 8201 8203 8301		17375−3135	0.32
137	17:37:43.0	−29:00:34	359.373	0.828	262.5	29.0	0.30	248.0	0.20	277.0	may 79	2.90	8302 8302		17377−2859	1.33
138	17:37:52.0	−30:21:41	358.248	0.078	−8.5	39.0	0.80	−28.0	2.10	11.0	mar 75	2.90	8701 8701 8133		17376−3021	2.30
139	17:37:52.0	−31:00:11	357.706	−0.265	−59.5	31.0	3.30	−75.0	1.40	−44.0	mar 77	0.37	8108 8108 8203 8301		17378−3100	0.36
140	17:38:11.0	−28:30:06	359.857	1.012	−51.0	34.0	0.20	−68.0	0.50	−34.0	jun 78	2.90	8302 8302		17382−2830	0.39
141	17:38:40.0	−29:58:00	358.674	0.142	26.0		1.70	26.0			jan 73	1.17	7431 7431	HOFF31	17387−2958	1.55
142	17:39:06.0	−28:09:59	0.249	1.020	−0.5	25.0	0.60	−13.0	0.30	12.0	jun 78	2.90	8302 8302		17390−2809	0.83
143	17:39:11.0	−28:52:08	359.663	0.631	−158.5	23.0	0.70	−170.0	0.60	−147.0	jun 78	2.90	8302 8302 8133 8701		17390−2851	1.82
144	17:39:12.5	−30:13:54	358.512	−0.098	−24.0	32.0	0.80	−40.0	1.00	−8.0	mar 75	2.90	8701 8701 8133		17390−3014	1.84
145	17:39:21.0	−30:04:19	358.664	−0.039	0.5	53.0	4.60	−26.0	1.00	27.0	aug 78	0.37	8108 8108 8133 8326 8701		17393−3004	0.28
146	17:39:24.7	−27:27:01	0.892	1.342	−121.5	3.0	26.00	−123.0	26.00	−120.0	jul 73	0.74	8105 7425	OH0.9+1.3	17393−2727	0.23

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch		Res.	References	Name	IRAS name	Dist.
147	17:39:26.0	−29:26:38	359.205	0.279	−86.5	33.0	1.30	−103.0	0.40	−70.0	jun	78	2.90	8302 8302 8108 8203		17394−2926	0.29
148	17:39:31.0	−28:48:28	359.754	0.602	−181.5	17.0	0.60	−190.0	0.40	−173.0	jun	78	2.90	8302 8302		17396−2843	4.96
149	17:39:51.0	−29:47:00	358.966	0.022	−85.0		3.00	−85.0			jan	73	1.17	7431 7431	HOFF32	17398−2945	1.39
150	17:39:55.3	−29:29:34	359.220	0.163	−135.5	29.0	1.10	−150.0	1.40	−121.0	jun	78	2.90	8413 8302 8108 8506		17399−2929	0.19
151	17:40:30.0	−27:13:00	1.218	1.261	44.5	27.0	5.60	31.0	5.30	58.0	aug	77	1.20	7901 7901 8102 8133 8701	OH1.2+1.3	17404−2713	0.52
152	17:40:34.1	−29:24:58	359.360	0.084	−212.0	24.0	1.30	−224.0	2.40	−200.0	jun	78	2.90	8413 8108 8302 8506		17403−2921	4.17
153	17:40:44.0	−28:21:56	0.271	0.609	−79.0	28.0	0.90	−93.0	0.60	−65.0	jun	78	2.90	8302 8302 8133 8701		17404−2823	3.86
154	17:40:53.0	−29:23:49	359.412	0.036	8.0	14.0	0.60	1.0	0.90	15.0	jun	78	2.90	8302 8302		17409−2923	0.60
155	17:41:03.0	−28:44:47	359.984	0.349	123.0	20.0	0.30	113.0	0.50	133.0	oct	76	2.90	8302 8302 8133 8701		17412−2849	5.82
156	17:41:18.0	−29:03:39	359.746	0.137	−137.0	16.0	0.19	−145.0	0.41	−129.0	mar	84	1.40	8501 8501 8607		17413−2903	0.86
157	17:41:20.0	−28:53:07	359.899	0.223	30.5	33.0	0.40	14.0	0.80	47.0	oct	76	2.90	8302 8302 8501		17412−2849	3.46
158	17:41:23.0	−29:09:19	359.675	0.071	−24.0	38.0	0.40	−43.0	0.71	−5.0	mar	84	1.40	8501 8501		17413−2909	0.13
159	17:41:24.0	−29:03:17	359.763	0.121	−5.5	29.0	2.38	−20.0	5.47	9.0	mar	84	1.40	8302 8302 8133 8501 8607 8701		17413−2903	0.50
160	17:41:25.0	−28:59:03	359.824	0.155	−27.5	35.0	0.34	−45.0	0.19	−10.0	mar	84	1.40	8501 8501		17413−2903	4.39
161	17:41:30.4	−31:08:37	358.000	−1.000	46.0	32.0	0.30	30.0	0.70	62.0	jun	79	2.90	8701 8701 8133		17414−3108	1.21
162	17:41:42.0	−27:15:00	1.331	1.017	−12.0	30.0	4.20	−27.0	4.20	3.0	aug	77	1.20	7901 7901 8102 8133 8701	OH1.3+1.0	17418−2713	2.38
163	17:41:45.0	−29:12:08	359.678	−0.021	−149.5	43.0	0.41	−171.0	0.50	−128.0	mar	84	1.40	8501 8501 8607 8901		17418−2910	2.00
164	17:42:03.0	−28:46:28	0.076	0.148	22.0	42.0	0.25	1.0	0.70	43.0	mar	84	1.40	8501 8501 8607		17422−2841	5.52
165	17:42:06.0	−29:04:40	359.824	−0.021	−51.5	39.0	0.19	−71.0	0.31	−32.0	mar	84	1.40	8501 8501 8607		17420−2902	2.59
166	17:42:13.0	−29:40:33	359.328	−0.357	−270.5	39.0	0.50	−290.0	0.30	−251.0	jun	78	0.90	8302 8302		17420−2939	2.12
167	17:42:15.0	−29:06:52	359.810	−0.068	−37.0	44.0	0.21	−59.0	0.17	−15.0	mar	84	1.40	8501 8501 8607		17419−2907	3.64
168	17:42:18.0	−29:08:04	359.798	−0.088	−3.5	35.0	0.34	−21.0	1.30	14.0	mar	84	1.40	8501 8501 8607 8901		17422−2911	3.63
169	17:42:19.0	−29:24:35	359.566	−0.236	−87.0	30.0	2.40	−102.0	1.10	−72.0	oct	76	2.90	8302 8302 8133 8701		17423−2924	0.95
170	17:42:21.0	−28:45:08	0.129	0.104	−52.5	23.0	0.38	−64.0	1.10	−41.0	mar	84	1.40	8501 8501 8302 8607	OH0.13+0.10	17422−2841	3.87
171	17:42:22.0	−29:10:12	359.776	−0.119	72.0	26.0	0.44	59.0	0.15	85.0	mar	84	1.40	8501 8501 8607		17422−2911	2.14
172	17:42:23.0	−29:01:04	359.907	−0.042	−141.0	40.0	0.29	−161.0	0.26	−121.0	mar	84	1.40	8501 8501 8607	OH359.907−0.042	17424−2859	2.23
173	17:42:24.0	−28:04:27	0.712	0.451	240.5	11.0	0.20	235.0	0.40	246.0	may	79	2.90	8302 8302		17424−2806	2.39
174	17:42:27.0	−28:58:36	359.950	−0.033	82.5	27.0	0.20	69.0	1.10	96.0	mar	84	1.40	8501 8501	OH359.950−0.033	17424−2859	0.92
175	17:42:27.0	−29:02:20	359.897	−0.065	−140.0	28.0	0.17	−154.0	0.16	−126.0	jan	80	1.00	8302 8302		17424−2859	3.04
176	17:42:29.0	−28:58:40	359.953	−0.039	70.5	39.0	1.61	51.0	1.64	90.0	mar	84	1.40	8501 8501	OH359.953−0.040	17424−2859	0.68
177	17:42:29.0	−29:03:53	359.879	−0.085	−23.5	21.0	6.19	−34.0	2.07	−13.0	mar	84	1.40	8302 8302 8501		17426−2907	3.78
178	17:42:30.0	−28:59:44	359.940	−0.052	53.0	36.0	0.60	35.0	0.47	71.0	mar	84	1.36	8501 8501	OH359.94−0.05	17424−2859	0.41
179	17:42:30.0	−28:59:16	359.946	−0.048	−27.0	40.0	0.36	−47.0	0.36	−7.0	mar	84	1.40	8501 8501	OH359.946−0.048	17424−2859	0.13
180	17:42:31.0	−29:00:28	359.931	−0.061	−94.5	39.0	0.57	−114.0	0.48	−75.0	mar	84	1.40	8501 8501	OH359.931−0.062	17424−2859	1.18
181	17:42:35.0	−29:00:37	359.937	−0.075	−82.5	25.0	3.96	−95.0	4.72	−70.0	mar	84	1.40	8501 8501 8133 8701	OH359.937−0.075	17424−2859	1.76
182	17:42:38.0	−28:04:16	0.741	0.409	−30.0	8.0	3.10	−34.0	4.70	−26.0	may	79	2.90	8302 8302 8133 8701		17426−2804	0.21
183	17:42:38.0	−28:57:40	359.984	−0.059	13.5	39.0	1.23	−6.0	0.98	33.0	mar	84	1.40	8501 8501	OH359.984−0.059	17424−2859	2.50
184	17:42:39.0	−28:52:28	0.060	−0.016	−3.5	39.0	0.12	−23.0	0.46	16.0	mar	84	1.40	8501 8501		17424−2852	2.36
185	17:42:40.0	−28:46:56	0.140	0.029	24.5	47.0	0.36	1.0	0.77	48.0	mar	84	1.40	8501 8501 8607		17430−2844	5.29
186	17:42:41.0	−28:43:40	0.188	0.055	10.5	39.0	0.58	−9.0	0.33	30.0	mar	84	1.40	8501 8501 8607		17430−2844	4.23
187	17:42:43.0	−28:58:52	359.977	−0.085	12.0	32.0	0.58	−4.0	0.44	28.0	mar	84	1.40	8501 8501		17424−2859	3.00
188	17:42:44.7	−28:43:56	0.192	0.041	158.5	27.0	2.61	145.0	2.86	172.0	mar	84	1.40	8302 8302 8102 8105 8133 8203 8301 8501 8506 8607 8701	OH0.19+0.04A	17430−2844	3.40
189	17:42:45.0	−28:54:44	0.039	−0.055	71.5	41.0	0.36	51.0	0.44	92.0	mar	84	1.40	8501 8501 8607		17428−2854	1.16
190	17:42:49.0	−28:29:57	0.398	0.150	140.0	30.0	0.50	125.0	0.50	155.0	oct	76	2.90	8302 8302 7901 8102 8133 8701	OH0.4+0.1	17427−2833	3.23
191	17:42:50.0	−29:00:16	359.970	−0.119	−8.0	38.0	0.40	−27.0	0.22	11.0	mar	84	1.40	8501 8501 7901 8302 8901		17429−2903	3.06
192	17:42:57.0	−28:51:08	0.113	−0.060	88.0	34.0	0.55	71.0	0.40	105.0	mar	84	1.40	8501 8501		17430−2851	1.10
193	17:42:59.0	−28:59:44	359.995	−0.142	−33.0	34.0	0.19	−50.0	0.09	−16.0	mar	84	1.40	8501 8501	OH0.0−0.1	17430−2900	1.55
194	17:43:04.0	−28:54:36	0.077	−0.113	51.0	28.0	0.40	37.0	0.21	65.0	mar	84	1.40	8501 8501 8607		17432−2855	2.68
195	17:43:05.0	−28:47:36	0.179	−0.054	−36.0	34.0	0.21	−53.0	0.74	−19.0	mar	84	1.40	8501 8501		17431−2846	0.88
196	17:43:22.6	−28:40:02	0.320	−0.043	75.5	35.0	1.50	58.0	4.40	93.0	aug	77	1.20	8105 7901 8102 8133 8302 8701		17433−2841	1.24
197	17:43:23.0	−29:20:53	359.741	−0.401	185.0	34.0	0.40	168.0	0.70	202.0	oct	76	2.90	8302 8302		17433−2921	1.13
198	17:43:24.0	−28:57:51	0.070	−0.203	113.5	27.0	1.20	100.0	1.89	127.0	mar	84	1.40	8501 8501 7901 8102 8133 8302 8607 8701		17434−2858	1.04

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
199	17:43:26.0	-29:19:01	359.773	-0.394	208.0	26.0	0.90	195.0	0.50	221.0	oct 76	2.90	8302 8302		17433-2918	0.93
200	17:43:27.0	-28:28:01	0.499	0.048	166.5	31.0	0.60	151.0	0.80	182.0	oct 76	2.90	8302 8302 8133 8701		17433-2828	1.99
201	17:43:35.0	-27:48:47	1.071	0.366	-125.5	35.0	0.80	-143.0	1.30	-108.0	aug 77	1.20	7901 7901 8102 8133 8506 8701	OH1.1+0.4	17435-2748	0.13
202	17:43:41.3	-28:07:54	0.812	0.179	72.5	33.0	0.60	56.0	1.70	89.0	jun 78	2.90	8302 8302	OH0.8+0.2	17436-2807	0.04
203	17:43:51.0	-29:40:07	359.521	-0.655	-46.5	21.0	0.40	-57.0	0.50	-36.0	jun 78	2.90	8302 8302		17438-2940	0.66
204	17:43:53.6	-27:12:20	1.625	0.625	-85.5	43.0	0.60	-107.0	0.50	-64.0	jun 79	2.90	8701 8701 8133		17439-2712	0.44
205	17:43:56.6	-28:43:39	0.333	-0.180	-341.5	29.0	3.20	-356.0	3.40	-327.0	mar 76	0.90	8602 8302 7503 7612 7818 7901 8102 8105 8305 8413 8415 8506 8510	OH0.3-0.2	17439-2845	1.63
206	17:44:10.9	-28:36:11	0.467	-0.160	140.5	23.0	1.80	129.0	2.20	152.0	jun 78	2.90	8302 8302 8102 8133 8506 8701	OH0.5-0.2	17443-2839	4.40
207	17:44:14.0	-28:35:31	0.482	-0.164	-47.0	34.0	1.10	-64.0	0.80	-30.0	aug 77	1.20	7901 7901 8102 8701	OH0.5-0.1	17443-2839	4.69
208	17:44:27.1	-27:43:16	1.250	0.250	3.5	31.0	0.70	-12.0	0.80	19.0	oct 76	2.90	8701 8701 8133		17445-2744	1.75
209	17:45:48.8	-29:22:04	0.000	-0.863	45.0	26.0	0.40	32.0	0.60	58.0	nov 77	2.90	8701 8701 8133		17456-2920	2.72
210	17:45:50.0	-30:06:26	359.370	-1.251	-218.5	31.0	4.40	-234.0	5.30	-203.0	aug 77	1.20	7901 7901 8102 8510	OH359.4-1.3	17458-3004	2.29
211	17:46:09.9	-30:52:34	358.750	-1.711	6.5	27.0	2.10	-7.0	2.50	20.0	dec 77	2.90	8701 8701 8133		17464-3053	3.56
212	17:46:12.0	-27:41:01	1.483	-0.061	-127.5	27.0	3.00	-141.0	4.10	-114.0	aug 77	1.20	8413 7901 8102 8108 8133 8201 8301 8415 8506 8510 8701	OH1.48-0.06	17461-2741	0.13
213	17:46:29.2	-28:43:51	0.621	-0.658	-48.0	32.0	1.20	-64.0	1.20	-32.0	jun 79	2.90	8701 8701 8133		17464-2843	0.14
214	17:46:36.0	-28:53:00	0.503	-0.758	142.0	24.0	0.90	130.0	1.40	154.0	aug 77	1.20	7901 7901 8020	OH0.5-0.8	17466-2856	3.75
215	17:46:53.0	-27:24:10	1.802	-0.045	119.5	29.0	0.80	105.0	4.20	134.0	aug 77	1.20	7901 7901 8102 8133 8506 8701		17466-2727	4.36
216	17:47:24.0	-26:39:00	2.506	0.246	-78.5	15.0	0.40	-86.0	0.50	-71.0	aug 77	1.20	7901 7901 8102 8133 8701	OH2.5+0.3	17474-2637	1.39
217	17:47:26.7	-25:47:12	3.250	0.684	-60.5	21.0	0.40	-71.0	0.60	-50.0	jun 79	2.90	8701 8701 8133		17473-2549	2.59
218	17:47:59.5	-30:32:49	359.235	-1.877	-16.5	27.0	1.60	-30.0	1.60	-3.0	dec 77	2.90	8701 8701 8133		17479-3032	0.19
219	17:48:14.7	-25:01:12	4.000	0.925	73.5	29.0	1.10	59.0	0.40	88.0	jun 78	2.90	8701 8701 8133 8506		17482-2501	0.61
220	17:48:16.8	-28:24:52	1.095	-0.832	10.5	39.0	25.40	-9.0	30.50	30.0	aug 77	1.20	8413 7901 8102 8133 8506 8579 8619 8701	OH1.1-0.8	17482-2824	0.04
221	17:48:26.1	-23:50:46	5.029	1.493	121.0	28.0	5.00	107.0	4.00	135.0	aug 77	1.20	8105 7901 7425 7621 7818 7926 8102 8133 8301 8701	OH5.0+1.5	17484-2350	0.44
222	17:48:28.0	-08:00:42	18.753	9.519	-15.0		2.50	-15.0			may 78	0.70	8003 8003 7015 7111 7202 7313 7638 7707 7926 8132	IRC-10381	17484-0800	0.38
223	17:48:53.8	-17:41:48	10.372	4.553	-56.5	27.0	1.40	-70.0	1.80	-43.0	aug 77	1.21	8307 7902 8101		17488-1741	0.16
224	17:50:03.0	-26:08:20	3.250	0.001	-41.0	32.0	1.20	-57.0	1.50	-25.0	aug 77	1.20	7901 7901 7926 8102 8133 8701	OH3.3+0.0	17497-2608	4.39
225	17:50:11.2	-26:50:01	2.669	-0.382	-4.0	46.0	6.10	-27.0	7.20	19.0	aug 77	1.20	8413 7901 7218 7431 7729 7818 7926 8102 8105 8133 8201 8203 8301 8505 8506 8701 8901	OH2.6-0.5 CRL 2019	17500-2647	3.20
226	17:51:06.0	-26:17:00	3.246	-0.275	-82.5	27.0	1.60	-96.0	1.70	-69.0	aug 77	1.20	7901 7901 8102 8133 8701	OH3.3-0.3	17511-2616	0.78
227	17:51:36.0	-25:33:00	3.934	0.002	-15.0	32.0	1.20	-31.0	1.10	1.0	aug 77	1.20	7901 7901 8102 8133 8309 8701	OH3.9+0.0	17516-2532	0.36
228	17:52:36.0	-25:09:00	4.393	0.012	-1.0	34.0	3.20	-18.0	1.20	16.0	aug 77	1.20	7901 7901 8102 8133 8701	OH4.4+0.0	17526-2508	0.46
229	17:52:53.3	-15:03:17	13.144	5.065	-67.5	29.0	7.70	-82.0	2.30	-53.0	aug 77	1.21	8602 7902 8101 8307 8505 8510 8901	OH13.1+5.0	17528-1503	0.08
230	17:53:42.0	-25:45:00	4.002	-0.507	-1.5	23.0	0.80	-13.0	0.40	10.0	aug 77	1.20	7901 7901 8102	OH4.0-0.5	17536-2548	3.17
231	17:54:02.3	-27:53:59	2.186	-1.660	-73.0	36.0	4.20	-91.0	6.70	-55.0	aug 77	1.20	8413 7901 8102	OH2.2-1.7	17540-2753	0.56
232	17:54:06.0	-19:19:54	9.587	2.661	60.2	7.6	0.55	56.4	0.18	64.0	feb 75	0.37	7904 7904 7926 8311	VV SGR IRC-20403	17540-1919	0.14
233	17:54:25.7	-25:42:14	4.125	-0.625	-66.0	36.0	0.40	-84.0	0.30	-48.0	jun 79	2.90	8701 8701 8133		17544-2543	1.57
234	17:54:32.0	-25:12:42	4.562	-0.397	-122.0	44.0	1.30	-144.0	1.90	-100.0	aug 77	1.20	7901 7901 8102 8133 8506 8701	OH4.5-0.4	17545-2512	0.04
235	17:55:05.0	-21:20:52	7.961	1.445	-21.5	25.0	4.20	-34.0	6.60	-9.0	aug 77	1.20	8413 7901 7425 7818 8102 8105	OH8.0+1.4	17550-2120	0.19
236	17:55:18.0	-23:39:00	5.998	0.241	100.0	12.0	1.80	94.0	1.30	106.0	aug 77	1.20	7901 7901 8102 8133 8701	OH6.0+0.3	17552-2339	0.92
237	17:57:26.7	-24:03:56	5.885	-0.392	-4.0	34.0	34.70	-21.0	1.50	13.0	aug 77	1.20	8413 7901 6932 7012 7207 7316 7643 7718 7925 8020 8102 8105 8109 8130 8133 8203 8301 8305 8305 8309 8629 8701	W28(A2)	17574-2403	0.39
238	17:57:48.0	-23:24:00	6.502	-0.129	103.5	21.0	0.70	93.0	1.20	114.0	aug 77	1.20	7901 7901 8102 8133 8701	OH6.5-0.1	17579-2324	2.47
239	17:59:46.3	-22:29:37	7.514	-0.070	16.5	43.0	0.50	-5.0	0.60	38.0	feb 75	2.90	8701 8701 8133		17598-2227	1.93
240	18:00:57.5	-24:07:31	6.233	-1.117	44.0	40.0	0.90	24.0	4.00	64.0	jun 79	2.90	8701 8701 8133		18009-2407	0.38
241	18:00:58.0	-20:19:12	9.539	0.768	14.5	23.0	0.80	3.0	1.70	26.0	feb 78	0.73	8003 8003 7111 7211 7313 7601 7707 7719 7732 7926 8528 8901	IRC-20424	18009-2019	0.07

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TABLE I (*continued*).

#	α	δ	l	b	v	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
242	18:01:06.0	-18:47:00	10.889	1.502	129.0	32.0	1.10	113.0	0.40	145.0	aug 77	1.21	7902 7902 8101 8506		18011-1847	0.35
243	18:02:10.0	-20:22:30	9.630	0.497	-61.5	31.0	1.30	-77.0	2.80	-46.0	aug 77	1.20	7901 7901 8102 8133 8506 8701		18021-2022	0.02
244	18:02:18.8	-23:51:02	6.625	-1.250	-4.0	22.0	0.50	-15.0	0.30	7.0	jun 79	2.90	8701 8701 8133		18025-2354	4.76
245	18:02:53.3	-23:12:25	7.250	-1.047	15.5	19.0	0.60	6.0	0.40	25.0	jun 79	2.90	8701 8701 8133		18027-2314	2.67
246	18:02:57.0	-19:54:38	10.125	0.566	-73.5	21.0	0.50	-84.0	0.70	-63.0	jun 78	2.90	8701 8701 8133		18029-1954	0.49
247	18:03:09.0	-21:14:02	8.997	-0.127	-49.5	33.0	0.70	-66.0	1.30	-33.0	aug 77	1.20	7901 7901 8102 8133 8506 8701	OH9.0-0.1	18031-2114	0.96
248	18:03:28.5	-20:50:31	9.375	0.000	45.0	36.0	0.30	27.0	0.30	63.0	feb 75	2.90	8701 8701 8133		18036-2049	2.51
249	18:05:00.0	-20:28:00	9.877	-0.126	95.5	33.0	1.90	79.0	0.80	112.0	aug 77	1.20	7901 7901 8102 8133 8701	OH9.9-0.1	18050-2028	0.16
250	18:05:03.0	-22:13:55	8.344	-1.002	2.8	39.5	16.00	-17.0	17.50	22.5	jul 70	1.86	7104 7104 7024 7111 7129 7201 7207 7208 7217 7313 7331 7403 7428 7435 7442 7447 7519 7520 7525 7541 7707 7724 7732 7817 7926 7928 8105 8106 8107 8119 8124 8126 8127 8131 8133 8216 8217 8221 8301 8312 8323 8410 8416 8420 8425 8507 8512 8518 8528 8606 8613 8614 8618 8622 8625 8701 8901	VX SGR IRC-20431	18050-2213	0.14
251	18:05:18.2	-20:16:46	10.075	-0.097	51.5	57.0	0.70	23.0	2.70	80.0	aug 77	1.20	8203 7901 8102 8105 8133 8301 8603 8701	OH10.0-0.1	18052-2016	0.11
252	18:05:40.0	-19:55:25	10.427	0.003	61.0	36.0	0.60	43.0	0.80	79.0	aug 77	1.20	8105 7901 8102 8133 8203 8603 8701	OH10.4+0.0	18056-1954	1.04
253	18:06:26.4	-20:20:06	10.157	-0.356	53.1		1.00	53.1			aug 69	0.76	8105 7030 7216 8508	OH10.20-0.3	18064-2020	0.14
254	18:07:06.0	-19:19:00	11.122	0.005	-21.5	27.0	0.90	-35.0	1.10	-8.0	aug 77	1.20	7901 7901 8102	OH11.1+0.0	18068-1917A	3.23
255	18:07:18.3	-17:16:47	12.924	0.956	78.0	20.0	0.60	68.0	0.80	88.0	jun 78	2.90	8701 8701 8133		18073-1717	0.94
256	18:07:22.0	-17:26:00	12.797	0.868	27.0	22.0	5.00	16.0	5.00	38.0	jun 76	2.40	7801 7801 7818 8101 8133 8510 8701	OH12.8+0.9	18071-1727	2.90
257	18:07:42.0	-18:53:38	11.560	0.088	42.0	44.0	4.20	20.0	25.00	64.0	aug 77	1.20	8602 7901 8101 8102 8105 8133 8203 8307 8413 8510 8701	OH11.5+0.1	18076-1853	0.07
258	18:07:43.8	-19:07:28	11.362	-0.031	81.0	34.0	2.10	64.0	2.90	98.0	aug 77	1.20	8105 7901 8102 8133 8701		18077-1906	0.99
259	18:07:57.2	-18:11:45	12.199	0.375	47.5	17.0	0.50	39.0	0.90	56.0	nov 77	2.90	8701 8701 8133		18079-1810	0.94
260	18:08:06.0	-19:09:00	11.382	-0.120	105.0	36.0	0.50	87.0	0.40	123.0	aug 77	1.20	7926 7926 7901 8102	OH11.4-0.1	18082-1907	2.71
261	18:08:26.0	-26:30:15	4.984	-3.754	25.4	36.4	0.80	7.2	2.10	43.6	jul 76	0.73	8463 7729	CRL2086 OH5.0-3.8	18083-2630	1.63
262	18:08:42.0	-14:40:43	15.361	1.927	12.5	29.0	3.00	-2.0	3.00	27.0	jun 76	2.40	7801 7801 7818 8101	OH15.4+1.9	18087-1440	0.30
263	18:09:06.6	-16:55:41	13.441	0.750	-3.0	34.0	0.90	-20.0	0.70	14.0	aug 77	1.21	8701 8701 7902 8101 8133	OH13.4+0.8	18091-1656	0.83
264	18:09:12.0	-18:14:37	12.301	0.093	44.5	67.0	4.00	11.0	0.60	36.0	jun 76	2.40	8701 7801 8133 8510	OH12.3+0.1	18091-1815	1.21
265	18:09:21.5	-17:45:04	12.750	0.299	138.5	27.0	0.90	125.0	1.20	152.0	may 78	2.90	8701 8701 8133		18092-1742	2.54
266	18:09:23.0	-17:43:48	12.771	0.304	169.0		1.30	169.0			aug 77	1.21	7902 7902 8506		18092-1742	1.81
267	18:09:25.0	-10:00:53	19.535	4.027	46.0	32.0	1.60	30.0	2.00	62.0	aug 77	1.21	8307 7902 8101	OH19.5+4.0	18093-1000	0.95
268	18:09:50.7	-18:14:38	12.375	-0.041	64.5	27.0	1.30	51.0	0.80	78.0	dec 77	2.90	8701 8701 8133		18098-1814	0.56
269	18:10:08.0	-19:16:55	11.500	-0.603	18.0	26.0	1.00	5.0	1.50	31.0	may 79	2.90	8701 8701 8133		18100-1915	1.83
270	18:10:15.0	-18:25:30	12.263	-0.213	36.5	27.0	3.00	23.0	5.00	50.0	jun 76	2.40	7801 7801 7818 8101 8133 8407 8510 8701	OH12.3-0.2A	18102-1828	3.22
271	18:10:37.8	-19:37:55	11.250	-0.875	16.5	17.0	0.80	8.0	1.00	25.0	may 79	2.90	8701 8701 8133		18105-1935	2.12
272	18:11:35.6	-17:45:34	13.000	-0.171	-29.0	34.0	1.00	-46.0	0.80	-12.0	dec 77	2.90	8701 8701 8133		18116-1746	1.26
273	18:11:47.3	-15:54:35	14.643	0.680	146.0	32.0	0.70	130.0	0.50	162.0	may 79	2.90	8701 8701 8133		18117-1555	1.53
274	18:12:06.0	-14:21:00	16.046	1.365	47.5	35.0	0.70	30.0	1.20	65.0	aug 77	1.21	7902 7902 7901 8101	OH16.1+1.4	18120-1417	3.92
275	18:12:38.2	-16:25:57	14.283	0.250	99.5	31.0	0.70	84.0	0.50	115.0	nov 77	2.90	8701 8701 8133		18126-1629	3.59
276	18:13:06.1	-17:31:45	13.375	-0.375	47.5	41.0	0.70	27.0	0.40	68.0	dec 77	2.90	8701 8701 8133		18130-1731	1.30
277	18:13:26.7	-14:56:34	15.683	0.795	-1.0	28.0	22.00	-15.0	13.00	13.0	jun 76	2.40	8413 7801 7818 8009 8101 8415 8505 8510 8603 8629 8901	OH15.7+0.8	18135-1456	1.88
278	18:13:39.0	-16:23:32	14.435	0.056	60.0	44.0	1.60	38.0	1.10	82.0	may 78	2.90	8701 8701 8133		18133-1626	4.87
279	18:13:53.3	-18:16:07	12.816	-0.894	-56.0	22.0	5.10	-67.0	1.40	-45.0	aug 77	1.21	8307 7902 8101 8133 8506 8603 8701	OH12.8-0.9	18139-1816	0.44
280	18:14:02.8	-16:01:21	14.805	0.150	121.0	24.0	1.00	109.0	0.60	133.0	may 79	2.90	8701 8701 8133 8506		18142-1600	2.56
281	18:14:05.5	-16:18:56	14.553	0.000	34.0	32.0	0.70	18.0	1.10	50.0	may 78	2.90	8701 8701 8133		18141-1615	3.25
282	18:14:24.0	-09:55:00	20.210	2.997	32.0		0.40	32.0			aug 77	1.21	7902 7902	OH20.2+3.0		
283	18:15:12.0	-09:22:00	20.788	3.085	27.0	28.0	2.80	13.0	3.90	41.0	aug 77	1.21	7902 7902 8101		18152-0919	2.27
284	18:16:01.7	-15:35:56	15.405	-0.066	-28.0	30.0	1.20	-43.0	2.10	-13.0	aug 77	1.21	8307 7902 8101		18160-1535	0.05

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
285	18:16:47.4	−12:09:27	18.518	1.413	176.0	20.0	6.00	166.0	6.00	186.0	jun 76	2.40	8502 7801 7818 7902 8101 8413 8415 8503 8506 8510	OH18.5+1.4	18167−1209	0.34
286	18:16:52.6	−11:54:17	18.751	1.515	−1.0	32.0	1.70	−17.0	0.90	15.0	aug 77	1.21	8307 7902 8101	OH18.7+1.6	18168−1154	0.26
287	18:17:41.5	−18:48:33	12.771	−1.944	12.5	39.0	5.50	−7.0	3.60	32.0	aug 77	1.21	8602 7902 8101 8204 8415 8510	OH12.8−1.9	18176−1848	0.29
288	18:18:15.2	−15:04:48	16.117	−0.290	22.5	41.0	9.00	2.0	12.00	43.0	jun 76	2.40	8602 7801 7818 8101 8307 8413 8510	OH16.1−0.3	18182−1504	0.25
289	18:19:00.7	−14:01:29	17.133	0.049	51.0	32.0	2.80	35.0	2.50	67.0	aug 77	1.21	8307 7902 8101	OH17.0−0.1	18192−1402	2.88
290	18:19:15.0	−12:55:12	18.133	0.522	125.8	24.3	2.50	113.7	2.70	138.0	jul 74	0.19	7717 7717 7818 8101 8506	OH18.2+0.5	18191−1256	2.41
291	18:19:36.0	−13:31:46	17.637	0.158	31.0	18.0	0.30	22.0	0.30	40.0	jul 76	0.73	7729 7729 7926	CRL2136 OH17.6+0.2	18196−1331	0.30
292	18:19:54.2	−12:49:14	18.296	0.429	48.0	30.6	7.40	32.7	8.00	63.3	aug 72	0.19	8602 7327 7507 7512 7717 7818 8101 8105 8201 8203 8301 8307 8413 8510	OH18.3+0.4	18198−1249	0.21
293	18:20:00.0	−14:04:00	17.209	−0.182	−100.0		1.20	−100.0			aug 77	1.21	7902 7902 8605	OH17.2−0.2	18198−1408	4.40
294	18:20:28.0	−13:44:06	17.555	−0.124	6.4	16.1	1.80	−1.6	2.10	11.7	may 74	0.29	7713 7713 7202 7926 8122 8438 8507 8518 8618 8901	IRC−10414 GL2139 FR SCT	18204−1344	0.35
295	18:20:30.0	−10:30:00	20.410	1.399	38.5	35.0	0.60	21.0	1.00	56.0	aug 76	1.21	7902 7902 8101	OH20.4+1.4	18207−1029	3.14
296	18:20:44.7	−13:57:20	17.393	−0.288	29.5	33.0	4.00	13.0	3.00	46.0	jun 76	2.40	8307 7801 7818 8101 8510	OH17.4−0.3	18211−1357	5.31
297	18:21:00.0	−12:58:00	18.294	0.125	51.0	26.0	0.30	38.0	0.30	64.0	aug 77	1.21	7902 7902 8101	OH18.3+0.1	18209−1259	1.75
298	18:21:02.0	−12:52:19	18.381	0.162	14.4	5.5	6.50	11.6	3.90	17.1	dec 72	0.19	8413 7717 7621 8105 8307	OH18.3+0.1A	18211−1251	1.52
299	18:21:16.9	−12:27:51	18.769	0.302	12.9	29.3	24.00	−1.8	16.50	27.5	jan 75	0.48	8413 7725 7030 7111 7202 7207 7216 7313 7314 7405 7418 7724 7818 8101 8106 8307 8511	OH18.77+0.4 OH1821−12	18212−1227	0.22
300	18:23:06.0	−14:29:00	17.197	−1.040	171.5	25.0	1.10	159.0	1.70	184.0	aug 77	1.21	7902 7902 8101 8506	OH17.2−1.1	18230−1427	1.78
301	18:23:24.6	−14:44:12	17.009	−1.226	2.5	21.0	1.70	−8.0	1.00	13.0	aug 77	1.21	8307 7902 8101	OH17.1−1.2	18234−1444A	0.10
302	18:24:40.6	−10:32:30	20.857	0.474	27.5	55.0	0.90	55.0	0.80	0.0	jan 73	1.86	8105 7512 7717 8309	OH20.8+0.5	18246−1032	0.73
303	18:25:09.9	−10:48:54	20.672	0.239	91.0	40.0	1.40	71.0	1.80	111.0	aug 77	1.21	8307 7902 8101 8603	OH20.6+0.3	18251−1048	0.09
304	18:25:26.7	−11:18:06	20.274	−0.050	26.8	32.5	6.50	10.5	6.00	43.0	jul 74	0.19	8413 7717 7512 7621 7818 7926 8003 8101 8105	OH20.2−0.1	18254−1118	0.02
305	18:25:44.3	−10:52:50	20.679	0.084	136.3	36.4	12.70	118.1	6.00	154.5	sep 73	0.19	8502 7717 7512 7621 7818 7926 8009 8101 8105 8201 8203 8301 8413 8415 8503 8506 8510 8581 8629	OH20.7+0.1	18257−1052	0.06
306	18:25:45.5	−10:00:12	21.457	0.491	116.1	38.1	8.00	97.0	11.50	135.1	aug 72	0.19	8502 7327 7507 7512 7630 7717 7730 7818 7926 8008 8101 8301 8308 8325 8415 8503 8505 8506 8510 8581 8901	OH21.3+0.4	18257−1000	0.62
307	18:26:39.6	−12:39:44	19.211	−0.950	49.7	34.6	6.00	32.4	15.30	57.8	aug 72	0.19	8105 7327 7507 7512 7621 7630 7717 7818 7926 8201 8301 8325 8505 8605 8901	OH19.1−1.0	18266−1239	0.28
308	18:26:48.0	−09:40:00	21.874	0.422	86.0	36.0	1.40	68.0	0.80	104.0	aug 77	1.21	7902 7902 8101	OH21.9+0.4	18267−0941	2.05
309	18:26:48.5	−11:17:56	20.433	−0.344	41.9	34.7	3.40	24.5	5.80	59.2	jul 74	0.19	8413 7717 7512 7818 8101 8105 8201 8301	OH20.4−0.3	18268−1117	0.04
310	18:27:25.1	−07:39:06	23.727	1.230	0.3	28.5	5.10	−14.0	5.10	14.5	jul 74	0.19	8105 7717 7512 7621 7818 7926 8101 8201 8301 8325	OH23.7+1.2	18273−0738	0.34
311	18:27:39.8	−14:31:04	17.684	−2.032	61.0	24.0	58.00	49.0	66.00	73.0	jun 76	2.40	8602 7801 7818 8009 8101 8103 8306 8401 8402 8414 8415 8424 8510 8518 8603 8604 8626	OH17.7−2.0	18276−1431	0.03
312	18:28:27.0	−09:47:14	21.958	0.007	129.9	44.1	1.30	107.8	1.00	151.9	jul 76	0.73	7729 7729 7926	CRL2174 OH22.0+0.0	18284−0946	0.35
313	18:28:38.4	−16:10:56	16.319	−3.016	28.5	15.0	2.00	21.0	4.00	36.0	aug 77	1.21	8602 7902	OH16.3−3.0	18286−1610	0.34
314	18:28:54.0	−11:13:00	20.745	−0.759	47.5	31.0	0.40	32.0	0.90	63.0	aug 77	1.21	7902 7902 8101	OH20.8−0.8	18288−1116	3.29
315	18:30:27.2	−07:30:17	24.208	0.633	58.3	30.5	0.90	43.0	2.50	73.5	feb 78	0.73	8307 8003 7111 7202 7313 7707 7902 7926 8101	IRC−10434 OH24.3+0.7	18304−0730	0.13
316	18:30:46.4	−11:59:08	20.279	−1.523	−11.5	25.0	0.60	−24.0	2.60	1.0	jun 76	2.40	8307 7801 7818 8101 8603	OH20.3−1.5	18307−1159	0.07
317	18:30:49.0	−09:09:00	22.794	−0.213	92.7	32.0	1.40	76.7	2.70	108.7	jul 76	0.73	7729 7729 7926	CRL2188 OH22.8−0.3	18308−0911	2.89
318	18:30:49.2	−09:59:56	22.043	−0.609	116.5	26.0	5.20	103.5	6.10	129.5	jul 74	0.19	8413 7717 7512 7818 8101 8105 8307	OH22.1−0.6	18308−1000	0.82
319	18:31:06.5	−08:06:22	23.751	0.209	107.0	21.0	1.30	96.5	8.10	117.5	jul 74	0.19	8413 7717 7512 7818 8101 8105 8201 8301 8307	OH23.8+0.2	18310−0806	1.42
320	18:31:48.0	−08:49:00	23.202	−0.272	35.0	30.0	17.00	20.0	13.00	50.0	feb 76	1.20	7207 7818 6708 6807 6902 7018 7030 7202 7308 7313 7314 7324 7704 8101	OH23.1−0.3 W41	18317−0845	3.26

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
321	18:32:36.8	-07:21:51	24.582	0.224	-72.5	27.0	4.00	-86.0	2.00	-59.0	jun 76	2.40	8307 7801 7818 7902 8101	OH24.5+0.3	18325-0721	0.68
322	18:32:47.0	-07:15:37	24.693	0.235	42.0	40.0	5.00	22.0	3.00	62.0	jun 76	2.40	8307 7801 7818 7902 8101 8511	OH24.7+0.3	18327-0715	0.19
323	18:33:00.0	-08:04:03	24.003	-0.187	108.0	64.0	3.00	76.0	2.00	140.0	jun 76	2.40	7801 7801	OH24.0-0.2	18328-0805	2.42
324	18:33:15.2	-07:21:22	24.662	0.088	56.5	31.0	2.00	41.0	2.00	72.0	jun 76	2.40	8307 7801 7818 8101	OH24.7+0.1B	18331-0717	4.27
325	18:34:02.6	-07:21:15	24.755	-0.085	106.5		6.60	106.5			nov 72	0.19	8105 7717 7512 7901 8101 8506	OH24.7-0.1	18340-0720	0.52
326	18:34:02.7	-06:29:58	25.512	0.311	39.0	32.0	2.00	23.0	2.20	55.0	aug 77	1.21	8307 7902 8101	OH25.5+0.4	18340-0629	0.04
327	18:34:18.9	-06:56:01	25.159	0.050	73.2		4.80	73.2			dec 72	0.19	8105 7717 7512	OH25.2+0.1	18342-0655	0.72
328	18:34:29.0	-08:50:55	23.481	-0.874	42.0	16.0	0.30	34.0	1.30	50.0	jun 76	2.40	7801 7801	OH23.5-0.9	18344-0850	0.86
329	18:34:52.5	-05:26:37	26.543	0.618	27.1	27.7	210.00	13.2	450.00	40.9	sep 73	0.19	8502 7414 7510 7512 7611 7621 7630 7634 7717 7725 7729 7730 7818 7926 8003 8008 8023 8101 8103 8104 8105 8106 8124 8125 8204 8220 8301	OH26.5+0.6 CRL2205	18348-0526	0.06
330	18:34:59.0	+10:23:00	40.677	7.835	-21.5	51.0	1.40	-47.0	0.90	4.0	sep 70	0.58	7202 7202 7111 7313 7428 7638 7707 7713 7807 7926 8124 8126 8132 8407 8528	IRC+10365 V1111 OPH	18349+1023	0.31
331	18:35:33.4	-07:12:34	25.057	-0.350	142.7	24.7	9.70	130.3	5.50	156.0	jul 74	0.19	8502 7717 7512 7818 8009 8101 8103 8105 8306 8415 8503 8506 8510	OH25.1-0.3	18355-0712	0.05
332	18:35:55.9	-08:43:59	23.749	-1.138	48.3	28.5	1.60	34.0	6.80	62.5	jul 74	0.19	8307 7717 7818 8101 8505 8901	OH23.8-1.1	18359-0843	0.11
333	18:35:58.3	-05:51:51	26.297	0.181	-26.0	26.0	1.60	-39.0	2.50	-13.0	aug 77	1.21	8307 7902 8101 8505 8603 8901	OH26.3+0.1	18359-0551	0.20
334	18:36:09.0	-06:47:32	25.495	-0.288	36.8	34.5	5.50	19.5	3.80	54.0	aug 74	0.19	8307 7717 7818 8101	OH25.5-0.3	18361-0647	0.08
335	18:37:35.0	-05:45:48	26.572	-0.128	-41.5	29.0	0.50	-56.0	3.50	-27.0	may 78	0.73	8003 8003 7111 7202 7313 7638 7707 7926	IRC-10450	18375-0544	0.98
336	18:37:36.0	-05:05:28	27.170	0.179	92.5	39.0	1.00	73.0	2.00	112.0	jun 76	2.40	7801 7801 7818 7902 8101 8506	OH27.2+0.2	18376-0505	0.19
337	18:37:42.0	-05:00:36	27.253	0.195	50.3	25.5	30.00	37.5	10.00	63.0	oct 70	0.58	7202 7202 7207 7313 7314 7418 7529 7531 7724 7725 7818 8101 8510 8511 8629	OH1837-05 OH27.3+0.2	18376-0500	0.53
338	18:38:12.0	-10:39:00	22.306	-2.519	112.5	27.0	0.90	99.0	0.80	126.0	aug 77	1.21	7902 7902	OH22.3-2.5	18382-1041	2.56
339	18:38:33.4	-06:17:53	26.210	-0.589	71.3	42.7	23.00	50.0	14.00	92.7	sep 73	0.19	8413 7717 7512 7621 7818 7926 8101 8105 8201 8203 8301 8325 8415 8505 8510 8511 8603 8629 8901	OH26.2-0.6	18385-0617	0.48
340	18:39:22.0	-05:24:03	27.099	-0.354	101.9	28.8	3.30	87.5	6.00	116.3	jun 74	0.19	8413 7717 7512 7818 8101 8105 8201 8301 8503 8506	OH27.0-0.4	18391-0524	2.82
341	18:39:48.0	-08:11:00	24.679	-1.733	92.0	26.0	1.30	79.0	1.30	105.0	aug 77	1.21	7902 7902 8101	OH24.7-1.7	18395-0810	3.55
342	18:40:22.0	-04:11:24	28.288	-0.016	45.5		5.80	45.5			jul 74	0.19	7717 7717	OH28.3-0.0	18405-0410	2.47
343	18:40:47.5	-03:58:57	28.521	-0.014	107.6	26.8	7.50	94.2	7.00	121.0	jul 74	0.19	8502 7717 7512 7818 8009 8101 8105 8201 8301 8413 8415 8503 8506 8510 8605	OH28.5-0.0	18407-0358	0.07
344	18:42:02.4	-05:12:17	27.579	-0.854	106.8	27.5	4.50	93.0	4.40	120.5	jul 74	0.19	8105 7327 7512 7818 8101 8201 8301 8503 8506	OH27.5-0.9	18420-0512	0.25
345	18:43:11.2	-04:04:04	28.720	-0.584	46.8	34.5	8.30	29.5	5.90	64.0	jul 74	0.19	8105 7717 7512 7621 7818 7926 8101 8201 8301 8325 8415 8505 8510 8511 8603 8605 8901		18431-0403	0.36
346	18:43:16.6	-01:49:56	30.715	0.426	66.5	35.0	16.00	49.0	10.00	84.0	nov 72	0.19	8602 7717 7425 7512 7621 7818 7926 8003 8009 8101 8105 8201 8301 8325 8412 8415 8510 8511 8605	OH30.7+0.4	18432-0149	0.05
347	18:43:39.0	+43:34:54	72.842	19.406	-21.0	14.4	0.75	-28.2	0.63	-13.8	feb 75	0.37	7139 7904 7331 7926 8003 8407 8901	RW LYR IRC+40328	18436+4334	0.08
348	18:43:45.3	-06:43:49	26.421	-1.934	27.9	24.2	9.00	15.8	14.00	40.0	sep 73	0.19	8413 7717 7512 7621 7926 8009 8101 8105 8125	OH26.4-1.9	18437-0643	0.18
349	18:44:12.0	-00:23:24	32.101	0.886	137.4	24.2	2.30	125.3	2.40	149.5	jul 74	0.19	7717 7717 7818 7902 8101 8506	OH32.1+0.9	18440-0020	3.44
350	18:44:24.0	-01:45:00	30.917	0.215	72.0	4.0	5.00	70.0	2.00	74.0	jul 73	0.74	7425 7425 8301	OH30.9+0.2	18443-0147	2.10
351	18:44:33.0	-02:38:55	30.137	-0.232	50.4	34.6	12.00	33.1	10.50	67.7	aug 72	0.19	8602 7327 7510 7512 7630 7634 7717 7730 7818 7926 8008 8009 8101 8105 8301 8325 8412 8415 8505 8510 8603 8605 8901	OH30.1-0.2	18445-0238	0.17
352	18:44:52.0	-05:18:36	27.810	-1.527	85.2	29.7	1.60	70.3	2.50	100.0	jun 74	0.19	7717 7717 7818 8101 8506	OH27.8-1.5	18449-0514	4.35
353	18:45:05.0	-01:48:18	30.947	0.038	34.0	14.0	19.00	27.0	55.00	41.0	oct 70	0.29	7202 7202 7111 7207 7313 7314 7403 7405 7418 7510 7634 7711 7718 7724 7725 7818 8101 8109 8111 8510 8604	W43A OH31.0+0.0	18450-0148	0.30
354	18:45:12.2	-03:32:53	29.413	-0.791	124.2	20.3	7.20	114.0	4.00	134.3	jun 74	0.19	8413 7717 7512 7818 8101 8105 8201 8301 8503 8506	OH29.4-0.8	18451-0332	0.10
355	18:46:04.9	-02:53:54	30.091	-0.686	99.1	40.3	56.00	78.9	45.00	119.2	aug 72	0.19	8502 7327 7510 7512 7630 7634 7707 7717 7730 7818 7926 8101 8105 8301 8308 8325 8402 8413 8415 8503 8506 8510 8581 8901	OH30.1-0.7	18460-0254	0.43

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
356	18:46:07.2	−01:51:56	31.012	−0.220	126.7	29.8	7.00	111.8	9.30	141.6	aug 72	0.19	8502 7327 7512 7717 7818 8101 8105 8201 8203 8203 8301 8308 8415 8503 8506 8510	OH31.0−0.2	18460−0151	0.38
357	18:46:20.9	−01:43:30	31.164	−0.205	−28.0		10.10	−28.0			aug 72	0.19	8105 7327	OH31.2−0.2	18464−0140	3.47
358	18:46:30.0	−01:20:33	31.521	−0.063	35.2	30.0	3.60	20.2	1.60	50.2	jul 74	0.19	8105 7717 7512 7818 8101 8201 8301	OH31.5−0.1	18465−0120	0.14
359	18:46:42.9	−02:38:14	30.396	−0.707	62.9	7.3	12.50	59.2	12.00	66.5	aug 72	0.19	8105 7327 7512 7630 7717 8309	OH30.4−0.7	18467−0238	0.24
360	18:46:48.0	−07:09:00	26.395	−2.799	−66.0	24.0	0.70	−78.0	1.10	−54.0	aug 77	1.21	7902 7902 8101	OH26.4−2.8	18469−0711	3.31
361	18:48:40.0	+01:53:24	34.640	0.944	28.5	29.0	1.40	14.0	2.70	43.0	sep 73	0.19	7717 7717 7818 7902 8101	OH34.7+0.9	18487+0152	1.19
362	18:48:51.2	−01:07:29	31.985	−0.485	76.1	41.2	6.50	55.5	3.20	96.7	aug 72	1.86	8502 7327 7512 7717 7818 8101 8105 8301 8308 8415 8503 8506 8510 8511 8581	OH32.0−0.5	18488−0107	0.14
363	18:49:25.0	−01:30:31	31.708	−0.787	78.8	25.7	3.80	66.0	6.60	91.7	jun 74	0.19	8105 7717 7512 7621 7818 7926 8101 8201 8301 8325 8412 8505 8603 8605 8901	OH31.7−0.8	18494−0130	0.19
364	18:49:35.0	+02:03:36	34.896	0.818	68.9	30.2	1.20	53.8	1.70	84.0	jul 74	0.19	7717 7717 7818 8101 8506	OH34.9+0.8		
365	18:49:48.2	−00:17:52	32.828	−0.315	60.7	30.8	29.50	45.3	19.50	76.1	aug 72	0.19	8502 7327 7510 7512 7602 7621 7630 7634 7707 7717 7730 7818 7926 8008 8009 8101 8103 8105 8301 8306 8325 8402 8412 8415 8429 8510 8514 8527 8581 8603 8605 8901	OH32.8−0.3	18498−0017	0.04
366	18:49:52.0	+00:20:52	33.408	−0.032	60.5	31.0	1.00	45.0	3.00	76.0	jun 76	2.40	7801 7801 7818 8101	OH33.4−0.0	18497+0022	1.88
367	18:51:30.0	+04:01:00	36.854	1.294	−12.5	15.0	2.70	−20.0	2.80	−5.0	aug 77	1.21	7902 7902 8101 8510	OH36.9+1.3	18512+0402	4.11
368	18:53:36.0	+07:24:00	40.101	2.384	47.5	37.0	1.20	29.0	2.00	66.0	aug 77	1.21	7902 7902 8101	OH40.1+2.4	18535+0726	2.76
369	18:54:09.0	+03:10:48	36.415	0.321	102.5	37.0	5.20	84.0	2.50	121.0	sep 73	0.19	7717 7717 7818 7902 8101 8506	OH36.4+0.3	18540+0302	8.09
370	18:54:56.0	+02:08:14	35.580	−0.333	78.0	28.0	18.00	64.0	14.50	92.0	oct 70	0.29	8602 7202 7021 7030 7111 7207 7313 7314 7405 7418 7724 7818 8101 8510 8511 8629	OH35.6−0.3 OH1854+02	18551+0159	9.02
371	18:55:33.0	+01:44:24	35.298	−0.652	14.0		3.00	14.0			nov 72	0.19	7717 7717	OH35.3−0.7	18556+0139	4.89
372	18:55:40.0	+01:35:57	35.187	−0.743	14.0		3.00	14.0			nov 72	0.19	8105 7717 8020 8309		18556+0136	0.58
373	18:56:03.9	+06:38:49	39.713	1.495	20.0	32.0	20.00	4.0	34.00	36.0	jun 76	2.40	8602 7801 7729 7818 7902 7926 8009 8101 8103 8306 8325 8402 8412 8415 8504 8510 8511 8527 8581 8603 8604 8605 8901	OH39.7+1.5	18560+0638	0.07
374	18:56:32.0	+03:43:12	37.169	0.043	28.0		1.90	28.0			jun 74	0.19	7717 7717	OH37.2+0.0	18567+0343	3.12
375	18:58:11.0	+06:16:48	39.630	0.859	19.8	32.5	1.30	3.5	3.40	36.0	sep 73	0.19	7717 7717 7818 8101	OH39.6+0.9	18584+0616	4.30
376	18:59:36.2	+03:15:53	37.119	−0.847	87.1	28.8	10.00	72.7	15.00	101.5	sep 73	0.19	8502 7717 7512 7634 7818 7902 8009 8101 8105 8308 8505 8506 8510 8604 8901	OH37.1−0.8	18596+0315	0.02
377	19:01:42.9	+06:08:44	39.916	0.018	148.6	29.2	8.00	134.0	11.90	163.2	sep 73	0.19	8602 7717 7512 7634 7818 7902 8009 8101 8103 8105 8301 8306 8325 8415 8503 8505 8506 8510 8511 8581 8605 8901	OH39.9−0.0	19017+0608	0.18
378	19:02:12.0	+00:46:00	35.201	−2.576	51.0	28.0	3.90	37.0	3.60	65.0	aug 77	1.21	7902 7902 8101	OH35.2−2.6	19020+0045	1.96
379	19:02:31.0	+03:33:00	37.708	−1.360	110.9	20.8	2.50	100.5	0.70	121.3	jul 74	0.19	7717 7717 7818 7902 8101 8506	OH37.7−1.4	19026+0336	4.04
380	19:03:57.7	+08:09:07	41.953	0.454	48.6	10.4	4.00	43.4	82.00	53.8	sep 70	0.29	7015 7202 7111 7207 7210 7331 7525 7724 7725 7731 7811 7817 7904 7922 7926 7928 8003 8023 8103 8105 8115 8119 8124 8126 8306 8319 8416	R AQL IRC+10460	19039+0809	0.07
381	19:04:54.0	+10:13:00	43.889	1.207	50.0	32.0	1.00	34.0	0.70	66.0	aug 77	1.21	7902 7902 8101	OH43.9+1.2	19043+1009	8.70
382	19:05:56.0	−22:19:12	14.664	−13.615	21.3	26.5	12.00	8.0	6.00	34.5	oct 70	0.29	7202 7202 7111 7313 7331 7447 7638 7707 7724 7926 8619 8901	IRC−20540 V 2880 SGR	19059−2219	0.33
383	19:06:34.5	+08:32:56	42.604	0.066	53.0	36.0	3.80	35.0	6.00	71.0	sep 73	0.19	8413 7717 7512 7818 7902 8101 8105 8201 8301 8605	OH42.6+0.0	19065+0832	0.08
384	19:06:43.8	+08:11:41	42.309	−0.133	59.5	32.7	5.00	43.1	24.00	75.8	sep 73	0.19	8602 7717 7512 7634 7818 7902 8003 8101 8105 8201 8301 8325 8412 8413 8415 8505 8510 8511 8603 8605 8901	OH42.3−0.1	19067+0811	0.28
385	19:06:51.0	+08:40:55	42.754	0.068	76.0		6.00	76.0			sep 73	0.19	8413 7717	OH42.75+0.07	19066+0838	3.92
386	19:07:09.3	+09:47:02	43.764	0.514	8.6	23.7	3.70	−3.2	3.80	20.5	jun 74	0.19	8105 7717 7512 7818 7902 8101 8603	OH43.8+0.5	19071+0946	0.22
387	19:07:54.0	+09:00:00	43.156	−0.014	25.5	21.0	9.80	15.0	2.00	36.0	aug 77	1.21	7902 7902 6711 6803 6805 6806 6809 6813 6814 6818 6819 6911 6913 6915 6916 6921 6924 6925 6928 6930 6931 7002 7003 7004 7007 7008 7012 7031 7639 7705 7708 7714 7718 7810 8012 8015 8508	W49	19078+0901	1.32

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
388	19:08:13.0	+09:01:00	43.207	-0.075	49.2	26.8	4.60	35.8	4.60	62.6	oct 78	1.00	7902 7902 8015	OH43.2–0.1	19081+0903	2.57
389	19:10:19.0	+09:19:18	43.719	-0.391	71.3	23.5	3.20	59.5	3.20	83.0	sep 73	0.19	7717 7717 7818 7902 8101	OH43.6–0.5	19102+0917	1.94
390	19:10:42.0	+08:14:00	42.801	-0.984	-15.5	25.0	0.80	-28.0	0.70	-3.0	aug 77	1.21	7902 7902	OH42.8–1.0	19108+0815	2.53
391	19:11:58.3	+11:05:20	45.471	0.076	35.3	34.6	8.50	18.0	6.50	52.6	aug 72	0.19	8602 7327 7314 7315 7451 7512 7529 7611 7621 7717 7730 7902 7926 8101 8105 8301 8325 8504 8505 8510 8511 8605 8901	OH45.5+0.0	19120+1103	1.45
392	19:12:50.4	+09:11:48	43.900	-1.000	52.0	26.0	0.90	39.0	0.90	65.0	aug 77	1.21	7902 7902	OH43.9–1.0	19128+0910	1.49
393	19:16:08.0	+23:43:53	57.123	5.118	28.6	35.8	1.40	10.7	1.50	46.5	nov 76	0.23	7923 7923 8504 8619	CRL2362	19161+2343	0.12
394	19:17:18.0	+19:56:06	53.886	3.102	46.5	23.5	1.10	34.8	2.50	58.3	jan 84	0.15	8403 8403		19172+1956	0.19
395	19:17:50.8	-26:20:18	11.953	-17.702	5.0	33.5	7.20	-11.7	7.20	21.8	nov 77	1.12	7903 7903 7926	CRL2370	19178–2620	0.12
396	19:19:13.3	+09:22:12	44.795	-2.307	-71.5	33.0	6.00	-88.0	11.00	-55.0	jun 76	2.40	8602 7801 7818 7902 8101 8413 8510 8603	OH44.8–2.3	19192+0922	0.11
397	19:19:27.0	+18:01:30	52.442	1.751	14.5	29.0	2.00	0.0	2.10	29.0	jun 76	2.40	7801 7801 7818 7902 8101	OH52.4+1.8	19193+1804	3.58
398	19:20:02.0	+15:36:00	50.373	0.477	59.9	26.3	0.80	46.7	2.20	73.0	jan 84	0.15	8403 8403 8430		19200+1536	0.13
399	19:20:05.0	+21:01:30	55.157	3.041	55.3	26.7	2.60	42.0	3.30	68.7	jan 84	0.15	8403 8403 8418		19200+2101	1.04
400	19:21:59.3	+09:48:00	45.498	-2.703	-63.0		5.80	-63.0			mar 78	0.46	8313 7913 8402 8515 8518 8583	VY2–2 M1–70 VV230 PK45–2	19219+0947	0.50
401	19:24:26.0	+11:15:10	47.063	-2.538	73.7	54.6	45.60	46.4	5.70	101.0	feb 75	0.37	7637 7637 7912 7917 7918 8103 8107 8112 8113 8120 8214 8306 8316 8402 8409 8420 8423 8515 8518 8527 8579 8583 8604 8615 8616 8623 8629 8901	IRC+10420	19244+1115	0.04
402	19:25:26.0	+16:31:14	51.802	-0.222	2.0	38.0	5.00	-17.0	4.00	21.0	jun 76	2.40	7801 7801 7818 7902 8101 8510	OH51.8–0.2	19254+1631	0.08
403	19:25:34.6	+21:23:55	56.096	2.094	9.0	24.0	0.40	-3.0	4.60	9.0	oct 83	0.15	8587 8587 7801	OH56.1+2.1 K3–35	19255+2123	0.11
404	19:28:18.0	+19:44:19	54.949	0.735	27.0	28.0	5.00	13.0	3.00	41.0	jun 76	2.40	7801 7801 7818 7902 8101 8504	OH55.0+0.7	19283+1944	0.00
405	19:28:51.0	+29:23:36	63.482	5.281	-39.5	33.4	1.20	-56.2	0.60	-22.8	jan 84	0.15	8403 8403 8588		19288+2923	0.07
406	19:29:11.8	+18:06:46	53.630	-0.239	11.0	26.0	6.00	-2.0	10.00	24.0	jun 76	2.40	8413 7801 7818 7902 8101 8407 8426 8510 8527	OH53.6–0.3	19292+1806	0.11
407	19:29:12.0	+20:08:00	55.397	0.741	3.0		0.60	3.0			jun 76	2.40	7801 7801	OH55.4+0.7	19291+2004	3.98
408	19:29:30.8	+22:29:06	57.489	1.819	-74.5	25.0	1.30	-87.0	0.90	-62.0	aug 77	1.21	8105 7902 8101 8301	OH57.5+1.8	19295+2228	0.28
409	19:29:51.0	+22:29:09	57.528	1.751	40.0	8.0	0.80	36.0	1.80	44.0	jun 76	2.40	7801 7801	OH57.5+1.8		
410	19:34:17.6	+29:25:31	64.084	4.259	-8.0		0.45	-8.0			mar 78	0.46	7913 7913 7426 7923 8004 8317 8420 8518 8583 8620	M1–92	19343+2926	0.65
411	19:35:10.0	+20:32:33	56.438	-0.278	0.5	7.0	6.80	-3.0	3.50	4.0	aug 77	1.21	7801 7801 7902	OH56.4–0.3	19352+2030	2.53
412	19:36:08.0	-16:58:50	22.744	-17.927	58.6	15.0	2.70	51.1	3.80	66.1	jul 76	0.73	7729 7729 7926	CRL2425 OH22.7–17.9	19361–1658	0.28
413	19:38:37.0	+15:13:06	52.214	-3.625	5.0	33.2	1.00	-11.6	0.30	21.6	jan 84	0.15	8403 8403 8430 8621		19386+1513	0.48
414	19:41:16.1	+35:06:50	69.785	5.769	-48.7	33.2	1.32	-65.3	1.32	-32.1	jan 83	0.54	8463 8504 7925	AFGL 2445	19408+3507	5.33
415	19:44:01.0	+22:52:00	59.479	-0.898	-7.4	35.2	0.90	-25.0	0.90	10.2	jan 84	0.15	8403 8403 8430 8522 8588		19440+2251	0.17
416	19:45:55.0	+17:16:30	54.877	-4.113	-2.4	23.5	0.40	9.3	1.40	-14.2	jan 84	0.15	8403 8403 8430		19459+1716	0.05
417	19:46:43.0	+22:13:42	59.246	-1.759	-45.7		0.30	-45.7			jan 84	0.15	8403 8403 8430		19467+2213	0.15
418	19:49:19.9	+29:05:20	65.439	1.252	-22.0	34.0	3.30	-39.0	3.80	-5.0	aug 77	1.21	8105 7902 8101 8301 8505 8603 8901	OH65.5+1.3	19493+2905	0.36
419	19:50:56.5	+27:00:22	63.838	-0.127	5.0	30.0	1.40	-10.0	2.20	20.0	aug 77	1.21	8105 7902 8101	OH63.9–0.2	19508+2659	0.78
420	19:53:28.0	+28:02:48	65.018	-0.065	-31.1	23.3	1.90	-42.7	0.60	-19.4	jan 84	0.15	8403 8403		19534+2802	0.14
421	19:55:00.0	-02:01:17	38.917	-15.559	27.8	9.5	2.50	23.0	4.50	32.5	oct 70	0.29	7202 7202 7111 7313 7331 7447 7520 7525 7601 7707 7731 7732 7817 7904 7926 7928 8103 8116 8124 8126 8127 8306 8314 8406 8412 8416 8510 8513 8521 8527 8603 8606 8608 8614 8617 8631 8901	IRC+00458 RR AQL	19550–0201	0.05
422	19:57:41.0	+28:14:10	65.668	-0.756	-58.5	21.0	0.80	-69.0	1.40	-48.0	jun 76	2.40	7801 7801 7818 7902 8101 8605	OH65.7–0.8	19576+2814	1.27
423	20:00:00.0	+49:54:06	84.438	10.235	-149.3	4.6	3.80	-151.6	1.00	-147.0	may 78	1.21	8003 8003 7525 7638 7731 7904 7926 8126 8127 8505 8510 8901	Z CYG IRC+50314	20000+4954	0.41

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TABLE I (*continued*).

#	α	δ	l	b	V	ΔV	S_l	V_l	S_h	V_h	Epoch	Res.	References	Name	IRAS name	Dist.
424	20:02:15.0	+28:53:50	66.762	−1.251	−64.5	25.0	1.00	−77.0	1.00	−52.0	jun 76	2.40	7801 7801 7818 7902 8101	OH66.8−1.3	20023+2855	1.83
425	20:04:43.0	+12:48:10	53.360	−10.304	−47.5	7.0	1.40	−51.0	1.30	−44.0	may 78	0.70	8003 8003 7525 7638 7707 7713 7731 7904 7926	SY AQL	20047+1248	0.37
													7928 8120 8127 8507 8510 8528 8631 8901	IRC+10450		
426	20:07:46.0	−06:24:42	36.361	−20.406	−19.8	24.5	35.00	−32.0	3.00	−7.5	oct 70	0.29	7202 7202 7111 7313 7331 7447 7531 7638 7707	IRC−10529	20077−0625	0.58
													7732 7926 8003 8132 8407 8515 8901			
427	20:18:11.0	+22:34:12	63.436	−7.724	40.5	22.3	2.50	29.4	1.80	51.7	jan 84	0.15	8403 8403 8430 8525		20181+2234	0.05
428	20:25:55.0	−40:35:00	0.918	−35.176	−59.0	6.0	0.60	−62.0	0.50	−56.0	jul 75	1.40	7720 7720 7024 7106 7619 7707 7731 7904 7926	U MIC	20259−4035	0.29
429	20:26:40.0	+38:57:01	77.916	0.223	−38.5	21.9	8.80	−49.5	5.70	−27.6	oct 70	0.58	7202 7202 6922 7007 7015 7018 7019 7111 7207	ON4	20266+3856	0.16
													7313 7314 7324 7818 8101 8510	OH2026+38		
														OH77.9+0.2		
430	20:27:13.0	+35:35:40	75.268	−1.842	−4.0	24.0	6.00	−16.0	4.00	8.0	jun 76	2.40	8413 7801 7818 7902 8101 8510	OH75.3−1.8	20272+3535	0.16
431	20:44:03.1	+04:12:36	51.116	−23.096	−52.4	4.8	0.90	−54.8	0.50	−50.0	mar 76	0.73	8590 7904 7202 7926	BR DEL	20440+0412	0.04
432	20:44:33.0	+39:56:50	80.808	−1.909	−1.2	45.4	500.00	−23.9	170.00	21.5	jan 80	1.00	8463 8308 6801 6808 6820 6822 6901 6906 6907	NML CYG		
													6925 7001 7007 7009 7011 7014 7015 7016 7109	IRC+40448		
													7111 7113 7125 7134 7201 7209 7210 7210 7223			
													7313 7321 7324 7403 7418 7428 7435 7442 7444			
													7447 7453 7519 7520 7528 7531 7533 7601 7624			
													7626 7724 7732 7817 7914 7926 7928 8101 8103			
													8107 8119 8124 8126 8128 8209 8212 8221 8306			
													8320 8406 8412 8416 8420 8427 8507 8510 8513			
													8514 8515 8517 8518 8527 8581 8603 8604 8606			
													8615 8901			
433	20:49:10.3	+42:36:54	83.422	−0.889	−39.0	36.0	4.00	−57.0	1.00	−21.0	jun 76	2.40	8413 7801 7818 7902 8101 8510 8605 8629	OH83.4−0.9	20491+4236	0.20
434	20:51:50.0	+44:46:00	85.380	0.126	−23.5	27.0	1.00	−37.0	2.00	−10.0	jun 76	2.40	7801 7801 7818 7902 8101	OH85.4+0.1		
435	20:53:00.0	+30:13:24	74.345	−9.407	0.5	25.0	1.50	−12.0	0.70	13.0	feb 78	0.73	8003 8003 7111 7202 7313 7519 7520 7525 7638	IRC+30464	20529+3013	0.10
													7713 7731 7904 7926 8124 8126 8127 8214 8504	UX CYG		
													8901			
436	21:20:38.0	−40:55:00	1.328	−45.529	1.7	11.3	5.50	−4.0	2.70	7.3	oct 70	0.19	7106 7106 7215 7217 7331 7520 7525 7707 7713	V MIC	21206−4054	0.03
													7904 7926			
437	21:25:23.0	+36:29:00	83.657	−10.167	44.6	28.7	2.40	58.9	1.70	30.2	nov 76	0.23	7923 7923 7015 7111 7202 7313 7428 7638 7713	IRC+40483		
													7926 8515 8528			
438	22:17:42.7	+59:36:16	104.908	2.414	−24.9	30.2	41.00	−40.0	39.00	−9.8	aug 77	0.67	8602 7902 7801 7818 7903 7926 8009 8101 8219	OH104.9+2.4	22177+5936	0.04
													8310 8324 8402 8413 8428 8504 8510 8527 8603	AFGL2885		
													8604 8605 8901			
439	22:51:40.0	+08:37:54	80.572	−44.119	1.3	19.9	0.25	−8.6	0.10	11.3	nov 77	1.12	7903 7903 7202 7453 7923 7926 8311 8504 8901	IRC+10523	22516+0838	0.53
440	22:55:35.4	+58:33:11	108.654	−0.860	−49.5	35.0	0.50	−67.0	0.50	−65.0	nov 77	0.70	8438 8438 8002 8504 8619	AS 501	22556+5833	0.26
														GL 2999		
441	23:41:41.0	+61:31:00	115.064	−0.044	−38.5	53.0	1.90	−65.0	2.30	−12.0	jan 72	1.00	7331 8419 7331 7519 7525 7541 7638 7814 7926	IRC+60417	23416+6130	0.38
													8107 8126 8510 8610 8617	PZ CAS		
442	23:42:34.0	+43:38:30	110.485	−17.342	−42.5	23.0	0.80	−31.0	0.55	−54.0	jan 82	1.12	8407 8407 8528	EY AND	23425+4338	0.31
														IRC+40545		
														CIT14		

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Notations in table I :

Column 1 : sequence number ;

Column 2, 3 : Right Ascension and Declination, equinox 1950 ;

Column 4, 5 : Galactic Longitude and Latitude ;

Column 6 : Stellar Velocity $(\mathrm{km\ s^{-1}})$;

Column 7 : velocity difference $(\mathrm{km\ s^{-1}})$ between the outermost maser spikes ;

Column 8, 9 : peak flux (Jy) and velocity $(\mathrm{km\ s^{-1}})$ of the red Doppler shifted velocity spike ;

Column 10, 11 : peak flux (Jy) and velocity $(\mathrm{km\ s^{-1}})$ of the blue Doppler shifted velocity spike ;

Column 12 : epoch of the OH measurement ;

Column 13 : velocity resolution $(\mathrm{km\ s^{-1}})$ of the OH measurement ;

Column 14 to 22 : references ; the position is quoted from the first reference ; the 1612 MHz maser information is taken from the second reference. Thereafter the references are given in chronological order ;

Column 23 : name (s) of the source ;

Column 24 : IRAS name of the nearest IRAS PSC ;

Column 25 : distance in arcminutes $(')$ between the IRAS position and the position given in column 2 to 5.

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