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卒業論文

# 周期変動メカニズムの解明を目指した、 6.7 GHz メタノールメーザー源の分類

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## 概要

本研究ではこれまでに観測が行われた 6.7 GHz メタノールメーザーを、主に 3 つの周期変動モデルについて考えるために、各々の周期強度変動するために必要な条件について分類し、その結果を茨城大学で行っている 6.7 GHz メタノールメーザーのモニター観測の周期変動のデータと対応させることで、6.7 GHz メタノールメーザーの周期変動メカニズムの解明を目指した。

解析方法としては、3 つの周期変動モデルそれぞれに必要な条件、(1) 結合型干渉計観測、VLBI 観測またはその他単一鏡観測の有無、(2)  $H_{II}$  領域の有無、(3) 原始星が連星か単独星かによって分類を行うことを考えた。

まず、これまでに観測が行われた 6.7 GHz メタノールメーザーを、参考文献によって分類を行い、行われた観測が結合型干渉計観測、VLBI 観測またはその他単一鏡観測のどれが行われたか調べた。

次に 6.7 GHz メタノールメーザーの  $H_{II}$  領域の付随の有無について分類を行うため、これまでに観測が行われた 6.7 GHz メタノールメーザーのリストのうち Hu et al. (2016) に分類された 6.7 GHz メタノールメーザー 327 天体と Hu et al. (2016) において検出された 6.7 GHz メタノールメーザー 367 天体の対応付けを行い、301 天体対応付けることができた。

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# 1 序論

## 1.1 周期変動モデル

### 1.1.1 脈動変動

メーザー放射の周期的な変動を説明するモデルのうちで、脈動変動モデルは、急速な質量降着を介して成長する原始星の中心星光度の変動に追隨してメタノールメーザー強度が変動する可能性があるというモデルである。

当初、恒星の半径は恒星の質量の増加とともに増加した後、原始星は放射を介してエネルギーを失うことによって収縮し、この収縮期に恒星の中心温度が上昇し、原始星は ZAMS に到達する。この ZAMS 期直前の原始星半径拡張期に生じる不安定期に、原始星の脈動に伴い、周囲のダストがメーザー放射に適した温度に上昇・下降することで、メーザーが増・減光する。

### 1.1.2 colliding wind binary

メーザー放射の周期的な変動を説明するモデルのうちで、colliding wind binary モデルは、連星付近における恒星風同士の衝突や、連星の周囲に球殻上に広がる  $\text{H}_{\text{II}}$  領域表面の free-free 放射の量が、恒星風の衝突によって変動することでメーザーの周期的強度変動が起こるとするモデルである。

衝撃加熱されたガスが断熱的に冷却されるか、放射的に冷却されるかにかかわらず、軌道運動は衝撃加熱されたガスから発生する電離放射を変調させる。この結果、電離放射の「パルス」が  $\text{H}_{\text{II}}$  領域を通してほとんど減衰することなく外部に伝搬し、実質的に部分的に電離しないガスに到達して吸収される。これにより、電子密度が上昇し、free-free 放射が発生する。

### 1.1.3 spiral shock

メーザー放射の周期的な変動を説明するモデルのうちで、spiral shock モデルは、中心星が連星系を形成し、その周囲に回転円盤が存在すると仮定したとき、ガスの降着によって shock ができることで周期変動するというモデルである。

円盤からのガスの巻き込みが起こることで形成された spiral shock が、連星や円盤の回転に従い周期性を持ち回転する。周期的に形成される spiral shock が視線方向に対してメタノールメーザーと主星の間にあるとき、主星だけでなく shock も熱源となり、メーザーの励起に適当なガス柱密度を増加させる。同一視線速度のメタノールガスの柱密度が増加するため、メタノールメーザーのフラックス密度が上昇する。

## 1.2 研究目的

周期変動モデルに必要な条件を表で表すと、表 1 のようになる。

| 周期変動モデル               | 必須なもの                 | 変動パターン   | 強度変動するメーザースポット |
|-----------------------|-----------------------|----------|----------------|
| 脈動変動                  |                       | 連続的な周期変動 | 全ての Spot       |
| colliding wind binary | H <sub>II</sub> 領域・連星 | 間欠的な周期変動 | 全ての Spot       |
| spiral shock          | 連星                    | 間欠的な周期変動 | 一部の Spot       |

表 1 6.7 GHz メタノールメーザーが各々の周期強度変動するために必要な条件

変動パターンが連続的か間欠的かについては単一鏡観測によって調べられている。

全てのメーザースポットが強度変動するのか一部のメーザースポットが強度変動するのかについては VLBI 観測によって調べられている。

H<sub>II</sub> 領域の付随については、Hu et al. (2016) において結合型干渉計観測によって有無が調べられており、Hu et al. (2016) と比較をする必要がある。

よって、H<sub>II</sub> 領域の付随について調べるため、結合型干渉計観測の有無についても調べる必要がある。

したがって、本研究は、これまでに観測が行われた 6.7 GHz メタノールメーザーを

(1) 結合型干渉計観測、VLBI 観測、その他の観測所による単一鏡観測の有無

(2) H<sub>II</sub> 領域の付随の有無

(3) 原始星が単独星か連星か

の 3 つの分類を行うことで、メタノールメーザーの周期変動モデルについての分類を行い、さらに、茨城大学で行っている 6.7 GHz メタノールメーザーモニター観測の周期強度変動のデータを対応させることで、6.7 GHz メタノールメーザー源の周期強度変動のメカニズムの解明を目的としている。

## 2 解析方法

### 2.1 (1) 結合型干渉計観測、VLBI 観測、その他の観測所による単一鏡観測の有無

maserdb 「利用可能な文献や、個人から maserdb に提供された情報 (private sources) から集められた、 $\text{CH}_3\text{OH}$ 、 $\text{H}_2\text{O}$ 、 $\text{OH}$ 、 $\text{SiO}$  分子等のメーザースペクトルデータのデータベース」から過去に観測が行われた 6.7 GHz メタノールメーザーの天体のリストをダウンロードし、参考文献によって分類することで、結合型干渉計、VLBI 観測、その他の観測所による単一鏡観測の 3 種類の観測の有無について調べ、分類を行った。

### 2.2 (2) $\text{H}_{\text{II}}$ 領域の付随の有無

6.7 GHz メタノールメーザーの  $\text{H}_{\text{II}}$  領域の付随については、Hu et al. (2016) を参考に分類を行った。Hu et al. (2016) は、6.7 GHz メタノールメーザーラインと C バンド (4-8 GHz 帯) 連続波放射を VLA で同時に観測を行っていた。

Hu et al. (2016) において観測を行った 6.7 GHz メタノールメーザーの選出条件は、以下の通りである。

- ・「メタノールマルチビームカタログ (MMB; Caswell & Breen 2010; Green et al. 2010, 2012)」
- ・「アレシボ天文台メタノールメーザー銀河面サーベイ (AMGPS; Pandian et al. 2011)」
- ・「6.7 GHz メタノールメーザーのトルン 32m 望遠鏡によるカタログ (Szymczak et al. 2012)」
- ・既知の 6.7 GHz メタノールメーザーまたは MSFRs(大質量星形成領域) の他の個々の観測 (Caswell et al. 1995; Walsh et al. 1997, 1998; Xu et al. 2008; Caswell 2009) のうち、VLA から見える赤緯  $-30^\circ$  以北で、2 Jy 以上のピークフラックス密度を持つものである。

これらの条件から、合計 372 天体が選出されたが、本研究の (2)  $\text{H}_{\text{II}}$  領域の有無についての対象天体は Hu et al. (2016) で観測が行われた 372 天体のうちメタノールメーザーが検出された 367 天体とし、そのリストは付録 A に記載した。

Hu et al. (2016) において、6.7 GHz メタノールメーザーが連続波源と関連しているとみなす条件は、

- ・ 6.7 GHz メタノールメーザーと連続波源との投影されたオフセットが 1pc よりも小さい
- ・ オフセットが連続波源を楕円とみなした場合の長半径よりも小さい

であり、検出された 367 個のメタノールメーザーは以下のように分類されている。

- 「A」 上記の条件をどちらも満たし、関連する連続波放射が検出されたもの
- 「B」 上記の条件のうちどちらかを満たし、メーザーの近傍で連続波放射が見られるが、メーザーと連続波源との間の物理的関係を裏付ける証拠がないもの
- 「N」 上記の条件に全く当てはまらず、連続波放射がないもの

「A」は 140 天体、「B」は 139 天体、「N」は 70 天体という結果になっている。

表 2 に Hu et al. (2016) の概要を示す。

|                                |                                                                 |
|--------------------------------|-----------------------------------------------------------------|
| Hu et al. (2016)               |                                                                 |
| 観測したもの                         | 6.7 GHz メタノールメーザーラインと<br>C バンド (4-8 GHz 帯) 連続波放射を同時に観測          |
| 観測日程                           | 2012/2/28、3/4、3/7、3/18、4/16                                     |
| 装置・アンテナ数・構成                    | VLA・25m × 27 台の干渉計を C 配列で設置 (最大基線長は 3395.7m)                    |
| 観測した天体数                        | 372 天体                                                          |
| 6.7 GHz メタノールメーザー<br>観測時の周波数範囲 | 6664.5-6672.5 MHz                                               |
| 6.7 GHz メタノールメーザー<br>の検出数      | 367 天体                                                          |
| 検出基準                           | rms ノイズレベルの 5 倍                                                 |
| ノイズレベル                         | 33 mJy/beam                                                     |
| 連続波観測の周波数範囲                    | 4.9840-6.0080 GHz, 6.6245-7.6485 GHz                            |
| 連続波の検出数                        | 279 field の連続波源<br>(1 field に複数の連続波源が存在する場合もあるので、合計連続波源は 349 個) |

表 2 Hu et al. (2016) の概要

Hu et al. (2016) から検出された 6.7 GHz メタノールメーザー 367 天体と、maserdb からダウンロードした 6.7 GHz メタノールメーザー源のリストを参考文献で分類したもののうち、Hu et al. (2016) に分類された 327 天体の対応について調べた。

### 3 結果

#### 3.1 (1) 結合型干渉計観測、VLBI 観測、その他の観測所による単一鏡観測の有無

maserdb からダウンロードした 6.7 GHz メタノールメーザーのリストを参考文献によって分類した結果を付録 B に示す。ここでは、maserdb に記載されている Groupname、Sourcename と分類結果のみを示し、maserdb からダウンロードした天体の詳細なリストは付録 C に記載した。ただし、No.432～801 は南半球の天体のため、分類は行っていない。

### 3.2 (2) H<sub>II</sub> 領域の付随の有無

i. まず表 3 の maserdb に記載されている天体名 (Sourcename) と表 4 の Hu et al. (2016) に記載されている天体名 (Sourcename) に着目すると、天体名が完全に一致している天体が 65 天体のみであった。例として、以下に、maserdb のデータの一部 (表 3) と Hu et al. (2016) において検出された 6.7 GHz メタノールメーザーのデータの一部 (表 4) を記載する。完全に一致しているのは、表 3、4 の 2 行目、5 行目、6 行目、7 行目である。

| Groupname     | Sourcename      | l          | b          | Ra-h | Ra-m | Ra-s    | Dec-d | Dec-m | Dec-s  |
|---------------|-----------------|------------|------------|------|------|---------|-------|-------|--------|
| G24.329+0.144 | 24.329+0.144    | 24.3289301 | 0.1443968  | 18   | 35   | 8.1230  | -7    | 35    | 2.690  |
| G24.630+0.190 | G024.631+0.172  | 24.62976   | 0.1904593  | 18   | 35   | 31.7306 | -7    | 17    | 44.903 |
| G24.634-0.324 | IRAS 18346-0734 | 24.6340306 | -0.3236831 | 18   | 37   | 22.7141 | -7    | 31    | 42.065 |
| G24.676-0.151 | G024.674-0.153  | 24.6717537 | -0.1483426 | 18   | 36   | 49.2090 | -7    | 24    | 51.484 |
| G24.790+0.083 | G024.789+0.083  | 24.7899122 | 0.0833173  | 18   | 36   | 12.5689 | -7    | 12    | 10.379 |
| G24.850+0.087 | G024.850+0.087  | 24.8526796 | 0.0854669  | 18   | 36   | 19.0878 | -7    | 8     | 46.158 |
| G24.896+0.102 | G024.919+0.088  | 24.8962886 | 0.1020934  | 18   | 36   | 20.3657 | -7    | 5     | 59.222 |

表 3 maserdb のデータの一部

| Sourcename     | Ra-h | Ra-m | Ra-s   | Dec-d | Dec-m | Dec-s |
|----------------|------|------|--------|-------|-------|-------|
| G024.328+0.144 | 18   | 35   | 8.119  | 7     | 35    | 4.13  |
| G024.631+0.172 | 18   | 35   | 35.778 | 7     | 18    | 8.75  |
| G024.634+0.323 | 18   | 37   | 22.714 | 7     | 31    | 42.06 |
| G024.674+0.153 | 18   | 36   | 50.627 | 7     | 24    | 52.77 |
| G024.789+0.083 | 18   | 36   | 12.569 | 7     | 12    | 10.61 |
| G024.850+0.087 | 18   | 36   | 18.394 | 7     | 8     | 50.68 |
| G024.919+0.088 | 18   | 36   | 25.936 | 7     | 5     | 8.01  |

表 4 Hu et al. (2016) において検出された 6.7 GHz メタノールメーザーのデータの一部

そこで、天体名が似ているものを対応させ、maserdb に記載されている天体を赤経赤緯で表した位置と Hu et al. (2016) で検出された 6.7 GHz メタノールメーザーを赤経赤緯で表した位置との離角を計算した。結果を図 1 に示す。

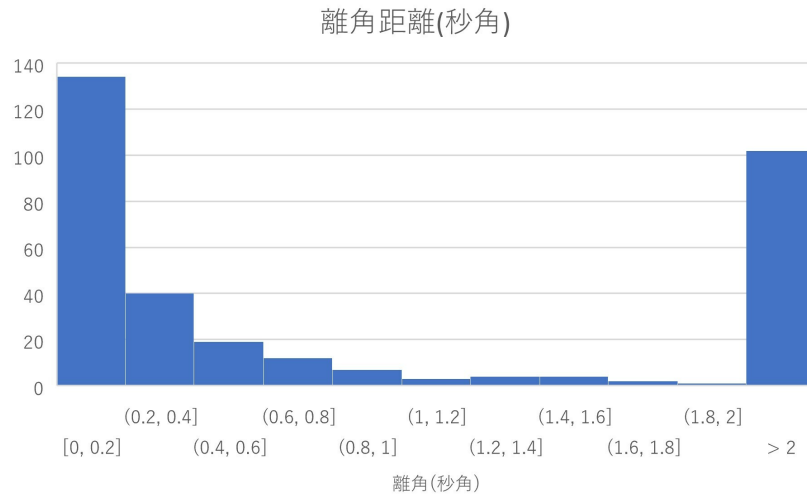


図1 masedb に記載されている、天体の赤経赤緯で表した位置と Hu et al. (2016) で検出された天体の赤経赤緯で表した位置との離角

ii. 次に、masedb に記載されている天体を銀経銀緯で表した位置と Hu et al. (2016) で検出された 6.7 GHz メタノールメーザーを銀経銀緯で表した位置との離角を計算した。しかし、Hu et al. (2016) には銀経銀緯が載っていないので、Hu et al. (2016) の Sourcename から銀経銀緯を推定し、maserdb の Groupname の銀経銀緯を小数点第 3 位で切り捨てたものの離角を計算した。結果を図 2 に示す。

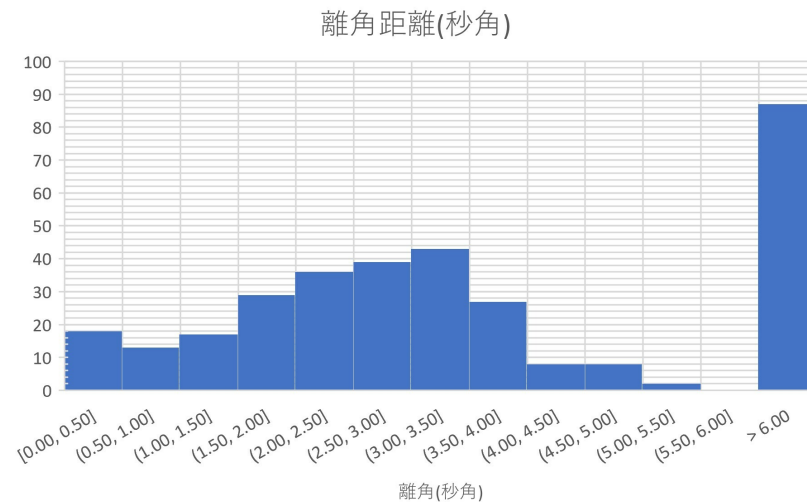


図2 maserdb の Groupname の銀経銀緯で天体を表した位置と Hu et al. (2016) の Sourcename から推定した銀経銀緯で天体を表した位置の離角

Hu et al. (2016) によると位置精度が $\pm 0.3$  秒角となっているが、i では 2 秒角以上離れている天体が 102 天体あった。一方 ii では、小数点第 3 位までで切り捨てているので、誤差の幅が銀経、銀緯ともに  $0.001^\circ$  あると考えられるため、離角は 5.04 秒の誤差があると考えられる。しかし、5 秒角以上離れている天体が 89 天体という結果になり、i と ii どちらも離角が離れている天体が多くなってしまった。

iii. 表 3 の masedb のデータの一部に注目すると、座標が Sourcename のものではなく、Groupname のものであることがわかった。そこで、masedb の Sourcename から天体の座標を推定することを考えた。

具体的には、天体名が銀経銀緯で表されている天体は、例：0.092-0.663 → 銀経：0.092、銀緯：-0.663 と推定し、天体名が赤経赤緯で表されている天体は、例：IRAS 17470-2853 → 赤経：17 時 47.0 分、赤緯：-28 度 53 分 00 秒と推定した。

ただし、天体名が赤経赤緯で表されている天体の分点は J2000 ではなく B1950 と推定されるので、推定した銀経銀緯及び赤経赤緯 (B1950) を使って赤経赤緯 (J2000) に直し、Hu et al. (2016) における赤経赤緯で表された位置との離角を計算した。

銀経銀緯を直し離角を計算した結果を図 3、赤経赤緯を直し離角を計算した結果を図 4、上記の二つの結果を合わせたものを図 5 に示す。

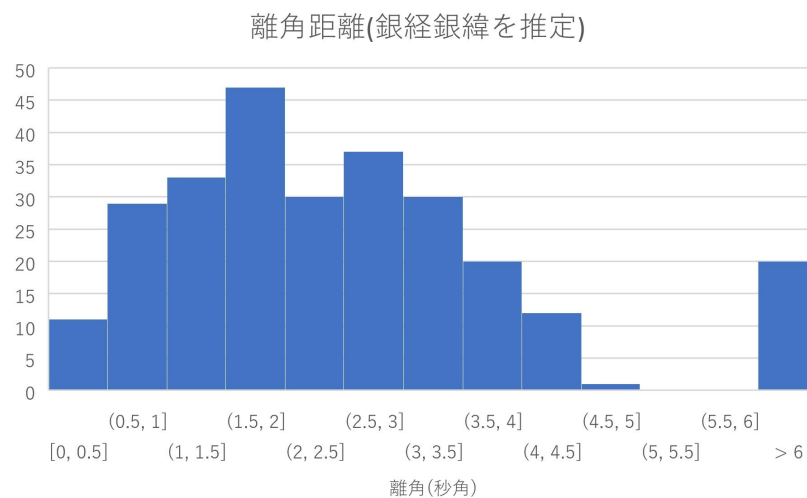


図 3 推定した銀経銀緯を J2000 の赤経赤緯に直して表した位置と Hu et al. (2016) で検出された天体の赤経赤緯で表した位置との離角

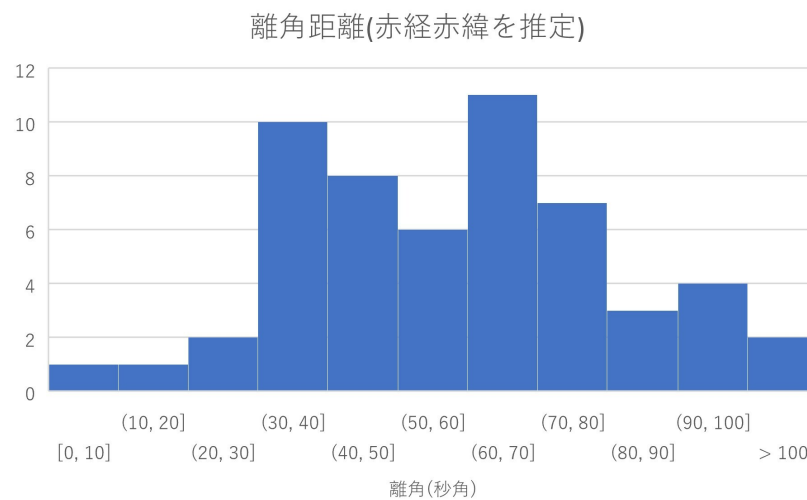


図 4 推定した B1950 の赤経赤緯を J2000 の赤経赤緯に直して表した位置と Hu et al. (2016) で検出された天体の赤経赤緯で表した位置との離角

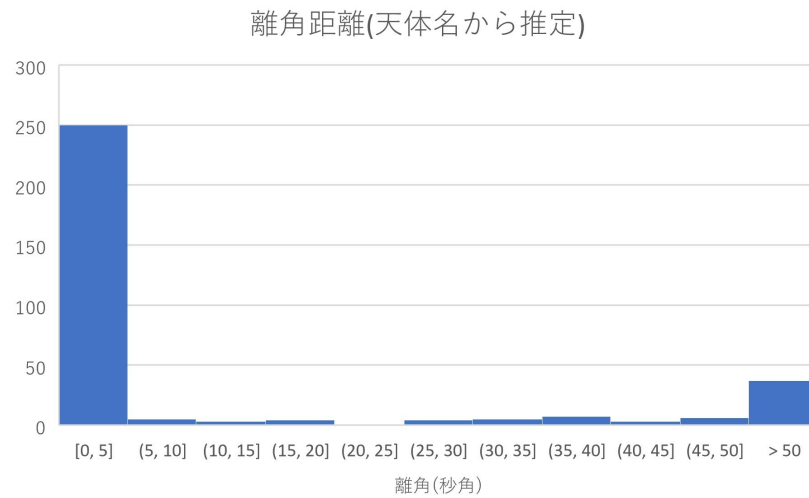


図5 図3と図4の結果を合成した結果

銀経銀緯を推定した天体においては、離角が5秒角以内のものを同一の天体とみなすと、一致しているとみなせるものは249天体、一致しているとみなせないものは、20天体となった。

赤経赤緯を推定した天体においては、離角が108秒角以内のものを同一の天体とみなすと、一致しているとみなせるものは52天体、一致しているとみなせないものは、2天体となった。

全327天体のうち、301天体を対応させることができた。

ここで、一致とみなす基準を変えている理由は、銀経銀緯は小数点第3位までしか記載されていないので、iiと同様に、離角は5.04秒の誤差があると考えられるからである。赤経赤緯では、赤経は0.1分、赤緯は60秒の幅があると考えられるため、離角は108秒の誤差があると考えられるためである。

## 4 まとめ

本研究ではこれまでに観測が行われた 6.7 GHz メタノールメーザーを、主に 3 つの周期変動モデルについて考えるために、各々の周期強度変動するために必要な条件について分類し、その結果を茨城大学で行っている 6.7 GHz メタノールメーザーのモニター観測の周期変動のデータと対応させることで、6.7 GHz メタノールメーザーの周期変動メカニズムの解明を目指した。

現段階では、これまでに観測が行われた 6.7 GHz メタノールメーザーを結合型干渉計観測、VLBI 観測またはその他単一鏡観測の 3 つの有無について分類を行った。H<sub>II</sub> 領域の付随については、9 割程の天体の対応付けを行うことができた。

今後の課題については、H<sub>II</sub> 領域の付随についてはまだ大幅に離れている天体の対応付けが行えていないので、全ての天体の対応付けを行う、または、対応付けができたもののみを使用して、masedb の天体と Hu et al. (2016) の天体を対応させた結果から、各天体の H<sub>II</sub> 領域の付随についてまとめる。また、原始星が単独星か連星かについては、調べる方法を検討し分類を行う。そして、茨城大学で行っている 6.7 GHz メタノールメーザーモニター観測の周期強度変動のデータを用いて、周期強度変動について天体の分類を行い、6.7 GHz メタノールメーザーの周期強度変動のメカニズムの解明を目指す。

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付録 A Hu et al. (2016) で検出された 6.7 GHz メタノールメーザーのリスト

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G000.091+0.662 | 17   | 48   | 25.878 | 29    | 12    | 6.2   | 21.55     | 4.57       | 13.81      | 132.29    | 2.8 0.3  | 0.53  | N    |
| G000.212+0.000 | 17   | 46   | 7.652  | 28    | 45    | 20.49 | 46.16     | 7.9        | 3.6        | 24.22     | 10.8 0.2 | 0.54  | N    |
| G000.315+0.200 | 17   | 47   | 9.107  | 28    | 46    | 16.19 | 19.7      | 10.36      | 49.2       | 354.86    | 10.8 0.2 | 0.59  | A    |
| G000.408+0.504 | 17   | 48   | 33.453 | 28    | 50    | 52.77 | 24.3      | 4.22       | 3.81       | 15.89     | 2.8 0.3  | 0.37  | N    |
| G000.475+0.009 | 17   | 46   | 47.062 | 28    | 32    | 7.01  | 29.67     | 7.03       | 2.5        | 23.56     | 10.8 0.2 | 0.59  | A    |
| G000.496+0.188 | 17   | 46   | 3.985  | 28    | 24    | 52.08 | -2.03     | 7.2        | 16.92      | 131.04    | 4.2 0.2  | 0.22  | A    |
| G000.546+0.851 | 17   | 50   | 14.523 | 28    | 54    | 31.25 | 15.06     | 8.95       | 90.75      | 1091.44   | 2.7 0.3  | 0.59  | A    |
| G000.644+0.042 | 17   | 47   | 18.663 | 28    | 24    | 24.82 | 49.95     | 6.67       | 55.06      | 497.05    | 10.8 0.2 | 0.54  | B    |
| G000.647+0.055 | 17   | 47   | 22.052 | 28    | 24    | 42.53 | 51.17     | 1.05       | 3.95       | 16.19     | 10.8 0.2 | 0.58  | B    |
| G000.651+0.048 | 17   | 47   | 21.125 | 28    | 24    | 18.12 | 47.92     | 8.96       | 15.45      | 73.89     | 8.3 0.3  | 0.54  | N    |
| G000.656+0.040 | 17   | 47   | 20.062 | 28    | 23    | 46.65 | 52.42     | 5.62       | 6.47       | 35.99     | 10.8 0.2 | 0.63  | A    |
| G000.664+0.035 | 17   | 47   | 20.05  | 28    | 23    | 12.69 | 60.5      | 0.71       | 5.51       | 14.78     | 10.8 0.2 | 1     | A    |
| G000.666+0.028 | 17   | 47   | 18.655 | 28    | 22    | 54.49 | 70.94     | 3.69       | 40.91      | 177.77    | 10.8 0.2 | 0.85  | A    |
| G000.672+0.031 | 17   | 47   | 20.055 | 28    | 22    | 41.16 | 58.48     | 5.45       | 6.61       | 26.06     | 10.8 0.2 | 0.74  | B    |
| G000.835+0.184 | 17   | 46   | 52.815 | 28    | 7     | 35.58 | 3.2       | 1.58       | 3.62       | 10.74     | 10.8 0.2 | 0.3   | A    |
| G001.007+0.236 | 17   | 48   | 55.257 | 28    | 11    | 48.65 | 3.45      | 4.92       | 10.09      | 51.72     | 10.8 0.2 | 0.32  | A    |
| G001.146+0.124 | 17   | 48   | 48.514 | 28    | 1     | 11.83 | -18       | 5.8        | 5.28       | 24.84     | 4.2 0.2  | 0.37  | N    |
| G001.328+0.149 | 17   | 48   | 10.262 | 27    | 43    | 21.35 | -12.38    | 0.35       | 0.84       | 1.51      | 4.2 0.2  | 0.34  | A    |
| G001.718+0.087 | 17   | 49   | 59.818 | 27    | 30    | 37.46 | -6.93     | 3.69       | 3          | 21.36     | 10.8 0.2 | 0.22  | N    |
| G002.143+0.009 | 17   | 50   | 36.095 | 27    | 5     | 47.47 | 59.41     | 9.66       | 6.84       | 87.5      | 10.6 0.2 | 0.91  | A    |
| G002.535+0.198 | 17   | 50   | 46.462 | 26    | 39    | 45.7  | 10.99     | 17.92      | 29.14      | 347.45    | 4.2 0.2  | 0.35  | B    |
| G002.703+0.040 | 17   | 51   | 45.975 | 26    | 35    | 57.42 | 94.78     | 5.27       | 9.07       | 89.81     | 10.6 0.2 | 0.43  | N    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G003.253+0.018 | 17   | 53   | 5.931  | 26    | 8     | 12.95 | 0.72      | 3.69       | 4.1        | 34.15     | 14.6 0.3 | 0.28  | N    |
| G003.910+0.001 | 17   | 54   | 38.749 | 25    | 34    | 45.02 | 18.45     | 3.69       | 4.37       | 21.8      | 10.9 0.2 | 0.43  | A    |
| G004.393+0.078 | 17   | 55   | 25.733 | 25    | 7     | 22.88 | 4.19      | 8.61       | 7.74       | 64.6      | 14.6 0.3 | 0.35  | B    |
| G004.434+0.129 | 17   | 55   | 19.742 | 25    | 3     | 44.53 | 2.01      | 7.02       | 2.34       | 5.54      | 14.6 0.3 | 0.28  | B    |
| G004.676+0.276 | 17   | 55   | 18.332 | 24    | 46    | 44.95 | 3.33      | 3.51       | 2.15       | 17.17     | 2.9 0.2  | 0.38  | B    |
| G005.618+0.082 | 17   | 58   | 44.777 | 24    | 8     | 39.75 | -23.2     | 9.13       | 1.55       | 10.89     | 5.0 0.2  | 0.47  | N    |
| G005.900+0.429 | 18   | 0    | 40.871 | 24    | 4     | 20.65 | 7.11      | 6.5        | 2.88       | 19.15     | 2.9 0.2  | 0.65  | B    |
| G006.188+0.358 | 18   | 1    | 2.177  | 23    | 47    | 11.06 | -32.05    | 7.73       | 190.6      | 926.71    | 5.0 0.2  | 0.79  | B    |
| G006.587+0.191 | 18   | 1    | 16.097 | 23    | 21    | 26.99 | 4.59      | 1.76       | 6.92       | 48.7      | 13.7 0.2 | 0.27  | B    |
| G006.609+0.082 | 18   | 0    | 54.039 | 23    | 17    | 2     | 2.77      | 5.44       | 28.43      | 113.47    | 16.0 0.3 | 0.35  | N    |
| G006.795+0.257 | 18   | 1    | 57.767 | 23    | 12    | 34.22 | 21.39     | 18.79      | 48.63      | 670.67    | 3.0 0.2  | 0.37  | A    |
| G006.880+0.093 | 18   | 0    | 49.393 | 22    | 57    | 42.64 | -3.02     | 1.41       | 3.38       | 9.46      | 4.3 0.2  | 0.24  | A    |
| G007.165+0.131 | 18   | 1    | 17.494 | 22    | 41    | 44.51 | 81.95     | 15.28      | 2.1        | 11        | 9.9 0.2  | 0.69  | N    |
| G007.601+0.138 | 18   | 3    | 14.44  | 22    | 27    | 1.32  | 151.72    | 8.25       | 8.11       | 31.7      | 9.2 0.3  | 0.36  | B    |
| G007.631+0.109 | 18   | 3    | 11.633 | 22    | 24    | 33.02 | 152.18    | 11.95      | 4.78       | 35.76     | 9.2 0.3  | 0.52  | N    |
| G008.138+0.225 | 18   | 3    | 0.761  | 21    | 48    | 10.33 | 19.84     | 1.58       | 4.23       | 19.17     | 4.3 0.2  | 0.38  | A    |
| G008.317+0.096 | 18   | 4    | 36.026 | 21    | 48    | 19.54 | 46.96     | 2.46       | 3          | 20.99     | 10.9 0.2 | 0.97  | B    |
| G008.669+0.355 | 18   | 6    | 18.99  | 21    | 37    | 31.96 | 37.68     | 3.86       | 6.99       | 33.99     | 4.5 0.2  | 0.8   | A    |
| G008.683+0.368 | 18   | 6    | 23.479 | 21    | 37    | 10.48 | 42.6      | 5.26       | 106.17     | 769.41    | 4.5 0.3  | 0.63  | B    |
| G008.831+0.028 | 18   | 5    | 25.666 | 21    | 19    | 25.48 | -0.51     | 11.59      | 138.77     | 2096.42   | 4.8 0.4  | 0.43  | N    |
| G008.872+0.492 | 18   | 7    | 15.338 | 21    | 30    | 54.29 | 24.36     | 3.51       | 38.29      | 245.55    | 3.0 0.2  | 0.57  | N    |
| G009.214+0.201 | 18   | 6    | 52.839 | 21    | 4     | 27.91 | 42.64     | 12.47      | 7.82       | 61.87     | 10.9 0.2 | 0.65  | B    |
| G009.618+0.193 | 18   | 6    | 14.922 | 20    | 31    | 43.58 | 5.12      | 0.71       | 54.75      | 168.94    | 4.7 0.4  | 0.44  | A    |
| G009.621+0.195 | 18   | 6    | 14.662 | 20    | 31    | 31.47 | 1.43      | 6.32       | 3629       | 13056.89  | 4.7 0.4  | 0.54  | A    |
| G009.985+0.027 | 18   | 7    | 50.131 | 20    | 18    | 57.1  | 45.45     | 10.01      | 93.86      | 505.24    | 10.9 0.2 | 0.75  | B    |
| G010.287+0.125 | 18   | 8    | 49.363 | 20    | 5     | 59.21 | 10.46     | 18.26      | 6.1        | 59.04     | 14.6 0.3 | 0.34  | B    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G010.299+0.146 | 18   | 8    | 55.549 | 20    | 5     | 58.13 | 9.67      | 12.82      | 2.79       | 8.91      | 14.6 0.3 | 0.29  | A    |
| G010.320+0.258 | 18   | 9    | 23.298 | 20    | 8     | 7.52  | 37.22     | 4.04       | 9.89       | 63.54     | 4.4 0.2  | 0.67  | A    |
| G010.322+0.159 | 18   | 9    | 1.47   | 20    | 5     | 8.52  | 8.88      | 9.84       | 80.08      | 662.53    | 14.6 0.3 | 0.25  | B    |
| G010.342+0.142 | 18   | 9    | 0      | 20    | 3     | 36.19 | 10.63     | 12.99      | 14.57      | 257.69    | 14.6 0.3 | 0.31  | N    |
| G010.443+0.018 | 18   | 8    | 44.89  | 19    | 54    | 38.31 | 72.59     | 11.41      | 27.75      | 231.42    | 10.6 0.2 | 0.57  | N    |
| G010.472+0.027 | 18   | 8    | 38.203 | 19    | 51    | 49.81 | 67.5      | 19.14      | 27.22      | 155.92    | 10.7 0.2 | 0.94  | A    |
| G010.480+0.033 | 18   | 8    | 37.883 | 19    | 51    | 15.75 | 62.93     | 10.36      | 10.99      | 80.05     | 10.7 0.2 | 0.99  | N    |
| G010.626+0.384 | 18   | 10   | 29.241 | 19    | 55    | 41.38 | 3.1       | 6.67       | 3.68       | 11.73     | 4.9 0.3  | 0.74  | B    |
| G010.628+0.333 | 18   | 10   | 17.996 | 19    | 54    | 4.99  | -6.81     | 13.52      | 5.36       | 58.94     | 16.2 0.3 | 0.59  | B    |
| G010.634+0.406 | 18   | 10   | 35.223 | 19    | 55    | 53.48 | -9.19     | 0.7        | 0.58       | 1.58      | 5.0 0.2  | 0.82  | B    |
| G010.724+0.334 | 18   | 10   | 30.042 | 19    | 49    | 6.96  | -2.49     | 0.7        | 1          | 2.95      | 5.0 0.3  | 0.9   | N    |
| G010.860+0.124 | 18   | 9    | 4.449  | 19    | 28    | 36.93 | 20.17     | 1.23       | 0.51       | 2.53      | 14.5 0.3 | 0.34  | N    |
| G010.885+0.122 | 18   | 9    | 7.964  | 19    | 27    | 24.44 | 16.23     | 7.37       | 7.06       | 56.15     | 14.5 0.3 | 0.4   | A    |
| G010.958+0.022 | 18   | 9    | 39.308 | 19    | 26    | 28.19 | 24.12     | 1.41       | 14.92      | 70.66     | 13.5 0.2 | 0.51  | A    |
| G011.109+0.114 | 18   | 10   | 28.26  | 19    | 22    | 30.43 | 28.25     | 11.07      | 15.38      | 163.48    | 13.4 0.2 | 0.53  | B    |
| G011.497+1.485 | 18   | 16   | 22.128 | 19    | 41    | 27.39 | 10.54     | 12.47      | 48.73      | 782.53    | 1.3 0.1  | 0.51  | A    |
| G011.903+0.102 | 18   | 12   | 2.687  | 18    | 40    | 24.99 | 35.06     | 4.74       | 8.7        | 24.13     | 3.1 0.3  | 0.47  | N    |
| G011.903+0.141 | 18   | 12   | 11.44  | 18    | 41    | 29.19 | 43.66     | 17.92      | 41.8       | 153.2     | 4.5 0.2  | 0.61  | N    |
| G011.934+0.150 | 18   | 12   | 17.144 | 18    | 40    | 9.82  | 33.57     | 4.22       | 1.43       | 16.98     | 3.1 0.3  | 0.53  | A    |
| G011.936+0.615 | 18   | 14   | 0.89   | 18    | 53    | 26.61 | 36.66     | 13.69      | 41.74      | 413.08    | 3.1 0.3  | 0.74  | A    |
| G011.942+0.156 | 18   | 12   | 19.572 | 18    | 39    | 52.45 | 43.49     | 3.68       | 5.54       | 8.31      | 4.5 0.2  | 0.62  | A    |
| G011.947+0.168 | 18   | 12   | 22.76  | 18    | 39    | 57.84 | 34.45     | 2.46       | 0.8        | 4.33      | 3.1 0.3  | 0.55  | B    |
| G011.991+0.272 | 18   | 12   | 51.204 | 18    | 40    | 40.07 | 59.46     | 2.28       | 2.03       | 7.88      | 10.8 0.2 | 0.81  | A    |
| G012.025+0.031 | 18   | 12   | 1.856  | 18    | 31    | 55.78 | 107.71    | 2.1        | 108.29     | 674.42    | 9.3 0.2  | 1     | N    |
| G012.111+0.126 | 18   | 12   | 33.413 | 18    | 30    | 7.72  | 44.66     | 10.89      | 2.74       | 13.03     | 4.5 0.2  | 0.61  | N    |
| G012.199+0.033 | 18   | 12   | 23.433 | 18    | 22    | 51.39 | 52.24     | 8.78       | 11.67      | 89.39     | 10.7 0.2 | 0.66  | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G012.202+0.107 | 18   | 12   | 40.233 | 18    | 24    | 48.06 | 18.26     | 3.69       | 2.32       | 8.26      | 13.5 0.2 | 0.41  | A    |
| G012.209+0.102 | 18   | 12   | 39.915 | 18    | 24    | 18.42 | 20.45     | 8.78       | 9.01       | 28.52     | 13.5 0.2 | 0.48  | A    |
| G012.265+0.051 | 18   | 12   | 35.394 | 18    | 19    | 52.96 | 68.14     | 4.04       | 2.13       | 25.08     | 10.7 0.2 | 1     | N    |
| G012.525+0.016 | 18   | 12   | 52.038 | 18    | 4     | 14.47 | 41.24     | 4.22       | 4.08       | 21.6      | 4.5 0.2  | 0.43  | B    |
| G012.624+0.016 | 18   | 13   | 11.298 | 17    | 59    | 58.27 | 23.25     | 4.74       | 13.17      | 140.61    | 13.4 0.2 | 0.45  | B    |
| G012.680+0.182 | 18   | 13   | 54.741 | 18    | 1     | 47.19 | 55.63     | 10.89      | 583.12     | 5519.22   | 10.7 0.2 | 0.62  | A    |
| G012.888+0.489 | 18   | 11   | 51.392 | 17    | 31    | 30.4  | 33.99     | 11.59      | 93.21      | 638.52    | 3.0 0.3  | 0.96  | A    |
| G012.904+0.031 | 18   | 13   | 48.262 | 17    | 45    | 39.78 | 58.76     | 2.28       | 52.2       | 224.89    | 10.7 0.2 | 0.86  | B    |
| G012.908+0.260 | 18   | 14   | 39.527 | 17    | 52    | 0.59  | 38        | 6.15       | 233.36     | 1764.15   | 3.1 0.3  | 0.63  | N    |
| G013.656+0.599 | 18   | 17   | 24.251 | 17    | 22    | 12.98 | 49.47     | 4.74       | 35.08      | 224.6     | 4.6 0.2  | 0.86  | B    |
| G013.712+0.083 | 18   | 15   | 36.973 | 17    | 4     | 32.76 | 47.63     | 9.66       | 21.2       | 58.02     | 4.5 0.2  | 0.72  | A    |
| G014.101+0.087 | 18   | 15   | 45.805 | 16    | 39    | 10.14 | 10.75     | 13.35      | 66.39      | 721.59    | 14.5 0.3 | 0.55  | B    |
| G014.389+0.020 | 18   | 16   | 43.769 | 16    | 27    | 1.7   | 26.75     | 1.75       | 2.62       | 5.66      | 13.3 0.2 | 0.54  | A    |
| G014.603+0.016 | 18   | 17   | 1.143  | 16    | 14    | 39.14 | 28.27     | 12.82      | 2.15       | 11.36     | 13.3 0.2 | 0.53  | B    |
| G014.990+0.121 | 18   | 18   | 17.318 | 15    | 58    | 8.59  | 47        | 4.56       | 5.87       | 18.5      | 4.6 0.2  | 0.59  | B    |
| G015.034+0.677 | 18   | 20   | 24.79  | 16    | 11    | 36.04 | 21.98     | 2.81       | 36.78      | 120.08    | 1.9 0.1  | 0.65  | A    |
| G015.094+0.191 | 18   | 17   | 20.819 | 15    | 43    | 47.04 | 24.05     | 3.51       | 14.06      | 43.83     | 1.9 0.1  | 0.38  | A    |
| G015.665+0.498 | 18   | 20   | 59.736 | 15    | 33    | 10.02 | -4.43     | 3.17       | 26.93      | 89.16     | 5.0 0.2  | 0.32  | A    |
| G016.111+0.303 | 18   | 21   | 9.141  | 15    | 4     | 0.35  | 34.2      | 0.53       | 1.78       | 4.75      | 3.1 0.3  | 0.65  | A    |
| G016.301+0.196 | 18   | 21   | 7.816  | 14    | 50    | 55.36 | 50.12     | 4.57       | 10.12      | 48.1      | 3.5 0.2  | 0.46  | B    |
| G016.585+0.050 | 18   | 21   | 9.126  | 14    | 31    | 48.4  | 62.47     | 12.64      | 44.76      | 291.62    | 4.8 0.2  | 0.63  | B    |
| G016.661+0.331 | 18   | 22   | 19.434 | 14    | 35    | 40.5  | 42.58     | 0.71       | 2.92       | 7.7       | 3.4 0.2  | 0.85  | A    |
| G016.831+0.078 | 18   | 21   | 9.524  | 14    | 15    | 8.85  | 63.39     | 10.54      | 4.7        | 55.37     | 4.8 0.2  | 0.62  | A    |
| G016.863+2.158 | 18   | 29   | 24.407 | 15    | 16    | 4.24  | 16.57     | 4.39       | 14.36      | 92.61     | 1.2 0.1  | 0.53  | A    |
| G017.021+2.402 | 18   | 30   | 36.292 | 15    | 14    | 28.49 | 20.75     | 6.85       | 6.88       | 63.58     | 1.8 0.2  | 0.93  | B    |
| G017.638+0.156 | 18   | 22   | 26.295 | 13    | 30    | 11.74 | 20.45     | 0.7        | 14.55      | 34.55     | 14.3 0.3 | 0.57  | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G018.072+0.077 | 18   | 23   | 33.962 | 13    | 9     | 24.75 | 50.41     | 13.17      | 5.61       | 47.54     | 3.4 0.2  | 0.85  | A    |
| G018.159+0.094 | 18   | 23   | 40.18  | 13    | 4     | 19.51 | 56.58     | 4.39       | 6.11       | 26.01     | 3.5 0.2  | 0.64  | B    |
| G018.262+0.243 | 18   | 25   | 5.695  | 13    | 8     | 22.9  | 76.46     | 7.38       | 21.97      | 233.86    | 5.1 0.2  | 0.66  | N    |
| G018.341+1.768 | 18   | 17   | 58.119 | 12    | 7     | 25.02 | 27.68     | 1.93       | 51.81      | 207.26    | 1.8 0.2  | 1     | N    |
| G018.460+0.004 | 18   | 24   | 36.343 | 12    | 51    | 7.32  | 46.92     | 5.44       | 20.55      | 84.09     | 3.4 0.2  | 0.79  | A    |
| G018.662+0.034 | 18   | 24   | 51.081 | 12    | 39    | 21.95 | 80.93     | 6.67       | 5.83       | 43.64     | 10.1 0.2 | 0.81  | B    |
| G018.667+0.025 | 18   | 24   | 53.764 | 12    | 39    | 20.79 | 78.29     | 4.56       | 11.08      | 98.59     | 10.1 0.2 | 0.73  | B    |
| G018.733+0.223 | 18   | 25   | 55.517 | 12    | 42    | 48.1  | 46.38     | 4.39       | 2.66       | 21.49     | 3.4 0.2  | 0.87  | B    |
| G018.735+0.227 | 18   | 25   | 56.46  | 12    | 42    | 48.45 | 37.69     | 1.06       | 2.33       | 7.15      | 3.3 0.2  | 0.69  | A    |
| G018.833+0.300 | 18   | 26   | 23.649 | 12    | 39    | 37.44 | 40.5      | 4.21       | 5.33       | 22.52     | 3.3 0.2  | 0.89  | A    |
| G018.873+0.053 | 18   | 25   | 11.339 | 12    | 27    | 36.5  | 38.27     | 1.06       | 9.62       | 33.7      | 3.3 0.2  | 0.54  | A    |
| G018.888+0.474 | 18   | 27   | 7.822  | 12    | 41    | 35.68 | 55.13     | 4.39       | 4.37       | 36.12     | 3.5 0.2  | 0.79  | B    |
| G019.008+0.029 | 18   | 25   | 44.759 | 12    | 22    | 46.02 | 56.8      | 6.85       | 21.53      | 202.41    | 3.5 0.2  | 0.61  | N    |
| G019.249+0.267 | 18   | 25   | 8.015  | 12    | 1     | 42.76 | 16.38     | 8.08       | 1.55       | 15.71     | 1.7 0.2  | 0.67  | B    |
| G019.267+0.348 | 18   | 24   | 52.398 | 11    | 58    | 27.93 | 14.72     | 3.34       | 3.86       | 15.01     | 1.7 0.2  | 0.9   | B    |
| G019.364+0.030 | 18   | 26   | 25.761 | 12    | 3     | 53.35 | 26.88     | 5.27       | 26.94      | 150.86    | 14.1 0.3 | 0.41  | A    |
| G019.472+0.169 | 18   | 25   | 54.7   | 11    | 52    | 34.06 | 19.98     | 13.87      | 10.31      | 58.8      | 14.2 0.3 | 0.68  | B    |
| G019.486+0.150 | 18   | 26   | 0.381  | 11    | 52    | 22.06 | 22.87     | 7.02       | 3.31       | 43.63     | 14.1 0.3 | 0.69  | B    |
| G019.495+0.115 | 18   | 26   | 9.156  | 11    | 52    | 51.27 | 120.85    | 1.05       | 6.33       | 15.45     | 8.1 0.9  | 0.43  | B    |
| G019.610+0.120 | 18   | 27   | 13.512 | 11    | 53    | 21.02 | 55.76     | 8.6        | 1.12       | 7.88      | 3.5 0.2  | 0.79  | B    |
| G019.612+0.133 | 18   | 27   | 16.515 | 11    | 53    | 37.85 | 53.3      | 8.25       | 10.83      | 63.95     | 3.5 0.2  | 0.83  | A    |
| G019.613+0.011 | 18   | 26   | 45.241 | 11    | 49    | 32.29 | 32.6      | 4.04       | 4.38       | 36.91     | 12.9 0.2 | 0.6   | B    |
| G019.666+0.114 | 18   | 26   | 28.966 | 11    | 43    | 49.17 | 15.41     | 3.34       | 1.77       | 15.2      | 14.2 0.3 | 0.72  | B    |
| G019.700+0.266 | 18   | 27   | 55.514 | 11    | 52    | 40.45 | 42.23     | 7.55       | 8.78       | 67.01     | 3.3 0.2  | 0.83  | A    |
| G019.754+0.128 | 18   | 27   | 31.609 | 11    | 45    | 55.12 | 119.34    | 6.85       | 1.46       | 4.72      | 7.8 0.9  | 0.69  | A    |
| G019.883+0.533 | 18   | 29   | 14.364 | 11    | 50    | 22.47 | 46.67     | 1.4        | 10.76      | 35.98     | 3.4 0.2  | 1     | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G020.081+0.135 | 18   | 28   | 10.317 | 11    | 28    | 47.23 | 43.14     | 0.53       | 1.49       | 3.38      | 3.3 0.2  | 0.56  | A    |
| G020.237+0.065 | 18   | 27   | 44.566 | 11    | 14    | 53.98 | 72.51     | 8.96       | 17.91      | 166.39    | 5.2 0.3  | 0.64  | A    |
| G020.239+0.064 | 18   | 27   | 44.957 | 11    | 14    | 47.73 | 65.4      | 10.89      | 5.68       | 32.85     | 5.3 0.3  | 0.63  | B    |
| G021.386+0.253 | 18   | 31   | 3.892  | 10    | 22    | 39.28 | 89.28     | 8.43       | 1.36       | 9.13      | 5.5 0.3  | 0.88  | A    |
| G021.406+0.254 | 18   | 31   | 6.331  | 10    | 21    | 37.41 | 90.51     | 8.78       | 12.14      | 65.28     | 5.5 0.3  | 0.88  | N    |
| G021.562+0.032 | 18   | 30   | 36.065 | 10    | 7     | 10.61 | 114.61    | 10.54      | 11.68      | 102.43    | 5.9 0.3  | 0.59  | A    |
| G021.879+0.014 | 18   | 31   | 1.732  | 9     | 49    | 0.77  | 19.27     | 4.22       | 2.14       | 16.28     | 14.0 0.3 | 0.69  | B    |
| G022.038+0.222 | 18   | 30   | 34.692 | 9     | 34    | 46.55 | 49.77     | 9.31       | 5.28       | 74.93     | 3.5 0.3  | 0.84  | A    |
| G022.334+0.154 | 18   | 32   | 29.402 | 9     | 29    | 29.78 | 31.64     | 14.93      | 25.68      | 163.17    | 12.7 0.3 | 0.61  | N    |
| G022.356+0.066 | 18   | 31   | 44.116 | 9     | 22    | 12.11 | 83.39     | 9.84       | 8.05       | 48.81     | 5.5 0.3  | 0.61  | A    |
| G022.435+0.169 | 18   | 32   | 43.81  | 9     | 24    | 32.96 | 30.76     | 17.74      | 14.33      | 157.23    | 12.6 0.3 | 0.51  | A    |
| G023.009+0.410 | 18   | 34   | 40.281 | 9     | 0     | 38.23 | 76.31     | 14.05      | 450.5      | 4523.72   | 5.5 0.4  | 0.58  | A    |
| G023.206+0.377 | 18   | 34   | 55.203 | 8     | 49    | 15.02 | 78.59     | 12.65      | 28.39      | 443.72    | 5.6 0.4  | 0.71  | N    |
| G023.250+0.212 | 18   | 34   | 24.375 | 8     | 42    | 20.43 | 100.13    | 5.8        | 0.4        | 1.38      | 5.9 0.2  | 0.96  | N    |
| G023.256+0.240 | 18   | 34   | 31.232 | 8     | 42    | 47.44 | 62.47     | 5.97       | 6.83       | 52.79     | 3.8 0.3  | 0.94  | B    |
| G023.389+0.185 | 18   | 33   | 14.326 | 8     | 23    | 57.49 | 74.39     | 5.09       | 37.38      | 310.61    | 5.7 0.3  | 0.35  | A    |
| G023.436+0.184 | 18   | 34   | 39.255 | 8     | 31    | 39.62 | 103.04    | 9.48       | 46.46      | 362.04    | 5.9 0.2  | 0.96  | N    |
| G023.439+0.182 | 18   | 34   | 39.18  | 8     | 31    | 25.65 | 101.28    | 11.59      | 36.16      | 372.32    | 5.9 0.2  | 0.95  | N    |
| G023.483+0.096 | 18   | 33   | 44.041 | 8     | 21    | 21.93 | 86.93     | 11.24      | 3.46       | 42.47     | 9.4 0.3  | 0.56  | A    |
| G023.656+0.127 | 18   | 34   | 51.558 | 8     | 18    | 21.24 | 81.88     | 11.07      | 14.03      | 233.58    | 5.7 0.3  | 0.68  | N    |
| G023.706+0.198 | 18   | 35   | 12.36  | 8     | 17    | 39.23 | 76.17     | 10.36      | 19.48      | 304.3     | 4.1 0.4  | 0.48  | A    |
| G023.885+0.059 | 18   | 34   | 36.847 | 8     | 1     | 0.11  | 44.16     | 1.58       | 1.53       | 7.67      | 12.3 0.2 | 0.85  | B    |
| G023.901+0.076 | 18   | 34   | 34.917 | 7     | 59    | 42.03 | 33.45     | 4.39       | 1.56       | 5.78      | 12.5 0.3 | 0.52  | B    |
| G023.966+0.109 | 18   | 35   | 22.209 | 8     | 1     | 22.38 | 69.34     | 5.27       | 21.23      | 68.42     | 4.0 0.3  | 0.85  | A    |
| G023.986+0.089 | 18   | 35   | 20.096 | 7     | 59    | 44.84 | 65.38     | 2.99       | 3.16       | 15.33     | 3.9 0.3  | 0.91  | A    |
| G024.147+0.009 | 18   | 35   | 20.941 | 7     | 48    | 55.57 | 17.89     | 2.81       | 28.13      | 134.89    | 1.8 0.2  | 0.4   | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G024.328+0.144 | 18   | 35   | 8.119  | 7     | 35    | 4.13  | 114.33    | 10.88      | 11.28      | 127.48    | 8.9 0.3  | 0.48  | A    |
| G024.493+0.038 | 18   | 36   | 5.733  | 7     | 31    | 19.19 | 111.58    | 9.3        | 14.86      | 88.12     | 6.0 0.2  | 0.64  | A    |
| G024.541+0.312 | 18   | 34   | 55.72  | 7     | 19    | 6.67  | 107.42    | 5.44       | 7.11       | 102.79    | 9.0 0.2  | 0.66  | A    |
| G024.631+0.172 | 18   | 35   | 35.778 | 7     | 18    | 8.75  | 115.91    | 4.22       | 1.51       | 4.36      | 8.9 0.3  | 0.76  | N    |
| G024.634+0.323 | 18   | 37   | 22.714 | 7     | 31    | 42.06 | 42.69     | 15.98      | 5.92       | 44.66     | 12.2 0.2 | 0.6   | N    |
| G024.674+0.153 | 18   | 36   | 50.627 | 7     | 24    | 52.77 | 113.31    | 0.17       | 0.47       | 0.83      | 6.0 0.3  | 0.7   | A    |
| G024.675+0.149 | 18   | 36   | 49.971 | 7     | 24    | 42.01 | 109.98    | 12.82      | 1.64       | 13.79     | 6.0 0.2  | 0.75  | A    |
| G024.789+0.083 | 18   | 36   | 12.569 | 7     | 12    | 10.61 | 108.53    | 12.99      | 77.8       | 889.27    | 8.9 0.3  | 0.66  | A    |
| G024.850+0.087 | 18   | 36   | 18.394 | 7     | 8     | 50.68 | 111.69    | 7.37       | 13.15      | 94.19     | 8.8 0.3  | 0.73  | A    |
| G024.919+0.088 | 18   | 36   | 25.936 | 7     | 5     | 8.01  | 49.17     | 8.07       | 4.84       | 22.14     | 12.1 0.2 | 0.76  | B    |
| G024.942+0.074 | 18   | 36   | 31.558 | 7     | 4     | 16.75 | 46.44     | 1.93       | 3.25       | 15.57     | 12.1 0.2 | 0.88  | A    |
| G025.381+0.181 | 18   | 38   | 15.201 | 6     | 47    | 56.04 | 60.27     | 8.96       | 6.46       | 31.47     | 3.8 0.3  | 0.89  | A    |
| G025.410+0.104 | 18   | 37   | 16.921 | 6     | 38    | 30.42 | 95.44     | 3.69       | 12.02      | 69.62     | 9.0 0.3  | 0.99  | N    |
| G025.649+1.049 | 18   | 34   | 20.902 | 5     | 59    | 42.06 | 40.34     | 4.57       | 75.63      | 230.99    | 2.0 0.3  | 0.93  | A    |
| G025.709+0.043 | 18   | 38   | 3.138  | 6     | 24    | 15.32 | 92.7      | 13.52      | 400.63     | 2635.38   | 8.9 0.3  | 1     | A    |
| G025.825+0.178 | 18   | 39   | 3.627  | 6     | 24    | 11.15 | 92.14     | 14.75      | 53.46      | 440.62    | 8.8 0.3  | 0.95  | A    |
| G025.920+0.140 | 18   | 39   | 6.067  | 6     | 18    | 4.86  | 112.69    | 2.11       | 0.85       | 2.93      | 8.5 0.3  | 0.79  | B    |
| G026.513+0.292 | 18   | 40   | 44.31  | 5     | 50    | 37.64 | 108.44    | 2.11       | 0.69       | 1.93      | 8.5 0.3  | 0.77  | B    |
| G026.526+0.267 | 18   | 40   | 40.261 | 5     | 49    | 12.81 | 105.36    | 6.14       | 4.52       | 32.89     | 8.6 0.3  | 0.9   | N    |
| G026.551+0.309 | 18   | 40   | 52.035 | 5     | 49    | 2.56  | 105.27    | 5.97       | 1.05       | 18.86     | 8.6 0.3  | 0.84  | B    |
| G026.597+0.023 | 18   | 39   | 55.932 | 5     | 38    | 44.94 | 22.16     | 10.71      | 11.03      | 54.55     | 13.6 0.3 | 0.84  | A    |
| G026.600+0.221 | 18   | 40   | 38.577 | 5     | 44    | 1.45  | 108.7     | 12.47      | 6.79       | 61.7      | 8.5 0.3  | 0.85  | B    |
| G027.219+0.260 | 18   | 40   | 3.717  | 4     | 57    | 46.19 | 8.12      | 4.39       | 7.76       | 36.62     | 13.7 0.3 | 0.56  | B    |
| G027.221+0.136 | 18   | 40   | 30.545 | 5     | 1     | 5.54  | 112.78    | 15.63      | 15.09      | 154.89    | 8.3 0.3  | 0.97  | N    |
| G027.286+0.150 | 18   | 40   | 34.513 | 4     | 57    | 14.43 | 29.79     | 12.65      | 29.47      | 128.52    | 13.4 0.3 | 0.56  | B    |
| G027.365+0.165 | 18   | 41   | 51.057 | 5     | 1     | 43.24 | 95.51     | 15.98      | 36.44      | 390.16    | 8.5 0.3  | 0.93  | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G027.370+0.164 | 18   | 41   | 51.418 | 5     | 1     | 24.94 | 95.52     | 0.53       | 0.41       | 1.29      | 8.5 0.3  | 0.93  | B    |
| G027.757+0.050 | 18   | 41   | 47.999 | 4     | 34    | 53.07 | 98.86     | 12.47      | 0.98       | 4.66      | 8.4 0.3  | 0.97  | B    |
| G027.782+0.258 | 18   | 42   | 56.954 | 4     | 41    | 58.97 | 101.09    | 9.66       | 5.49       | 20.86     | 8.3 0.4  | 0.8   | N    |
| G027.784+0.056 | 18   | 41   | 49.577 | 4     | 33    | 13.66 | 110.54    | 4.56       | 2.25       | 15.11     | 8.1 0.3  | 1     | A    |
| G028.010+0.426 | 18   | 43   | 57.964 | 4     | 34    | 24.1  | 21.69     | 12.47      | 4.95       | 38.04     | 1.9 0.2  | 0.89  | N    |
| G028.146+0.004 | 18   | 42   | 42.587 | 4     | 15    | 35.07 | 101.47    | 6.14       | 31.49      | 134.07    | 8.2 0.3  | 0.96  | N    |
| G028.200+0.049 | 18   | 42   | 58.115 | 4     | 13    | 57.97 | 97.86     | 7.38       | 2.52       | 22.47     | 8.3 0.3  | 0.84  | A    |
| G028.226+0.359 | 18   | 41   | 33.571 | 4     | 1     | 22.34 | 49.72     | 1.93       | 1.34       | 4.05      | 11.6 0.2 | 0.64  | N    |
| G028.281+0.358 | 18   | 44   | 13.255 | 4     | 18    | 4.85  | 41.61     | 2.1        | 4.9        | 19.93     | 11.8 0.3 | 0.39  | B    |
| G028.304+0.387 | 18   | 44   | 21.965 | 4     | 17    | 39.85 | 86.65     | 14.22      | 29.63      | 231.69    | 4.6 0.3  | 0.97  | A    |
| G028.397+0.080 | 18   | 42   | 51.984 | 3     | 59    | 54.43 | 75.04     | 13         | 19.54      | 74.18     | 4.4 0.3  | 1     | B    |
| G028.817+0.364 | 18   | 42   | 37.347 | 3     | 29    | 40.92 | 90.16     | 5.62       | 5.36       | 65.16     | 4.8 0.4  | 0.7   | A    |
| G028.819+0.354 | 18   | 42   | 39.814 | 3     | 29    | 50.91 | 86.56     | 0.18       | 0.23       | 0.43      | 4.7 0.3  | 0.95  | N    |
| G028.832+0.252 | 18   | 44   | 51.084 | 3     | 45    | 48.24 | 85.94     | 12.82      | 52.57      | 677.04    | 4.7 0.3  | 0.96  | B    |
| G028.842+0.493 | 18   | 42   | 12.535 | 3     | 24    | 48.81 | 84.56     | 9.84       | 1.91       | 16.82     | 4.7 0.3  | 1     | N    |
| G028.847+0.227 | 18   | 44   | 47.458 | 3     | 44    | 17.01 | 101.39    | 3.68       | 1.67       | 14.16     | 8.1 0.3  | 0.61  | N    |
| G029.319+0.161 | 18   | 45   | 25.143 | 3     | 17    | 16.82 | 46.23     | 7.55       | 4.91       | 30.76     | 11.6 0.2 | 1     | A    |
| G029.862+0.044 | 18   | 45   | 59.565 | 2     | 45    | 6.59  | 101.62    | 6.33       | 73.67      | 602.14    | 7.8 0.4  | 0.75  | N    |
| G029.955+0.016 | 18   | 46   | 3.739  | 2     | 39    | 22.28 | 97.58     | 8.43       | 144.4      | 829.6     | 7.8 0.4  | 0.36  | A    |
| G029.961+0.067 | 18   | 46   | 15.369 | 2     | 40    | 28.81 | 100.47    | 1.23       | 3.54       | 12.39     | 7.2 0.6  | 0.38  | N    |
| G029.978+0.047 | 18   | 46   | 12.96  | 2     | 39    | 1.44  | 100.99    | 8.96       | 28.06      | 383.07    | 7.8 0.3  | 0.61  | N    |
| G030.198+0.169 | 18   | 47   | 3.061  | 2     | 30    | 36.28 | 105.52    | 10.36      | 23.39      | 180.78    | 7.5 0.4  | 0.91  | N    |
| G030.224+0.180 | 18   | 47   | 8.291  | 2     | 29    | 29.38 | 111.92    | 4.21       | 17.68      | 132.32    | 7.4 0.4  | 0.67  | B    |
| G030.317+0.070 | 18   | 46   | 25.021 | 2     | 17    | 41.32 | 33.9      | 8.26       | 8.47       | 73.64     | 2.1 0.2  | 0.54  | N    |
| G030.378+0.295 | 18   | 47   | 49.883 | 2     | 24    | 26.18 | 102.76    | 0.7        | 1          | 2.99      | 7.5 0.4  | 0.73  | B    |
| G030.400+0.295 | 18   | 47   | 52.285 | 2     | 23    | 16.41 | 101.09    | 7.2        | 3.78       | 24.59     | 6.7 0.6  | 0.44  | N    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G030.419+0.232 | 18   | 47   | 40.752 | 2     | 20    | 31.12 | 103.47    | 2.46       | 13.68      | 39.1      | 7.5 0.4  | 0.77  | A    |
| G030.423+0.465 | 18   | 45   | 12.102 | 2     | 1     | 10.79 | 6.56      | 3.34       | 0.62       | 5.08      | 13.4 0.3 | 0.92  | B    |
| G030.424+0.214 | 18   | 47   | 37.514 | 2     | 19    | 45.87 | 105.67    | 0.18       | 0.45       | 0.84      | 7.4 0.4  | 0.82  | B    |
| G030.441+0.232 | 18   | 47   | 43.154 | 2     | 19    | 21.03 | 98.91     | 2.46       | 0.35       | 1.56      | 6.5 0.6  | 0.43  | B    |
| G030.702+0.068 | 18   | 47   | 36.8   | 2     | 0     | 54.21 | 87.59     | 5.09       | 147        | 407.37    | 4.9 0.4  | 0.87  | B    |
| G030.760+0.052 | 18   | 47   | 39.728 | 1     | 57    | 24.75 | 91.53     | 5.62       | 42.28      | 271.1     | 5.0 0.5  | 0.58  | B    |
| G030.776+0.006 | 18   | 47   | 31.649 | 1     | 55    | 14.04 | 93.64     | 2.46       | 0.9        | 3.69      | 5.7 0.9  | 0.68  | B    |
| G030.779+0.230 | 18   | 46   | 41.506 | 1     | 48    | 36.98 | 48.81     | 3.34       | 31.12      | 92.61     | 11.3 0.3 | 0.98  | N    |
| G030.788+0.203 | 18   | 46   | 48.084 | 1     | 48    | 54.01 | 82.44     | 14.4       | 8.69       | 142.82    | 4.8 0.4  | 0.94  | N    |
| G030.817+0.056 | 18   | 47   | 46.971 | 1     | 54    | 26.21 | 104.44    | 10.71      | 14.91      | 139.74    | 7.3 0.4  | 0.71  | B    |
| G030.897+0.161 | 18   | 47   | 9.113  | 1     | 44    | 12.76 | 104.72    | 12.99      | 59.99      | 745.57    | 7.1 0.5  | 0.66  | N    |
| G030.963+0.225 | 18   | 47   | 2.624  | 1     | 38    | 58.34 | 102.18    | 1.4        | 0.26       | 0.72      | 6.8 0.7  | 0.9   | B    |
| G030.972+0.141 | 18   | 48   | 22.035 | 1     | 48    | 30.59 | 76.66     | 6.5        | 17.59      | 149.86    | 4.5 0.3  | 1     | N    |
| G031.047+0.356 | 18   | 46   | 43.852 | 1     | 30    | 54.08 | 80.33     | 4.92       | 3.5        | 33.53     | 4.7 0.3  | 0.97  | A    |
| G031.059+0.093 | 18   | 47   | 41.334 | 1     | 37    | 26.56 | 17.51     | 4.74       | 11.52      | 40.71     | 1.9 0.3  | 0.61  | A    |
| G031.076+0.457 | 18   | 46   | 25.429 | 1     | 26    | 33.49 | 25.82     | 1.58       | 1.88       | 8.43      | 12.9 0.3 | 0.69  | B    |
| G031.121+0.062 | 18   | 47   | 54.667 | 1     | 34    | 57.07 | 47.78     | 0.35       | 1.34       | 2.65      | 11.3 0.3 | 0.99  | A    |
| G031.158+0.045 | 18   | 48   | 2.323  | 1     | 33    | 27.23 | 41.72     | 2.99       | 2.42       | 10.25     | 11.4 0.3 | 0.89  | B    |
| G031.182+0.147 | 18   | 48   | 46.398 | 1     | 37    | 27.89 | 47.22     | 8.43       | 1.73       | 14.15     | 11.2 0.2 | 0.97  | N    |
| G031.280+0.061 | 18   | 48   | 12.39  | 1     | 26    | 30.33 | 107.49    | 10.89      | 59.96      | 740.67    | 7.0 0.5  | 0.69  | A    |
| G031.411+0.307 | 18   | 47   | 34.28  | 1     | 12    | 45.72 | 98.99     | 14.92      | 16.51      | 257.39    | 6.2 0.7  | 0.95  | A    |
| G031.580+0.077 | 18   | 48   | 41.945 | 1     | 10    | 2.61  | 95.52     | 8.43       | 8.16       | 66.08     | 5.9 0.8  | 0.84  | B    |
| G032.044+0.059 | 18   | 49   | 36.551 | 0     | 45    | 46.11 | 97.13     | 10.71      | 79.5       | 793.04    | 6.0 0.7  | 0.86  | A    |
| G032.117+0.090 | 18   | 49   | 37.74  | 0     | 41    | 0.3   | 96.96     | 13.17      | 10.84      | 43.49     | 6.0 0.7  | 0.85  | A    |
| G032.744+0.075 | 18   | 51   | 21.845 | 0     | 12    | 5.3   | 33.02     | 11.94      | 47.72      | 601.39    | 2.1 0.1  | 0.95  | A    |
| G032.749+0.064 | 18   | 51   | 19.99  | 0     | 11    | 29.47 | 34.95     | 0.71       | 2.5        | 5.91      | 2.1 0.1  | 0.91  | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G032.991+0.033 | 18   | 51   | 25.584 | 0     | 4     | 7.03  | 90.88     | 3.33       | 9.85       | 75.29     | 5.9 0.7  | 0.77  | A    |
| G033.092+0.072 | 18   | 51   | 59.403 | 0     | 6     | 34.11 | 102.26    | 7.2        | 13.94      | 112.9     | 6.5 0.5  | 0.87  | N    |
| G033.132+0.091 | 18   | 52   | 7.819  | 0     | 8     | 12.42 | 73.72     | 5.27       | 11.28      | 72.52     | 4.9 0.5  | 0.93  | A    |
| G033.392+0.009 | 18   | 52   | 14.638 | 0     | 24    | 52.57 | 102.06    | 10.89      | 21.35      | 212.32    | 6.4 0.5  | 0.88  | B    |
| G033.641+0.227 | 18   | 53   | 32.556 | 0     | 31    | 39.24 | 60.2      | 7.2        | 95.86      | 611.76    | 10.6 0.3 | 0.82  | A    |
| G033.851+0.018 | 18   | 53   | 3.119  | 0     | 49    | 37.38 | 62.23     | 4.22       | 4.85       | 27.1      | 10.5 0.3 | 0.9   | B    |
| G033.979+0.018 | 18   | 53   | 25.006 | 0     | 55    | 26.14 | 62.12     | 6.84       | 1.73       | 23.09     | 10.5 0.3 | 0.89  | B    |
| G034.096+0.017 | 18   | 53   | 29.899 | 1     | 2     | 38.89 | 57.98     | 6.33       | 5.97       | 24.17     | 10.6 0.3 | 1     | B    |
| G034.244+0.133 | 18   | 53   | 21.437 | 1     | 13    | 46.11 | 58.25     | 7.91       | 4.95       | 43.23     | 10.5 0.3 | 1     | B    |
| G034.257+0.153 | 18   | 53   | 18.629 | 1     | 15    | 0.49  | 58.69     | 5.27       | 20.78      | 92.46     | 10.5 0.3 | 1     | A    |
| G034.267+0.209 | 18   | 54   | 37.247 | 1     | 5     | 33.62 | 52.31     | 4.57       | 7.43       | 30.6      | 10.6 0.3 | 0.94  | N    |
| G034.395+0.221 | 18   | 53   | 19.081 | 1     | 24    | 13.93 | 58.94     | 7.56       | 17.04      | 61.8      | 10.5 0.3 | 0.97  | B    |
| G034.751+0.092 | 18   | 55   | 5.212  | 1     | 34    | 36.26 | 51.91     | 3.87       | 5.04       | 41.04     | 10.6 0.3 | 0.97  | N    |
| G034.791+1.386 | 18   | 59   | 45.981 | 1     | 1     | 18.97 | 45.89     | 5.62       | 11.95      | 185.25    | 2.2 0.1  | 1     | A    |
| G035.024+0.349 | 18   | 54   | 0.654  | 2     | 1     | 19.07 | 43.77     | 5.44       | 19.45      | 129.81    | 2.2 0.2  | 0.67  | A    |
| G035.197+0.743 | 18   | 58   | 13.047 | 1     | 40    | 35.6  | 31.55     | 11.59      | 164.76     | 971.15    | 2.2 0.1  | 1     | A    |
| G035.200+1.736 | 19   | 1    | 45.548 | 1     | 13    | 32.88 | 42.67     | 5.97       | 113.85     | 1061.27   | 2.2 0.1  | 1     | B    |
| G035.792+0.174 | 18   | 57   | 16.883 | 2     | 27    | 58.05 | 60.34     | 7.37       | 26.31      | 182.03    | 10.2 0.3 | 0.74  | A    |
| G036.115+0.552 | 18   | 55   | 16.774 | 3     | 5     | 5.72  | 72.44     | 6.85       | 18.92      | 175.56    | 4.5 0.4  | 1     | A    |
| G036.705+0.096 | 18   | 57   | 59.124 | 3     | 24    | 6.19  | 57.34     | 10.71      | 4.68       | 30.02     | 10.1 0.3 | 0.74  | B    |
| G036.839+0.022 | 18   | 58   | 39.214 | 3     | 28    | 0.86  | 59.05     | 9.31       | 2.14       | 28.91     | 10.0 0.3 | 0.82  | A    |
| G037.030+0.038 | 18   | 59   | 3.65   | 3     | 37    | 45.02 | 78.34     | 0.88       | 2.89       | 11.22     | 4.7 0.4  | 1     | N    |
| G037.043+0.035 | 18   | 59   | 4.413  | 3     | 38    | 32.7  | 81.85     | 7.56       | 9.15       | 103.77    | 4.8 0.4  | 1     | B    |
| G037.429+1.517 | 18   | 54   | 14.234 | 4     | 41    | 41    | 43.12     | 6.33       | 320.35     | 1206.47   | 2.4 0.3  | 0.72  | B    |
| G037.479+0.104 | 19   | 0    | 7.143  | 3     | 59    | 53.31 | 58.39     | 9.66       | 6.36       | 129.72    | 9.9 0.3  | 0.89  | B    |
| G037.546+0.111 | 19   | 0    | 15.963 | 4     | 3     | 16.65 | 51.1      | 3.16       | 4.58       | 23.64     | 10.1 0.3 | 0.92  | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G037.553+0.200 | 18   | 59   | 9.992  | 4     | 12    | 15.47 | 82.94     | 9.48       | 4.64       | 35.41     | 4.8 0.5  | 1     | A    |
| G037.597+0.425 | 18   | 58   | 26.806 | 4     | 20    | 45.43 | 88.59     | 8.07       | 19.31      | 122.99    | 4.7 0.6  | 1     | N    |
| G037.753+0.189 | 19   | 0    | 55.429 | 4     | 12    | 12.5  | 59.66     | 11.24      | 2.18       | 15.04     | 9.8 0.3  | 0.86  | B    |
| G038.037+0.300 | 19   | 1    | 50.47  | 4     | 24    | 19.25 | 60.85     | 10.72      | 6.83       | 63.27     | 9.7 0.3  | 0.79  | N    |
| G038.119+0.228 | 19   | 1    | 44.155 | 4     | 30    | 37.75 | 73.32     | 12.12      | 5.35       | 34.91     | 4.5 0.4  | 0.79  | A    |
| G038.203+0.066 | 19   | 1    | 18.733 | 4     | 39    | 34.63 | 81.48     | 6.67       | 12         | 101.98    | 4.7 0.5  | 0.81  | B    |
| G038.257+0.073 | 19   | 1    | 26.237 | 4     | 42    | 17.62 | 13.7      | 3.86       | 9.61       | 31.79     | 12.2 0.3 | 0.79  | A    |
| G038.915+0.353 | 19   | 3    | 38.646 | 5     | 9     | 42.82 | 32.22     | 0.87       | 0.55       | 1.73      | 1.9 0.1  | 0.43  | B    |
| G039.100+0.491 | 19   | 0    | 58.04  | 5     | 42    | 45.36 | 15.98     | 5.97       | 23.03      | 139.82    | 12.2 0.3 | 0.7   | A    |
| G040.281+0.219 | 19   | 5    | 41.222 | 6     | 26    | 12.67 | 76.75     | 14.05      | 23.06      | 325.91    | 4.3 0.4  | 0.58  | A    |
| G040.425+0.700 | 19   | 2    | 39.616 | 6     | 59    | 9.27  | 10.45     | 11.42      | 22.25      | 179.82    | 0.6 0.2  | 0.81  | A    |
| G040.622+0.138 | 19   | 6    | 1.627  | 6     | 46    | 36.33 | 33.19     | 6.32       | 11.49      | 32.75     | 2.3 0.3  | 0.53  | A    |
| G040.934+0.040 | 19   | 6    | 15.376 | 7     | 5     | 54.66 | 40.04     | 7.38       | 1.78       | 6.95      | 2.6 0.3  | 0.77  | B    |
| G041.123+0.220 | 19   | 7    | 14.853 | 7     | 11    | 0.78  | 59.8      | 8.95       | 1.81       | 9.04      | 9.0 0.4  | 0.79  | N    |
| G041.226+0.197 | 19   | 7    | 21.375 | 7     | 17    | 8.23  | 58.92     | 7.9        | 8.95       | 104.01    | 9.0 0.4  | 0.79  | B    |
| G041.347+0.136 | 19   | 7    | 21.851 | 7     | 25    | 17.26 | 10.18     | 6.33       | 16.37      | 124.29    | 11.8 0.3 | 0.83  | N    |
| G042.034+0.190 | 19   | 7    | 28.192 | 8     | 10    | 53.49 | 10.97     | 7.55       | 21.4       | 172.91    | 11.7 0.3 | 0.98  | B    |
| G042.303+0.299 | 19   | 9    | 43.599 | 8     | 11    | 41.42 | 28.45     | 3.52       | 5.61       | 20.3      | 2.4 0.2  | 0.68  | B    |
| G042.698+0.147 | 19   | 9    | 55.081 | 8     | 36    | 53.53 | -43.11    | 7.9        | 3.35       | 24.75     | 15.2 1.2 | 0.5   | A    |
| G043.038+0.452 | 19   | 11   | 38.986 | 8     | 46    | 30.84 | 58.83     | 8.78       | 6.28       | 42.74     | 8.5 0.4  | 0.93  | A    |
| G043.074+0.077 | 19   | 10   | 22.065 | 8     | 58    | 51.6  | 10.45     | 1.23       | 6.9        | 17.95     | 11.4 0.4 | 0.82  | N    |
| G043.149+0.013 | 19   | 10   | 11.063 | 9     | 5     | 20.65 | 13.35     | 1.75       | 17.27      | 55.29     | 11.4 0.3 | 0.95  | A    |
| G043.165+0.013 | 19   | 10   | 12.898 | 9     | 6     | 12.42 | 14.22     | 12.99      | 31.46      | 134.62    | 11.3 0.3 | 0.95  | B    |
| G043.170+0.004 | 19   | 10   | 15.374 | 9     | 6     | 15.6  | 20.28     | 4.04       | 7.68       | 35.09     | 11.2 0.3 | 0.9   | B    |
| G043.170+0.010 | 19   | 10   | 14.053 | 9     | 6     | 23.83 | 13.25     | 1.23       | 2.72       | 9.36      | 11.4 0.3 | 0.95  | B    |
| G043.795+0.127 | 19   | 11   | 53.991 | 9     | 35    | 50.78 | 41.45     | 4.21       | 24.6       | 182.29    | 2.9 0.4  | 0.8   | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G043.890+0.784 | 19   | 14   | 26.388 | 9     | 22    | 36.74 | 48.38     | 10.72      | 10.84      | 89.79     | 3.1 0.5  | 0.94  | A    |
| G045.071+0.132 | 19   | 13   | 22.12  | 10    | 50    | 52.82 | 58.48     | 2.46       | 41.48      | 96.38     | 7.9 0.3  | 0.85  | A    |
| G045.467+0.053 | 19   | 14   | 24.143 | 11    | 9     | 43.07 | 57.51     | 3.34       | 4.12       | 40.39     | 7.9 0.4  | 0.88  | B    |
| G045.472+0.133 | 19   | 14   | 7.351  | 11    | 12    | 15.66 | 64.28     | 4.21       | 4.23       | 28.15     | 7.7 0.5  | 0.81  | B    |
| G045.492+0.125 | 19   | 14   | 11.346 | 11    | 13    | 6.04  | 57.6      | 1.06       | 8.32       | 24.33     | 7.9 0.4  | 0.82  | B    |
| G045.804+0.355 | 19   | 16   | 31.077 | 11    | 16    | 11.68 | 59.09     | 7.55       | 18.52      | 50.41     | 7.7 0.5  | 0.88  | N    |
| G049.042+1.078 | 19   | 25   | 22.247 | 13    | 47    | 19.4  | 38.02     | 6.14       | 12.02      | 129.88    | 3.1 0.3  | 0.55  | A    |
| G049.265+0.311 | 19   | 20   | 44.866 | 14    | 38    | 26.88 | -2.9      | 6.5        | 9.59       | 92.56     | 10.5 0.4 | 0.89  | B    |
| G049.349+0.412 | 19   | 20   | 32.455 | 14    | 45    | 45.37 | 67.79     | 2.46       | 7.62       | 44.22     | 5.2 0.6  | 0.86  | N    |
| G049.415+0.325 | 19   | 20   | 59.215 | 14    | 46    | 49.52 | -12.55    | 5.45       | 7.14       | 72.91     | 10.9 0.6 | 1     | B    |
| G049.469+0.370 | 19   | 23   | 37.886 | 14    | 29    | 58.87 | 69.63     | 12.46      | 2.59       | 30.86     | 5.5 0.4  | 1     | B    |
| G049.470+0.368 | 19   | 23   | 37.588 | 14    | 30    | 4.62  | 73.23     | 1.76       | 1.68       | 11.66     | 6.1 0.9  | 0.75  | B    |
| G049.471+0.367 | 19   | 23   | 37.305 | 14    | 30    | 10.16 | 65.85     | 8.78       | 2.65       | 14.81     | 5.5 0.4  | 1     | B    |
| G049.474+0.367 | 19   | 23   | 37.659 | 14    | 30    | 21.23 | 59.18     | 4.56       | 7.45       | 57.8      | 5.5 0.4  | 1     | B    |
| G049.482+0.401 | 19   | 23   | 46.182 | 14    | 29    | 46.7  | 58.22     | 20.89      | 4.36       | 46.8      | 5.5 0.5  | 1     | B    |
| G049.487+0.388 | 19   | 23   | 43.871 | 14    | 30    | 26.99 | 59.62     | 9.3        | 2.15       | 9.53      | 5.5 0.4  | 1     | A    |
| G049.489+0.369 | 19   | 23   | 39.813 | 14    | 31    | 4.58  | 57.77     | 7.03       | 30.79      | 286.84    | 5.5 0.5  | 1     | A    |
| G049.489+0.387 | 19   | 23   | 43.938 | 14    | 30    | 34.09 | 55.41     | 11.77      | 656.4      | 2862.55   | 5.6 0.6  | 1     | B    |
| G049.492+0.382 | 19   | 23   | 43.185 | 14    | 30    | 49.8  | 64.62     | 1.05       | 1.76       | 8.69      | 5.5 0.4  | 1     | A    |
| G049.599+0.249 | 19   | 23   | 26.608 | 14    | 40    | 16.73 | 63.75     | 5.62       | 25.34      | 366.5     | 5.5 0.4  | 1     | B    |
| G050.034+0.581 | 19   | 21   | 15.46  | 15    | 26    | 49.21 | -6.58     | 7.91       | 3.81       | 26.91     | 10.7 0.4 | 1     | B    |
| G050.314+0.676 | 19   | 21   | 27.483 | 15    | 44    | 18.59 | 28.8      | 6.32       | 3.56       | 25.36     | 3.5 0.6  | 0.37  | A    |
| G050.778+0.151 | 19   | 24   | 17.412 | 15    | 54    | 1.48  | 49.25     | 1.93       | 5.47       | 17.57     | 6.4 1.5  | 0.66  | B    |
| G052.198+0.723 | 19   | 24   | 59.841 | 17    | 25    | 17.79 | 2.98      | 1.75       | 4.65       | 14.73     | 10.1 0.3 | 1     | B    |
| G052.662+1.092 | 19   | 32   | 36.062 | 16    | 57    | 38.48 | 66.47     | 3.34       | 4.16       | 22.05     | 2.8 1.2  | 0.9   | N    |
| G052.921+0.414 | 19   | 27   | 34.949 | 17    | 54    | 38.04 | 41.98     | 5.97       | 4.14       | 23.96     | 4.5 0.5  | 0.4   | N    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G053.141+0.070 | 19   | 29   | 17.56  | 17    | 56    | 23.18 | 24.59     | 0.35       | 0.7        | 1.16      | 6.4 2.0  | 0.5   | N    |
| G053.617+0.035 | 19   | 30   | 23.014 | 18    | 20    | 26.56 | 18.79     | 0.7        | 3.75       | 8.68      | 9.1 0.2  | 0.28  | B    |
| G056.963+0.234 | 19   | 38   | 17.097 | 21    | 8     | 5.49  | 29.86     | 0.35       | 0.75       | 1.39      | 6.5 0.9  | 0.53  | A    |
| G058.774+0.644 | 19   | 38   | 49.124 | 23    | 8     | 40.2  | 33.72     | 5.62       | 6.96       | 53.33     | 3.7 0.5  | 0.42  | B    |
| G059.633+0.191 | 19   | 43   | 49.963 | 23    | 28    | 36.61 | 29.59     | 0.18       | 0.3        | 0.5       | 4.5 1.7  | 0.47  | B    |
| G059.782+0.064 | 19   | 43   | 11.24  | 23    | 44    | 3.2   | 20.98     | 13.53      | 40.02      | 377.61    | 6.4 1.3  | 0.43  | A    |
| G059.832+0.672 | 19   | 40   | 59.291 | 24    | 4     | 44.22 | 37.84     | 4.39       | 23.06      | 142.22    | 4.3 1.5  | 0.45  | A    |
| G060.575+0.186 | 19   | 45   | 52.485 | 24    | 17    | 42.99 | 3.42      | 0.87       | 7.32       | 13.69     | 8.4 0.4  | 0.53  | A    |
| G069.539+0.975 | 20   | 10   | 9.075  | 31    | 31    | 34.86 | 7.64      | 16.33      | 62.78      | 235.28    | 3.9 0.6  | 1     | A    |
| G070.181+1.741 | 20   | 0    | 54.164 | 33    | 31    | 30.88 | -26.78    | 4.74       | 9.04       | 56.8      | 9.8 1.6  | 0.99  | N    |
| G071.522+0.385 | 20   | 12   | 57.914 | 33    | 30    | 26.95 | 8.16      | 5.79       | 4.23       | 20.15     | 3.5 0.5  | 0.4   | B    |
| G075.782+0.342 | 20   | 21   | 44.058 | 37    | 26    | 36.91 | -0.97     | 4.39       | 55.49      | 263.36    | 2.6 0.3  | 0.55  | A    |
| G078.122+3.632 | 20   | 14   | 26.047 | 41    | 13    | 32.58 | -6.58     | 3.69       | 44.69      | 174.94    | 2.3 0.4  | 0.66  | N    |
| G078.886+0.708 | 20   | 29   | 24.948 | 40    | 11    | 19.28 | -6.93     | 0.17       | 0.54       | 0.99      | 2.8 0.6  | 0.63  | B    |
| G079.735+0.990 | 20   | 30   | 50.689 | 41    | 2     | 27.49 | -4.66     | 3.33       | 23.17      | 101.28    | 2.4 0.5  | 0.49  | B    |
| G080.861+0.383 | 20   | 37   | 0.971  | 41    | 34    | 55.6  | -6.58     | 9.65       | 8.52       | 35.31     | 1.6 0.1  | 0.91  | A    |
| G081.721+0.571 | 20   | 39   | 1.066  | 42    | 22    | 48.97 | -3.16     | 1.76       | 2.96       | 16.74     | 1.5 0.1  | 0.52  | N    |
| G081.744+0.590 | 20   | 39   | 0.38   | 42    | 24    | 36.91 | 3.96      | 1.93       | 5.53       | 32.39     | 1.9 0.3  | 0.57  | N    |
| G081.752+0.590 | 20   | 39   | 1.997  | 42    | 24    | 59.08 | -5.71     | 7.2        | 8.35       | 63.66     | 1.6 0.1  | 0.52  | N    |
| G081.765+0.597 | 20   | 39   | 2.947  | 42    | 25    | 50.8  | -1.32     | 0.88       | 2.54       | 7.56      | 1.6 0.1  | 0.52  | N    |
| G081.871+0.780 | 20   | 38   | 36.425 | 42    | 37    | 34.56 | 6.32      | 7.38       | 174.93     | 1865.45   | 1.6 0.1  | 0.34  | A    |
| G085.410+0.003 | 20   | 54   | 13.683 | 44    | 54    | 7.6   | -30.55    | 4.91       | 107.92     | 356.3     | 5.0 0.5  | 0.92  | A    |
| G090.921+1.486 | 21   | 9    | 12.987 | 50    | 1     | 3.56  | -69.89    | 3.16       | 48.59      | 266.91    | 7.8 0.5  | 1     | A    |
| G094.602+1.796 | 21   | 39   | 58.265 | 50    | 14    | 21    | -42.23    | 3.69       | 3.86       | 40.02     | 4.3 0.4  | 1     | A    |
| G098.035+1.446 | 21   | 43   | 1.439  | 54    | 56    | 17.75 | -61.38    | 0.53       | 2.38       | 5.96      | 6.1 0.7  | 0.6   | A    |
| G108.184+5.518 | 22   | 28   | 51.386 | 64    | 13    | 41.22 | -11.32    | 3.69       | 32.37      | 144.44    | 0.8 0.1  | 1     | A    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G108.766+0.986 | 22   | 58   | 51.188 | 58    | 45    | 14.37 | -46.27    | 2.28       | 1.9        | 5.92      | 3.3 0.3  | 1     | N    |
| G109.870+2.114 | 22   | 56   | 17.883 | 62    | 1     | 49.53 | -4.04     | 12.47      | 442.32     | 2133.03   | 0.8 0.1  | 1     | A    |
| G111.255+0.769 | 23   | 16   | 10.333 | 59    | 55    | 28.43 | -38.9     | 4.74       | 4.1        | 19.83     | 3.3 0.2  | 1     | A    |
| G111.542+0.776 | 23   | 13   | 45.386 | 61    | 28    | 9.81  | -58.56    | 7.55       | 143.02     | 2331.18   | 2.7 0.1  | 0.39  | B    |
| G121.297+0.658 | 0    | 36   | 47.354 | 63    | 29    | 2.05  | -25.02    | 5.79       | 7.46       | 45.65     | 2.1 0.7  | 0.54  | A    |
| G123.065+6.309 | 0    | 52   | 24.2   | 56    | 33    | 42.98 | -28.89    | 1.93       | 52.72      | 163.91    | 2.4 0.2  | 0.95  | N    |
| G133.947+1.064 | 2    | 27   | 3.81   | 61    | 52    | 25.18 | -44.86    | 6.85       | 2886       | 37474.84  | 2.4 0.3  | 0.56  | A    |
| G136.845+1.167 | 2    | 49   | 33.594 | 60    | 48    | 27.95 | -44.96    | 0.7        | 11.56      | 29.58     | 2.0 0.0  | 0.45  | N    |
| G173.481+2.446 | 5    | 39   | 13.064 | 35    | 45    | 51.34 | -13.08    | 4.04       | 54.31      | 193.12    | 1.7 0.1  | 0.74  | A    |
| G174.200+0.070 | 5    | 30   | 48.012 | 33    | 47    | 54.61 | 2.72      | 4.74       | 22.59      | 90.13     | 1.7 0.1  | 0.51  | A    |
| G183.348+0.575 | 5    | 51   | 10.946 | 25    | 46    | 17.24 | -9.92     | 11.06      | 8.6        | 59.34     | 1.8 0.1  | 0.54  | A    |
| G188.793+1.030 | 6    | 9    | 6.96   | 21    | 50    | 41.23 | -5.27     | 0.7        | 4.94       | 8.71      | 2.0 0.3  | 1     | B    |
| G188.946+0.886 | 6    | 8    | 53.343 | 21    | 38    | 29.14 | 9.92      | 11.07      | 733.96     | 2741.29   | 2.0 0.1  | 0.9   | A    |
| G189.029+0.783 | 6    | 8    | 40.678 | 21    | 31    | 6.97  | 9.39      | 1.23       | 17.46      | 49.5      | 2.0 0.1  | 0.9   | A    |
| G189.777+0.344 | 6    | 8    | 35.3   | 20    | 39    | 6.59  | 4.65      | 2.29       | 5.36       | 19.5      | 2.0 0.2  | 0.78  | A    |
| G192.600+0.048 | 6    | 12   | 54.017 | 17    | 59    | 23.2  | 4.12      | 5.09       | 80.74      | 408.48    | 1.6 0.1  | 0.54  | A    |
| G196.454+1.677 | 6    | 14   | 37.058 | 13    | 49    | 36.2  | 14.93     | 2.46       | 18.73      | 122.02    | 2.2 0.5  | 0.95  | A    |
| G213.704+12.59 | 6    | 7    | 47.86  | 6     | 22    | 56.67 | 11.68     | 3.69       | 152.26     | 620.17    | 0.8 0.0  | 0.93  | B    |
| G232.620+0.995 | 7    | 32   | 9.781  | 16    | 58    | 12.57 | 22.74     | 2.64       | 184.57     | 551.75    | 1.0 0.2  | 0.85  | A    |
| G357.923+0.336 | 17   | 41   | 55.149 | 30    | 52    | 49.95 | -1.81     | 9.13       | 1.57       | 9.8       | 2.8 0.2  | 0.83  | B    |
| G357.967+0.162 | 17   | 41   | 20.247 | 30    | 45    | 6.6   | -2.67     | 5.27       | 55.37      | 685.08    | 2.7 0.3  | 0.53  | A    |
| G358.370+0.467 | 17   | 43   | 31.93  | 30    | 34    | 10.23 | 6.12      | 14.05      | 35.46      | 174.73    | 2.8 0.2  | 0.81  | N    |
| G358.460+0.390 | 17   | 43   | 26.742 | 30    | 27    | 11.07 | 1.51      | 3.69       | 31.5       | 96.61     | 2.8 0.2  | 0.82  | A    |
| G358.460+0.392 | 17   | 43   | 27.23  | 30    | 27    | 14.55 | 4.94      | 1.05       | 0.55       | 1.93      | 2.8 0.2  | 0.81  | A    |
| G358.721+0.126 | 17   | 43   | 2.294  | 30    | 5     | 29.77 | 11.45     | 4.04       | 2.14       | 17.96     | 2.8 0.2  | 0.53  | A    |
| G358.808+0.085 | 17   | 43   | 5.392  | 29    | 59    | 45.56 | -55.08    | 7.91       | 6.36       | 40.01     | 5.3 0.2  | 0.65  | N    |

| Sourcename     | RA-h | RA-m | RA-s   | Dec-d | Dec-m | Dec-s | $V_{lsr}$ | $\Delta V$ | $S_{peak}$ | $S_{int}$ | Distance | Prob. | Code |
|----------------|------|------|--------|-------|-------|-------|-----------|------------|------------|-----------|----------|-------|------|
| G358.841+0.737 | 17   | 45   | 44.287 | 30    | 18    | 33.37 | -23.65    | 11.24      | 8.22       | 35.39     | 4.2 0.2  | 0.5   | N    |
| G358.930+0.029 | 17   | 43   | 10.014 | 29    | 51    | 45.82 | -18.05    | 6.67       | 4.95       | 45.4      | 8.5 1.1  | 0.44  | N    |
| G359.137+0.031 | 17   | 43   | 25.661 | 29    | 39    | 17.15 | -2.33     | 5.27       | 12.51      | 71.35     | 2.7 0.3  | 0.59  | B    |
| G359.436+0.103 | 17   | 44   | 40.574 | 29    | 28    | 15.83 | -49.36    | 7.55       | 114.84     | 335.01    | 5.2 0.2  | 0.65  | A    |
| G359.614+0.243 | 17   | 45   | 39.064 | 29    | 23    | 30.2  | 21.59     | 6.67       | 107.98     | 493.27    | 8.5 2.7  | 0.48  | N    |
| G359.617+0.244 | 17   | 45   | 39.858 | 29    | 23    | 23.58 | 21.77     | 0.35       | 0.7        | 1.88      | 8.5 2.7  | 0.49  | N    |
| G359.938+0.170 | 17   | 44   | 48.555 | 28    | 53    | 59.48 | 2.83      | 7.2        | 1.1        | 3.51      | 2.8 0.2  | 0.62  | N    |

付録 B maserdb からダウンロードした 6.7 GHz メタノールメーザーのリストを参考文献によって分類した結果

| no.                                                                                                                                                                                                                                                                          | group_name     | source_name      | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1                                                                                                                                                                                                                                                                            | G0.092-0.663   | 0.092-0.663      | 1   |     |     |     |     | 1   |     |     | 1   |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 2                                                                                                                                                                                                                                                                            | G0.167-0.446   | 0.167-0.446      |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 3                                                                                                                                                                                                                                                                            | G0.2118-0.0009 | 0.212-0.001      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 4                                                                                                                                                                                                                                                                            | G0.315-0.201   | 0.315-0.201      |     |     |     |     |     | 1   |     | 1   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 5                                                                                                                                                                                                                                                                            | G0.3758+0.0401 | 0.376+0.040      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 6                                                                                                                                                                                                                                                                            | G0.3998-0.0374 | 0.393-0.034      |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 7                                                                                                                                                                                                                                                                            | G0.409-0.504   | 0.409-0.504      |     |     |     |     |     |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 8                                                                                                                                                                                                                                                                            | G0.4752-0.0096 | 0.475-0.010      |     |     |     |     | 1   |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 9                                                                                                                                                                                                                                                                            | G0.4964+0.1880 | 0.496+0.188      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 10                                                                                                                                                                                                                                                                           | G0.5304-0.1975 | 0.530-0.198      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 11                                                                                                                                                                                                                                                                           | G0.546-0.852   | IRAS 17470-2853  |     |     |     |     | 1   |     |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 12                                                                                                                                                                                                                                                                           | G0.547+0.261   | 0.547+0.261      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 13                                                                                                                                                                                                                                                                           | G0.6361-0.0562 | G000.656-0.040   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 14                                                                                                                                                                                                                                                                           | G0.6449-0.0421 | 000.64-00.04     |     |     |     |     | 1   |     |     | 1   |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 15                                                                                                                                                                                                                                                                           | G0.6471-0.0551 | 0.647-0.055      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 16                                                                                                                                                                                                                                                                           | G0.6487-0.0671 | G000.647-0.055   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 17                                                                                                                                                                                                                                                                           | G0.6512-0.0487 | 0.651-0.049      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 18                                                                                                                                                                                                                                                                           | G0.6554-0.0340 | G000.666-0.028   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 19                                                                                                                                                                                                                                                                           | G0.6573-0.0415 | 0.657-0.041      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 20                                                                                                                                                                                                                                                                           | G0.6570-0.0546 | G000.651-0.048   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 21                                                                                                                                                                                                                                                                           | G0.6667-0.0349 | 0.665-0.036      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 22                                                                                                                                                                                                                                                                           | G0.6770-0.0269 | 0.677-0.025      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 23                                                                                                                                                                                                                                                                           | G0.6948-0.0378 | 0.695-0.038      |     |     |     |     | 1   |     |     | 1   |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 24                                                                                                                                                                                                                                                                           | G0.8162-0.0915 | 0.816-0.091      |     |     |     |     |     |     |     | 1   |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 25                                                                                                                                                                                                                                                                           | G0.8358+0.1844 | 0.836+0.184      |     |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 26                                                                                                                                                                                                                                                                           | G0.8586+0.1916 | G000.835+0.184   |     |     |     |     |     |     |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 27                                                                                                                                                                                                                                                                           | G0.8890-0.0795 | 0.889-0.079      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 28                                                                                                                                                                                                                                                                           | G0.8994-0.0276 | 0.899-0.028      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 29                                                                                                                                                                                                                                                                           | G0.9087-0.0606 | 0.909-0.061      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 30                                                                                                                                                                                                                                                                           | G0.9112-0.0528 | 0.911-0.053      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 31                                                                                                                                                                                                                                                                           | G0.9115-0.0599 | 0.912-0.060      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 32                                                                                                                                                                                                                                                                           | G1.008-0.237   | 1.008-0.237      |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 33                                                                                                                                                                                                                                                                           | G1.1468-0.1245 | 1.147-0.124      |     |     |     |     | 1   |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 34                                                                                                                                                                                                                                                                           | G1.2823-0.0841 | 1.282-0.084      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 35                                                                                                                                                                                                                                                                           | G1.3290+0.1496 | 1.329+0.150      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 36                                                                                                                                                                                                                                                                           | G1.719-0.088   | 1.719-0.088      |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 37                                                                                                                                                                                                                                                                           | G2.143+0.009   | 2.143+0.009      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 38                                                                                                                                                                                                                                                                           | G2.521-0.220   | 2.521-0.220      |     |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 39                                                                                                                                                                                                                                                                           | G2.536+0.198   | IRAS 17476-2638A |     |     |     |     | 1   |     |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 40                                                                                                                                                                                                                                                                           | G2.591-0.029   | 2.591-0.029      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 41                                                                                                                                                                                                                                                                           | G2.615+0.134   | 2.615+0.134      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 42                                                                                                                                                                                                                                                                           | G2.703+0.042   | 2.703+0.040      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 43                                                                                                                                                                                                                                                                           | G3.253+0.018   | 3.253+0.018      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 44                                                                                                                                                                                                                                                                           | G3.312-0.399   | 3.312-0.399      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 45                                                                                                                                                                                                                                                                           | G3.442-0.348   | 3.442-0.348      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 46                                                                                                                                                                                                                                                                           | G3.502-0.200   | 3.502-0.200      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 47                                                                                                                                                                                                                                                                           | G3.910+0.001   | 3.910+0.001      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 48                                                                                                                                                                                                                                                                           | G4.393+0.079   | 4.393+0.079      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 49                                                                                                                                                                                                                                                                           | G4.434+0.129   | 4.434+0.129      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 50                                                                                                                                                                                                                                                                           | G4.569-0.079   | 4.569-0.079      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 51                                                                                                                                                                                                                                                                           | G4.586+0.028   | 4.586+0.028      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BARI6 (3) BEU02 (4) BREI3 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZIN17 |                |                  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |



| no.                                                                                                                                                                                              | group_name    | source_name     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 109                                                                                                                                                                                              | G12.776+0.128 | 12.776+0.128    |     |     |     |     | 1   | 1   |     |     |     |      |      |      | 1    | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 110                                                                                                                                                                                              | G12.889+0.490 | IRAS 18089-1732 |     |     | 1   |     | 1   | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 111                                                                                                                                                                                              | G12.904-0.031 | 12.904-0.031    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 112                                                                                                                                                                                              | G12.908-0.260 | 12.908-0.260    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 113                                                                                                                                                                                              | G13.179+0.060 | 13.179+0.061    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 114                                                                                                                                                                                              | G13.657-0.600 | 13.657-0.599    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 115                                                                                                                                                                                              | G13.696-0.156 | 13.696-0.156    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 116                                                                                                                                                                                              | G13.713-0.084 | 13.713-0.083    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 117                                                                                                                                                                                              | G14.101+0.087 | IRAS 18128-1640 |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      | 1    |      |
| 118                                                                                                                                                                                              | G14.229-0.510 | 14.230-0.509    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 119                                                                                                                                                                                              | G14.390-0.020 | 14.390-0.020    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 120                                                                                                                                                                                              | G14.442-0.151 | 14.457-0.143    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 121                                                                                                                                                                                              | G14.490+0.014 | 14.490+0.014    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 122                                                                                                                                                                                              | G14.521+0.155 | 14.521+0.155    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 123                                                                                                                                                                                              | G14.606+0.015 | 14.604+0.017    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 124                                                                                                                                                                                              | G14.631-0.577 | 14.631-0.577    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 125                                                                                                                                                                                              | G14.991-0.121 | 14.991-0.121    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 126                                                                                                                                                                                              | G15.033-0.674 | 15.034-0.677    |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 127                                                                                                                                                                                              | G15.094+0.191 | 15.094+0.192    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 128                                                                                                                                                                                              | G15.607-0.255 | 15.607-0.255    |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 129                                                                                                                                                                                              | G15.665-0.499 | 15.665-0.499    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 130                                                                                                                                                                                              | G16.117-0.291 | 16.112-0.303    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 131                                                                                                                                                                                              | G16.302-0.196 | 16.302-0.196    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 132                                                                                                                                                                                              | G16.403-0.181 | 16.403-0.181    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 133                                                                                                                                                                                              | G16.585-0.051 | 16.585-0.051    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 134                                                                                                                                                                                              | G16.662-0.331 | 16.662-0.331    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 135                                                                                                                                                                                              | G16.831+0.079 | 16.831+0.079    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 136                                                                                                                                                                                              | G16.855+0.641 | 16.855+0.641    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 137                                                                                                                                                                                              | G16.868-2.158 | 16.864-2.159    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 138                                                                                                                                                                                              | G16.976-0.005 | 16.976-0.005    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 139                                                                                                                                                                                              | G17.016-2.400 | 17.021-2.403    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 140                                                                                                                                                                                              | G17.029-0.071 | 17.029-0.071    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 141                                                                                                                                                                                              | G17.638+0.157 | 17.638+0.157    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 142                                                                                                                                                                                              | G17.862+0.074 | 17.862+0.074    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 143                                                                                                                                                                                              | G18.073+0.077 | 18.073+0.077    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 144                                                                                                                                                                                              | G18.159+0.094 | 18.159+0.094    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 145                                                                                                                                                                                              | G18.262-0.244 | 18.262-0.244    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 146                                                                                                                                                                                              | G18.340+1.772 | 18.151-1208     |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 147                                                                                                                                                                                              | G18.440+0.045 | 18.440+0.045    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 148                                                                                                                                                                                              | G18.461-0.004 | 18.460-0.004    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 149                                                                                                                                                                                              | G18.666+0.029 | 18.661+0.034    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 150                                                                                                                                                                                              | G18.735-0.225 | 18.733-0.224    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 151                                                                                                                                                                                              | G18.834-0.301 | 18.834-0.300    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 152                                                                                                                                                                                              | G18.874+0.053 | 18.874+0.053    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 153                                                                                                                                                                                              | G18.888-0.475 | 18.888-0.475    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 154                                                                                                                                                                                              | G18.999-0.239 | 18.999-0.239    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 155                                                                                                                                                                                              | G19.009-0.029 | 19.009-0.029    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 156                                                                                                                                                                                              | G19.249+0.267 | 19.249+0.267    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 157                                                                                                                                                                                              | G19.267+0.349 | 19.267+0.349    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 158                                                                                                                                                                                              | G19.364-0.030 | 19.365-0.030    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 159                                                                                                                                                                                              | G19.485+0.151 | 19.472+0.170    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 160                                                                                                                                                                                              | G19.609-0.234 | 19.609-0.234    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 161                                                                                                                                                                                              | G19.612-0.134 | 19.612-0.120    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 162                                                                                                                                                                                              | G19.614+0.011 | 19.614+0.011    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 163                                                                                                                                                                                              | G19.667+0.114 | 19.667+0.114    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 164                                                                                                                                                                                              | G19.701-0.267 | 19.701-0.267    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 165                                                                                                                                                                                              | G19.754-0.128 | 19.755-0.128    |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BAR16 (3) BEU02 (4) BRE13 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZINI7                                                                                                                      |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| no.                                                                                                                                                                                              | group_name    | source_name     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 166                                                                                                                                                                                              | G19.884-0.535 | 18264-1152      |     |     | 1   |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 167                                                                                                                                                                                              | G20.082-0.136 | G020.081-0.135  |     | 1   |     | 1   |     |     |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 168                                                                                                                                                                                              | G20.237+0.066 | IRAS 18249-1116 |     |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 169                                                                                                                                                                                              | G21.367-0.252 | G021.386-0.253  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 170                                                                                                                                                                                              | G21.407-0.254 | G021.406-0.254  | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 171                                                                                                                                                                                              | G21.562-0.031 | G021.562-0.032  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 172                                                                                                                                                                                              | G21.880+0.014 | G021.879+0.014  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 173                                                                                                                                                                                              | G22.039+0.222 | G022.038+0.222  |     |     |     |     | 1   |     |     |     |     |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 174                                                                                                                                                                                              | G22.335-0.155 | IRAS 18297-0931 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 175                                                                                                                                                                                              | G22.355+0.066 | IRAS 18290-0924 | 1   |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 176                                                                                                                                                                                              | G22.435-0.170 | 22.435-0.169    | 1   | 1   |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 177                                                                                                                                                                                              | G23.009-0.411 | 23.010-0.411    |     | 1   |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |
| 178                                                                                                                                                                                              | G23.207-0.378 | G023.206-0.377  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |
| 179                                                                                                                                                                                              | G23.249-0.187 | G023.250-0.212  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 180                                                                                                                                                                                              | G23.257-0.240 | G023.256-0.240  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 181                                                                                                                                                                                              | G23.389+0.185 | IRAS 18305-0826 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 182                                                                                                                                                                                              | G23.437-0.184 | 023.43-00.18    |     |     |     |     | 1   |     |     |     |     |      |      | 1    |      |      |      |      |      |      |      |      |      |      | 1    |      |      |
| 183                                                                                                                                                                                              | G23.484+0.096 | G023.483+0.096  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 184                                                                                                                                                                                              | G23.657-0.127 | IRAS 18321-0820 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 185                                                                                                                                                                                              | G23.706-0.198 | IRAS 18324-0820 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 186                                                                                                                                                                                              | G23.862+0.054 | G023.885+0.059  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 187                                                                                                                                                                                              | G23.901+0.066 | G023.901+0.076  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 188                                                                                                                                                                                              | G23.966-0.110 | G023.966-0.109  | 1   |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 189                                                                                                                                                                                              | G23.996-0.100 | G23.96-0.11     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 190                                                                                                                                                                                              | G24.006-0.069 | G023.986-0.089  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 191                                                                                                                                                                                              | G24.149-0.009 | IRAS 18326-0751 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |      |
| 192                                                                                                                                                                                              | G24.329+0.144 | 24.329+0.144    |     | 1   |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |
| 193                                                                                                                                                                                              | G24.494-0.040 | 24.493-0.039    |     | 1   |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      | 1    |
| 194                                                                                                                                                                                              | G24.535+0.322 | IRAS 18322-0721 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 195                                                                                                                                                                                              | G24.630+0.190 | G024.631+0.172  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 196                                                                                                                                                                                              | G24.634-0.324 | IRAS 18346-0734 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 197                                                                                                                                                                                              | G24.676-0.151 | G024.674-0.153  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 198                                                                                                                                                                                              | G24.790+0.083 | G024.789+0.083  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 199                                                                                                                                                                                              | G24.850+0.087 | G024.850+0.087  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 200                                                                                                                                                                                              | G24.896+0.102 | G024.919+0.088  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 201                                                                                                                                                                                              | G24.942+0.075 | G024.942+0.074  |     |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 202                                                                                                                                                                                              | G25.270-0.434 | G25.27-0.43     |     |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 203                                                                                                                                                                                              | G25.382-0.181 | G025.381-0.181  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 204                                                                                                                                                                                              | G25.411+0.105 | IRAS 18345-0641 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 205                                                                                                                                                                                              | G25.649+1.050 | IRAS 18316-0602 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 206                                                                                                                                                                                              | G25.709+0.044 | 025.71+00.04    |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 207                                                                                                                                                                                              | G25.826-0.178 | 025.82-00.17    |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 208                                                                                                                                                                                              | G25.920-0.141 | G025.920-0.140  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 209                                                                                                                                                                                              | G26.500-0.319 | G026.513-0.292  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 210                                                                                                                                                                                              | G26.527-0.267 | G026.526-0.267  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 211                                                                                                                                                                                              | G26.540-0.315 | G026.551-0.309  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 212                                                                                                                                                                                              | G26.602-0.220 | G026.600-0.221  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 213                                                                                                                                                                                              | G26.597-0.024 | IRAS 18372-0541 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 214                                                                                                                                                                                              | G27.218+0.259 | G027.219+0.260  | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 215                                                                                                                                                                                              | G27.221+0.136 | G027.221+0.136  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 216                                                                                                                                                                                              | G27.284+0.149 | G027.286+0.150  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 217                                                                                                                                                                                              | G27.367-0.165 | G027.365-0.165  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 218                                                                                                                                                                                              | G27.727+0.040 | G027.757+0.050  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 219                                                                                                                                                                                              | G27.786-0.265 | G027.782-0.258  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 220                                                                                                                                                                                              | G27.784+0.057 | G027.784+0.056  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 221                                                                                                                                                                                              | G28.011-0.426 | G028.010-0.426  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 222                                                                                                                                                                                              | G28.147-0.004 | 28.146-0.005    |     |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BAR16 (3) BEU02 (4) BRE13 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZINI7                                                                                                                      |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| no.                                                                                                                                                                                              | group_name    | source_name     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 223                                                                                                                                                                                              | G28.200-0.050 | 28.201-0.049    |     |     |     |     | 1   |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 224                                                                                                                                                                                              | G28.225+0.358 | G028.226+0.359  |     |     |     |     |     |     |     |     |     |      | 1    |      |      | 1    |      |      |      |      |      |      |      |      | 1    |      |      |
| 225                                                                                                                                                                                              | G28.295-0.377 | G028.281-0.358  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 226                                                                                                                                                                                              | G28.397+0.078 | G028.397+0.080  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      | 1    |      |      |
| 227                                                                                                                                                                                              | G28.817+0.365 | G028.817+0.364  | 1   |     |     |     |     |     |     |     |     |      | 1    |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 228                                                                                                                                                                                              | G28.833-0.253 | IRAS 18421-0348 |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 229                                                                                                                                                                                              | G28.843+0.493 | G028.842+0.493  |     |     |     |     |     |     |     |     |     |      | 1    |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 230                                                                                                                                                                                              | G28.864-0.203 | G028.847-0.227  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 231                                                                                                                                                                                              | G29.319-0.162 | G029.319-0.161  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 232                                                                                                                                                                                              | G29.862-0.046 | 029.86-00.04    |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      | 1    |      |
| 233                                                                                                                                                                                              | G29.943-0.088 | G029.961-0.067  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 234                                                                                                                                                                                              | G29.955-0.016 | G029.955-0.016  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 235                                                                                                                                                                                              | G29.975-0.047 | G029.978-0.047  |     | 1   |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      | 1    |      |      |
| 236                                                                                                                                                                                              | G30.199-0.169 | G030.198-0.169  |     | 1   |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 237                                                                                                                                                                                              | G30.317+0.070 | G030.317+0.070  | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 238                                                                                                                                                                                              | G30.357-0.296 | G030.378-0.295  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 239                                                                                                                                                                                              | G30.400-0.296 | G030.400-0.295  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 240                                                                                                                                                                                              | G30.419-0.232 | G030.419-0.232  | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 241                                                                                                                                                                                              | G30.424+0.465 | G030.423+0.465  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 242                                                                                                                                                                                              | G30.429-0.196 | G030.424-0.214  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 243                                                                                                                                                                                              | G30.463-0.228 | G030.441-0.232  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 244                                                                                                                                                                                              | G30.702-0.068 | IRAS 18450-0205 |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 245                                                                                                                                                                                              | G30.758-0.050 | IRAS 18450-0200 |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 246                                                                                                                                                                                              | G30.781+0.231 | G030.779+0.230  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 247                                                                                                                                                                                              | G30.789+0.035 | G030.776-0.006  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 248                                                                                                                                                                                              | G30.795+0.185 | G030.788+0.203  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 249                                                                                                                                                                                              | G30.817-0.057 | G030.817-0.056  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 250                                                                                                                                                                                              | G30.819+0.273 | 18440-0148      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 251                                                                                                                                                                                              | G30.898+0.162 | G030.897+0.161  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      | 1    |      |
| 252                                                                                                                                                                                              | G30.907+0.140 | 030.91+00.14    |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 253                                                                                                                                                                                              | G30.946+0.235 | G030.963+0.225  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 254                                                                                                                                                                                              | G30.972-0.141 | G030.972-0.141  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 255                                                                                                                                                                                              | G31.047+0.356 | IRAS 18441-0134 | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 256                                                                                                                                                                                              | G31.060+0.093 | G031.059+0.093  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 257                                                                                                                                                                                              | G31.078+0.459 | G031.076+0.457  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 258                                                                                                                                                                                              | G31.087+0.081 | G031.121+0.062  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 259                                                                                                                                                                                              | G31.159+0.046 | G031.158+0.045  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 260                                                                                                                                                                                              | G31.182-0.148 | G031.182-0.147  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 261                                                                                                                                                                                              | G31.280+0.062 | IRAS 18456-0129 |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 262                                                                                                                                                                                              | G31.412+0.307 | G031.411+0.307  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 263                                                                                                                                                                                              | G31.581+0.077 | IRAS 18461-0113 | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 264                                                                                                                                                                                              | G32.045+0.058 | IRAS 18470-0049 |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 265                                                                                                                                                                                              | G32.116+0.094 | G032.117+0.090  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 266                                                                                                                                                                                              | G32.744-0.076 | G032.744-0.075  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 267                                                                                                                                                                                              | G32.993+0.038 | IRAS 18488+0000 | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 268                                                                                                                                                                                              | G33.093-0.071 | G033.092-0.072  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 269                                                                                                                                                                                              | G33.133-0.092 | G033.132-0.091  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 270                                                                                                                                                                                              | G33.394-0.009 | G033.392+0.009  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 271                                                                                                                                                                                              | G33.641-0.228 | IRAS 18509+0027 | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 272                                                                                                                                                                                              | G33.852+0.017 | G033.851+0.018  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 273                                                                                                                                                                                              | G33.980-0.019 | G033.979-0.018  | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 274                                                                                                                                                                                              | G34.096+0.015 | G034.096+0.017  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 275                                                                                                                                                                                              | G34.257+0.153 | G034.244+0.133  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 276                                                                                                                                                                                              | G34.267-0.210 | G034.267-0.209  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 277                                                                                                                                                                                              | G34.403+0.232 | G034.395+0.221  | 1   |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 278                                                                                                                                                                                              | G34.751-0.093 | G034.751-0.092  |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 279                                                                                                                                                                                              | G34.757+0.024 | 18521+0134      |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BAR16 (3) BEU02 (4) BRE13 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZIN17                                                                                                                      |               |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| no.                                                                                                                                                                                               | group_name     | source_name     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 280                                                                                                                                                                                               | G34.800-1.391  | G034.791-1.386  |     | 1   |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 281                                                                                                                                                                                               | G34.999+0.339  | G35.025+00.350  |     |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 282                                                                                                                                                                                               | G35.025+0.350  | G035.024+0.349  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 283                                                                                                                                                                                               | G35.197-0.743  | 18556+0136      |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 284                                                                                                                                                                                               | G35.200-1.737  | G035.200-1.736  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 285                                                                                                                                                                                               | G35.247-0.237  | G35.25+0.24     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 286                                                                                                                                                                                               | G35.397+0.025  | G35.40+0.03     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 287                                                                                                                                                                                               | G35.575+0.067  | G35.59+0.06     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 288                                                                                                                                                                                               | G35.793-0.175  | IRAS 18547+0223 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 289                                                                                                                                                                                               | G36.013-0.198  | G36.02-0.20     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 290                                                                                                                                                                                               | G36.115+0.554  | IRAS 18527+0301 | 1   |     |     |     |     |     |     |     |     | 1    |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 291                                                                                                                                                                                               | G36.627+53.031 | Arp 220         |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 292                                                                                                                                                                                               | G36.634-0.203  | G36.64-0.21     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 293                                                                                                                                                                                               | G36.705+0.096  | IRAS 18554+0319 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 294                                                                                                                                                                                               | G36.839-0.022  | G036.839-0.022  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 295                                                                                                                                                                                               | G36.918+0.483  | G36.92+0.48     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 296                                                                                                                                                                                               | G37.038-0.035  | G037.030-0.038  | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 297                                                                                                                                                                                               | G37.382-0.082  | G37.38-0.09     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 298                                                                                                                                                                                               | G37.410+1.525  | 037.40+01.52    |     |     |     |     |     |     |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 299                                                                                                                                                                                               | G37.427+1.518  | G037.429+1.517  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 300                                                                                                                                                                                               | G37.479-0.105  | G037.479-0.104  |     |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 301                                                                                                                                                                                               | G37.545-0.112  | G037.546-0.111  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 302                                                                                                                                                                                               | G37.554+0.201  | 18566+0408      |     |     | 1   |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 303                                                                                                                                                                                               | G37.598+0.425  | IRAS 18559+0416 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 304                                                                                                                                                                                               | G37.735-0.112  | G37.74-0.12     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 305                                                                                                                                                                                               | G37.765-0.214  | G037.753-0.189  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 306                                                                                                                                                                                               | G38.038-0.300  | IRAS 18593+0419 | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 307                                                                                                                                                                                               | G38.076-0.266  | G38.08-0.27     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 308                                                                                                                                                                                               | G38.119-0.229  | G038.119-0.228  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 309                                                                                                                                                                                               | G38.203-0.067  | G038.203-0.066  | 1   |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 310                                                                                                                                                                                               | G38.255-0.200  | G38.26-0.20     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 311                                                                                                                                                                                               | G38.258-0.074  | G038.257-0.073  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 312                                                                                                                                                                                               | G38.554+0.163  | G38.56+0.15     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 313                                                                                                                                                                                               | G38.598-0.213  | G38.60-0.21     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 314                                                                                                                                                                                               | G38.653+0.088  | G38.66+0.08     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 315                                                                                                                                                                                               | G38.917-0.353  | G038.915-0.353  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 316                                                                                                                                                                                               | G39.100+0.491  | IRAS 18585+0538 | 1   |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 317                                                                                                                                                                                               | G39.388-0.141  | 19012+0536      |     |     | 1   |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 318                                                                                                                                                                                               | G40.282-0.219  | G040.281-0.219  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 319                                                                                                                                                                                               | G40.374+10.311 | G20.239+00.065  |     | 1   |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 320                                                                                                                                                                                               | G40.425+0.700  | 40.425+0.700    |     |     |     |     | 1   |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 321                                                                                                                                                                                               | G40.623-0.138  | 19035+0641      |     |     |     | 1   |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 322                                                                                                                                                                                               | G40.934-0.041  | G040.934-0.040  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 323                                                                                                                                                                                               | G41.075-0.125  | G41.08-0.13     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 324                                                                                                                                                                                               | G41.121-0.107  | G41.12-0.11     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 325                                                                                                                                                                                               | G41.123-0.220  | G041.123-0.220  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 326                                                                                                                                                                                               | G41.156-0.201  | G41.16-0.20     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 327                                                                                                                                                                                               | G41.226-0.197  | G041.226-0.197  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 328                                                                                                                                                                                               | G41.269+0.371  | G41.27+0.37     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 329                                                                                                                                                                                               | G41.348-0.136  | G041.347-0.136  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 330                                                                                                                                                                                               | G41.577+0.041  | G41.58+0.04     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 331                                                                                                                                                                                               | G42.034+0.190  | G042.034+0.190  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 332                                                                                                                                                                                               | G42.304-0.299  | G042.303-0.299  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 333                                                                                                                                                                                               | G42.435-0.260  | G42.43-0.26     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 334                                                                                                                                                                                               | G42.698-0.147  | G042.698-0.147  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 335                                                                                                                                                                                               | G43.038-0.453  | G043.038-0.452  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 336                                                                                                                                                                                               | G43.074-0.077  | G043.074-0.077  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| (1) BAR09 (2) BAR16 (3) BEU02 (4) BRE13 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HUI16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 |                |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZIN17                                                                                                                       |                |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |





| no.                                                                                                                                                                                                                                                                          | group_name     | source_name     | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 820                                                                                                                                                                                                                                                                          | G350.344+0.116 | 350.344+0.116   |     |     |     |     | 1   | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 821                                                                                                                                                                                                                                                                          | G350.356-0.068 | 350.356-0.068   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 822                                                                                                                                                                                                                                                                          | G350.470+0.029 | 350.470+0.029   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 823                                                                                                                                                                                                                                                                          | G350.520-0.349 | 350.520-0.350   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 824                                                                                                                                                                                                                                                                          | G350.686-0.491 | 350.686-0.491   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 825                                                                                                                                                                                                                                                                          | G350.776+0.138 | 350.776+0.138   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 826                                                                                                                                                                                                                                                                          | G351.161+0.699 | 351.160+0.697   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 827                                                                                                                                                                                                                                                                          | G351.236+0.673 | 351.242+0.670   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 828                                                                                                                                                                                                                                                                          | G351.251+0.652 | 351.251+0.652   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 829                                                                                                                                                                                                                                                                          | G351.382-0.181 | 351.382-0.181   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 830                                                                                                                                                                                                                                                                          | G351.417+0.645 | 351.417+0.645   |     |     |     |     |     | 1   |     |     |     |      |      | 1    |      |      | 1    | 1    |      |      | 1    |      |      |      |      |      |      |
| 831                                                                                                                                                                                                                                                                          | G351.446+0.660 | 351.445+0.660   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 832                                                                                                                                                                                                                                                                          | G351.581-0.353 | 351.581-0.353   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 833                                                                                                                                                                                                                                                                          | G351.611+0.172 | 351.611+0.172   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 834                                                                                                                                                                                                                                                                          | G351.688+0.171 | 351.688+0.171   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 835                                                                                                                                                                                                                                                                          | G351.775-0.537 | IRAS 17233-3606 |     |     |     |     |     | 1   |     |     |     |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |      |
| 836                                                                                                                                                                                                                                                                          | G352.083+0.167 | 352.083+0.167   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 837                                                                                                                                                                                                                                                                          | G352.132-0.944 | 352.133-0.944   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 838                                                                                                                                                                                                                                                                          | G352.518-0.155 | 352.517-0.155   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 839                                                                                                                                                                                                                                                                          | G352.602-0.185 | 352.584-0.185   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 840                                                                                                                                                                                                                                                                          | G352.604-0.225 | 352.604-0.225   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 841                                                                                                                                                                                                                                                                          | G352.630-1.067 | IRAS 17278-3541 |     |     |     |     |     | 1   |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 842                                                                                                                                                                                                                                                                          | G352.855-0.201 | 352.855-0.201   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 843                                                                                                                                                                                                                                                                          | G353.216-0.243 | 353.216-0.249   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 844                                                                                                                                                                                                                                                                          | G353.273+0.641 | 353.273+0.641   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 845                                                                                                                                                                                                                                                                          | G353.363-0.166 | 353.363-0.166   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 846                                                                                                                                                                                                                                                                          | G353.370-0.091 | 353.370-0.091   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 847                                                                                                                                                                                                                                                                          | G353.378+0.438 | 353.378+0.438   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 848                                                                                                                                                                                                                                                                          | G353.410-0.360 | IRAS 17271-3439 |     |     |     |     |     | 1   |     |     |     |      |      |      | 1    |      |      | 1    |      |      | 1    |      |      |      |      |      |      |
| 849                                                                                                                                                                                                                                                                          | G353.429-0.090 | 353.429-0.090   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 850                                                                                                                                                                                                                                                                          | G353.464+0.562 | 353.464+0.562   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 851                                                                                                                                                                                                                                                                          | G353.537-0.091 | 353.537-0.091   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 852                                                                                                                                                                                                                                                                          | G354.206-0.038 | 354.206-0.038   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 853                                                                                                                                                                                                                                                                          | G354.308-0.110 | 354.308-0.110   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 854                                                                                                                                                                                                                                                                          | G354.496+0.083 | 354.496+0.083   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 855                                                                                                                                                                                                                                                                          | G354.615+0.472 | IRAS 17269-3312 |     |     |     |     |     | 1   |     |     |     |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |
| 856                                                                                                                                                                                                                                                                          | G354.724+0.300 | 354.701+0.299   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 858                                                                                                                                                                                                                                                                          | G355.344+0.148 | 355.343+0.148   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 859                                                                                                                                                                                                                                                                          | G355.538-0.104 | 355.538-0.105   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 860                                                                                                                                                                                                                                                                          | G355.642+0.398 | 355.642+0.398   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 861                                                                                                                                                                                                                                                                          | G355.666+0.374 | 355.666+0.374   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 862                                                                                                                                                                                                                                                                          | G356.054-0.095 | 356.054-0.095   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 863                                                                                                                                                                                                                                                                          | G356.662-0.264 | 356.662-0.263   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 864                                                                                                                                                                                                                                                                          | G357.558-0.321 | 357.558-0.321   |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 865                                                                                                                                                                                                                                                                          | G357.924-0.337 | 357.922-0.337   |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 866                                                                                                                                                                                                                                                                          | G357.967-0.162 | 357.965-0.164   |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 867                                                                                                                                                                                                                                                                          | G358.263-2.061 | 358.263-2.061   |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 868                                                                                                                                                                                                                                                                          | G358.386-0.479 | 358.371-0.468   |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 869                                                                                                                                                                                                                                                                          | G358.460-0.393 | 358.460-0.391   |     |     |     |     |     | 1   |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 870                                                                                                                                                                                                                                                                          | G358.539+0.330 | 358.539+0.330   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 871                                                                                                                                                                                                                                                                          | G358.550+0.384 | 358.550+0.384   |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 872                                                                                                                                                                                                                                                                          | G358.721-0.126 | 358.721-0.126   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 873                                                                                                                                                                                                                                                                          | G358.809-0.085 | 358.809-0.085   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 874                                                                                                                                                                                                                                                                          | G358.841-0.737 | 358.841-0.737   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 875                                                                                                                                                                                                                                                                          | G358.906+0.106 | 358.906+0.106   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 876                                                                                                                                                                                                                                                                          | G358.931-0.030 | 358.931-0.030   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 877                                                                                                                                                                                                                                                                          | G358.980+0.084 | 358.973+0.088   |     |     |     |     |     |     |     |     |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BAR16 (3) BEU02 (4) BRE13 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZIN17 |                |                 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

| no.                                                                                                                                                                                                                                                                          | group_name       | source_name    | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) | (21) | (22) | (23) | (24) | (25) |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------|----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 878                                                                                                                                                                                                                                                                          | G359.137+0.031   | 359.138+0.031  |     |     |     |     | 1   | 1   |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      | 1    |      |      |      |      |      |
| 879                                                                                                                                                                                                                                                                          | G359.204+0.023   | g31            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 880                                                                                                                                                                                                                                                                          | G359.394+0.0753  | 359.394-0.075  |     |     |     |     |     | 1   |     | 1   |     |      |      |      | 1    |      |      |      |      |      |      | 1    |      |      |      |      |      |
| 881                                                                                                                                                                                                                                                                          | G359.4363-0.1033 | 359.43-00.10   |     |     |     |     |     | 1   |     | 1   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 882                                                                                                                                                                                                                                                                          | G359.615-0.243   | 359.615-0.243  |     |     |     |     |     | 1   |     | 1   |     |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 883                                                                                                                                                                                                                                                                          | G359.703-0.218   | 359.703-0.218  |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 884                                                                                                                                                                                                                                                                          | G359.8024+0.1884 | 359.802+0.188  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 885                                                                                                                                                                                                                                                                          | G359.820-0.225   | 359.820-0.225  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 886                                                                                                                                                                                                                                                                          | G359.9385+0.1704 | 359.938+0.170  |     |     |     |     |     | 1   |     |     | 1   |      |      |      |      | 1    |      |      |      |      |      |      |      |      |      |      |      |
| 887                                                                                                                                                                                                                                                                          | G359.970-0.457   | 359.970-0.457  |     |     |     |     |     | 1   |     | 1   |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 893                                                                                                                                                                                                                                                                          | G69.540-0.976    | G069.539-0.975 |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 902                                                                                                                                                                                                                                                                          | G173.481+2.446   | 05358+3543     |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 455                                                                                                                                                                                                                                                                          | G302.080-44.926  | N66 Sc12       |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 456                                                                                                                                                                                                                                                                          | G302.098-44.933  | NGC 346 IR1    |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 559                                                                                                                                                                                                                                                                          | G327.282-0.468   | 327.282-0.468  |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 857                                                                                                                                                                                                                                                                          | G355.184-0.419   | 355.184-0.419  |     |     |     |     |     | 1   |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 888                                                                                                                                                                                                                                                                          | G0.483-0.703     | g13            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 889                                                                                                                                                                                                                                                                          | G0.868-0.696     | g2             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 890                                                                                                                                                                                                                                                                          | G0.706+0.407     | g5             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 891                                                                                                                                                                                                                                                                          | G359.3009+0.0334 | g30            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 892                                                                                                                                                                                                                                                                          | G0.956-0.785     | g1             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 894                                                                                                                                                                                                                                                                          | G0.780-0.740     | g4             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 895                                                                                                                                                                                                                                                                          | G0.084-0.641     | g20            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 896                                                                                                                                                                                                                                                                          | G359.8414-0.0793 | g25            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 897                                                                                                                                                                                                                                                                          | G0.542-0.476     | g11            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 898                                                                                                                                                                                                                                                                          | G359.570+0.270   | g28            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 899                                                                                                                                                                                                                                                                          | G1.0407-0.0714   | g0             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 900                                                                                                                                                                                                                                                                          | G0.831-0.209     | g3             |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 901                                                                                                                                                                                                                                                                          | G49.267-0.338    | G49.27-0.34    |     |     |     |     |     |     |     |     |     |      | 1    |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 903                                                                                                                                                                                                                                                                          | G0.517-0.657     | g12            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 904                                                                                                                                                                                                                                                                          | G359.5993-0.0316 | g27            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 905                                                                                                                                                                                                                                                                          | G359.907-0.303   | g24            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 906                                                                                                                                                                                                                                                                          | G359.9316-0.0625 | g23            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 907                                                                                                                                                                                                                                                                          | G0.477-0.727     | g14            |     |     |     |     |     |     |     |     | 1   |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| (1) BAR09 (2) BARI6 (3) BEU02 (4) BREI3 (5) CAS09 (6) CAS10-12 (7) CAS95B (8) CAS96 (9) CHA11 (10) CHE15 (11) CYG09 (12) ELL18 (13) FUJ14C (14) HU16 (15) HUN18 (16) KRI13 (17) MOS17 (18) PAN11 (19) PHI98 (20) RIC19 (21) SAN10 (22) SAN17 (23) SUR19 (24) XU09 (25) ZIN17 |                  |                |     |     |     |     |     |     |     |     |     |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |

付録 C maserdb からダウンロードした過去に観測が行われた 6.7 GHz メタノールレーザーの天体のリスト

| no. | match | group-name     | gc.flag | source-name     | l         | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-in | ra-s | dec-sign | dec-d | dec-in | dec-s | vmean  | vpeak                                                                      | det | line               | type  | dist | refs                                                  |
|-----|-------|----------------|---------|-----------------|-----------|------------|-------------|-------------|-------------|-------|------|----------|-------|--------|-------|--------|----------------------------------------------------------------------------|-----|--------------------|-------|------|-------------------------------------------------------|
| 1   | 19    | G0.092-0.663   | 0       | 0.092-0.663     | 0.0914829 | -0.662985  | 267.1079167 | 17.80719445 | -29.2017222 | 17    | 48   | 25.9000  | -     | 29     | 12    | 6.200  | 21.550<br>22.200<br>23.800                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | CAS10-12<br>CHA11<br>HU16                             |
| 2   | 20    | G0.167-0.446   | 0       | 0.167-0.446     | 0.166928  | -0.445589  | 266.939417  | 17.79596113 | -29.024806  | 17    | 47   | 45.4601  | -     | 29     | 1     | 29.302 | 13.8                                                                       | Y   | 5(-1)-<br>>6(0)-A+ | MIXED |      | CAS10-12                                              |
| 3   | 21    | G0.2118-0.0009 | 1       | 0.212-0.001     | 0.211816  | -0.000934  | 266.531792  | 17.76878613 | -28.755806  | 17    | 46   | 7.6301   | -     | 28     | 45    | 20.902 | 49.2<br>48.160<br>49.200<br>49.500                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS96<br>HU16                                |
| 4   | 22,23 | G0.315-0.201   | 0       | 0.315-0.201     | 0.315436  | -0.200819  | 266.788042  | 17.78586947 | -28.771111  | 17    | 47   | 9.1301   | -     | 28     | 46    | 16.000 | 19.7<br>18.000<br>18.400<br>19.400<br>19.700<br>20.700<br>21.100           | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | CAS09<br>CAS10-12<br>CAS96<br>CHA11<br>HU16<br>RIC19  |
| 5   | 24    | G0.3758+0.0401 | 1       | 0.376+0.040     | 0.375844  | 0.03993    | 266.589208  | 17.77261387 | -28.59444   | 17    | 46   | 21.4099  | -     | 28     | 35    | 39.984 | 37.1<br>37.000<br>37.100                                                   | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09                                                 |
| 6   |       | G0.3998-0.0374 | 1       | 0.393-0.034     | 0.393094  | -0.03396   | 266.671333  | 17.77808887 | -28.618083  | 17    | 46   | 41.1199  | -     | 28     | 37    | 5.099  | 28.7                                                                       | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS96                                                 |
| 7   | 25    | G0.409-0.504   | 0       | 0.409-0.504     | 0.4088383 | -0.504102  | 267.1392973 | 17.80928649 | -28.847917  | 17    | 48   | 33.4314  | -     | 28     | 50    | 52.501 | 25.4<br>24.300<br>25.400<br>26.000                                         | Y   | 5(-1)-<br>>6(0)-A+ | MIXED |      | CAS10-12<br>CHA11<br>HU16                             |
| 8   | 26    | G0.4752-0.0096 | 1       | 0.475-0.010     | 0.4751153 | -0.0095649 | 266.6960659 | 17.77973773 | -28.53531   | 17    | 46   | 47.0558  | -     | 28     | 32    | 7.116  | 28.8<br>28.700<br>28.800<br>28.870                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12                                     |
| 9   | 27    | G0.4964+0.1880 | 1       | 0.496+0.188     | 0.496331  | 0.1879877  | 266.5165604 | 17.76777069 | -28.4145417 | 17    | 46   | 3.9745   | -     | 28     | 24    | 52.350 | 0.85<br>0.800<br>0.900<br>-2.030                                           | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>HU16<br>RIC19           |
| 10  |       | G0.5304-0.1975 | 1       | 0.530-0.198     | 0.5304373 | -0.1975376 | 266.9117458 | 17.79411639 | -28.5854008 | 17    | 47   | 38.8190  | -     | 28     | 35    | 7.443  |                                                                            | Y   | 5(-1)-<br>>6(0)-A+ |       |      | RIC19                                                 |
| 11  | 28    | G0.546-0.852   | 0       | IRAS 17470-2853 | 0.5461948 | -0.8513863 | 267.5602294 | 17.83734863 | -28.9086395 | 17    | 50   | 14.4551  | -     | 28     | 54    | 31.102 | 12.8<br>11.800<br>13.800<br>15.060                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>FUJ14C                           |
| 12  |       | G0.547+0.261   | 0       | 0.547+0.261     | 0.5466564 | 0.2612421  | 266.47525   | 17.76501667 | -28.3334478 | 17    | 45   | 54.0600  | -     | 28     | 20    | 0.412  |                                                                            | Y   | 5(-1)-<br>>6(0)-A+ | MIXED |      | RIC19                                                 |
| 13  |       | G0.6361-0.0562 | 1       | G000.656-0.040  | 0.6361202 | -0.0562303 | 266.8364264 | 17.78909609 | -28.4218298 | 17    | 47   | 20.7423  | -     | 28     | 25    | 18.587 | 52.42                                                                      | Y   | 5(-1)-<br>>6(0)-A+ |       |      | HU16                                                  |
| 14  | 29    | G0.6449-0.0421 | 1       | 000.64-00.04    | 0.6449587 | -0.0419945 | 266.827791  | 17.7885194  | -28.4068895 | 17    | 47   | 18.6698  | -     | 28     | 24    | 24.802 | 49.3<br>49.100<br>49.500<br>49.950                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>FUJ14C<br>HU16<br>RIC19 |
| 15  | 30    | G0.6471-0.0551 | 1       | 0.647-0.055     | 0.647263  | -0.0551725 | 266.841959  | 17.78946393 | -28.41175   | 17    | 47   | 22.0702  | -     | 28     | 24    | 42.300 | 51                                                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS96                                        |
| 16  |       | G0.6487-0.0671 | 1       | G000.647-0.055  | 0.6486883 | -0.0670571 | 266.854368  | 17.79029053 | -28.4166854 | 17    | 47   | 25.0459  | -     | 28     | 25    | 0.067  | 51.17                                                                      | Y   | 5(-1)-<br>>6(0)-A+ |       |      | HU16                                                  |
| 17  | 31    | G0.6512-0.0487 | 1       | 0.651-0.049     | 0.651226  | -0.048743  | 266.838     | 17.7892     | -28.40503   | 17    | 47   | 21.1200  | -     | 28     | 24    | 18.108 | 48.3<br>48.000<br>48.300<br>48.600<br>60.500                               | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>CHA11<br>HU16           |
| 18  |       | G0.6554-0.0340 | 1       | G000.666-0.028  | 0.6558875 | -0.0329268 | 266.8254048 | 17.78836032 | -28.3928502 | 17    | 47   | 18.0972  | -     | 28     | 23    | 34.261 | 70.94                                                                      | Y   | 5(-1)-<br>>6(0)-A+ |       |      | HU16                                                  |
| 19  | 32    | G0.6573-0.0415 | 1       | 0.657-0.041     | 0.656601  | -0.040993  | 266.8336685 | 17.78891123 | -28.3964185 | 17    | 47   | 20.0804  | -     | 28     | 23    | 47.107 | 52                                                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS96                                        |
| 20  |       | G0.6570-0.0546 | 1       | G000.651-0.048  | 0.6569758 | -0.0545771 | 266.8470991 | 17.78980661 | -28.403133  | 17    | 47   | 23.3038  | -     | 28     | 24    | 11.279 | 47.92                                                                      | Y   | 5(-1)-<br>>6(0)-A+ |       |      | HU16                                                  |
| 21  | 35    | G0.6667-0.0349 | 1       | 0.665-0.036     | 0.666744  | -0.031425  | 266.833459  | 17.78889727 | -28.381818  | 17    | 47   | 20.0302  | -     | 28     | 22    | 54.545 | 60.4<br>52.400<br>55.200<br>58.200<br>58.480<br>58.700<br>66.000<br>70.500 | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>CHA11<br>HU16<br>RIC19  |
| 22  | 38    | G0.6770-0.0269 | 1       | 0.677-0.025     | 0.67708   | -0.025202  | 266.83037   | 17.78869133 | -28.370722  | 17    | 47   | 19.2888  | -     | 28     | 22    | 14.599 | 73.4<br>72.200<br>73.400<br>73.400                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96                            |
| 23  | 39    | G0.6948-0.0378 | 1       | 0.695-0.038     | 0.6948692 | -0.037838  | 266.8530875 | 17.79020583 | -28.3620269 | 17    | 47   | 24.7410  | -     | 28     | 21    | 43.297 | 68.6<br>68.500<br>68.600<br>68.900                                         | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>CHA11                   |
| 24  |       | G0.8162-0.0915 | 1       | 0.816-0.091     | 0.8162395 | -0.0914649 | 266.9765958 | 17.79843972 | -28.2859317 | 17    | 47   | 54.3830  | -     | 28     | 17    | 9.354  |                                                                            | Y   | 5(-1)-<br>>6(0)-A+ |       |      | RIC19                                                 |
| 25  | 40    | G0.8358+0.1844 | 1       | 0.836+0.184     | 0.835782  | 0.18444    | 266.72025   | 17.78135    | -28.126333  | 17    | 46   | 52.8600  | -     | 28     | 7     | 34.799 | 3.5                                                                        | Y   | 5(-1)-<br>>6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CAS96<br>HU16                    |
| 26  |       | G0.8586+0.1916 | 1       | G000.835+0.184  | 0.8586106 | 0.1916032  | 266.7267317 | 17.78178211 | -28.1031006 | 17    | 46   | 54.4156  | -     | 28     | 6     | 11.162 | 3.2                                                                        | Y   | 5(-1)-<br>>6(0)-A+ |       |      | RIC19                                                 |
| 27  |       | G0.8890-0.0795 | 1       | 0.889-0.079     | 0.8889785 | -0.079469  | 267.0076167 | 17.80050778 | -28.2174614 | 17    | 48   | 1.8280   | -     | 28     | 13    | 2.861  |                                                                            | Y   | 5(-1)-<br>>6(0)-A+ |       |      | RIC19                                                 |

| no. | match | group-name     | gc.flag | source-name      | l         | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-deg | dec-s | vmean  | vpeak                      | det | line           | type   | dist | refs                                |
|-----|-------|----------------|---------|------------------|-----------|------------|-------------|-------------|-------------|------|------|----------|---------|-------|--------|----------------------------|-----|----------------|--------|------|-------------------------------------|
| 28  |       | G0.8994-0.0276 | 1       | 0.899-0.028      | 0.8993568 | -0.0276169 | 266.9633375 | 17.7975583  | -28.181775  | 17   | 47   | 51.2010  | 28      | 10    | 54.390 |                            | Y   | 5(-1)->6(0)-A+ |        |      | RIC19                               |
| 29  |       | G0.9087-0.0606 | 1       | 0.909-0.061      | 0.9086517 | -0.0606332 | 267.0008542 | 17.80005695 | -28.190885  | 17   | 48   | 0.2050   | 28      | 11    | 27.186 |                            | Y   | 5(-1)->6(0)-A+ |        |      | RIC19                               |
| 30  |       | G0.9112-0.0528 | 1       | 0.911-0.053      | 0.9111745 | -0.0527741 | 266.9947    | 17.79964667 | -28.1846636 | 17   | 47   | 58.7280  | 28      | 11    | 4.789  |                            | Y   | 5(-1)->6(0)-A+ |        |      | RIC19                               |
| 31  |       | G0.9115-0.0599 | 1       | 0.912-0.060      | 0.9115236 | -0.0598862 | 267.0018125 | 17.80012083 | -28.1880403 | 17   | 48   | 0.4350   | 28      | 11    | 16.945 |                            | Y   | 5(-1)->6(0)-A+ |        |      | RIC19                               |
| 32  | 41    | G1.008-0.237   | 0       | 1.008-0.237      | 1.0080247 | -0.2369104 | 267.2303625 | 17.8153575  | -28.19672   | 17   | 48   | 55.2870  | 28      | 11    | 48.192 | 3.45                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>RIC19<br>HU16           |
| 33  | 42    | G1.1468-0.1245 | 1       | 1.147-0.124      | 1.146874  | -0.1245053 | 267.2022875 | 17.81348583 | -28.019778  | 17   | 48   | 48.5490  | 28      | 1     | 11.201 | 15.3                       | Y   | 5(-1)->6(0)-A+ |        |      | CAS10-12<br>RIC19<br>HU16           |
| 34  |       | G1.2823-0.0841 | 1       | 1.282-0.084      | 1.2822571 | -0.0840831 | 267.242     | 17.81613333 | -27.8829444 | 17   | 48   | 58.0800  | 27      | 52    | 58.600 | 18.000                     | Y   | 5(-1)->6(0)-A+ |        |      | RIC19                               |
| 35  | 43    | G1.3290+0.1496 | 1       | 1.329+0.150      | 1.3289114 | 0.1495555  | 267.0429208 | 17.80286139 | -27.7224658 | 17   | 48   | 10.3010  | 27      | 43    | 20.877 | 12.2                       | Y   | 5(-1)->6(0)-A+ |        |      | CAS10-12<br>RIC19<br>HU16           |
| 36  | 44    | G1.719-0.088   | 0       | 1.719-0.088      | 1.7188919 | -0.0878739 | 267.499247  | 17.83328313 | -27.5104071 | 17   | 49   | 59.8193  | 27      | 30    | 37.466 | 12.380<br>-6.930<br>-8.100 | Y   | 5(-1)->6(0)-A+ | UNK    |      | CAS10-12<br>HU16                    |
| 37  | 45    | G2.143+0.009   | 0       | 2.143+0.009      | 2.143407  | 0.009058   | 267.65058   | 17.843372   | -27.09625   | 17   | 50   | 36.1392  | 27      | 5     | 46.500 | 62.6                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16           |
| 38  | 46    | G2.521-0.220   | 0       | 2.521-0.220      | 2.5206    | -0.220422  | 268.088208  | 17.8725472  | -26.889194  | 17   | 52   | 21.1699  | 26      | 53    | 21.098 | -6.1                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 39  | 47    | G2.536+0.198   | 0       | IRAS 17476-2638A | 2.5355492 | 0.198178   | 267.6936225 | 17.8462415  | -26.6625832 | 17   | 50   | 46.4694  | 26      | 39    | 45.300 | 3.15                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16 |
| 40  | 48    | G2.591-0.029   | 0       | 2.591-0.029      | 2.591421  | -0.029408  | 267.944542  | 17.86296947 | -26.730889  | 17   | 51   | 46.6901  | 26      | 43    | 51.200 | -8.3                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 41  | 49    | G2.615+0.134   | 0       | 2.615+0.134      | 2.615339  | 0.13373    | 267.80125   | 17.85341667 | -26.627     | 17   | 51   | 12.3000  | 26      | 37    | 37.200 | 94.1                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 42  | 50    | G2.703+0.042   | 0       | 2.703+0.040      | 2.7032456 | 0.040035   | 267.9415686 | 17.86277124 | -26.5992832 | 17   | 51   | 45.9765  | 26      | 35    | 57.420 | 94.14<br>93.500<br>94.780  | Y   | 5(-1)->6(0)-A+ | MIXED  |      | CAS10-12<br>HU16                    |
| 43  | 51    | G3.253+0.018   | 0       | 3.253+0.018      | 3.2531583 | 0.0185642  | 268.2747201 | 17.88498134 | -26.1369314 | 17   | 53   | 5.9328   | 26      | 8     | 12.953 | 1.46                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 44  | 52    | G3.312-0.399   | 0       | 3.312-0.399      | 3.311898  | -0.398594  | 268.708792  | 17.91391947 | -26.297639  | 17   | 54   | 50.1101  | 26      | 17    | 51.500 | 0.4                        | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 45  | 53    | G3.442-0.348   | 0       | 3.442-0.348      | 3.442114  | -0.348368  | 268.733792  | 17.91558613 | -26.159889  | 17   | 54   | 56.1101  | 26      | 9     | 35.600 | 35.1                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 46  | 54    | G3.502-0.200   | 0       | 3.502-0.200      | 3.502195  | -0.200212  | 268.62525   | 17.90835    | -26.033167  | 17   | 54   | 30.0600  | 26      | 1     | 59.401 | 43.9                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 47  | 55    | G3.910+0.001   | 0       | 3.910+0.001      | 3.910409  | 0.001261   | 268.661458  | 17.91076387 | -25.579111  | 17   | 54   | 38.7499  | 25      | 34    | 44.800 | 17.8                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16           |
| 48  | 56    | G4.393+0.079   | 0       | 4.393+0.079      | 4.393421  | 0.0788293  | 268.8572332 | 17.92381555 | -25.1230231 | 17   | 55   | 25.7360  | 25      | 7     | 22.883 | 3.045                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 49  | 57    | G4.434+0.129   | 0       | 4.434+0.129      | 4.4343878 | 0.1289479  | 268.8322608 | 17.92215072 | -25.0623706 | 17   | 55   | 19.7426  | 25      | 3     | 44.534 | 0.505                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 50  | 58    | G4.569-0.079   | 0       | 4.569-0.079      | 4.568793  | -0.079126  | 269.105417  | 17.94036113 | -25.051028  | 17   | 56   | 25.3001  | 25      | 3     | 3.701  | 9.5                        | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 51  | 59    | G4.586+0.028   | 0       | 4.586+0.028      | 4.586372  | 0.027519   | 269.013468  | 17.93423053 | -24.982194  | 17   | 56   | 3.2299   | 24      | 58    | 55.898 | 26.1                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 52  | 60    | G4.677+0.277   | 0       | 4.676+0.276      | 4.6762451 | 0.2764126  | 268.8263897 | 17.92175931 | -24.7791544 | 17   | 55   | 18.3335  | 24      | 46    | 44.956 | 3.915                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 53  | 61    | G4.866-0.171   | 0       | 4.866-0.171      | 4.86624   | -0.171488  | 269.358167  | 17.95721113 | -24.840111  | 17   | 57   | 25.9601  | 24      | 50    | 24.400 | 5.4                        | Y   | 5(-1)->6(0)-A+ | UNK    |      | CAS10-12                            |
| 54  | 62    | G5.618-0.082   | 0       | 5.618-0.082      | 5.6181849 | -0.0823751 | 269.6865717 | 17.97910478 | -24.1443762 | 17   | 58   | 44.7772  | 24      | 8     | 39.754 | 25.15                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 55  | 63    | G5.630-0.294   | 0       | 5.630-0.294      | 5.629738  | -0.29416   | 269.894167  | 17.99294447 | -24.239917  | 17   | 59   | 34.6001  | 24      | 14    | 23.701 | 10.5                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 56  | 64    | G5.657+0.416   | 0       | 5.657+0.416      | 5.65675   | 0.415825   | 269.235542  | 17.94903613 | -23.861667  | 17   | 56   | 56.5301  | 23      | 51    | 42.001 | 20                         | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 57  | 65    | G5.677-0.027   | 0       | 5.677-0.027      | 5.67709   | -0.02739   | 269.666583  | 17.9777722  | -24.065889  | 17   | 58   | 39.9799  | 24      | 3     | 57.200 | 11.7                       | Y   | 5(-1)->6(0)-A+ | UNK    |      | CAS10-12                            |
| 58  | 66    | G5.885-0.392   | 0       | 5.885-0.393      | 5.885175  | -0.393421  | 270.127708  | 18.00851387 | -24.067611  | 18   | 0    | 30.6499  | 24      | 4     | 3.400  | 6.7                        | Y   | 5(-1)->6(0)-A+ | GALAXY |      | CAS10-12                            |
| 59  | 67    | G5.900-0.430   | 0       | 5.900-0.430      | 5.900257  | -0.429543  | 270.17025   | 18.01135    | -24.07244   | 18   | 0    | 40.8600  | 24      | 4     | 20.784 | 10                         | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16<br>FUJ14C |
| 60  | 68    | G6.189-0.358   | 0       | 006.18-00.35     | 6.188948  | -0.3581628 | 270.2590417 | 18.01726945 | -23.7863333 | 18   | 1    | 2.1700   | 23      | 47    | 10.800 | 30.2                       | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 61  | 69    | G6.368-0.051   | 0       | 6.368-0.052      | 6.368164  | -0.051979  | 270.065917  | 18.00439447 | -23.478833  | 18   | 0    | 15.8201  | 23      | 28    | 43.799 | 144.1                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12                            |
| 62  | 70    | G6.553-0.097   | 0       | 6.539-0.108      | 6.539316  | -0.108456  | 270.2119185 | 18.0141279  | -23.358279  | 18   | 0    | 50.8604  | 23      | 21    | 29.804 | 13.25                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16           |
| 63  | 71    | G6.588-0.192   | 0       | 6.588-0.192      | 6.5878346 | -0.1919192 | 270.317074  | 18.02113827 | -23.3574979 | 18   | 1    | 16.0978  | 23      | 21    | 26.992 | 4.845                      | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS10-12<br>HU16                    |
| 64  | 72    | G6.610-0.082   | 0       | 6.610-0.082      | 6.609902  | -0.082114  | 270.225125  | 18.01500833 | -23.28392   | 18   | 0    | 54.0300  | 23      | 17    | 2.112  | 0.8                        | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>FUJ14C         |
| 65  | 73    | G6.794-0.256   | 0       | IRAS 17589-2312  | 6.7952473 | -0.2573027 | 270.4906459 | 18.03270973 | -23.209595  | 18   | 1    | 57.7550  | 23      | 12    | 34.542 | 18.845                     | Y   | 5(-1)->6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16 |

| no. | match | group_name    | gc_flag | source_name     | l          | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-<br>h | ra-<br>m | ra-s    | dec-<br>sign | dec-<br>deg | dec-s | vmean  | vpeak                                                                                                                              | det | line                                                          | type    | dist | refs                                                  |
|-----|-------|---------------|---------|-----------------|------------|------------|-------------|-------------|-------------|----------|----------|---------|--------------|-------------|-------|--------|------------------------------------------------------------------------------------------------------------------------------------|-----|---------------------------------------------------------------|---------|------|-------------------------------------------------------|
| 66  | 74    | G6.881+0.093  | 0       | 6.881+0.093     | 6.8807846  | 0.0930164  | 270.2058027 | 18.01372018 | -22.9618444 | 18       | 0        | 49.3926 | -            | 22          | 57    | 42.640 | -2.300<br>-3.020                                                                                                                   | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 67  | 75    | G7.166+0.131  | 0       | 7.166+0.131     | 7.1654321  | 0.1311756  | 270.3228904 | 18.02152603 | -22.6956983 | 18       | 1        | 17.4937 | -            | 22          | 41    | 44.514 | 83.825<br>85.700                                                                                                                   | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 68  | 76    | G7.601+0.139  | 0       | 7.601+0.139     | 7.6009464  | -0.1389472 | 270.8101676 | 18.05401117 | -22.4503673 | 18       | 3        | 14.4402 | -            | 22          | 27    | 1.322  | 153.16<br>151.620<br>154.760                                                                                                       | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 69  | 77    | G7.632+0.109  | 0       | 7.632+0.109     | 7.6314772  | -0.1092533 | 270.7984719 | 18.05323146 | -22.4091727 | 18       | 3        | 11.6333 | -            | 22          | 24    | 33.022 | 154.59<br>152.180<br>167.100                                                                                                       | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 70  | 78    | G8.139+0.226  | 0       | 8.139+0.226     | 8.138533   | 0.226018   | 270.753125  | 18.05020833 | -21.80275   | 18       | 3        | 0.7500  | -            | 21          | 48    | 9.900  | 19.840<br>19.800<br>20.000                                                                                                         | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>HU16                             |
| 71  | 79    | G8.317+0.096  | 0       | 8.317+0.096     | 8.3173879  | -0.0962735 | 271.1501072 | 18.07667381 | -21.8054284 | 18       | 4        | 36.0257 | -            | 21          | 48    | 19.542 | 46.960<br>47.600                                                                                                                   | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 72  | 80    | G8.669+0.357  | 0       | 008.68+00.36    | 8.6829918  | -0.3681335 | 271.5978333 | 18.10652222 | -21.6225052 | 18       | 6        | 23.4800 | -            | 21          | 37    | 21.019 | 42.6<br>37.680<br>39.200<br>39.800<br>42.900                                                                                       | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16                   |
| 73  | 82    | G8.832+0.028  | 0       | IRAS 18024-2119 | 8.8316011  | -0.0279675 | 271.3569439 | 18.09046293 | -21.3236806 | 18       | 5        | 25.6665 | -            | 21          | 19    | 25.250 | -3.8<br>-9.810<br>-3.900                                                                                                           | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     | 5.2  | CAS10-12<br>FUJ14C<br>HU16                            |
| 74  | 83    | G8.872+0.493  | 0       | 8.872+0.493     | 8.872305   | -0.492611  | 271.813917  | 18.1209278  | -21.514917  | 18       | 7        | 15.3401 | -            | 21          | 30    | 53.701 | 23.4<br>23.300<br>23.360                                                                                                           | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-<br>XU09 HU16                                   |
| 75  | 84    | G9.215+0.202  | 0       | 9.215+0.202     | 9.2144877  | -0.2017794 | 271.7201639 | 18.11467759 | -21.0744203 | 18       | 6        | 52.8393 | -            | 21          | 4     | 27.913 | 44.07<br>42.640<br>45.500                                                                                                          | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 76  | 86    | G9.621+0.195  | 0       | IRAS 18032-2032 | 9.62102    | 0.195664   | 271.561125  | 18.104075   | -20.52567   | 18       | 6        | 14.6700 | -            | 20          | 31    | 32.412 | 1.43<br>-1.000<br>1.200<br>1.300<br>1.390<br>5.120<br>5.160<br>5.400<br>5.500                                                      | Y   | 5(-1)-<br>>6(0)-A+<br>6(2)-<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12<br>EDU18<br>FUJ14C<br>HU16<br>PHI98 |
| 77  | 87    | G9.986+0.030  | 0       | IRAS 18048-2019 | 9.9859562  | -0.0275628 | 271.9588332 | 18.13058888 | -20.3156942 | 18       | 7        | 50.1200 | -            | 20          | 18    | 58.499 | 43.825<br>42.450<br>47.100                                                                                                         | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16                   |
| 78  | 89    | G10.205+0.345 | 0       | 10.205+0.345    | 10.204831  | -0.345496  | 272.368458  | 18.1578972  | -20.278472  | 18       | 9        | 28.4299 | -            | 20          | 16    | 42.499 | 6.6                                                                                                                                | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12                                              |
| 79  | 92    | G10.320+0.259 | 0       | 10.320+0.259    | 10.320456  | -0.258629  | 272.34708   | 18.156472   | -20.13525   | 18       | 9        | 23.2992 | -            | 20          | 8     | 6.900  | 38.8<br>37.220<br>38.600                                                                                                           | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>HU16                             |
| 80  | 93    | G10.322+0.148 | 0       | IRAS 18060-2005 | 10.322292  | -0.146199  | 272.2499583 | 18.14999722 | -20.0859025 | 18       | 8        | 59.9900 | -            | 20          | 5     | 9.249  | 10.46<br>10.000<br>10.460<br>11.500<br>11.800<br>15.400<br>1.700<br>19.900<br>19.900<br>3.600<br>4.600<br>49.800<br>8.880<br>9.670 | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16                   |
| 81  |       |               | 0       | G010.342-0.142  | 10.3617637 | -0.1254199 | 272.2442897 | 18.14961931 | -20.0345994 | 18       | 8        | 58.6295 | -            | 20          | 2     | 4.558  | 10.63                                                                                                                              | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | HU16                                                  |
| 82  | 96    | G10.444+0.017 | 0       | 10.444+0.02     | 10.4441199 | -0.018251  | 272.18702   | 18.14580133 | -19.910629  | 18       | 8        | 44.8848 | -            | 19          | 54    | 38.264 | 73.1<br>72.590<br>73.900<br>73.300                                                                                                 | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>CAS08B<br>HU16                   |
| 83  | 97    | G10.472+0.027 | 0       | 10.47+0.03      | 10.47991   | 0.032985   | 272.157833  | 18.14385553 | -19.854472  | 18       | 8        | 37.8799 | -            | 19          | 51    | 16.099 | 67.5<br>59.500<br>65.000<br>75.000<br>75.000                                                                                       | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>CAS08B<br>HU16                   |
| 84  |       |               | 0       | G010.480+0.033  | 10.5033279 | 0.0506661  | 272.1534704 | 18.14356469 | -19.8254178 | 18       | 8        | 36.8329 | -            | 19          | 49    | 31.504 | 62.93                                                                                                                              | Y   | 5(-1)-<br>>6(0)-A+                                            | EVOLVED |      |                                                       |
| 85  | 99    | G10.623+0.383 | 0       | 10.627+0.384    | 10.626544  | -0.384414  | 272.62175   | 18.17478333 | -19.928083  | 18       | 10       | 29.2200 | -            | 19          | 55    | 41.099 | 4.6<br>3.100<br>4.600                                                                                                              | Y   | 5(-1)-<br>>6(0)-A+                                            | MIXED   |      | CAS09<br>CAS10-12<br>HU16                             |
| 86  | 100   | G10.629+0.333 | 0       | 10.629+0.333    | 10.628715  | -0.332939  | 272.57492   | 18.17166133 | -19.901333  | 18       | 10       | 17.9808 | -            | 19          | 54    | 4.799  | 6.81<br>-0.200<br>-6.810<br>-7.500                                                                                                 | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>HU16                             |
| 87  |       |               | 0       | G010.634-0.406  | 10.642534  | -0.4276978 | 272.6702844 | 18.17801896 | -19.9349617 | 18       | 10       | 40.8683 | -            | 19          | 56    | 5.862  | 9.19<br>-9.19                                                                                                                      | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 88  | 101   | G10.724+0.334 | 0       | 10.724+0.334    | 10.7239899 | -0.3343974 | 272.6251736 | 18.17501157 | -19.8189004 | 18       | 10       | 30.0417 | -            | 19          | 49    | 6.961  | -2.200<br>-2.345                                                                                                                   | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 89  | 102   | G10.822+0.103 | 0       | 10.822+0.103    | 10.822499  | -0.103017  | 272.4605    | 18.16403333 | -19.620583  | 18       | 9        | 50.5200 | -            | 19          | 37    | 14.099 | 72                                                                                                                                 | Y   | 5(-1)-<br>>6(0)-A+                                            | MIXED   |      | CAS10-12<br>HU16                                      |
| 90  |       |               | 0       | G010.860+0.124  | 10.8360772 | 0.1261367  | 272.2546667 | 18.15031111 | -19.4977956 | 18       | 9        | 1.1200  | -            | 19          | 29    | 52.064 | 20.17                                                                                                                              | Y   | 5(-1)-<br>>6(0)-A+                                            |         |      | HU16                                                  |
| 91  | 103   | G10.885+0.123 | 0       | 10.886+0.123    | 10.8849752 | 0.1224789  | 272.2831862 | 18.15221241 | -19.4567904 | 18       | 9        | 7.9647  | -            | 19          | 27    | 24.445 | 16.665<br>16.230<br>17.100                                                                                                         | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 92  | 104   | G10.958+0.022 | 0       | 10.958+0.022    | 10.958323  | 0.022271   | 272.41383   | 18.160922   | -19.441111  | 18       | 9        | 39.3192 | -            | 19          | 26    | 28.000 | 24.4<br>24.400<br>24.500<br>20.600                                                                                                 | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>HU16<br>CAS10-12                 |
| 93  | 105   | G11.034+0.062 | 0       | 11.034+0.062    | 11.0341205 | 0.061821   | 272.416     | 18.16106667 | -19.3556395 | 18       | 9        | 39.8400 | -            | 19          | 21    | 20.302 | 20.55<br>21.000<br>21.000                                                                                                          | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 94  | 106   | G11.109+0.114 | 0       | 11.109+0.114    | 11.1090416 | -0.1142209 | 272.6177426 | 18.17451617 | -19.3751016 | 18       | 10       | 28.2882 | -            | 19          | 22    | 30.366 | 26.125<br>28.250                                                                                                                   | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS10-12<br>HU16                                      |
| 95  | 107   | G11.499+1.485 | 0       | IRAS 18134-1342 | 11.4974027 | -1.4853224 | 274.0922082 | 18.27281388 | -19.690875  | 18       | 16       | 22.1300 | -            | 19          | 41    | 27.150 | 6.65<br>10.540<br>6.700                                                                                                            | Y   | 5(-1)-<br>>6(0)-A+                                            | SFR     |      | CAS09<br>CAS10-12<br>FUJ14C<br>HU16                   |

| no. | match         | group-name    | gc.flag | source_name     | l          | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sgn | dec-d | dec-g | dec-s | vmean  | vpeak                                          | det | line               | type   | dist | refs                                                    |
|-----|---------------|---------------|---------|-----------------|------------|------------|-------------|-------------|-------------|------|------|---------|-------|-------|-------|--------|------------------------------------------------|-----|--------------------|--------|------|---------------------------------------------------------|
| 96  | 108           | G11.903-0.102 | 0       | 11.903-0.102    | 11.903033  | -0.102295  | 273.01125   | 18.20075    | -18.67353   | 18   | 12   | 2.7000  | -     | 18    | 40    | 24.708 | 33.900<br>35.060                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 97  | 109           | G11.904-0.141 | 0       | IRAS 18092-1842 | 11.9040554 | -0.141111  | 273.0476685 | 18.2031779  | -18.6913067 | 18   | 12   | 11.4404 | -     | 18    | 41    | 28.704 | 42.800<br>43.660                               | Y   | 5(-1)-<br>>6(0)-A+ | MIXED  |      | CAS09<br>CAS10-12<br>FU14C<br>HU16                      |
| 98  | 111           | G11.937-0.616 | 0       | 11.936-0.616    | 11.9360394 | -0.615699  | 273.503709  | 18.2335806  | -18.8907034 | 18   | 14   | 0.8902  | -     | 18    | 53    | 26.532 | 30.070<br>32.200<br>36.660                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 99  | 110           | G11.936-0.151 | 0       | 11.936-0.150    | 11.936116  | -0.1507992 | 273.072042  | 18.2048028  | -18.667389  | 18   | 12   | 17.2901 | -     | 18    | 40    | 2.600  | 33.570<br>34.450<br>38.540                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 100 | 112           | G11.991-0.272 | 0       | 11.992-0.272    | 11.991255  | -0.2722842 | 273.2133517 | 18.21422345 | -18.6777971 | 18   | 12   | 51.2044 | -     | 18    | 40    | 40.070 | 59.460<br>59.800                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 101 | 113           | G12.025-0.032 | 0       | IRAS 18090-1832 | 12.025439  | -0.031418  | 273.00775   | 18.20051667 | -18.53214   | 18   | 12   | 1.8600  | -     | 18    | 31    | 55.704 | 107.700<br>107.710<br>108.300                  | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>CAS10-12<br>CAS10-12<br>FU14C<br>HU16 |
| 102 | 114           | G12.112-0.126 | 0       | 12.112-0.126    | 12.1116362 | -0.1263415 | 273.139219  | 18.20928127 | -18.502145  | 18   | 12   | 33.4126 | -     | 18    | 30    | 7.722  | 39.900<br>44.660                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 103 | 116           | G12.199-0.034 | 0       | 12.199-0.033    | 12.199139  | -0.033503  | 273.097667  | 18.20651113 | -18.38081   | 18   | 12   | 23.4401 | -     | 18    | 22    | 50.916 | 49.300<br>52.240                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 104 | 117, 118, 119 | G12.209-0.106 | 0       | 12.181-0.123    | 12.202214  | -0.1109283 | 273.1681156 | 18.21120771 | -18.416567  | 18   | 12   | 40.3477 | -     | 18    | 24    | 59.641 | 18.260<br>19.800<br>20.450<br>20.500<br>26.700 | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>CAS10-12<br>CAS10-12<br>FU14C<br>HU16 |
| 105 | 120           | G12.265-0.051 | 0       | 12.265-0.051    | 12.26537   | -0.051163  | 273.1475    | 18.20983333 | -18.331194  | 18   | 12   | 35.4000 | -     | 18    | 19    | 52.298 | 68.140<br>68.140                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 106 | 121           | G12.526+0.016 | 0       | 12.526+0.016    | 12.5255266 | 0.0160739  | 273.2168285 | 18.21445523 | -18.0706861 | 18   | 12   | 52.0388 | -     | 18    | 4     | 14.470 | 41.920<br>42.600                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 107 | 122           | G12.627-0.017 | 0       | 12.625-0.017    | 12.6247105 | -0.0166874 | 273.2970815 | 18.21980543 | -17.999361  | 18   | 13   | 11.2996 | -     | 17    | 59    | 57.700 | 23.525<br>21.600<br>23.250<br>23.800           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>CAS10-12<br>CAS10-12<br>FU14C<br>HU16 |
| 108 | 123           | G12.681-0.182 | 0       | 012.68-00.18    | 12.6806095 | -0.1823122 | 273.4781225 | 18.23187483 | -18.0296111 | 18   | 13   | 54.7494 | -     | 18    | 1     | 46.600 | 57.500<br>57.600<br>57.800                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>CAS10-12<br>FU14C<br>HU16                   |
| 109 | 125           | G12.776+0.128 | 0       | 12.776+0.128    | 12.776189  | 0.128116   | 273.2339875 | 18.21599167 | -17.797     | 18   | 12   | 57.5700 | -     | 17    | 47    | 49.200 | 32.800<br>32.800                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>CAS10-12<br>FU14C<br>HU16             |
| 110 | 126           | G12.889+0.490 | 0       | IRAS 18089-1732 | 12.8885554 | 0.4892006  | 272.9641667 | 18.19761111 | -17.5250278 | 18   | 11   | 51.4000 | -     | 17    | 31    | 30.100 | 33.990<br>39.300                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>CAS10-12<br>FU14C<br>HU16             |
| 111 | 127           | G12.904-0.031 | 0       | 12.904-0.031    | 12.9041164 | -0.0311975 | 273.4510923 | 18.23007282 | -17.7610432 | 18   | 13   | 48.2622 | -     | 17    | 45    | 39.756 | 58.760<br>59.100                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 112 | 128           | G12.908-0.260 | 0       | 12.909-0.260    | 12.908586  | -0.260324  | 273.664708  | 18.24431387 | -17.86667   | 18   | 14   | 39.5299 | -     | 17    | 52    | 0.012  | 39.900<br>39.900                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 113 | 129           | G13.179+0.060 | 0       | 13.179+0.061    | 13.178806  | 0.061066   | 273.504     | 18.2336     | -17.475694  | 18   | 14   | 0.9600  | -     | 17    | 28    | 32.498 | 46.500<br>46.500                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 114 | 131           | G13.657-0.600 | 0       | 13.657-0.599    | 13.656692  | -0.599262  | 274.351083  | 18.2900722  | -17.37014   | 18   | 17   | 24.2599 | -     | 17    | 22    | 12.504 | 51.200<br>51.200                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>HU16                               |
| 115 | 132           | G13.696-0.156 | 0       | 13.696-0.156    | 13.696118  | -0.156323  | 273.962708  | 18.26418053 | -17.124889  | 18   | 15   | 51.0499 | -     | 17    | 7     | 29.600 | 99.300<br>99.300                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 116 | 133           | G13.713-0.084 | 0       | 13.713-0.083    | 13.7126015 | -0.0836504 | 273.9040754 | 18.26027169 | -17.075773  | 18   | 15   | 36.9781 | -     | 17    | 4     | 32.783 | 45.615<br>47.630                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>CAS09<br>CAS10-12<br>FU14C<br>HU16          |
| 117 | 134           | G14.101+0.087 | 0       | IRAS 18128-1640 | 14.101419  | 0.087013   | 273.940875  | 18.262725   | -16.652611  | 18   | 15   | 45.8100 | -     | 16    | 39    | 9.400  | 15.200<br>15.400                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>CAS10-12<br>FU14C<br>HU16                      |
| 118 | 135           | G14.229-0.510 | 0       | 14.230-0.509    | 14.22971   | -0.509293  | 274.552458  | 18.3034972  | -16.823     | 18   | 18   | 12.5899 | -     | 16    | 49    | 22.800 | 25.300<br>25.300                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 119 | 137           | G14.390-0.020 | 0       | 14.390-0.020    | 14.3893626 | -0.0203917 | 274.1823727 | 18.27882485 | -16.4504727 | 18   | 16   | 43.7694 | -     | 16    | 27    | 1.702  | 26.825<br>26.900                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 120 | 138           | G14.442-0.151 | 0       | 14.457-0.143    | 14.442198  | -0.150898  | 274.328292  | 18.28855528 | -16.465972  | 18   | 17   | 18.7901 | -     | 16    | 27    | 57.499 | 43.200<br>43.200                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 121 | 139           | G14.490+0.014 | 0       | 14.490+0.014    | 14.489578  | 0.014255   | 274.20025   | 18.28001667 | -16.345833  | 18   | 16   | 48.0600 | -     | 16    | 20    | 44.999 | 20.200<br>20.200                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 122 | 140           | G14.521+0.155 | 0       | 14.521+0.155    | 14.520567  | 0.155249   | 274.086375  | 18.272425   | -16.251528  | 18   | 16   | 20.7300 | -     | 16    | 15    | 5.501  | 4.100<br>4.100                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 123 | 141           | G14.606+0.015 | 0       | 14.604+0.017    | 14.6038626 | 0.016501   | 274.2547649 | 18.28365099 | -16.2442061 | 18   | 17   | 1.1436  | -     | 16    | 14    | 39.142 | 24.600<br>28.270                               | Y   | 5(-1)-<br>>6(0)-A+ | MIXED  |      | CAS10-12<br>HU16                                        |
| 124 | 142           | G14.631-0.577 | 0       | 14.631-0.577    | 14.631453  | -0.577266  | 274.813375  | 18.32089167 | -16.50125   | 18   | 19   | 15.2100 | -     | 16    | 30    | 4.500  | 25.200<br>25.200                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |
| 125 | 143           | G14.991-0.121 | 0       | 14.991-0.121    | 14.9907368 | -0.1214259 | 274.5721604 | 18.30481069 | -15.9690529 | 18   | 18   | 17.3185 | -     | 15    | 58    | 8.590  | 46.000<br>47.000                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 126 | 144           | G15.033-0.674 | 0       | 15.034-0.677    | 15.034571  | -0.676962  | 275.10325   | 18.34021667 | -16.192944  | 18   | 20   | 24.7800 | -     | 16    | 11    | 34.598 | 21.300<br>21.300                               | Y   | 5(-1)-<br>>6(0)-A+ | GALAXY |      | CAS09<br>CAS10-12<br>CAS10-12<br>HU16                   |
| 127 | 145           | G15.094+0.191 | 0       | 15.094+0.192    | 15.0940577 | 0.1914381  | 274.3367482 | 18.28911655 | -15.7297336 | 18   | 17   | 20.8196 | -     | 15    | 43    | 47.041 | 24.875<br>25.700                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12<br>HU16                                        |
| 128 | 146           | G15.607-0.255 | 0       | 15.607-0.255    | 15.606617  | -0.255317  | 274.99725   | 18.33315    | -15.489667  | 18   | 19   | 59.3400 | -     | 15    | 29    | 22.801 | 65.900<br>65.900                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS10-12                                                |

| no. | match    | group_name    | gc_flag | source_name  | l          | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-s | vmean | vpeak  | det    | line    | type     | dist    | refs                      |
|-----|----------|---------------|---------|--------------|------------|------------|-------------|-------------|-------------|------|------|----------|-------|-------|-------|--------|--------|---------|----------|---------|---------------------------|
| 129 | 147      | G15.665-0.499 | 0       | 15.665-0.499 | 15.6652626 | -0.4989121 | 275.2489015 | 18.34992077 | -15.5527846 | 18   | 20   | 59.7364  | -     | 15    | 33    | 10.025 | 3.665  | -2.900  | 5(-1)-   | SFR     | CAS10-12<br>HU16          |
| 130 | 148      | G16.117-0.291 | 0       | 16.112-0.303 | 16.1118417 | -0.3034114 | 275.2880883 | 18.35253922 | -15.0667649 | 18   | 21   | 9.1412   | -     | 15    | 4     | 0.354  | 34.35  | -4.430  | >6(0)-A+ | MIXED   | CAS10-12<br>HU16          |
| 131 | 149      | G16.302-0.196 | 0       | 16.302-0.196 | 16.3017081 | -0.1960446 | 275.2825702 | 18.35217135 | -14.8487107 | 18   | 21   | 7.8108   | -     | 14    | 50    | 55.359 | 51.01  | 31.200  | >6(0)-A+ | EVOLVED | CAS10-12<br>HU16          |
| 132 | 150      | G16.403-0.181 | 0       | 16.403-0.181 | 16.40285   | -0.181222  | 275.318292  | 18.3545528  | -14.7525    | 18   | 21   | 16.3901  | -     | 14    | 45    | 9.000  | 39.2   | 51.900  | >6(0)-A+ | SFR     | CAS10-12                  |
| 133 | 151      | G16.585-0.051 | 0       | 16.585-0.051 | 16.585343  | -0.050687  | 275.2881877 | 18.35254585 | -14.5300896 | 18   | 21   | 9.1650   | -     | 14    | 31    | 48.323 | 62.47  | 62.100  | >6(0)-A+ | SFR     | BE02<br>CAS10-12<br>HU16  |
| 134 | 152      | G16.662-0.331 | 0       | 16.662-0.331 | 16.6617086 | -0.331247  | 275.5809781 | 18.37206521 | -14.5945832 | 18   | 22   | 19.4347  | -     | 14    | 35    | 40.500 | 42.79  | 42.580  | >6(0)-A+ | SFR     | SAN10<br>CAS10-12<br>HU16 |
| 135 | 153      | G16.831+0.079 | 0       | 16.831+0.079 | 16.8309817 | 0.0786082  | 275.2896883 | 18.35264589 | -14.2524585 | 18   | 21   | 9.5252   | -     | 14    | 15    | 8.851  | 61.045 | 43.000  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 136 | 154      | G16.855+0.641 | 0       | 16.855+0.641 | 16.854911  | 0.641164   | 274.789875  | 18.319325   | -13.965972  | 18   | 19   | 9.5700   | -     | 13    | 57    | 57.499 | 24.2   | 63.390  | >6(0)-A+ | SFR     | CAS10-12                  |
| 137 | 155      | G16.868-2.158 | 0       | 16.864-2.159 | 16.863792  | -2.1587731 | 277.351723  | 18.49011487 | -15.2678957 | 18   | 29   | 24.4135  | -     | 15    | 16    | 4.425  | 15.785 | 15.000  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 138 | 156      | G16.976-0.005 | 0       | 16.976-0.005 | 16.976317  | -0.004817  | 275.436167  | 18.36241113 | -14.163472  | 18   | 21   | 44.6801  | -     | 14    | 9     | 48.499 | 6.5    | 16.570  | >6(0)-A+ | SFR     | CAS10-12                  |
| 139 | 157      | G17.016-2.400 | 0       | 17.021-2.403 | 17.0210855 | -2.4026968 | 277.6512231 | 18.51008154 | -15.2412474 | 18   | 30   | 36.2935  | -     | 15    | 14    | 28.491 | 22.175 | 20.750  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 140 | 158      | G17.029-0.071 | 0       | 17.029-0.071 | 17.029406  | -0.070516  | 275.521708  | 18.36811387 | -14.1475    | 18   | 22   | 5.2099   | -     | 14    | 8     | 51.000 | 91.4   | 23.600  | >6(0)-A+ | MIXED   | CAS10-12                  |
| 141 | 159      | G17.638+0.157 | 0       | 17.638+0.157 | 17.638129  | 0.156759   | 275.60958   | 18.373972   | -13.50336   | 18   | 22   | 26.2992  | -     | 13    | 30    | 12.096 | 20.7   | 91.4    | >6(0)-A+ | SFR     | CAS09<br>CAS10-12<br>HU16 |
| 142 | 160      | G17.862+0.074 | 0       | 17.862+0.074 | 17.861568  | 0.074473   | 275.792083  | 18.38613887 | -13.344667  | 18   | 23   | 10.0999  | -     | 13    | 20    | 40.801 | 110.6  | 20.450  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 143 | 161      | G18.073+0.077 | 0       | 18.073+0.077 | 18.0728171 | 0.0770131  | 275.8915139 | 18.39276759 | -13.1568752 | 18   | 23   | 33.9633  | -     | 13    | 9     | 24.751 | 53.005 | 20.700  | >6(0)-A+ | MIXED   | CAS10-12<br>HU16          |
| 144 | 162      | G18.159+0.094 | 0       | 18.159+0.094 | 18.1595446 | 0.0944508  | 275.9174202 | 18.39449468 | -13.0720866 | 18   | 23   | 40.1808  | -     | 13    | 4     | 19.512 | 57.49  | 20.800  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 145 | 163      | G18.262-0.244 | 0       | 18.262-0.244 | 18.2621577 | -0.2438907 | 276.2737355 | 18.41824903 | -13.1396995 | 18   | 25   | 5.6965   | -     | 13    | 8     | 22.918 | 75.38  | 76.460  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 146 | 164      | G18.340+1.772 | 0       | 18151-1208   | 18.341224  | 1.7681484  | 274.4921202 | 18.29947468 | -12.1236801 | 18   | 17   | 58.1088  | -     | 12    | 7     | 25.248 | 28     | 27.680  | >6(0)-A+ | SFR     | BE02<br>CAS10-12<br>HU16  |
| 147 | 165      | G18.440+0.045 | 0       | 18.440+0.045 | 18.439737  | 0.044672   | 276.097167  | 18.4064778  | -12.847806  | 18   | 24   | 23.3201  | -     | 12    | 50    | 52.102 | 61.8   | 28.000  | >6(0)-A+ | SFR     | CAS10-12                  |
| 148 | 166      | G18.461-0.004 | 0       | 18.460-0.004 | 18.459079  | -0.003469  | 276.1500891 | 18.41000594 | -12.8532294 | 18   | 24   | 36.0214  | -     | 12    | 51    | 11.626 | 48.16  | 46.920  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 149 | 167, 168 | G18.666+0.029 | 0       | 18.661+0.034 | 18.6673778 | 0.02511    | 276.224083  | 18.41493887 | -12.6557639 | 18   | 24   | 53.7799  | -     | 12    | 39    | 20.750 | 78.29  | 76.130  | >6(0)-A+ | SFR     | CAS10-12<br>CYG09<br>HU16 |
| 150 | 169, 170 | G18.735-0.225 | 0       | 18.733-0.224 | 18.7343879 | -0.225639  | 276.4833125 | 18.43222083 | -12.713459  | 18   | 25   | 55.9950  | -     | 12    | 42    | 48.452 | 41.85  | 78.290  | 5(-1)-   | SFR     | CAS10-12<br>HU16          |
| 151 | 171      | G18.834-0.301 | 0       | 18.834-0.300 | 18.8338244 | -0.3002053 | 276.5985391 | 18.43990261 | -12.6604002 | 18   | 26   | 23.6494  | -     | 12    | 39    | 37.441 | 40.9   | 46.840  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 152 | 172      | G18.874+0.053 | 0       | 18.874+0.053 | 18.8736967 | 0.0533451  | 276.297248  | 18.41981653 | -12.4601398 | 18   | 25   | 11.3395  | -     | 12    | 27    | 36.503 | 38.485 | 41.300  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 153 | 173      | G18.888-0.475 | 0       | 18.888-0.475 | 18.888416  | -0.4743974 | 276.7825667 | 18.45217111 | -12.6932942 | 18   | 27   | 7.8160   | -     | 12    | 41    | 35.859 | 55.13  | 38.270  | >6(0)-A+ | SFR     | CAS10-12<br>CYG09<br>HU16 |
| 154 | 174      | G18.999-0.239 | 0       | 18.999-0.239 | 18.999332  | -0.2387    | 276.621833  | 18.44145553 | -12.485306  | 18   | 26   | 29.2399  | -     | 12    | 29    | 7.102  | 69.4   | 56.500  | 5(-1)-   | SFR     | CAS10-12                  |
| 155 | 175      | G19.009-0.029 | 0       | 19.009-0.029 | 19.00857   | -0.0292429 | 276.4365208 | 18.42910139 | -12.3794342 | 18   | 25   | 44.7650  | -     | 12    | 22    | 45.963 | 55.4   | 53.720  | >6(0)-A+ | SFR     | CAS10-12<br>CYG09<br>HU16 |
| 156 | 176      | G19.249+0.267 | 0       | 19.249+0.267 | 19.2489697 | 0.2669545  | 276.2833994 | 18.41889329 | -12.0285444 | 18   | 25   | 8.0159   | -     | 12    | 1     | 42.760 | 18.14  | 56.800  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 157 | 177      | G19.267+0.349 | 0       | 19.267+0.349 | 19.2670705 | 0.3485189  | 276.2183254 | 18.41455503 | -11.9744253 | 18   | 24   | 52.3981  | -     | 11    | 58    | 27.931 | 15.46  | 19.900  | >6(0)-A+ | UNK     | CAS10-12<br>HU16          |
| 158 | 178      | G19.364-0.030 | 0       | 19.365-0.030 | 19.3647596 | -0.0301574 | 276.6074    | 18.44049333 | -12.0648278 | 18   | 26   | 25.7760  | -     | 12    | 3     | 53.380 | 25.3   | 24.300  | >6(0)-A+ | SFR     | CAS10-12<br>CYG09<br>HU16 |
| 159 | 182      | G19.485+0.151 | 0       | 19.472+0.170 | 19.486246  | 0.150804   | 276.50162   | 18.43344133 | -11.87628   | 18   | 26   | 0.3888   | -     | 11    | 52    | 34.608 | 21.7   | 25.850  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |
| 160 | 183      | G19.609-0.234 | 0       | 19.609-0.234 | 19.608941  | -0.234299  | 276.908292  | 18.4605528  | -11.943778  | 18   | 27   | 37.9901  | -     | 11    | 56    | 37.601 | 40.2   | 121.000 | 5(-1)-   | SFR     | CAS10-12                  |
| 161 | 184, 185 | G19.612-0.134 | 0       | 19.612-0.120 | 19.6121985 | -0.1266069 | 276.8124726 | 18.45416484 | -11.8906819 | 18   | 27   | 14.9934  | -     | 11    | 53    | 26.455 | 54.53  | 53.300  | >6(0)-A+ | MIXED   | CAS10-12<br>HU16          |
| 162 | 186      | G19.614+0.011 | 0       | 19.614+0.011 | 19.6133666 | 0.0110465  | 276.6885056 | 18.44590037 | -11.8256375 | 18   | 26   | 45.2413  | -     | 11    | 49    | 32.295 | 32.7   | 55.760  | 5(-1)-   | SFR     | CAS10-12<br>HU16          |
| 163 | 187      | G19.667+0.114 | 0       | 19.667+0.114 | 19.6667596 | 0.1141981  | 276.6206941 | 18.44137961 | -11.7303259 | 18   | 26   | 28.9666  | -     | 11    | 43    | 49.173 | 14.805 | 32.800  | >6(0)-A+ | SFR     | CAS10-12<br>HU16          |

| no. | match   | group_name    | gc_flag | source_name     | l          | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sgn | dec-d | dec-s | vmean | vpeak  | det     | line | type           | dist  | refs                        |
|-----|---------|---------------|---------|-----------------|------------|------------|-------------|-------------|-------------|------|------|---------|-------|-------|-------|--------|---------|------|----------------|-------|-----------------------------|
| 164 | 188     | G19.701-0.267 | 0       | 19.701-0.267    | 19.7004866 | -0.2669094 | 276.9813091 | 18.46542061 | -11.8779044 | 18   | 27   | 55.5142 | -     | 11    | 52    | 40.456 | 43.065  | Y    | 5(-1)->6(0)-A+ | SFR   | CAS10-12 HU16               |
| 165 | 189     | G19.754-0.128 | 0       | 19.755-0.128    | 19.7548107 | -0.128237  | 276.8817079 | 18.45878053 | -11.7653122 | 18   | 27   | 31.6099 | -     | 11    | 45    | 55.124 | 121.22  | Y    | 5(-1)->6(0)-A+ | SFR   | CAS10-12 HU16               |
| 166 | 190     | G19.884-0.535 | 0       | 18264-1152      | 19.8838618 | -0.533938  | 277.309875  | 18.487325   | -11.8395556 | 18   | 29   | 14.3700 | -     | 11    | 50    | 22.400 | 46.8    | Y    | 5(-1)->6(0)-A+ | MIXED | BEU02 CAS10-12 HU16         |
| 167 | 191     | G20.082-0.136 | 0       | G020.081-0.135  | 20.0772433 | -0.1376954 | 277.0433459 | 18.46955639 | -11.4842682 | 18   | 28   | 10.4030 | -     | 11    | 29    | 3.366  | 43.14   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 168 | 192     | G20.237+0.066 | 0       | IRAS 18249-1116 | 20.2370707 | 0.0654222  | 276.9357209 | 18.46238139 | -11.2483104 | 18   | 27   | 44.5730 | -     | 11    | 14    | 53.917 | 71.2    | Y    | 5(-1)->6(0)-A+ | SFR   | BAR16 CAS09 FUJ14C HU16     |
| 169 |         | G21.367-0.252 | 0       | G021.386-0.253  | 21.3670855 | -0.2524666 | 277.7561917 | 18.51707945 | -10.3947669 | 18   | 31   | 1.4860  | -     | 10    | 23    | 41.161 | 89.28   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 170 | 193     | G21.407-0.254 | 0       | G021.406-0.254  | 21.4067437 | -0.2541665 | 277.776381  | 18.5184254  | -10.3603976 | 18   | 31   | 6.3314  | -     | 10    | 21    | 37.431 | 89.755  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 171 | 194     | G21.562-0.031 | 0       | G021.562-0.032  | 21.5627849 | -0.0326544 | 277.650256  | 18.51001707 | -10.1195418 | 18   | 30   | 36.0614 | -     | 10    | 7     | 10.350 | 114.61  | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 172 | 195     | G21.880+0.014 | 0       | G021.879+0.014  | 21.8791379 | 0.0149443  | 277.7561178 | 18.51707452 | -9.8170952  | 18   | 31   | 1.4683  | -     | 9     | 49    | 1.543  | 19.27   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 173 | 196     | G22.039+0.222 | 0       | G022.038+0.222  | 22.0387093 | 0.2223527  | 277.6445529 | 18.50963686 | -9.5796344  | 18   | 30   | 34.6927 | -     | 9     | 34    | 46.684 | 47.51   | Y    | 5(-1)->6(0)-A+ | SFR   | CYG09 HU16                  |
| 174 | 197     | G22.335-0.155 | 0       | IRAS 18297-0931 | 22.3347093 | -0.1548579 | 278.1225    | 18.5415     | -9.4916374  | 18   | 32   | 29.4000 | -     | 9     | 29    | 29.895 | 35.6    | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 CAS09 HU16            |
| 175 | 198     | G22.355+0.066 | 0       | IRAS 18290-0924 | 22.3565049 | 0.0663601  | 277.933836  | 18.5289224  | -9.3701417  | 18   | 31   | 44.1206 | -     | 9     | 22    | 12.510 | 83.39   | Y    | 5(-1)->6(0)-A+ | MIXED | BAR09 BEU02                 |
| 176 | 199     | G22.435-0.170 | 0       | 22.435-0.169    | 22.4352649 | -0.1693522 | 278.18258   | 18.54550533 | -9.409125   | 18   | 32   | 43.8192 | -     | 9     | 24    | 32.850 | 29.3    | Y    | 5(-1)->6(0)-A+ | SFR   | BAR16 CAS09                 |
| 177 | 200,201 | G23.009-0.411 | 0       | 23.010-0.411    | 23.009726  | -0.4105915 | 278.66779   | 18.57785267 | -9.01064    | 18   | 34   | 40.2696 | -     | 9     | 0     | 38.304 | 74.8    | Y    | 5(-1)->6(0)-A+ | SFR   | BAR16 CAS09 CYG09 HU16      |
| 178 | 202,203 | G23.207-0.378 | 0       | G023.206-0.377  | 23.2065658 | -0.3777435 | 278.7300417 | 18.58200278 | -8.820804   | 18   | 34   | 55.2100 | -     | 8     | 49    | 14.894 | 78.59   | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 CAS09 HU16            |
| 179 |         | G23.249-0.187 | 0       | G023.250-0.212  | 23.2494703 | -0.1866114 | 278.5783953 | 18.57189302 | -8.694685   | 18   | 34   | 18.8149 | -     | 8     | 41    | 40.866 | 100.13  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 CAS09 HU16            |
| 180 | 204     | G23.257-0.240 | 0       | G023.256-0.240  | 23.2620277 | -0.2433696 | 278.6352102 | 18.57568068 | -8.7096897  | 18   | 34   | 32.4504 | -     | 8     | 42    | 34.883 | 62.47   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 181 | 206     | G23.389+0.185 | 0       | IRAS 18305-0826 | 23.3890328 | 0.1853729  | 278.309684  | 18.55397893 | -8.3993223  | 18   | 33   | 14.3242 | -     | 8     | 23    | 57.560 | 74.895  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 182 | 207     | G23.437-0.184 | 0       | 023.43-00.18    | 23.4397828 | -0.1824022 | 278.6632917 | 18.57755278 | -8.5238333  | 18   | 34   | 39.1900 | -     | 8     | 31    | 25.800 | 101.28  | Y    | 5(-1)->6(0)-A+ | SFR   | CAS09 ELL18 FUJ14C HU16     |
| 183 | 208     | G23.484+0.096 | 0       | G023.483+0.096  | 23.4835629 | 0.0964705  | 278.4334882 | 18.56223255 | -8.3564573  | 18   | 33   | 44.0372 | -     | 8     | 21    | 23.246 | 86.93   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 184 | 209     | G23.657-0.127 | 0       | IRAS 18321-0820 | 23.6567102 | -0.1272857 | 278.7148283 | 18.58098855 | -8.3058979  | 18   | 34   | 51.5588 | -     | 8     | 18    | 21.232 | 82.24   | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 185 | 210     | G23.706-0.198 | 0       | IRAS 18324-0820 | 23.706572  | -0.1980192 | 278.8014832 | 18.58676555 | -8.2942007  | 18   | 35   | 12.3560 | -     | 8     | 17    | 39.123 | 77.685  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 186 | 211     | G23.862+0.054 | 0       | G023.885+0.059  | 23.8619371 | 0.0537826  | 278.6479498 | 18.57652999 | -8.0403392  | 18   | 34   | 35.5080 | -     | 8     | 2     | 25.221 | 44.16   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 187 | 212     | G23.901+0.066 | 0       | G023.901+0.076  | 23.8931366 | 0.0878341  | 278.6319424 | 18.57546283 | -7.9969611  | 18   | 34   | 31.6662 | -     | 7     | 59    | 49.060 | 33.45   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 188 | 213     | G23.966-0.110 | 0       | G023.966-0.109  | 23.966149  | -0.1092232 | 278.8425406 | 18.58950271 | -8.0228841  | 18   | 35   | 22.2097 | -     | 8     | 1     | 22.383 | 70.12   | Y    | 5(-1)->6(0)-A+ | MIXED | BAR09 HU16                  |
| 189 |         | G23.996-0.100 | 0       | G23.96-0.11     | 23.9860469 | -0.0889824 | 278.8336417 | 18.58890945 | -7.9959033  | 18   | 35   | 20.0740 | -     | 7     | 59    | 45.252 | 64.05   | Y    | 5(-1)->6(0)-A+ | SFR   | CYG09                       |
| 190 |         | G24.006-0.069 | 0       | G023.986-0.089  | 24.0062847 | -0.0688528 | 278.8250016 | 18.58833344 | -7.9686718  | 18   | 35   | 18.0004 | -     | 7     | 58    | 7.218  | 65.38   | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 191 | 215     | G24.149-0.009 | 0       | IRAS 18326-0751 | 24.1479383 | -0.0090797 | 278.837261  | 18.58915073 | -7.8154027  | 18   | 35   | 20.9426 | -     | 7     | 48    | 55.450 | 17.8    | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 192 | 216     | G24.329+0.144 | 0       | 24.329+0.144    | 24.3289301 | 0.1443968  | 278.7838459 | 18.58558973 | -7.5840805  | 18   | 35   | 8.1230  | -     | 7     | 35    | 2.690  | 110.4   | Y    | 5(-1)->6(0)-A+ | SFR   | 9.5 BAR16 CAS09 FUJ14C HU16 |
| 193 | 217     | G24.494-0.040 | 0       | 24.493-0.039    | 24.493381  | -0.03887   | 279.02429   | 18.60161933 | -7.52239    | 18   | 36   | 5.8296  | -     | 7     | 31    | 20.604 | 111.58  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR16 CAS09                 |
| 194 | 218     | G24.535+0.322 | 0       | IRAS 18322-0721 | 24.5410965 | 0.3121215  | 278.7321741 | 18.58214494 | -7.3185193  | 18   | 34   | 55.7218 | -     | 7     | 19    | 6.669  | 106.56  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 195 |         | G24.631+0.172 | 0       | G024.631+0.172  | 24.62976   | 0.1904593  | 278.8822108 | 18.59214739 | -7.2958063  | 18   | 35   | 31.7306 | -     | 7     | 17    | 44.903 | 115.91  | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 196 | 219     | G24.634-0.324 | 0       | IRAS 18346-0734 | 24.6340306 | -0.3236831 | 279.3446419 | 18.62297613 | -7.5283515  | 18   | 37   | 22.7141 | -     | 7     | 31    | 42.065 | 39.045  | Y    | 5(-1)->6(0)-A+ | SFR   | BAR09 HU16                  |
| 197 | 220     | G24.676-0.151 | 0       | G024.674-0.153  | 24.6717537 | -0.1483426 | 279.2050377 | 18.61366918 | -7.4143011  | 18   | 36   | 49.2090 | -     | 7     | 24    | 51.484 | 111.645 | Y    | 5(-1)->6(0)-A+ | SFR   | HU16                        |
| 198 |         | G24.790+0.083 | 0       | G024.789+0.083  | 24.7899122 | 0.0833173  | 279.0523705 | 18.60349137 | -7.202883   | 18   | 36   | 12.5689 | -     | 7     | 12    | 10.379 | 107.515 | Y    | 5(-1)->6(0)-A+ | SFR   | 7.7 BAR16 HU16              |
| 199 |         | G24.850+0.087 | 0       | G024.850+0.087  | 24.8526796 | 0.0854669  | 279.0795327 | 18.60530218 | -7.1461549  | 18   | 36   | 19.0878 | -     | 7     | 8     | 46.158 | 109.745 | Y    | 5(-1)->6(0)-A+ | SFR   | 8 BAR16 HU16                |

| no. | match | group_name    | gc_flag | source_name     | l          | b          | ra(deg)      | ra(hour)    | dec(deg)   | ra-h | ra-s | dec-sign | dec-d | dec-s  | vmean  | vpeak            | det                                      | line           | type           | dist  | refs                            |                                 |
|-----|-------|---------------|---------|-----------------|------------|------------|--------------|-------------|------------|------|------|----------|-------|--------|--------|------------------|------------------------------------------|----------------|----------------|-------|---------------------------------|---------------------------------|
| 200 |       | G24.896+0.102 | 0       | G024.919+0.088  | 24.8962886 | 0.1020934  | 279.084857   | 18.60565713 | -7.0997838 | 18   | 36   | -        | 5     | 59.222 | 49.17  | 49.17            | Y                                        | 5(-1)->6(0)-A+ | SFR            |       | HU16                            |                                 |
| 201 |       | G24.942+0.075 | 0       | G024.942+0.074  | 24.9312171 | 0.0811247  | 279.1198023  | 18.60798082 | -7.0784038 | 18   | 36   | -        | 7     | 4      | 42.254 | 45.340<br>46.440 | Y                                        | 5(-1)->6(0)-A+ | SFR            |       | CYG09<br>HU16                   |                                 |
| 202 |       | G25.270-0.434 | 0       | G25.27-0.43     | 25.2701047 | -0.4335637 | 279.7372875  | 18.6491525  | -7.0136222 | 18   | 38   | -        | 7     | 0      | 49.040 | 51.95            | 51.95                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | CYG09                           |
| 203 |       | G25.382-0.181 | 0       | G025.381-0.181  | 25.3811698 | -0.1860675 | 279.5670662  | 18.63780441 | -6.8014117 | 18   | 38   | -        | 6     | 48     | 5.082  | 60.27            | 60.27                                    | Y              | 5(-1)->6(0)-A+ | MIXED |                                 | HU16                            |
| 204 |       | G25.411+0.105 | 0       | IRAS 18345-0641 | 25.4105571 | 0.1047479  | 279.320504   | 18.62136693 | -6.6417778 | 18   | 37   | -        | 6     | 38     | 30.400 | 95.440<br>97.300 | Y                                        | 5(-1)->6(0)-A+ | SFR            |       | BAR09<br>BEU02<br>HU16<br>FU14C |                                 |
| 205 |       | G25.649+1.050 | 0       | IRAS 18316-0602 | 25.6496437 | 1.0494893  | 278.5870874  | 18.57274249 | -5.9950271 | 18   | 34   | -        | 5     | 59     | 42.098 | 41.12            | 40.340<br>41.900                         | Y              | 5(-1)->6(0)-A+ | SFR   | 12.5                            | FU14C<br>HU16                   |
| 206 |       | G25.709+0.044 | 0       | G025.71+00.04   | 25.7094011 | 0.0438096  | 279.513083   | 18.63420553 | -6.404293  | 18   | 38   | -        | 6     | 24     | 15.455 | 92.7             | 89.760<br>92.800                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | FU14C<br>SUR19                  |
| 207 |       | G25.826-0.178 | 0       | G025.82-00.17   | 25.8253547 | -0.1782066 | 279.765125   | 18.65100833 | -6.403101  | 18   | 39   | -        | 6     | 24     | 11.164 | 91.2             | 84.900<br>91.200                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | FU14C<br>HU16<br>SUR19          |
| 208 |       | G25.920-0.141 | 0       | G025.920-0.140  | 25.9193478 | -0.1418978 | 279.7760193  | 18.65173462 | -6.3029225 | 18   | 39   | -        | 6     | 18     | 10.521 | 112.69           | 92.140<br>112.69                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | SUR19<br>HU16                   |
| 209 |       | G26.500-0.319 | 0       | G026.513-0.292  | 26.5004257 | -0.3185582 | 280.2016644  | 18.68011096 | -5.8673565 | 18   | 40   | -        | 5     | 52     | 2.483  | 108.44           | 108.44                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 210 |       | G26.527-0.267 | 0       | G026.526-0.267  | 26.5269928 | -0.2672146 | 280.1680071  | 18.67786714 | -5.8202303 | 18   | 40   | -        | 5     | 49     | 12.829 | 105.36           | 105.36                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 211 |       | G26.540-0.315 | 0       | G026.551-0.309  | 26.540105  | -0.3150592 | 280.2167977  | 18.68111985 | -5.8304783 | 18   | 40   | -        | 5     | 49     | 49.722 | 105.27           | 105.27                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 212 |       | G26.602-0.220 | 0       | G026.600-0.221  | 26.592694  | -0.230238  | 280.1652031  | 18.67768021 | -5.7448907 | 18   | 40   | -        | 5     | 44     | 41.607 | 108.7            | 108.7                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 213 |       | G26.597-0.024 | 0       | IRAS 18372-0541 | 26.5976862 | -0.0236751 | 279.9830241  | 18.66553494 | -5.6458611 | 18   | 39   | -        | 5     | 38     | 45.100 | 24.2             | 22.160<br>24.200                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR09<br>BEU02<br>HU16<br>XU09  |
| 214 |       | G27.218+0.259 | 0       | G027.219+0.260  | 27.2194878 | 0.2603884  | 280.0154774  | 18.66769849 | -4.9629954 | 18   | 40   | -        | 4     | 57     | 46.783 | 8.71             | 8.120<br>9.300                           | Y              | 5(-1)->6(0)-A+ | UNK   | 0.8                             | HU16                            |
| 215 |       | G27.221+0.136 | 0       | G027.221+0.136  | 27.2214208 | 0.1360974  | 280.1272739  | 18.67515159 | -5.0182055 | 18   | 40   | -        | 5     | 1      | 5.540  | 115.79           | 112.780<br>118.800                       | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR09<br>HU16                   |
| 216 |       | G27.284+0.149 | 0       | G027.286+0.150  | 27.2920562 | 0.1575268  | 280.1406204  | 18.67604136 | -4.9455986 | 18   | 40   | -        | 4     | 56     | 44.155 | 29.79            | 29.79                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 217 |       | G27.367-0.165 | 0       | G027.365-0.166  | 27.3651829 | -0.1657651 | 280.46275    | 18.69751667 | -5.0285556 | 18   | 41   | -        | 5     | 1      | 42.800 | 95.52            | 100.000<br>95.510                        | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16<br>XU09                    |
| 218 |       | G27.727+0.040 | 0       | G027.757+0.050  | 27.7294626 | 0.0433055  | 280.4434368  | 18.69622912 | -4.6089849 | 18   | 41   | -        | 4     | 36     | 32.346 | 98.86            | 98.86                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 219 |       | G27.786-0.265 | 0       | G027.782-0.258  | 27.7701344 | -0.2402726 | 280.71511163 | 18.71434109 | -4.7025118 | 18   | 42   | -        | 4     | 42     | 9.042  | 101.09           | 101.09                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 220 |       | G27.784+0.057 | 0       | G027.784+0.056  | 27.7845601 | 0.0569374  | 280.4565652  | 18.69710435 | -4.5537554 | 18   | 41   | -        | 4     | 33     | 13.519 | 110.54           | 110.54                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 221 |       | G28.011-0.426 | 0       | G028.010-0.426  | 28.0109206 | -0.4262907 | 280.9915184  | 18.73276789 | -4.5733602 | 18   | 43   | -        | 4     | 34     | 24.097 | 18.895           | 16.100<br>21.690                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR16<br>HU16                   |
| 222 |       | G28.147-0.004 | 0       | G28.146-0.005   | 28.1461708 | -0.0047293 | 280.6774482  | 18.71182988 | -4.2603885 | 18   | 42   | -        | 4     | 15     | 37.399 | 101.335          | 101.200<br>101.470                       | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | CAS09<br>HU16                   |
| 223 |       | G28.200-0.050 | 0       | G28.201-0.049   | 28.2002341 | -0.0494876 | 280.7421496  | 18.71614331 | -4.2327704 | 18   | 42   | -        | 4     | 13     | 57.973 | 98.38            | 97.860<br>98.900                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | CAS09<br>HU16                   |
| 224 |       | G28.225+0.358 | 0       | G028.226+0.359  | 28.2293327 | 0.3602478  | 280.3901768  | 18.69267845 | -4.0194951 | 18   | 41   | -        | 4     | 1      | 10.182 | 49.72            | 49.72                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 225 |       | G28.295-0.377 | 0       | G028.281-0.358  | 28.2930739 | -0.3730785 | 281.0733476  | 18.73822317 | -4.2980805 | 18   | 44   | -        | 4     | 17     | 53.090 | 60.71            | 40.600<br>41.610<br>79.810               | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | CYG09<br>HU16<br>SUR19          |
| 226 |       | G28.397+0.078 | 0       | G028.397+0.080  | 28.4002739 | 0.0848726  | 280.7140358  | 18.71426905 | -3.9934333 | 18   | 42   | -        | 3     | 59     | 36.360 | 75.04            | 75.04                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 227 |       | G28.817+0.365 | 0       | G028.817+0.364  | 28.8171753 | 0.3647463  | 280.655617   | 18.71037447 | -3.4947    | 18   | 42   | -        | 3     | 29     | 40.920 | 90.16            | 86.560<br>90.160                         | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR09<br>HU16                   |
| 228 |       | G28.833-0.253 | 0       | IRAS 18421-0348 | 28.8322327 | -0.2526902 | 281.2128199  | 18.74752133 | -3.7634507 | 18   | 44   | -        | 3     | 45     | 48.423 | 81.615           | 79.500<br>79.730<br>83.940               | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | CYG09<br>FU14C<br>HU16<br>SUR19 |
| 229 |       | G28.843+0.493 | 0       | G028.842+0.493  | 28.8416163 | 0.4931898  | 280.5523776  | 18.70349184 | -3.4142302 | 18   | 42   | -        | 3     | 24     | 51.229 | 84.56            | 84.56                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 230 |       | G28.864-0.203 | 0       | G028.847-0.227  | 28.8635961 | -0.2027437 | 281.1826431  | 18.74550954 | -3.7127391 | 18   | 44   | -        | 3     | 42     | 45.861 | 101.39           | 101.39                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 231 |       | G29.319-0.162 | 0       | G029.319-0.161  | 29.3200385 | -0.1617689 | 281.3549426  | 18.75699617 | -3.2879566 | 18   | 45   | -        | 3     | 17     | 16.644 | 46.23            | 46.23                                    | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 232 |       | G29.862-0.046 | 0       | G29.86-00.04    | 29.8628665 | -0.0440373 | 281.4982083  | 18.76654722 | -2.75125   | 18   | 45   | -        | 2     | 45     | 4.500  | 101.4            | 101.400<br>101.620                       | Y              | 5(-1)->6(0)-A+ | SFR   | 9.3                             | FU14C<br>HU16<br>XU09           |
| 233 |       | G29.943-0.088 | 0       | G029.961-0.067  | 29.9430416 | -0.0879723 | 281.5739809  | 18.77159873 | -2.6999682 | 18   | 46   | -        | 2     | 41     | 59.886 | 100.47           | 100.47                                   | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | HU16                            |
| 234 |       | G29.955-0.016 | 0       | G029.955-0.016  | 29.9523713 | -0.0170456 | 281.5150676  | 18.76767117 | -2.6592932 | 18   | 46   | -        | 2     | 39     | 33.456 | 94.815           | 92.050<br>97.580                         | Y              | 5(-1)->6(0)-A+ | MIXED |                                 | HU16<br>SUR19                   |
| 235 |       | G29.975-0.047 | 0       | G029.978-0.047  | 29.9775766 | -0.047782  | 281.5539619  | 18.77026413 | -2.6508964 | 18   | 46   | -        | 2     | 39     | 3.227  | 98.995           | 100.990<br>97.000                        | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR16<br>HU16                   |
| 236 |       | G30.199-0.169 | 0       | G030.198-0.169  | 30.214916  | -0.1670383 | 281.7736975  | 18.78491317 | -2.4967467 | 18   | 47   | -        | 2     | 29     | 48.288 | 109.85           | 100.800<br>105.520<br>108.600<br>111.920 | Y              | 5(-1)->6(0)-A+ | SFR   |                                 | BAR16<br>HU16<br>XU09           |
| 237 |       | G30.317+0.070 | 0       | G030.317+0.070  | 30.3173434 | 0.0700292  | 281.6042597  | 18.77361731 | -2.2948125 | 18   | 46   | -        | 2     | 17     | 41.325 | 35               | 33.900<br>36.100                         | Y              | 5(-1)->6(0)-A+ | MIXED |                                 | BAR09<br>HU16                   |

| no. | match | group_name    | gc_flag | source_name         | l          | b          | ra(deg)      | ra(hour)    | dec(deg)   | ra-h<br>1 | ra-s | dec-<br>sign | dec-<br>h | dec-<br>s | vmean  | vpeak  | det | line               | type  | dist | refs                   |
|-----|-------|---------------|---------|---------------------|------------|------------|--------------|-------------|------------|-----------|------|--------------|-----------|-----------|--------|--------|-----|--------------------|-------|------|------------------------|
| 238 |       | G30.357-0.296 | 0       | G030.378-<br>0.296  | 30.3565561 | -0.2956009 | 281.9477927  | 18.79651951 | -2.4267534 | 18        | 47   | 47.4702      | 25        | 36.312    | 102.76 | 102.76 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 239 |       | G30.400-0.296 | 0       | G030.400-<br>0.296  | 30.4002833 | -0.2957151 | 281.9678691  | 18.79785727 | -2.3878938 | 18        | 47   | 52.2862      | 2         | 23        | 16.418 | 99.795 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>HU16          |
| 240 |       | G30.419-0.232 | 0       | G030.419-<br>0.232  | 30.4190836 | -0.231704  | 281.9194317  | 18.79462878 | -2.3419627 | 18        | 47   | 40.6636      | -         | 2         | 20     | 31.066 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 241 |       | G30.424+0.465 | 0       | G030.423+0.465      | 30.4235102 | 0.465922   | 281.3002694  | 18.75335129 | -2.019634  | 18        | 45   | 12.0647      | -         | 2         | 1      | 10.682 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 242 |       | G30.429-0.196 | 0       | G030.424-<br>0.214  | 30.4291658 | -0.1962548 | 281.8924638  | 18.79283092 | -2.3168186 | 18        | 47   | 34.1913      | -         | 2         | 19     | 0.547  | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 243 |       | G30.463-0.228 | 0       | G030.441-<br>0.232  | 30.4628626 | -0.2317324 | 281.9394452  | 18.79596301 | -2.303018  | 18        | 47   | 45.4668      | -         | 2         | 18     | 10.865 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 244 |       | G30.702-0.068 | 0       | IRAS 18450-<br>0205 | 30.7007635 | -0.0694491 | 281.9035406  | 18.79356937 | -2.0172822 | 18        | 47   | 36.8497      | -         | 2         | 1      | 2.216  | Y   | 5(-1)-<br>>6(0)-A+ | SFR   | 5.9  | FUJ14C<br>HU16         |
| 245 |       | G30.758-0.050 | 0       | IRAS 18450-<br>0200 | 30.7579547 | -0.0553047 | 281.91706539 | 18.79447026 | -1.9599367 | 18        | 47   | 40.0929      | -         | 1         | 57     | 35.772 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   | 4.8  | FUJ14C<br>HU16         |
| 246 |       | G30.781+0.231 | 0       | G030.779+0.230      | 30.7786151 | 0.2295236  | 281.6728981  | 18.77819321 | -1.8115906 | 18        | 46   | 41.4955      | -         | 1         | 48     | 41.726 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 247 |       | G30.789+0.035 | 0       | G030.776-<br>0.066  | 30.7891786 | 0.0345985  | 281.851261   | 18.79008407 | -1.8911348 | 18        | 47   | 24.3026      | -         | 1         | 53     | 28.085 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 248 |       | G30.795+0.185 | 0       | G030.788+0.203      | 30.795184  | 0.1764619  | 281.7277014  | 18.78184676 | -1.8210611 | 18        | 46   | 54.6483      | -         | 1         | 49     | 15.820 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 249 |       | G30.817-0.057 | 0       | G030.817-<br>0.056  | 30.8162645 | -0.0575783 | 281.9456949  | 18.79637966 | -1.9090857 | 18        | 47   | 46.9668      | -         | 1         | 54     | 32.709 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 250 |       | G30.819+0.273 | 0       | 18440-0148          | 30.8188154 | 0.2725857  | 281.6529167  | 18.77686111 | -1.7561694 | 18        | 46   | 36.7000      | -         | 1         | 45     | 22.210 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BEU02                  |
| 251 |       | G30.898+0.162 | 0       | G030.897+0.161      | 30.8977755 | 0.1613752  | 281.7879671  | 18.78586447 | -1.7366568 | 18        | 47   | 9.1121       | -         | 1         | 44     | 11.964 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   | 6.9  | HU16<br>XU09           |
| 252 |       | G30.907+0.140 | 0       | 030.91+00.14        | 30.9101913 | 0.140184   | 281.8125     | 18.7875     | -1.7352778 | 18        | 47   | 15.0000      | -         | 1         | 44     | 7.000  | Y   | 5(-1)-<br>>6(0)-A+ | MIXED | 5.6  | FUJ14C                 |
| 253 |       | G30.946+0.235 | 0       | G030.963+0.225      | 30.946334  | 0.2352385  | 281.7443786  | 18.78295857 | -1.6597451 | 18        | 46   | 58.6509      | -         | 1         | 39     | 35.082 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 254 |       | G30.972-0.141 | 0       | G030.972-<br>0.141  | 30.9725834 | -0.1418471 | 282.0920699  | 18.80613799 | -1.8084195 | 18        | 48   | 22.0968      | -         | 1         | 48     | 30.310 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 255 |       | G31.047+0.356 | 0       | IRAS 18441-<br>0134 | 31.0469881 | 0.3561188  | 281.6827216  | 18.77884811 | -1.5150235 | 18        | 46   | 43.8332      | -         | 1         | 30     | 54.085 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>HU16          |
| 256 |       | G31.060+0.093 | 0       | G031.059+0.093      | 31.0579074 | 0.092702   | 281.9221933  | 18.79481289 | -1.6254951 | 18        | 47   | 41.3264      | -         | 1         | 37     | 31.782 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED |      | HU16                   |
| 257 |       | G31.078+0.459 | 0       | G031.076+0.457      | 31.0751445 | 0.4557745  | 281.6008698  | 18.77379132 | -1.4444943 | 18        | 46   | 25.6488      | -         | 1         | 26     | 40.179 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED |      | HU16                   |
| 258 |       | G31.087+0.081 | 0       | G031.121+0.062      | 31.0866346 | 0.0809266  | 281.9457921  | 18.79638614 | -1.6052934 | 18        | 47   | 46.9901      | -         | 1         | 36     | 19.056 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 259 |       | G31.159+0.046 | 0       | G031.158+0.045      | 31.1601497 | 0.0469515  | 282.0095818  | 18.80063879 | -1.5553829 | 18        | 48   | 2.2996       | -         | 1         | 33     | 19.378 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 260 |       | G31.182-0.148 | 0       | G031.182-<br>0.147  | 31.1834203 | -0.151065  | 282.1964853  | 18.81309902 | -1.6249962 | 18        | 48   | 47.1565      | -         | 1         | 37     | 29.986 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 261 |       | G31.280+0.062 | 0       | IRAS 18456-<br>0129 | 31.2838014 | 0.0575522  | 282.0565697  | 18.80377131 | -1.4405101 | 18        | 48   | 13.5767      | -         | 1         | 26     | 25.836 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED | 5.8  | FUJ14C<br>HU16         |
| 262 |       | G31.412+0.307 | 0       | G031.411+0.307      | 31.4122248 | 0.3073455  | 281.8928219  | 18.79285479 | -1.2122775 | 18        | 47   | 34.2773      | -         | 1         | 12     | 44.199 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 263 |       | G31.581+0.077 | 0       | IRAS 18461-<br>0113 | 31.5807545 | 0.0769654  | 282.1747733  | 18.81165155 | -1.1673929 | 18        | 48   | 41.9456      | -         | 1         | 10     | 2.614  | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>HU16          |
| 264 |       | G32.045+0.058 | 0       | IRAS 18470-<br>0049 | 32.0450265 | 0.0576307  | 282.4037633  | 18.82691689 | -0.763035  | 18        | 49   | 36.9008      | -         | 0         | 45     | 46.926 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   | 7.2  | FUJ14C<br>HU16         |
| 265 |       | G32.116+0.094 | 0       | G032.117+0.090      | 32.1173416 | 0.0910225  | 282.4070144  | 18.82713429 | -0.6834495 | 18        | 49   | 37.6835      | -         | 0         | 41     | 0.418  | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 266 |       | G32.744-0.076 | 0       | G032.744-<br>0.075  | 32.7470083 | -0.0737856 | 282.8408335  | 18.85605557 | -0.1982126 | 18        | 51   | 21.8000      | -         | 0         | 11     | 53.565 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR16<br>HU16          |
| 267 |       | G32.993+0.038 | 0       | IRAS 18488+0000     | 32.9919945 | 0.0340227  | 282.8566122  | 18.85710748 | 0.068981   | 18        | 51   | 25.5869      | +         | 0         | 4      | 8.332  | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>BEU02<br>HU16 |
| 268 |       | G33.093-0.071 | 0       | G033.092-<br>0.072  | 33.0942123 | -0.0747947 | 283.0000511  | 18.86667007 | 0.1103344  | 18        | 52   | 0.0123       | +         | 0         | 6      | 37.204 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 269 |       | G33.133-0.092 | 0       | G033.132-<br>0.091  | 33.1353265 | -0.0931723 | 283.0351546  | 18.86901031 | 0.1385455  | 18        | 52   | 8.4371       | +         | 0         | 8      | 18.764 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 270 |       | G33.394-0.009 | 0       | G033.392+0.009      | 33.3943458 | -0.0088659 | 283.0782348  | 18.87188232 | 0.4075113  | 18        | 52   | 18.7764      | +         | 0         | 24     | 27.041 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 271 |       | G33.641-0.228 | 0       | IRAS 18509+0027     | 33.6413807 | -0.2276964 | 283.3856498  | 18.89237665 | 0.5275739  | 18        | 53   | 32.5560      | +         | 0         | 31     | 39.266 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>HU16          |
| 272 |       | G33.852+0.017 | 0       | G033.851+0.018      | 33.8520068 | 0.0179513  | 283.2630774  | 18.88420516 | 0.8270469  | 18        | 53   | 3.1386       | +         | 0         | 49     | 37.369 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 273 |       | G33.980-0.019 | 0       | G033.979-<br>0.018  | 33.9797746 | -0.0189465 | 283.3541925  | 18.8902795  | 0.9239285  | 18        | 53   | 25.0062      | +         | 0         | 55     | 26.143 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | BAR09<br>HU16          |
| 274 |       | G34.096+0.015 | 0       | G034.096+0.017      | 34.0998842 | 0.0051921  | 283.3874915  | 18.89249943 | 1.0418288  | 18        | 53   | 32.9980      | +         | 1         | 2      | 30.584 | Y   | 5(-1)-<br>>6(0)-A+ | UNK   |      | HU16                   |
| 275 |       | G34.257+0.153 | 0       | G034.244+0.133      | 34.2560034 | 0.1458611  | 283.3334742  | 18.88889828 | 1.2449195  | 18        | 53   | 20.0338      | +         | 1         | 14     | 41.710 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED | 3.4  | BAR16<br>HU16          |
| 276 |       | G34.267-0.210 | 0       | G034.267-<br>0.209  | 34.2700498 | -0.2091906 | 283.6559357  | 18.91039571 | 1.0954845  | 18        | 54   | 37.4246      | +         | 1         | 5      | 43.744 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |
| 277 |       | G34.403+0.232 | 0       | G034.395+0.221      | 34.3976565 | 0.222868   | 283.3295534  | 18.88863689 | 1.4061026  | 18        | 53   | 19.0928      | +         | 1         | 24     | 21.969 | Y   | 5(-1)-<br>>6(0)-A+ | SFR   |      | HU16                   |

| no. | match | group-name     | gc.flag | source-name     | l          | b          | ra(deg)     | ra(hour)     | dec(deg)   | ra-h | ra-s | dec-sign | dec-d | dec-g | dec-s  | vmean  | vpeak  | det | line           | type   | dist | refs                   |
|-----|-------|----------------|---------|-----------------|------------|------------|-------------|--------------|------------|------|------|----------|-------|-------|--------|--------|--------|-----|----------------|--------|------|------------------------|
| 278 |       | G34.751-0.093  | 0       | G034.751-0.093  | 34.7511199 | -0.0926631 | 283.7717199 | 18.9181466   | 1.5767399  | 18   | 55   | 5.2128   | +     | 34    | 36.264 | 52.305 | 51.910 | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 279 |       | G34.757+0.024  | 0       | 18521+0134      | 34.7562097 | 0.0242077  | 283.67      | 18.91133333  | 1.6345833  | 18   | 54   | 40.8000  | +     | 1     | 38     | 4.500  | 52.700 | Y   | 5(-1)->6(0)-A+ | SFR    |      | BEU02                  |
| 280 |       | G34.800-1.391  | 0       | G034.791-1.384  | 34.7812134 | -1.3906809 | 284.9406844 | 18.99604563  | 1.0110671  | 18   | 59   | 45.7643  | +     | 1     | 0      | 39.842 | 45.89  | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16                   |
| 281 |       | G34.999+0.339  | 0       | G35.025+00.350  | 34.9986865 | 0.3385039  | 283.500812  | 18.90005413  | 1.993722   | 18   | 54   | 0.1949   | +     | 1     | 59     | 37.399 | 41.5   | Y   | 5(-1)->6(0)-A+ | SFR    | 2.32 | BAR16                  |
| 282 |       | G35.025+0.350  | 0       | G035.024+0.349  | 35.0248004 | 0.349688   | 283.502742  | 18.9001828   | 2.022055   | 18   | 54   | 0.6581   | +     | 2     | 1      | 19.398 | 43.77  | Y   | 5(-1)->6(0)-A+ | SFR    |      | CYG09<br>HU16          |
| 283 |       | G35.197-0.743  | 0       | 18556+0136      | 35.1970991 | -0.7429037 | 284.5541405 | 18.97027603  | 1.6767863  | 18   | 58   | 12.9937  | +     | 1     | 40     | 36.431 | 30.025 | Y   | 5(-1)->6(0)-A+ | SFR    | 2.5  | HU16<br>XU09           |
| 284 |       | G35.200-1.737  | 0       | G035.200-1.736  | 35.201375  | -1.7361952 | 285.4399913 | 19.02933275  | 1.2268725  | 19   | 1    | 45.5979  | +     | 1     | 13     | 36.741 | 42.67  | Y   | 5(-1)->6(0)-A+ | MIXED  |      | HU16                   |
| 285 |       | G35.247-0.237  | 0       | G35.25-0.24     | 35.247315  | -0.236869  | 284.126617  | 18.94177447  | 1.952467   | 18   | 56   | 30.3881  | +     | 1     | 57     | 8.881  | 72.4   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 286 |       | G35.397+0.025  | 0       | G35.40+0.03     | 35.397021  | 0.025265   | 283.961579  | 18.93077193  | 2.2053     | 18   | 55   | 50.7790  | +     | 2     | 12     | 19.080 | 89.2   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 287 |       | G35.575+0.067  | 0       | G35.59+0.06     | 35.587976  | 0.060309   | 284.017579  | 18.93450527  | 2.391206   | 18   | 56   | 4.2190   | +     | 2     | 23     | 28.342 | 44.1   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 288 |       | G35.793-0.175  | 0       | IRAS 18547+0223 | 35.792723  | -0.174675  | 284.320383  | 18.9546922   | 2.466125   | 18   | 57   | 16.8919  | +     | 2     | 27     | 58.050 | 60.7   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 289 |       | G36.013-0.198  | 0       | G36.02-0.20     | 36.012785  | -0.197308  | 284.441117  | 18.96274113  | 2.651575   | 18   | 57   | 45.8681  | +     | 2     | 39     | 5.670  | 92.6   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 290 |       | G36.115+0.554  | 0       | IRAS 18527+0301 | 36.115192  | 0.5525995  | 283.8198254 | 18.92132169  | 3.0849497  | 18   | 55   | 16.7581  | +     | 3     | 5      | 5.819  | 72.72  | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 291 |       | G36.627+53.031 | 0       | Arp 220         | 36.6275719 | 53.0286049 | 233.7383333 | 15.58255555  | 23.5033333 | 15   | 34   | 57.2000  | +     | 23    | 30     | 12.000 | 5138   | Y   | 7(-2)->8(-1)-E | GALAXY |      | CHE15                  |
| 292 |       | G36.634-0.203  | 0       | G36.64-0.21     | 36.633675  | -0.202994  | 284.73015   | 18.98201     | 3.201311   | 18   | 58   | 55.2360  | +     | 3     | 12     | 4.720  | 77.5   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 293 |       | G36.705+0.096  | 0       | IRAS 18554+0319 | 36.705312  | 0.0961832  | 284.496346  | 18.96642307  | 3.4017     | 18   | 57   | 59.1230  | +     | 3     | 24     | 6.120  | 53.1   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 294 |       | G36.839-0.022  | 0       | G036.839-0.022  | 36.8394847 | -0.0223702 | 284.6633952 | 18.97755968  | 3.4669071  | 18   | 58   | 39.2148  | +     | 3     | 28     | 0.866  | 60.375 | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16<br>PAN11          |
| 295 |       | G36.918+0.483  | 0       | G36.92+0.48     | 36.918263  | 0.482805   | 284.249108  | 18.94994053  | 3.767667   | 18   | 56   | 59.7859  | +     | 3     | 46     | 3.601  | 35.9   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 296 |       | G37.038-0.035  | 0       | G037.030-0.038  | 37.0302639 | -0.0385866 | 284.765176  | 18.98434507  | 3.629191   | 18   | 59   | 3.6422   | +     | 3     | 37     | 45.088 | 78.6   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16<br>PAN11 |
| 297 |       | G37.382-0.082  | 0       | G37.38-0.09     | 37.381503  | -0.082204  | 284.964942  | 18.9976628   | 3.921672   | 18   | 59   | 51.5861  | +     | 3     | 55     | 18.019 | 70.7   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 298 |       | G37.410+1.525  | 0       | G37.40+01.52    | 37.409788  | 1.5249921  | 283.54375   | 18.90291667  | 4.6802778  | 18   | 54   | 10.5000  | +     | 4     | 40     | 49.000 | 41.1   | Y   | 5(-1)->6(0)-A+ |        | 2.1  | FUJ14C                 |
| 299 |       | G37.427+1.518  | 0       | G037.429+1.517  | 37.4361743 | 1.5176624  | 283.5623522 | 18.90415681  | 4.7004209  | 18   | 54   | 14.9645  | +     | 4     | 42     | 1.515  | 43.12  | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16                   |
| 300 |       | G37.479-0.105  | 0       | G037.479-0.104  | 37.479023  | -0.104788  | 285.0298125 | 19.0019875   | 3.998078   | 19   | 0    | 7.1550   | +     | 3     | 59     | 53.081 | 58.3   | Y   | 5(-1)->6(0)-A+ | SFR    |      | CYG09<br>HU16          |
| 301 |       | G37.545-0.112  | 0       | G037.548-0.111  | 37.5460734 | -0.1115308 | 285.0665132 | 19.00443421  | 4.0546251  | 19   | 0    | 15.9632  | +     | 4     | 3      | 16.650 | 50.6   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11<br>HU16          |
| 302 |       | G37.554+0.201  | 0       | 18566+0408      | 37.5538683 | 0.200692   | 284.7916667 | 18.98611111  | 4.2042795  | 18   | 59   | 10.0000  | +     | 4     | 12     | 15.406 | 83.7   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BEU02<br>PAN11         |
| 303 |       | G37.598+0.425  | 0       | IRAS 18559+0416 | 37.597895  | 0.425099   | 284.6111662 | 18.97411108  | 4.34596    | 18   | 58   | 26.7989  | +     | 4     | 20     | 45.456 | 87     | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 304 |       | G37.735-0.112  | 0       | G37.74-0.12     | 37.734792  | -0.112048  | 285.153504  | 19.0102336   | 4.222217   | 19   | 0    | 36.8410  | +     | 4     | 13     | 19.981 | 50.3   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 305 |       | G37.765-0.214  | 0       | G037.753-0.180  | 37.7534586 | -0.1893516 | 285.2309943 | 19.01539962  | 4.203489   | 19   | 0    | 55.4386  | +     | 4     | 12     | 12.560 | 59.66  | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16<br>PAN11          |
| 306 |       | G38.038-0.300  | 0       | IRAS 18593+0419 | 38.0375316 | -0.3003074 | 285.460292  | 19.03068613  | 4.405266   | 19   | 1    | 50.4701  | +     | 4     | 24     | 18.958 | 58.2   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>PAN11         |
| 307 |       | G38.076-0.266  | 0       | G38.08-0.27     | 38.076472  | -0.26553   | 285.447154  | 19.02981027  | 4.458806   | 19   | 1    | 47.3170  | +     | 4     | 27     | 20.902 | 67.6   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 308 |       | G38.119-0.229  | 0       | G038.119-0.228  | 38.1190781 | -0.2288249 | 285.4339811 | 19.02893207  | 4.5104871  | 19   | 1    | 44.1555  | +     | 4     | 30     | 37.754 | 72.01  | Y   | 5(-1)->6(0)-A+ | MIXED  |      | HU16<br>PAN11          |
| 309 |       | G38.203-0.067  | 0       | G038.203-0.066  | 38.203271  | -0.066721  | 285.328051  | 19.02187007  | 4.659533   | 19   | 1    | 18.7322  | +     | 4     | 39     | 34.319 | 81.48  | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>HU16          |
| 310 |       | G38.255-0.200  | 0       | G38.26-0.20     | 38.254779  | -0.200072  | 285.47065   | 19.03137667  | 4.644297   | 19   | 1    | 52.9560  | +     | 4     | 38     | 39.469 | 70.2   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 311 |       | G38.258-0.074  | 0       | G038.257-0.073  | 38.2575284 | -0.0738192 | 285.3592864 | 19.029395243 | 4.7045279  | 19   | 1    | 26.2287  | +     | 4     | 42     | 16.300 | 14.55  | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16<br>PAN11          |
| 312 |       | G38.554+0.163  | 0       | G38.56+0.15     | 38.554625  | 0.162571   | 285.284771  | 19.01898473  | 5.076864   | 19   | 1    | 8.3450   | +     | 5     | 4      | 36.710 | 31.5   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 313 |       | G38.598-0.213  | 0       | G38.60-0.21     | 38.597726  | -0.212613  | 285.639421  | 19.04262807  | 4.943436   | 19   | 2    | 33.4610  | +     | 4     | 56     | 36.370 | 62.5   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 314 |       | G38.653+0.088  | 0       | G38.66+0.08     | 38.652798  | 0.087544   | 285.39685   | 19.02645667  | 5.129822   | 19   | 1    | 35.2440  | +     | 5     | 7      | 47.359 | 31.3   | Y   | 5(-1)->6(0)-A+ | SFR    |      | PAN11                  |
| 315 |       | G38.917-0.353  | 0       | G038.915-0.353  | 38.9158752 | -0.3529926 | 285.9110284 | 19.06073523  | 5.1618955  | 19   | 3    | 38.6468  | +     | 5     | 9      | 42.824 | 32.16  | Y   | 5(-1)->6(0)-A+ | SFR    |      | HU16<br>PAN11          |
| 316 |       | G39.100+0.491  | 0       | IRAS 18585+0538 | 39.1003201 | 0.4914063  | 285.241835  | 19.01612233  | 5.7125342  | 19   | 0    | 58.0404  | +     | 5     | 42     | 45.123 | 15.3   | Y   | 5(-1)->6(0)-A+ | SFR    |      | BAR09<br>CYG09<br>HU16 |

| no. | match | group-name     | gc.flag | source_name        | l          | b          | ra(deg)     | ra(hour)    | dec(deg)   | ra-h<br>h | ra-s<br>s | dec-<br>sign | dec-<br>d | dec-s  | vmean  | vpeak            | det | line               | type   | dist | refs                            |
|-----|-------|----------------|---------|--------------------|------------|------------|-------------|-------------|------------|-----------|-----------|--------------|-----------|--------|--------|------------------|-----|--------------------|--------|------|---------------------------------|
| 317 |       | G39.388-0.141  | 0       | 19012+0536         | 39.387693  | -0.140719  | 285.9388    | 19.06258667 | 5.078522   | 19        | 45.3120   | +            | 40        | 42.079 | 60.4   | 60.4             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>PAN11                  |
| 318 |       | G40.282-0.219  | 0       | G040.281-<br>0.219 | 40.2818607 | -0.2194426 | 286.4217642 | 19.09478428 | 6.4308508  | 19        | 41.2234   | +            | 6         | 26     | 75.425 | 74.100<br>76.750 | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 319 |       | G40.374+10.311 | 0       | G20.239+00.065     | 40.3740726 | 10.3112096 | 276.937338  | 18.4624892  | 11.246642  | 18        | 44.9611   | +            | 11        | 14     | 47.911 | 61               | Y   | 5(-1)-<br>>6(0)-A+ |        |      | BAR16                           |
| 320 |       | G40.428+0.700  | 0       | 40.425+0.700       | 40.4250967 | 0.7001802  | 285.6650678 | 19.04433785 | 6.9859082  | 19        | 39.6163   | +            | 6         | 59     | 9.270  | 13.075           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>HU16                   |
| 321 |       | G40.623-0.138  | 0       | 19035+0641         | 40.6225373 | -0.1383085 | 286.506787  | 19.10045247 | 6.7767179  | 19        | 1.6289    | +            | 6         | 46     | 36.184 | 32.145<br>33.190 | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | BEU02<br>CAS09<br>HU16<br>PAN11 |
| 322 |       | G40.934-0.041  | 0       | G040.934-<br>0.040 | 40.9344766 | -0.040952  | 286.5640673 | 19.10427115 | 7.0985177  | 19        | 15.3762   | +            | 7         | 5      | 54.664 | 36.600<br>40.040 | Y   | 5(-1)-<br>>6(0)-A+ |        |      | HU16<br>PAN11                   |
| 323 |       | G41.075-0.125  | 0       | G41.08-0.13        | 41.075416  | -0.124744  | 286.704363  | 19.1136242  | 7.185158   | 19        | 49.0471   | +            | 7         | 11     | 6.569  | 57.6             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 324 |       | G41.121-0.107  | 0       | G41.12-0.11        | 41.120845  | -0.106808  | 286.709367  | 19.1139578  | 7.233747   | 19        | 50.2481   | +            | 7         | 14     | 1.489  | 36.5             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 325 |       | G41.123-0.220  | 0       | G041.123-<br>0.220 | 41.1230608 | -0.2202121 | 286.8118908 | 19.12079272 | 7.1835509  | 19        | 14.8538   | +            | 7         | 11     | 0.783  | 61.7             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 326 |       | G41.156-0.201  | 0       | G41.16-0.20        | 41.156001  | -0.200886  | 286.809871  | 19.12065807 | 7.221689   | 19        | 14.3690   | +            | 7         | 13     | 18.080 | 56               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 327 |       | G41.226-0.197  | 0       | G041.226-<br>0.197 | 41.2260883 | -0.1971833 | 286.833064  | 19.12260427 | 7.2856203  | 19        | 21.3754   | +            | 7         | 17     | 8.233  | 58.06            | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 328 |       | G41.269+0.371  | 0       | G41.27+0.37        | 41.268127  | 0.372462   | 286.348368  | 19.08989053 | 7.584792   | 19        | 23.6059   | +            | 7         | 35     | 5.251  | 20.4             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 329 |       | G41.348-0.136  | 0       | G041.347-<br>0.136 | 41.3476027 | -0.1364264 | 286.8410513 | 19.12273675 | 7.4214628  | 19        | 21.8923   | +            | 7         | 25     | 17.266 | 10.94            | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 330 |       | G41.577+0.041  | 0       | G41.58+0.04        | 41.577046  | 0.041434   | 286.788242  | 19.11921613 | 7.707011   | 19        | 9.1781    | +            | 7         | 42     | 25.240 | 12               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 331 |       | G42.034+0.190  | 0       | G042.034+0.190     | 42.0344521 | 0.1900966  | 286.8674722 | 19.12449815 | 8.1815237  | 19        | 28.1933   | +            | 8         | 10     | 53.485 | 19.970<br>12.800 | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 332 |       | G42.304-0.299  | 0       | G042.303-<br>0.299 | 42.3036125 | -0.2993815 | 287.4316665 | 19.1621111  | 8.1948399  | 19        | 43.6000   | +            | 8         | 11     | 41.424 | 28.275           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 333 |       | G42.435-0.260  | 0       | G42.43-0.26        | 42.434789  | -0.260233  | 287.457742  | 19.16384947 | 8.329278   | 19        | 49.8581   | +            | 8         | 19     | 45.401 | 66.8             | Y   | 5(-1)-<br>>6(0)-A+ | GALAXY |      | PAN11                           |
| 334 |       | G42.698-0.147  | 0       | G042.698-<br>0.147 | 42.6980784 | -0.1475153 | 287.479505  | 19.16530033 | 8.6148696  | 19        | 55.0812   | +            | 8         | 36     | 53.531 | 42.900           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 335 |       | G43.038-0.453  | 0       | G043.038-<br>0.452 | 43.0380588 | -0.4529409 | 287.9124424 | 19.19416283 | 8.7762341  | 19        | 38.9862   | +            | 8         | 46     | 30.843 | 56.815           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 336 |       | G43.074-0.077  | 0       | G043.074-<br>0.077 | 43.0741488 | -0.0770228 | 287.5919373 | 19.17279682 | 8.9810011  | 19        | 22.0050   | +            | 8         | 58     | 51.604 | 10.325           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 337 |       | G43.167+0.011  | 0       | 43.149+0.013       | 43.169044  | 0.0102462  | 287.5639915 | 19.17093277 | 9.103352   | 19        | 15.3580   | +            | 9         | 6      | 12.067 | 13.325           | Y   | 5(-1)-<br>>6(0)-A+ | MIXED  |      | CAS09<br>HU16<br>PAN11<br>XU09  |
| 338 |       | G43.795-0.127  | 0       | 43.796-0.127       | 43.7954299 | -0.1272318 | 287.974958  | 19.19833053 | 9.597349   | 19        | 53.9899   | +            | 9         | 35     | 50.456 | 39.585           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>HU16<br>SUR19<br>XU09  |
| 339 |       | G43.890-0.784  | 0       | 19120+0917         | 43.8904814 | -0.7843774 | 288.6099556 | 19.24066371 | 9.3768776  | 19        | 26.3893   | +            | 9         | 22     | 36.759 | 50.19            | Y   | 5(-1)-<br>>6(0)-A+ | SFR    | 4.2  |                                 |
| 340 |       | G44.310+0.041  | 0       | G44.31+0.04        | 44.310401  | 0.040656   | 288.0659    | 19.20439333 | 10.131533  | 19        | 15.8160   | +            | 10        | 7      | 53.519 | 55.7             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 341 |       | G44.644-0.516  | 0       | G44.64-0.52        | 44.643999  | -0.515924  | 288.724025  | 19.24826833 | 10.168803  | 19        | 53.7660   | +            | 10        | 10     | 7.691  | 49.5             | Y   | 5(-1)-<br>>6(0)-A+ |        |      | PAN11                           |
| 342 |       | G45.071+0.132  | 0       | G045.071+0.132     | 45.0711782 | 0.1319964  | 288.3421675 | 19.22281117 | 10.8480048 | 19        | 22.1202   | +            | 10        | 50     | 52.817 | 58.14            | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 343 |       | G45.468+0.053  | 0       | 45.445+0.069       | 45.467009  | 0.053087   | 288.6005724 | 19.24003816 | 11.16194   | 19        | 24.1374   | +            | 11        | 9      | 42.984 | 56               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | CAS09<br>HU16<br>PAN11          |
| 344 |       | G45.477+0.130  | 0       | 45.473+0.134       | 45.4826901 | 0.129535   | 288.5389689 | 19.23593126 | 11.2113703 | 19        | 9.3525    | +            | 11        | 12     | 40.933 | 60.94            | Y   | 5(-1)-<br>>6(0)-A+ | MIXED  |      | CAS09<br>HU16<br>PAN11          |
| 345 |       | G45.569-0.120  | 0       | G45.57-0.12        | 45.568388  | -0.119995  | 288.8048    | 19.25365333 | 11.171261  | 19        | 13.1520   | +            | 11        | 10     | 16.540 | 1.5              | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 346 |       | G45.804-0.356  | 0       | G045.804-<br>0.355 | 45.8040115 | -0.3559037 | 289.1295007 | 19.27530005 | 11.2699112 | 19        | 31.0802   | +            | 11        | 16     | 11.680 | 59.495           | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16<br>PAN11                   |
| 347 |       | G46.068+0.220  | 0       | G46.07+0.22        | 46.06624   | 0.220327   | 288.733654  | 19.24891027 | 11.770272  | 19        | 56.0770   | +            | 11        | 46     | 12.979 | 23.6             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 348 |       | G46.115+0.387  | 0       | G46.12+0.38        | 46.114822  | 0.38657    | 288.606333  | 19.2404222  | 11.890553  | 19        | 25.5199   | +            | 11        | 53     | 25.991 | 59               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 349 |       | G48.902-0.273  | 0       | G48.90-0.27        | 48.902183  | -0.273441  | 290.543042  | 19.36953613 | 14.045419  | 19        | 10.3301   | +            | 14        | 2      | 43.508 | 72               | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 350 |       | G48.990-0.299  | 0       | G48.99-0.30        | 48.990173  | -0.298837  | 290.608892  | 19.37392613 | 14.111105  | 19        | 26.1341   | +            | 14        | 6      | 39.780 | 71.5             | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | PAN11                           |
| 351 |       | G49.043-1.079  | 0       | G049.042-<br>1.078 | 49.0426433 | -1.0786775 | 291.3424852 | 19.42283235 | 13.7885256 | 19        | 22.1964   | +            | 13        | 47     | 18.692 | 38.02            | Y   | 5(-1)-<br>>6(0)-A+ | SFR    |      | HU16                            |

| no. | match | group-name    | gc.flag | source_name    | l          | b          | ra(deg)      | ra(hour)    | dec(deg)   | ra-h<br>lo | ra-s | dec-<br>sign | dec-<br>d | dec-<br>g | dec-s | vmean  | vpeak  | det    | line           | type  | dist | refs                                     |
|-----|-------|---------------|---------|----------------|------------|------------|--------------|-------------|------------|------------|------|--------------|-----------|-----------|-------|--------|--------|--------|----------------|-------|------|------------------------------------------|
| 352 |       | G49.265+0.311 | 0       | G049.265+0.311 | 49.2651842 | 0.3111378  | 290.1869426  | 19.34579617 | 14.6408006 | 19         | 20   | 44.8662      | +         | 14        | 38    | 26.882 | -3.7   | -2.900 | 5(-1)->6(0)-A+ | MIXED |      | HU16<br>PAN11                            |
| 353 |       | G49.349+0.413 | 0       | G049.349+0.412 | 49.3492148 | 0.4125131  | 290.1352312  | 19.34234875 | 14.7626034 | 19         | 20   | 32.4555      | +         | 14        | 45    | 45.372 | 67.895 | 67.790 | 5(-1)->6(0)-A+ | MIXED |      | HU16<br>PAN11                            |
| 354 |       | G49.410+0.326 | 0       | 19186+1440     | 49.416639  | 0.3256883  | 290.249237   | 19.34994913 | 14.7804017 | 19         | 20   | 59.8169      | +         | 14        | 46    | 49.446 | -12.55 | 12.100 | 5(-1)->6(0)-A+ | MIXED |      | CG09<br>HU16<br>PAN11<br>XU09            |
| 355 |       | G49.488-0.387 | 0       | 049.49-00.38   | 49.4842466 | -0.3717471 | 290.9245009  | 19.39496673 | 14.5003519 | 19         | 23   | 41.8802      | +         | 14        | 30    | 1.267  | 26.990 | 26.000 | 5(-1)->6(0)-A+ | SFR   |      | CAS09<br>FUJ14C<br>HU16<br>PAN11<br>XU09 |
| 356 |       | G49.599-0.250 | 0       | G049.599-0.249 | 49.5993103 | -0.2495715 | 290.8608707  | 19.39072471 | 14.6713146 | 19         | 23   | 26.6090      | +         | 14        | 40    | 16.733 | 63.425 | 63.700 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>PAN11                            |
| 357 |       | G49.617-0.360 | 0       | G49.62-0.36    | 49.616555  | -0.360156  | 290.970021   | 19.3980014  | 14.634236  | 19         | 23   | 52.8050      | +         | 14        | 38    | 3.250  | 50.2   | 50.2   | 5(-1)->6(0)-A+ | SFR   |      | PAN11                                    |
| 358 | 404   | G50.054+0.577 | 0       | G050.034+0.581 | 50.0541821 | 0.5771338  | 290.3279167  | 19.35519445 | 15.4622019 | 19         | 21   | 18.7000      | +         | 15        | 27    | 43.927 | -6.58  | -6.58  | 5(-1)->6(0)-A+ |       |      | HU16                                     |
| 359 | 405   | G50.315+0.676 | 0       | G050.314+0.676 | 50.3133979 | 0.6771783  | 290.3628453  | 19.35752302 | 15.7379951 | 19         | 21   | 27.0829      | +         | 15        | 44    | 16.782 | 28.8   | 28.8   | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 360 | 406   | G50.779+0.132 | 0       | G050.778+0.151 | 50.778883  | 0.1518075  | 291.0725518  | 19.40483679 | 15.9004116 | 19         | 24   | 17.4124      | +         | 15        | 54    | 1.482  | 49.175 | 49.100 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>PAN11                            |
| 361 |       | G51.677+0.719 | 0       | 19217+1651     | 51.6787459 | 0.7191065  | 290.9954167  | 19.39969445 | 16.9616111 | 19         | 23   | 58.9000      | +         | 16        | 57    | 41.800 |        |        | 5(-1)->6(0)-A+ | SFR   |      | BEU02                                    |
| 362 | 407?  | G52.167+0.713 | 0       | G052.198+0.723 | 52.1667512 | 0.7120838  | 291.2431463  | 19.41020975 | 17.3883838 | 19         | 24   | 58.3551      | +         | 17        | 23    | 18.182 | 2.98   | 2.98   | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 363 | 408   | G52.660-1.090 | 0       | 19303+1651     | 52.6626654 | -1.0919759 | 293.1502294  | 19.54334863 | 16.960714  | 19         | 32   | 36.0551      | +         | 16        | 57    | 38.570 | 66.085 | 65.700 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>XU09                             |
| 364 | 409   | G52.923+0.414 | 0       | G052.921+0.414 | 52.9217786 | 0.4139316  | 291.895624   | 19.45970827 | 17.9105669 | 19         | 27   | 34.9498      | +         | 17        | 54    | 38.041 | 40.54  | 39.100 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>PAN11                            |
| 365 | 410   | G53.036+0.113 | 0       | G53.04+0.11    | 53.036527  | 0.11279    | 292.231225   | 19.48208167 | 17.867531  | 19         | 28   | 55.4940      | +         | 17        | 52    | 3.112  | 10.1   | 10.1   | 5(-1)->6(0)-A+ | SFR   |      | PAN11                                    |
| 366 | 411   | G53.142+0.070 | 0       | G053.141+0.070 | 53.141837  | 0.0705492  | 292.3231736  | 19.48821157 | 17.9397724 | 19         | 29   | 17.5617      | +         | 17        | 56    | 23.181 | 24.595 | 24.590 | 5(-1)->6(0)-A+ | MIXED |      | HU16<br>PAN11                            |
| 367 | 412   | G53.618+0.035 | 0       | 19282+1814     | 53.617981  | 0.0354     | 292.5959     | 19.50639333 | 18.340744  | 19         | 30   | 23.0160      | +         | 18        | 20    | 26.678 | 19     | 18.790 | 5(-1)->6(0)-A+ | SFR   |      | BEU02<br>HU16<br>PAN11<br>XU09           |
| 368 |       | G56.962-0.234 | 0       | G056.963-0.234 | 56.9645012 | -0.2350698 | 294.5724348  | 19.63816232 | 21.1357733 | 19         | 38   | 17.3844      | +         | 21        | 8     | 8.784  | 29.86  | 29.86  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 369 | 413   | G58.773+0.647 | 0       | G058.774+0.644 | 58.7748182 | 0.6440592  | 294.7047761  | 19.64698507 | 23.1445006 | 19         | 38   | 49.1463      | +         | 23        | 8     | 40.202 | 33.72  | 33.72  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 370 |       | G59.631-0.189 | 0       | G059.633-0.191 | 59.6331884 | -0.1916408 | 295.9580396  | 19.73053597 | 23.4768677 | 19         | 43   | 49.9295      | +         | 23        | 28    | 36.724 | 29.59  | 29.59  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 371 | 414   | G59.783+0.064 | 0       | 19410+2336     | 59.7832682 | 0.0637321  | 295.7979636  | 19.71986424 | 23.7342076 | 19         | 43   | 11.5113      | +         | 23        | 44    | 3.147  | 20.98  | 20.98  | 5(-1)->6(0)-A+ | SFR   |      | BEU02<br>HU16                            |
| 372 | 415   | G59.833+0.671 | 0       | G059.832+0.672 | 59.8327997 | 0.6712594  | 295.2477738  | 19.68318492 | 24.0785139 | 19         | 40   | 59.4657      | +         | 24        | 4     | 42.650 | 37.84  | 37.84  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 373 | 416   | G60.574-0.186 | 0       | G060.575-0.186 | 60.5758254 | -0.1871121 | 296.4693976  | 19.76462651 | 24.2953833 | 19         | 45   | 52.6554      | +         | 24        | 17    | 43.380 | 3.42   | 3.42   | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 374 | 418   | G70.211+1.760 | 0       | G070.181+1.741 | 70.2111562 | 1.7599523  | 300.2259058  | 20.01506039 | 33.5604051 | 20         | 0    | 54.2174      | +         | 33        | 33    | 37.458 | -26.78 | -26.78 | 5(-1)->6(0)-A+ |       |      | HU16                                     |
| 375 | 419   | G71.522-0.385 | 0       | G071.522-0.385 | 71.5221355 | -0.3852964 | 303.2413611  | 20.21609074 | 33.5076116 | 20         | 12   | 57.9267      | +         | 33        | 30    | 27.402 | 8.16   | 8.16   | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 376 | 421   | G75.772+0.343 | 0       | G075.782+0.342 | 75.7963998 | 0.3440242  | 305.4423503  | 20.36282335 | 37.4562993 | 20         | 21   | 46.1641      | +         | 37        | 27    | 22.677 | -0.97  | -0.97  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 377 | 422   | G78.122+3.633 | 0       | 20126+4104     | 78.1220864 | 3.6320656  | 303.6085382  | 20.24056921 | 41.2254914 | 20         | 14   | 26.0492      | +         | 41        | 13    | 31.769 | -6.58  | -6.58  | 5(-1)->6(0)-A+ | SFR   |      | BEU02<br>HU16                            |
| 378 | 424   | G78.887+0.709 | 0       | G078.886+0.708 | 78.8864951 | 0.7081866  | 307.3541064  | 20.49027376 | 40.1882137 | 20         | 29   | 24.9855      | +         | 40        | 11    | 17.569 | -6.93  | -6.93  | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |
| 379 | 425   | G79.736+0.990 | 0       | 20290+4052     | 79.7357257 | 0.990339   | 307.71112721 | 20.51408481 | 41.0409373 | 20         | 30   | 50.7053      | +         | 41        | 2     | 27.374 | -4.660 | -4.660 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>XU09                             |
| 380 | 426   | G80.861+0.383 | 0       | DR20           | 80.8614742 | 0.3832167  | 309.2540824  | 20.61693883 | 41.5820846 | 20         | 37   | 0.9798       | +         | 41        | 34    | 55.505 | -4.440 | -4.440 | 5(-1)->6(0)-A+ | SFR   | 1    | HU16<br>XU09                             |
| 381 | 427   | G81.710+0.563 | 0       | DR21 B.2       | 81.6989487 | 0.55147    | 309.7565714  | 20.65043809 | 42.3502257 | 20         | 39   | 1.5771       | +         | 42        | 21    | 0.813  | -3.030 | -3.160 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>XU09                             |
| 382 | 428   | G81.767+0.596 | 0       | DR21B 1        | 81.7852524 | 0.604934   | 309.7701973  | 20.65134649 | 42.4512441 | 20         | 39   | 4.8474       | +         | 42        | 27    | 4.479  | -1.320 | -1.320 | 5(-1)->6(0)-A+ | SFR   |      | HU16<br>XU09                             |
| 383 | 429   | G81.877+0.782 | 0       | G081.874+0.780 | 81.871239  | 0.780665   | 309.6517329  | 20.64344886 | 42.6263298 | 20         | 38   | 36.4159      | +         | 42        | 37    | 34.787 | 6.54   | 6.760  | 5(-1)->6(0)-A+ | MIXED |      | HU16<br>XU09                             |
| 384 | 431   | G85.411+0.002 | 0       | G085.410+0.003 | 85.4104404 | 0.0035761  | 313.556977   | 20.90379847 | 44.9023263 | 20         | 54   | 13.6745      | +         | 44        | 54    | 8.375  | -30.55 | -30.55 | 5(-1)->6(0)-A+ | SFR   |      | HU16                                     |

| no. | match | group_name      | gc_flag | source_name     | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-<br>in | ra-s    | dec-<br>sign | dec-<br>d | dec-<br>h | dec-s  | vmean  | vpeak  | det | line                                | type  | dist | refs                              |
|-----|-------|-----------------|---------|-----------------|-------------|------------|-------------|-------------|-------------|-----------|---------|--------------|-----------|-----------|--------|--------|--------|-----|-------------------------------------|-------|------|-----------------------------------|
| 385 | 432   | G90.921+1.487   | 0       | G090.921+1.486  | 90.9264872  | 1.481844   | 317.3147917 | 21.15431945 | 50.0180952  | 21        | 15.5500 | +            | 50        | 1         | 5.143  | 69.89  | -69.89 | Y   | 5(-1)->6(0)-A+                      |       |      | HU16                              |
| 386 | 433   | G94.602-1.796   | 0       | 21381+5000      | 94.6025192  | -1.7961035 | 324.9927733 | 21.66618489 | 50.2391794  | 21        | 58.2656 | +            | 50        | 14        | 21.046 | 41.465 | 40.700 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | HU16<br>XU09                      |
| 387 | 435   | G98.035+1.446   | 0       | G098.035+1.446  | 98.0356545  | 1.4458799  | 325.7558504 | 21.71705669 | 54.9380557  | 21        | 43      | +            | 54        | 56        | 17.001 | 61.38  | -61.38 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | HU16                              |
| 388 | 438   | G108.186+5.518  | 0       | G108.184+5.518  | 108.1843355 | 5.5187323  | 337.2140602 | 22.48093735 | 64.2280914  | 22        | 28      | +            | 64        | 13        | 41.129 | 11.16  | 11.000 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | HU16<br>XU09                      |
| 389 | 439   | G108.767-1.015  | 0       | G108.766-0.986  | 108.7666288 | -1.0148348 | 344.7368413 | 22.98245609 | 58.7283178  | 22        | 58      | +            | 58        | 43        | 41.944 | 46.27  | -46.27 | Y   | 5(-1)->6(0)-A+                      |       |      | HU16                              |
| 390 | 440   | G109.871+2.114  | 0       | Cepheus<br>HW2  | 109.8708661 | 2.1143348  | 344.0746126 | 22.93830751 | 62.030408   | 22        | 56      | +            | 62        | 1         | 49.469 | 2.885  | -1.730 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16<br>SAN17                     |
| 391 | 443   | G111.255-0.770  | 0       | 23139+5939      | 111.2550553 | -0.7706641 | 349.0437512 | 23.26958341 | 59.9237684  | 23        | 16      | +            | 59        | 55        | 25.566 | 38.9   | -38.9  | Y   | 5(-1)->6(0)-A+                      | SFR   |      | BEU02<br>HU16                     |
| 392 | 444   | G111.542+0.766  | 0       | G111.542+0.776  | 111.5420681 | 0.7765864  | 348.439153  | 23.22927687 | 61.4692476  | 23        | 13      | +            | 61        | 28        | 9.291  | 58.56  | -58.56 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16                              |
| 393 | 445   | G121.298+0.659  | 0       | G121.297+0.658  | 121.2977265 | 0.658614   | 9.1973102   | 0.613154013 | 63.4838727  | 0         | 36      | +            | 63        | 29        | 1.942  | 24.11  | 23.200 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | HU16<br>XU09                      |
| 394 | 446   | G123.066-6.309  | 0       | G123.065-6.309  | 123.0657282 | -6.3096134 | 13.1008441  | 0.873389607 | 56.5618846  | 0         | 52      | +            | 56        | 33        | 42.785 | 29.095 | 25.020 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16<br>XU09                      |
| 395 | 447   | G133.949+1.064  | 0       | G133.947+1.064  | 133.9472133 | 1.0643394  | 36.7657814  | 2.451052093 | 61.8736763  | 2         | 27      | +            | 61        | 52        | 25.235 | 44.86  | -44.86 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16                              |
| 396 | 448   | G136.841+1.184  | 0       | G136.845+1.167  | 136.8413472 | 1.1837101  | 42.3976978  | 2.826513187 | 60.8239973  | 2         | 49      | +            | 60        | 49        | 26.390 | 44.96  | -44.96 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16                              |
| 397 | 453   | G174.198-0.076  | 0       | G174.200-0.070  | 174.2007573 | -0.0705912 | 82.7000394  | 5.513335596 | 33.7985069  | 5         | 30      | +            | 33        | 47        | 54.625 | 2.72   | 2.72   | Y   | 5(-1)->6(0)-A+                      |       |      | HU16                              |
| 398 | 454   | G183.348-0.577  | 0       | G183.348-0.575  | 183.3476098 | -0.5758094 | 87.7950369  | 5.85300246  | 25.7716635  | 5         | 51      | +            | 25        | 46        | 17.989 | 9.92   | -9.92  | Y   | 5(-1)->6(0)-A+                      | SFR   |      | HU16                              |
| 399 | 455   | G188.796+1.033  | 0       | 188.794+1.031   | 188.7937077 | 1.0305899  | 92.2790009  | 6.151933393 | 21.8447874  | 6         | 9       | +            | 21        | 50        | 41.235 | 5.385  | -5.270 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12<br>HU16                  |
| 400 | 456   | G188.946+0.887  | 0       | 188.946+0.886   | 188.9461049 | 0.8859532  | 92.2222145  | 6.148147633 | 21.6414261  | 6         | 8       | +            | 21        | 38        | 29.134 | 10.75  | 10.700 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS09<br>CAS10-12<br>HU16         |
| 401 | 457   | G189.032+0.784  | 0       | 189.030+0.783   | 189.0297608 | 0.7835308  | 92.1694664  | 6.144631093 | 21.5186201  | 6         | 8       | +            | 21        | 31        | 7.032  | 8.95   | 8.800  | Y   | 5(-1)->6(0)-A+                      | SFR   |      | XU09<br>CAS10-12<br>HU16          |
| 402 | 458   | G189.471-1.216  | 0       | 189.471-1.216   | 189.471053  | -1.215666  | 90.534875   | 6.035658333 | 20.155583   | 6         | 2       | +            | 20        | 9         | 20.099 | 18.8   | 18.8   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 403 | 459   | G189.778+0.345  | 0       | 189.778+0.345   | 189.777663  | 0.344884   | 92.147      | 6.143133333 | 20.65186    | 6         | 8       | +            | 20        | 39        | 6.696  | 5.5    | 4.650  | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS09<br>HU16                     |
| 404 | 460   | G192.599-0.047  | 0       | 192.600-0.048   | 192.600219  | -0.0480315 | 93.225021   | 6.2150014   | 17.9898291  | 6         | 12      | +            | 17        | 59        | 23.385 | 4.8    | 4.000  | Y   | 14(1)->14(0)-A-<br>+ 5(-1)->6(0)-A+ | MIXED |      | CAS10-12<br>HU16                  |
| 405 | 461   | G196.453-1.677  | 0       | 196.454-1.677   | 196.4539129 | -1.6773466 | 93.6543562  | 6.24362368  | 13.8268315  | 6         | 14      | +            | 13        | 49        | 36.593 | 15.1   | 14.830 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS09<br>CAS10-12<br>XU09<br>HU16 |
| 406 | 463   | G206.565-16.361 | 0       | 206.542-16.355  | 206.543219  | -16.355289 | 85.433917   | 5.695594467 | -1.91275    | 5         | 41      | -            | 1         | 54        | 45.900 | 12.3   | 12.3   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 407 | 464   | G208.993-19.385 | 0       | 208.996-19.386  | 208.996875  | -19.38656  | 83.810417   | 5.887361133 | -5.379167   | 5         | 35      | -            | 5         | 22        | 45.001 | 7.3    | 7.3    | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS10-12                          |
| 408 | 465   | G209.015-19.405 | 0       | 209.016-19.398  | 209.017947  | -19.3992   | 83.808125   | 5.887208333 | -5.402611   | 5         | 35      | -            | 5         | 24        | 9.400  | -1.5   | -1.5   | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS10-12                          |
| 409 | 466   | G212.063-0.741  | 0       | 212.06-0.74     | 212.063069  | -0.741051  | 101.80375   | 6.786916667 | 0.435278    | 6         | 47      | +            | 0         | 26        | 7.001  | 43.3   | 43.3   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 410 | 467   | G213.705-12.597 | 0       | 213.705-12.597  | 213.704526  | -12.596793 | 91.949375   | 6.129958333 | -6.382      | 6         | 7       | +            | 6         | 22        | 55.200 | 11.68  | 10.700 | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS09<br>CAS10-12<br>HU16         |
| 411 | 468   | G232.621+0.996  | 0       | IRAS 07299-1601 | 232.620397  | 0.9957331  | 113.04077   | 7.536051333 | -16.9701111 | 7         | 32      | -            | 16        | 58        | 12.400 | 22.82  | 22.700 | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12<br>FU14C<br>HU16         |
| 412 |       | G254.880+0.451  | 0       | 254.880+0.451   | 254.880068  | 0.451226   | 125.605208  | 8.373680533 | -36.250028  | 8         | 22      | -            | 36        | 15        | 0.101  | 30.1   | 30.1   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 413 |       | G259.940-0.041  | 0       | 259.939-0.041   | 259.939274  | -0.041457  | 128.879458  | 8.591963867 | -40.639972  | 8         | 35      | -            | 40        | 38        | 23.899 | -1     | -1     | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 414 |       | G263.250+0.514  | 0       | 263.250+0.514   | 263.2501655 | 0.513722   | 132.1993315 | 8.813288767 | -42.9078755 | 8         | 48      | -            | 42        | 54        | 28.352 | 12.3   | 12.3   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS09<br>CAS10-12                 |
| 415 |       | G264.142+2.018  | 0       | 264.140+2.018   | 264.140393  | 2.017734   | 134.548583  | 8.969905533 | -42.625167  | 8         | 58      | -            | 42        | 37        | 30.601 | 8.1    | 8.1    | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 416 |       | G264.289+1.469  | 0       | V0391 Vel       | 264.2889285 | 1.468829   | 134.1116685 | 8.9407779   | -43.095029  | 8         | 56      | -            | 43        | 5         | 42.104 | 8.95   | 8.700  | Y   | 5(-1)->6(0)-A+                      | MIXED |      | CAS09<br>CAS10-12                 |
| 417 |       | G269.153-1.128  | 0       | 269.153-1.128   | 269.15255   | -1.1281035 | 135.8894185 | 9.059294567 | -48.4673895 | 9         | 3       | -            | 48        | 28        | 2.602  | 16     | 16     | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 418 |       | G269.456-1.467  | 0       | 269.456-1.467   | 269.456239  | -1.46739   | 135.8111583 | 9.054105533 | -48.919778  | 9         | 3       | -            | 48        | 55        | 11.201 | 56.1   | 56.1   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 419 |       | G269.658-1.270  | 0       | 269.658-1.270   | 269.658118  | -1.269842  | 136.2405    | 9.0827      | -48.938444  | 9         | 4       | -            | 48        | 56        | 18.398 | 16.2   | 16.2   | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS10-12                          |
| 420 |       | G270.255+0.835  | 0       | 270.255+0.835   | 270.2553075 | 0.835141   | 139.172959  | 9.278197267 | -47.936692  | 9         | 16      | -            | 47        | 56        | 12.091 | 3.9    | 3.9    | Y   | 5(-1)->6(0)-A+                      | SFR   |      | CAS09<br>CAS10-12                 |

| no. | match | group_name     | gc_flag | source_name   | l          | b           | ra(deg)     | ra(hour)    | dec(deg) | ra-h | ra-s    | dec-sign | dec-d | dec-s | vmean  | vpeak  | det     | line | type           | dist    | refs           |
|-----|-------|----------------|---------|---------------|------------|-------------|-------------|-------------|----------|------|---------|----------|-------|-------|--------|--------|---------|------|----------------|---------|----------------|
| 421 |       | G281.710-1.104 | 0       | 281.709648    | -1.103584  | 151.279458  | 10.0848972  | -56.956861  | 10       | 5    | 5.6299  | -        | 56    | 57    | 24.700 | 0.9    | 0.9     | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 422 |       | G284.351-0.418 | 0       | 284.352-0.419 | -0.4190645 | 156.0453725 | 10.40302483 | -57.877442  | 10       | 24   | 10.8894 | -        | 57    | 52    | 38.791 | 3.6    | 3.300   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 423 |       | G284.694-0.361 | 0       | 284.694337    | -0.360838  | 156.651208  | 10.44341387 | -58.009528  | 10       | 26   | 36.2899 | -        | 58    | 0     | 34.301 | 13.3   | 13.3    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 424 |       | G285.337-0.002 | 0       | 285.3369725   | -0.002107  | 158.0401265 | 10.53600843 | -58.0346955 | 10       | 32   | 9.6304  | -        | 58    | 2     | 4.904  | 0.6    | 0.500   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 425 |       | G286.383-1.834 | 0       | 286.383333    | -1.83401   | 157.979667  | 10.5319778  | -60.144056  | 10       | 31   | 55.1201 | -        | 60    | 8     | 38.602 | 9.6    | 9.6     | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 426 |       | G287.371+0.644 | 0       | 287.3712415   | 0.644086   | 162.018415  | 10.80122767 | -58.450374  | 10       | 48   | 4.4196  | -        | 58    | 27    | 1.346  | -1.800 | -1.900  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 427 |       | G290.374+1.661 | 0       | 290.374+1.661 | 1.660903   | 168.0754185 | 11.2050279  | -58.7726395 | 11       | 12   | 18.1004 | -        | 58    | 46    | 21.502 | -24.2  | -24.2   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 428 |       | G290.411-2.914 | 0       | 290.411-2.915 | -2.914605  | 164.391208  | 10.95941387 | -62.984306  | 10       | 57   | 33.8899 | -        | 62    | 59    | 3.502  | -16    | -16     | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 429 |       | G291.274-0.709 | 0       | 291.271906    | -0.7136515 | 167.964145  | 11.19760967 | -61.3105    | 11       | 11   | 51.3948 | -        | 61    | 18    | 37.800 | -29.65 | -29.65  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 430 |       | G291.579-0.431 | 0       | 291.5807725   | -0.4331815 | 168.77577   | 11.251718   | -61.1637615 | 11       | 15   | 6.1848  | -        | 61    | 9     | 49.541 | 12.5   | 31.200  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 431 |       | G291.637-0.529 | 0       | 291.642-0.546 | -0.545589  | 168.809667  | 11.2539778  | -61.29075   | 11       | 15   | 14.3201 | -        | 61    | 17    | 26.700 | 12.1   | 12.1    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 432 |       | G291.879-0.810 | 0       | 291.878803    | -0.809623  | 169.072292  | 11.27148613 | -61.622417  | 11       | 16   | 17.3501 | -        | 61    | 37    | 20.701 | 33.5   | 33.5    | Y    | 5(-1)->6(0)-A+ | EVOLVED | CAS10-12       |
| 433 |       | G292.074-1.131 | 0       | 292.074-1.131 | -1.131188  | 169.2135    | 11.2809     | -61.992389  | 11       | 16   | 51.2400 | -        | 61    | 59    | 32.600 | 19.1   | -19.1   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 434 |       | G292.468+0.168 | 0       | 292.468316    | 0.167503   | 170.925708  | 11.3950472  | -60.909306  | 11       | 23   | 42.1699 | -        | 60    | 54    | 33.502 | 10.9   | 10.9    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 435 |       | G293.723-1.742 | 0       | 293.722627    | -1.741737  | 172.137375  | 11.475825   | -63.121833  | 11       | 28   | 32.9700 | -        | 63    | 7     | 18.599 | 24.2   | 24.2    | Y    | 5(-1)->6(0)-A+ | UNK     | CAS10-12       |
| 436 |       | G293.828-0.746 | 0       | 293.827-0.746 | -0.746085  | 173.023167  | 11.5348778  | -62.207028  | 11       | 32   | 5.5601  | -        | 62    | 12    | 25.301 | 37     | 37      | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 437 |       | G293.942-0.874 | 0       | 293.941819    | -0.873712  | 173.175375  | 11.545025   | -62.363194  | 11       | 32   | 42.0900 | -        | 62    | 21    | 47.498 | 41.1   | 41.1    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 438 |       | G294.335-1.703 | 0       | 294.33688     | -1.706372  | 173.457958  | 11.56386387 | -63.275694  | 11       | 33   | 49.9099 | -        | 63    | 16    | 32.498 | 11.7   | -11.7   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 439 |       | G294.512-1.622 | 0       | 294.5115275   | -1.6211935 | 173.8843725 | 11.5922915  | -63.2453315 | 11       | 35   | 32.2494 | -        | 63    | 14    | 43.193 | 11.05  | 10.200  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 440 |       | G294.977-1.730 | 0       | 294.989648    | -1.71885   | 174.84533   | 11.65635533 | -63.474     | 11       | 39   | 22.8792 | -        | 63    | 28    | 26.400 | 12.3   | 12.300  | Y    | 5(-1)->6(0)-A+ | MIXED   | CAS09 CAS10-12 |
| 441 |       | G296.893-1.305 | 0       | 296.893-1.305 | -1.305148  | 179.2086225 | 11.9472415  | -63.5348605 | 11       | 56   | 50.0694 | -        | 63    | 32    | 5.498  | 22.2   | 22.2    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 442 |       | G297.405-0.622 | 0       | 297.405486    | -0.62219   | 180.62675   | 12.04178333 | -62.967722  | 12       | 2    | 30.4200 | -        | 62    | 58    | 3.799  | 27.8   | 27.8    | Y    | 5(-1)->6(0)-A+ | EVOLVED | CAS10-12       |
| 443 |       | G298.183-0.786 | 0       | 298.177-0.795 | -0.794894  | 182.239833  | 12.1493222  | -63.273833  | 12       | 8    | 57.5599 | -        | 63    | 16    | 25.799 | 23.5   | 23.5    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 444 |       | G298.213-0.340 | 0       | 298.213325    | -0.3428835 | 182.4799185 | 12.1653279  | -62.8336395 | 12       | 9    | 55.1804 | -        | 62    | 50    | 1.102  | 35.25  | 33.300  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 445 |       | G298.262+0.739 | 0       | 298.262085    | 0.739302   | 182.948542  | 12.19656947 | -61.772472  | 12       | 11   | 47.6501 | -        | 61    | 46    | 20.899 | -30.1  | -30.1   | Y    | 5(-1)->6(0)-A+ | MIXED   | CAS10-12       |
| 446 |       | G298.632-0.362 | 0       | 298.632432    | -0.362101  | 183.381792  | 12.2254528  | -62.916944  | 12       | 13   | 31.6301 | -        | 62    | 55    | 0.998  | 37.2   | 37.2    | Y    | 5(-1)->6(0)-A+ | EVOLVED | CAS10-12       |
| 447 |       | G298.723-0.086 | 0       | 298.723-0.086 | -0.086402  | 183.664583  | 12.24430553 | -62.657194  | 12       | 14   | 39.4999 | -        | 62    | 39    | 25.898 | 23.5   | 23.5    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 448 |       | G299.013+0.128 | 0       | 299.0131315   | 0.1281955  | 184.3525    | 12.29016667 | -62.4843605 | 12       | 17   | 24.6000 | -        | 62    | 29    | 3.698  | 18.35  | 18.300  | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 449 |       | G299.772-0.005 | 0       | 299.771552    | -0.004895  | 185.954042  | 12.39693613 | -62.707028  | 12       | 23   | 48.9701 | -        | 62    | 42    | 25.301 | -6.8   | -6.8    | Y    | 5(-1)->6(0)-A+ | MIXED   | CAS10-12       |
| 450 |       | G300.504-0.176 | 0       | 300.5039075   | -0.1759395 | 187.5149185 | 12.50099457 | -62.9468605 | 12       | 30   | 3.5804  | -        | 62    | 56    | 48.698 | 7.5    | 7.5     | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 451 |       | G300.969+1.148 | 0       | 300.9688635   | 1.1475415  | 188.722041  | 12.5814694  | -61.6611105 | 12       | 34   | 53.2898 | -        | 61    | 39    | 39.998 | 37.2   | -37.2   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 452 |       | G301.136-0.225 | 0       | 301.1364625   | -0.2259165 | 188.8964185 | 12.59309457 | -63.0423895 | 12       | 35   | 35.1404 | -        | 63    | 2     | 32.602 | -39.7  | -39.600 | Y    | 5(-1)->6(0)-A+ | SFR     | CAS09 CAS10-12 |
| 453 |       | G302.032-0.061 | 0       | 302.032252    | -0.060591  | 190.883     | 12.72553333 | -62.918529  | 12       | 43   | 31.9200 | -        | 62    | 55    | 6.704  | 35.5   | 35.300  | Y    | 5(-1)->6(0)-A+ | MIXED   | CAS09 CAS10-12 |
| 454 |       | G302.034+0.625 | 0       | 302.034+0.625 | 0.625376   | 190.931     | 12.72873333 | -62.232917  | 12       | 43   | 43.4400 | -        | 62    | 13    | 58.501 | -39.1  | -39.1   | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 457 |       | G302.455-0.741 | 0       | 302.454753    | -0.740618  | 191.786042  | 12.78573613 | -63.608389  | 12       | 47   | 8.6501  | -        | 63    | 36    | 30.200 | 32.6   | 32.6    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 458 |       | G303.507-0.721 | 0       | 303.507213    | -0.721391  | 194.15275   | 12.94351067 | -63.587361  | 12       | 56   | 36.6600 | -        | 63    | 35    | 14.500 | 14.2   | 14.2    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |
| 459 |       | G303.846-0.363 | 0       | 303.846211    | -0.363414  | 194.889042  | 12.9926028  | -63.22075   | 12       | 59   | 33.3701 | -        | 63    | 13    | 14.700 | 24.8   | 24.8    | Y    | 5(-1)->6(0)-A+ | SFR     | CAS10-12       |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-s | vmean  | vpeak  | det | line                           | type    | dist | refs                                          |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------|------|----------|-------|-------|--------|--------|-----|--------------------------------|---------|------|-----------------------------------------------|
| 460 |       | G303.869+0.194 | 0       | 303.869+0.194 | 303.868508  | 0.193687   | 194.899333  | 12.99328887 | -62.663222  | 12   | 59   | 35.8399  | 62    | 39    | 47.599 | -36.9  | Y   | 5(-1)->6(0)-A+                 | UNK     |      | CAS10-12                                      |
| 461 |       | G304.367+0.336 | 0       | 304.367+0.336 | 304.367167  | -0.335998  | 196.040917  | 13.06939447 | -63.172278  | 13   | 4    | 9.8201   | 63    | 10    | 20.201 | 32.7   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS10-12                                      |
| 462 |       | G304.888+0.635 | 0       | 304.887+0.635 | 304.886742  | 0.635364   | 197.049792  | 13.13665328 | -62.17275   | 13   | 8    | 11.9501  | 62    | 10    | 21.900 | -35.1  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 463 |       | G305.200+0.019 | 0       | 305.199+0.005 | 305.1997495 | 0.011951   | 197.8211045 | 13.18807363 | -62.772375  | 13   | 11   | 17.0051  | 62    | 46    | 20.550 | 33.100 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 464 |       | G305.208+0.206 | 0       | 305.20+0.21   | 305.2052435 | 0.206646   | 197.800456  | 13.18669707 | -62.5778365 | 13   | 11   | 12.1094  | 62    | 34    | 40.211 | 42.800 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>PH198          |
| 465 |       | G305.248+0.246 | 0       | 305.248+0.245 | 305.247468  | 0.24547    | 197.88529   | 13.19235267 | -62.535581  | 13   | 11   | 32.4696  | 62    | 32    | 9.100  | 32.000 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12<br>PH198                    |
| 466 |       | G305.362+0.150 | 0       | 305.362+0.150 | 305.3618545 | 0.1502345  | 198.1494185 | 13.20996123 | -62.6216395 | 13   | 12   | 35.8604  | 62    | 37    | 17.902 | 32.100 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 467 |       | G305.366+0.184 | 0       | 305.366+0.184 | 305.366343  | 0.1842015  | 198.1530815 | 13.21020543 | -62.5874185 | 13   | 12   | 36.7396  | 62    | 35    | 14.707 | 33.700 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 468 |       | G305.475+0.096 | 0       | 305.475+0.096 | 305.474847  | -0.096391  | 198.440625  | 13.229375   | -62.857861  | 13   | 13   | 45.7500  | 62    | 51    | 28.300 | 33.800 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 469 |       | G305.556+0.013 | 0       | 305.563+0.013 | 305.563144  | 0.012633   | 198.612083  | 13.24080553 | -62.7415    | 13   | 14   | 26.8999  | 62    | 44    | 29.400 | -37.3  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 470 |       | G305.573+0.342 | 0       | 305.573+0.342 | 305.573426  | -0.342229  | 198.704667  | 13.2469778  | -63.094     | 13   | 14   | 49.1201  | 63    | 5     | 38.400 | -51    | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 471 |       | G305.615+0.344 | 0       | 305.615+0.344 | 305.615312  | -0.343673  | 198.797125  | 13.25314167 | -63.091611  | 13   | 15   | 11.3100  | 63    | 5     | 29.800 | -34.9  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 472 |       | G305.634+1.645 | 0       | 305.634+1.645 | 305.633644  | 1.645263   | 198.455958  | 13.2303972  | -61.109     | 13   | 13   | 49.4299  | 61    | 6     | 32.400 | 54.8   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 473 |       | G305.646+1.589 | 0       | 305.646+1.589 | 305.646099  | 1.588602   | 198.491875  | 13.23279167 | -61.164361  | 13   | 13   | 58.0500  | 61    | 9     | 51.700 | -58.1  | Y   | 5(-1)->6(0)-A+                 | GALAXY  |      | CAS10-12                                      |
| 474 |       | G305.800+0.245 | 0       | 305.799+0.245 | 305.7992085 | -0.244898  | 199.1801225 | 13.27867483 | -62.975808  | 13   | 16   | 43.2294  | 62    | 58    | 32.909 | 39.300 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 475 |       | G305.822+0.114 | 0       | 305.822+0.115 | 305.822504  | -0.114664  | 199.202958  | 13.2801972  | -62.843917  | 13   | 16   | 48.7099  | 62    | 50    | 38.101 | -42.2  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 476 |       | G305.887+0.017 | 0       | 305.887+0.017 | 305.887018  | 0.0171135  | 199.314709  | 13.28764727 | -62.7063895 | 13   | 17   | 15.5302  | 62    | 42    | 23.002 | 34.1   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS09<br>CAS10-12                             |
| 477 |       | G305.940+0.164 | 0       | 305.940+0.164 | 305.940474  | -0.163534  | 199.471042  | 13.29806947 | -62.880694  | 13   | 17   | 53.0501  | 62    | 52    | 50.498 | 34.200 | Y   | 5(-1)->6(0)-A+                 | EVOLVED |      | CAS10-12                                      |
| 478 |       | G306.322+0.334 | 0       | 306.322+0.334 | 306.32209   | -0.3337255 | 200.3458725 | 13.3563915  | -63.008192  | 13   | 21   | 23.0094  | 63    | 0     | 29.491 | 24.400 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 479 |       | G307.133+0.476 | 0       | 307.132+0.476 | 307.1327385 | -0.476376  | 202.1588125 | 13.47725417 | -63.0443335 | 13   | 28   | 38.1150  | 63    | 2     | 39.601 | 24.700 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 480 |       | G308.056+0.396 | 0       | 308.056+0.396 | 308.056064  | -0.396014  | 204.134     | 13.60893333 | -62.818222  | 13   | 36   | 32.1600  | 62    | 49    | 5.599  | 38.700 | Y   | 5(-1)->6(0)-A+                 | UNK     |      | CAS10-12                                      |
| 481 |       | G308.075+0.411 | 0       | 308.075+0.411 | 308.075415  | -0.410612  | 204.181292  | 13.61208613 | -62.829222  | 13   | 36   | 43.5101  | 62    | 49    | 45.199 | -11.8  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 482 |       | G308.651+0.507 | 0       | 308.651+0.507 | 308.651086  | -0.507339  | 205.459125  | 13.697275   | -62.818111  | 13   | 41   | 50.1900  | 62    | 49    | 5.200  | 3.2    | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 483 |       | G308.687+0.530 | 0       | 308.686+0.530 | 308.68592   | 0.529503   | 205.105542  | 13.6737028  | -61.793778  | 13   | 40   | 25.3301  | 61    | 47    | 37.601 | -53.1  | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS10-12                                      |
| 484 |       | G308.715+0.216 | 0       | 308.715+0.216 | 308.715392  | -0.216088  | 205.473292  | 13.69821947 | -62.519917  | 13   | 41   | 53.5901  | 62    | 31    | 11.701 | -12.5  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 485 |       | G308.754+0.549 | 0       | 308.754+0.549 | 308.7543715 | 0.548578   | 205.24      | 13.68266667 | -61.762058  | 13   | 40   | 57.6000  | 61    | 45    | 43.409 | 48.15  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 486 |       | G308.918+0.123 | 0       | 308.918+0.123 | 308.917995  | 0.122792   | 205.757708  | 13.71718053 | -62.14783   | 13   | 43   | 1.8499   | 62    | 8     | 52.188 | 51.000 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12<br>PH198                    |
| 487 |       | G309.384+0.135 | 0       | 309.384+0.135 | 309.38376   | -0.1346525 | 206.8499185 | 13.78999457 | -62.3033315 | 13   | 47   | 23.9804  | 62    | 18    | 11.993 | 54.800 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 488 |       | G309.901+0.231 | 0       | 309.901+0.231 | 309.901429  | 0.23065    | 207.753375  | 13.85029167 | -61.832222  | 13   | 51   | 1.0500   | 61    | 49    | 55.999 | -49.6  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 489 |       | G309.921+0.479 | 0       | 309.92+0.48   | 309.920502  | 0.4788965  | 207.6740815 | 13.84493877 | -61.5861685 | 13   | 50   | 41.7796  | 61    | 35    | 10.207 | 59.7   | Y   | 2(1)->3(0)-E<br>5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>KR113<br>PH198 |
| 490 |       | G310.144+0.760 | 0       | 310.144+0.760 | 310.143878  | 0.759758   | 207.993459  | 13.8662306  | -61.261471  | 13   | 51   | 58.4302  | 61    | 15    | 41.296 | 50.900 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                             |
| 491 |       | G310.179+0.118 | 0       | 310.180+0.122 | 310.180414  | -0.121957  | 208.507417  | 13.90049447 | -62.109611  | 13   | 54   | 1.7801   | 62    | 6     | 34.600 | 55.700 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |
| 492 |       | G311.230+0.032 | 0       | 311.230+0.032 | 311.229747  | -0.031777  | 210.614468  | 14.04096387 | -61.754     | 14   | 2    | 27.4699  | 61    | 45    | 14.400 | 24.8   | Y   | 5(-1)->6(0)-A+                 | EVOLVED |      | CAS10-12                                      |
| 493 |       | G311.551+0.055 | 0       | 311.551+0.055 | 311.550821  | -0.055155  | 211.279417  | 14.08529447 | -61.68775   | 14   | 5    | 7.0601   | 61    | 41    | 15.900 | -56.3  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                      |

| no. | match | group-name     | gc.flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s    | dec-sgn | dec-d | dec-s | vmean  | vpeak  | det | line           | type    | dist | refs                 |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------|---------|---------|-------|-------|--------|--------|-----|----------------|---------|------|----------------------|
| 494 |       | G311.628+0.266 | 0       | 311.628+0.266 | 311.628441  | 0.265539   | 211.246667  | 14.08311113 | -61.358167  | 14   | 59.2001 | -       | 61    | 21    | 29.401 | -57.8  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 495 |       | G311.643+0.380 | 0       | 311.643+0.380 | 311.642743  | -0.3799715 | 211.661541  | 14.1107694  | -61.9730815 | 14   | 38.7698 | -       | 61    | 58    | 23.093 | 32.55  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 496 |       | G311.729+0.735 | 0       | 311.729+0.735 | 311.728987  | -0.735029  | 212.058208  | 14.13721387 | -62.287917  | 14   | 13.9699 | -       | 62    | 17    | 16.501 | 30.9   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 497 |       | G311.947+0.142 | 0       | 311.947+0.142 | 311.946786  | 0.141866   | 211.9571685 | 14.1304779  | -61.3856395 | 14   | 49.7204 | -       | 61    | 23    | 8.302  | 41.15  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 498 |       | G312.071+0.082 | 0       | 312.071+0.082 | 312.071232  | 0.081754   | 212.2425    | 14.1495     | -61.406611  | 14   | 58.2000 | -       | 61    | 24    | 23.800 | 44.000 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 499 |       | G312.108+0.262 | 0       | 312.108+0.262 | 312.1082395 | 0.2618235  | 212.205469  | 14.1470306  | -61.2236395 | 14   | 49.3102 | -       | 61    | 13    | 25.102 | 34.8   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 500 |       | G312.307+0.661 | 0       | 312.307+0.661 | 312.307264  | 0.660973   | 212.353958  | 14.15693053 | -60.783472  | 14   | 24.9499 | -       | 60    | 47    | 0.499  | 49.900 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 501 |       | G312.501+0.084 | 0       | 312.501+0.084 | 312.501285  | -0.083651  | 213.203958  | 14.2135972  | -61.434222  | 14   | 48.9499 | -       | 61    | 26    | 3.199  | 12.3   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 502 |       | G312.598+0.045 | 0       | 312.597+0.045 | 312.5973365 | 0.0449975  | 213.311206  | 14.22074707 | -61.282125  | 14   | 14.6894 | -       | 61    | 16    | 55.050 | 21.8   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 503 |       | G312.698+0.126 | 0       | 312.698+0.126 | 312.698271  | 0.126326   | 213.457708  | 14.23051387 | -61.173361  | 14   | 49.8499 | -       | 61    | 10    | 24.100 | 63.95  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 504 |       | G312.702+0.087 | 0       | 312.702+0.087 | 312.702063  | -0.087029  | 213.604667  | 14.24031113 | -61.374722  | 14   | 25.1201 | -       | 61    | 22    | 28.999 | 67.900 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 505 |       | G313.469+0.190 | 0       | 313.469+0.190 | 313.469318  | 0.190377   | 214.9205815 | 14.32803877 | -60.8631395 | 14   | 40.9396 | -       | 60    | 51    | 47.302 | 58.2   | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS09 CAS10-12       |
| 506 |       | G313.577+0.325 | 0       | 313.577+0.325 | 313.576882  | 0.325036   | 215.03575   | 14.33571667 | -60.700221  | 14   | 8.5800  | -       | 60    | 42    | 0.796  | 9.35   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 507 |       | G313.705+0.190 | 0       | 313.705+0.190 | 313.7053395 | -0.190014  | 215.644915  | 14.37632767 | -61.140819  | 14   | 34.7796 | -       | 61    | 8     | 26.948 | 47.800 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 508 |       | G313.767+0.862 | 0       | 313.767+0.863 | 313.770342  | -0.8625905 | 216.263565  | 14.417571   | -61.74839   | 14   | 3.2556  | -       | 61    | 44    | 54.204 | 41.5   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 509 |       | G313.994+0.084 | 0       | 313.994+0.084 | 313.994219  | -0.084349  | 216.12825   | 14.40855    | -60.941194  | 14   | 30.7800 | -       | 60    | 56    | 28.298 | 49.7   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 510 |       | G314.221+0.273 | 0       | 314.221+0.273 | 314.220503  | 0.272629   | 216.303708  | 14.4202472  | -60.527533  | 14   | 12.8899 | -       | 60    | 31    | 38.399 | 41.9   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 511 |       | G314.320+0.112 | 0       | 314.320+0.112 | 314.3198205 | 0.1120125  | 216.6091685 | 14.44061123 | -60.642029  | 14   | 26.2004 | -       | 60    | 38    | 31.304 | 43.6   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 512 |       | G315.803+0.575 | 0       | 315.803+0.575 | 315.802511  | -0.575408  | 219.943583  | 14.66290553 | -60.711     | 14   | 46.4599 | -       | 60    | 42    | 39.600 | 43.500 | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS10-12             |
| 513 |       | G316.361+0.363 | 0       | 316.359+0.362 | 316.3705815 | -0.370279  | 220.82377   | 14.72158467 | -60.290375  | 14   | 17.7048 | -       | 60    | 17    | 25.350 | 8.2    | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 514 |       | G316.412+0.308 | 0       | 316.412+0.308 | 316.411839  | -0.3083925 | 220.84725   | 14.72315    | -60.2169185 | 14   | 23.3400 | -       | 60    | 13    | 0.907  | -0.500 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 515 |       | G316.484+0.310 | 0       | 316.484+0.310 | 316.483942  | -0.310394  | 220.980708  | 14.7320472  | -60.188556  | 14   | 55.3699 | -       | 60    | 11    | 18.802 | -0.700 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 516 |       | G316.640+0.087 | 0       | 316.640+0.087 | 316.640395  | -0.086733  | 221.07687   | 14.738458   | -59.91986   | 14   | 18.4488 | -       | 59    | 55    | 11.496 | 3.400  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12 PH198 |
| 517 |       | G316.811+0.057 | 0       | 316.811+0.057 | 316.8109565 | -0.0574205 | 221.3601225 | 14.7573415  | -59.821192  | 14   | 26.4294 | -       | 59    | 49    | 16.291 | 19.8   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 518 |       | G317.029+0.361 | 0       | 317.029+0.361 | 317.028746  | 0.3613     | 221.398083  | 14.7598722  | -59.349611  | 14   | 35.5399 | -       | 59    | 20    | 58.600 | 20.400 | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS10-12             |
| 519 |       | G317.061+0.257 | 0       | 317.061+0.256 | 317.060924  | 0.25651    | 221.542958  | 14.76953053 | -59.430694  | 14   | 10.3099 | -       | 59    | 25    | 50.498 | 47.9   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 520 |       | G317.466+0.403 | 0       | 317.466+0.402 | 317.465959  | -0.402542  | 222.832042  | 14.85546947 | -59.847417  | 14   | 19.6901 | -       | 59    | 50    | 50.701 | 43.8   | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12             |
| 521 |       | G317.701+0.110 | 0       | 317.701+0.110 | 317.7009555 | 0.109758   | 222.798709  | 14.85324727 | -59.2839185 | 14   | 11.6902 | -       | 59    | 17    | 2.107  | 37.7   | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS09 CAS10-12       |
| 522 |       | G318.044+1.404 | 0       | 318.043+1.404 | 318.043352  | -1.4043435 | 224.7858725 | 14.98572483 | -60.47375   | 14   | 8.6094  | -       | 60    | 28    | 25.500 | 42.300 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 523 |       | G318.050+0.085 | 0       | 318.050+0.087 | 318.0497345 | 0.086973   | 223.427791  | 14.89518607 | -59.1478895 | 14   | 42.6698 | -       | 59    | 8     | 52.402 | 46.500 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12       |
| 524 |       | G318.472+0.214 | 0       | 318.472+0.214 | 318.471622  | -0.21351   | 224.425583  | 14.96190653 | -59.221083  | 14   | 42.8699 | -       | 59    | 13    | 15.899 | 19.1   | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS10-12             |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-ra-<br>h | ra-ra-<br>m | ra-s    | dec-<br>sign | dec-<br>d | dec-<br>s | vmean  | vpeak                                        | det | line                                                                                                    | type    | dist | refs                                                   |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|-------------|-------------|---------|--------------|-----------|-----------|--------|----------------------------------------------|-----|---------------------------------------------------------------------------------------------------------|---------|------|--------------------------------------------------------|
| 525 |       | G318.948-0.196 | 0       | 318.948-0.196 | 318.947845  | -0.1959883 | 225.230625  | 15.015375   | -58.981139  | 15          | 0           | 55.3500 | -            | 58        | 58        | 52.100 | 34.7                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>ELL18<br>PH198          |
| 526 |       | G319.163-0.421 | 0       | 319.163-0.421 | 319.162993  | -0.420931  | 225.80725   | 15.05381667 | -59.075139  | 15          | 3           | 13.7400 | -            | 59        | 4         | 30.500 | -21.1                                        | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 527 |       | G319.836-0.197 | 0       | 319.836-0.197 | 319.835825  | -0.1967465 | 226.727709  | 15.1151806  | -58.55      | 15          | 6           | 54.6502 | -            | 58        | 32        | 60.000 | -9.100<br>-9.200                             | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 528 |       | G320.123-0.503 | 0       | 320.123-0.504 | 320.1233305 | -0.503738  | 227.500709  | 15.16671393 | -58.6716685 | 15          | 10          | 0.1702  | -            | 58        | 40        | 18.007 | 10.1                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | MIXED   |      | CAS09<br>CAS10-12                                      |
| 529 |       | G320.233-0.284 | 0       | 320.231-0.284 | 320.231443  | -0.283923  | 227.4664185 | 15.1644279  | -58.4273605 | 15          | 9           | 51.9404 | -            | 58        | 25        | 38.498 | 62.25<br>62.000<br>62.500<br>-49.7           | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 530 |       | G320.244-0.562 | 0       | 320.244-0.562 | 320.243722  | -0.56166   | 227.756708  | 15.18378053 | -58.660472  | 15          | 11          | 1.6099  | -            | 58        | 39        | 37.699 | 49.7                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 531 |       | G320.284-0.310 | 0       | 320.285-0.308 | 320.285424  | -0.308585  | 227.579167  | 15.17194447 | -58.421306  | 15          | 10          | 19.0001 | -            | 58        | 25        | 16.702 | -69                                          | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | UNK     |      | CAS10-12                                               |
| 532 |       | G320.424+0.095 | 0       | 320.418736    | 320.418736  | 0.0990895  | 227.406042  | 15.1604028  | -58.0021945 | 15          | 9           | 37.4501 | -            | 58        | 0         | 7.900  | 10.7                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 533 |       | G320.625+0.098 | 0       | 320.625+0.098 | 320.625223  | 0.098362   | 227.742167  | 15.18281113 | -57.898167  | 15          | 10          | 58.1201 | -            | 57        | 53        | 53.401 | -7.6                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 534 |       | G320.780+0.248 | 0       | 320.780+0.248 | 320.779615  | 0.248499   | 227.847833  | 15.18985553 | -57.690306  | 15          | 11          | 23.4799 | -            | 57        | 41        | 25.102 | -5.1                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 535 |       | G321.033-0.485 | 0       | 321.030-0.485 | 321.0312835 | -0.4839775 | 228.967541  | 15.26450273 | -58.186901  | 15          | 15          | 52.2098 | -            | 58        | 11        | 12.844 | 64.05<br>61.200<br>61.600<br>-66.1           | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 536 |       | G321.148-0.529 | 0       | 321.148-0.529 | 321.148347  | -0.529374  | 229.2016225 | 15.28010817 | -58.163942  | 15          | 16          | 48.3894 | -            | 58        | 9         | 50.191 | 66.1                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 537 |       | G321.709+1.168 | 0       | 321.704+1.168 | 321.704049  | 1.168203   | 228.436333  | 15.22908887 | -56.426222  | 15          | 13          | 44.7199 | -            | 56        | 25        | 34.399 | 44.3                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 538 |       | G322.161+0.635 | 0       | 322.158+0.636 | 322.15836   | 0.635988   | 229.64433   | 15.309622   | -56.64036   | 15          | 18          | 34.6392 | -            | 56        | 38        | 25.296 | 63.3                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12<br>CAS95B                            |
| 539 |       | G322.705-0.331 | 0       | 322.705-0.331 | 322.705224  | -0.331131  | 231.448     | 15.42986667 | -57.154306  | 15          | 25          | 47.5200 | -            | 57        | 9         | 15.502 | 21.6                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 540 |       | G323.459-0.079 | 0       | 323.459-0.079 | 323.458839  | -0.078855  | 232.330541  | 15.48870273 | -56.523     | 15          | 29          | 19.3298 | -            | 56        | 31        | 22.800 | 66.9                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 541 |       | G323.740-0.263 | 0       | 323.740-0.263 | 323.740119  | -0.2626405 | 232.93925   | 15.52928333 | -56.5139315 | 15          | 31          | 45.4200 | -            | 56        | 30        | 50.153 | 51.05                                        | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | MIXED   |      | CAS09<br>CAS10-12<br>CAS95B<br>ELL18<br>KRI13<br>PH198 |
| 542 |       | G323.766-1.370 | 0       | 323.766-1.370 | 323.766414  | -1.369878  | 234.157042  | 15.61046947 | -57.400444  | 15          | 36          | 37.6901 | -            | 57        | 24        | 1.598  | 46.6                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 543 |       | G323.793-0.397 | 0       | 323.793-0.397 | 323.793391  | -0.397189  | 233.158708  | 15.54391387 | -56.593472  | 15          | 32          | 38.0899 | -            | 56        | 35        | 36.499 | 22.7                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | EVOLVED |      | CAS10-12                                               |
| 544 |       | G323.799+0.017 | 0       | 323.799+0.017 | 323.799333  | 0.017288   | 232.738     | 15.51586667 | -56.250417  | 15          | 30          | 57.1200 | -            | 56        | 15        | 1.501  | 56.2                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 545 |       | G324.716+0.342 | 0       | 324.716+0.342 | 324.716323  | 0.341784   | 233.739459  | 15.5826306  | -55.456558  | 15          | 34          | 57.4702 | -            | 55        | 27        | 23.609 | 45.95<br>45.900<br>46.000<br>11.8            | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS09<br>CAS10-12                                      |
| 546 |       | G324.789-0.378 | 0       | 324.789-0.378 | 324.78916   | -0.37817   | 234.595208  | 15.63968053 | -55.996389  | 15          | 38          | 22.8499 | -            | 55        | 59        | 47.000 | 11.8                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 547 |       | G324.915+0.158 | 0       | 324.915+0.158 | 324.914658  | 0.157763   | 234.213208  | 15.61421387 | -55.489694  | 15          | 36          | 51.1699 | -            | 55        | 29        | 22.898 | -2.3                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | EVOLVED |      | CAS10-12                                               |
| 548 |       | G324.923-0.568 | 0       | 324.923-0.568 | 324.923391  | -0.567767  | 234.990167  | 15.66601113 | -56.068972  | 15          | 39          | 57.6401 | -            | 56        | 4         | 8.299  | 78.3                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 549 |       | G325.659-0.022 | 0       | 325.659-0.022 | 325.659065  | -0.021722  | 235.452917  | 15.69686113 | -55.190833  | 15          | 41          | 48.7001 | -            | 55        | 11        | 26.999 | 29.4                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 550 |       | G326.323-0.394 | 0       | 326.323-0.393 | 326.322519  | -0.393217  | 236.769083  | 15.78460553 | -55.080667  | 15          | 47          | 4.5799  | -            | 55        | 4         | 50.401 | 69.4                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 551 |       | G326.448-0.748 | 0       | 326.448-0.748 | 326.448375  | -0.748188  | 237.327625  | 15.82184167 | -55.281     | 15          | 49          | 18.6300 | -            | 55        | 16        | 51.600 | 68.6                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |
| 552 |       | G326.475+0.703 | 0       | 326.475+0.703 | 326.475197  | 0.6980765  | 235.8240415 | 15.72160277 | -54.123625  | 15          | 43          | 17.7700 | -            | 54        | 7         | 25.050 | 41.05<br>38.300<br>38.500<br>43.600<br>-45.2 | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | MIXED   |      | CAS09<br>CAS10-12                                      |
| 553 |       | G326.608+0.798 | 0       | 326.608+0.799 | 326.608055  | 0.799148   | 235.899958  | 15.72666387 | -53.963139  | 15          | 43          | 35.9899 | -            | 53        | 57        | 47.300 | 45.2                                         | Y   | 5(-1)-<br>>6(0)-A+<br>>6(2)-<br>>5(3)-A-<br>34.600<br>6(2)-<br>34.700<br>>5(3)-A+<br>7(-2)-<br>>8(-1)-E | SFR     |      | CAS10-12                                               |

| no. | match | group-name     | gc.flag | source-name   | l          | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-s | vmean | vpeak  | det | line                        | type    | dist | refs                        |
|-----|-------|----------------|---------|---------------|------------|------------|-------------|-------------|-------------|------|------|----------|-------|-------|-------|--------|-----|-----------------------------|---------|------|-----------------------------|
| 554 |       | G326.641+0.611 | 0       | 326.641+0.611 | 326.640883 | 0.6114165  | 236.1388725 | 15.7425915  | -54.0920815 | 15   | 44   | 33.3294  | -     | 54    | 5     | 31.493 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 555 |       | G326.662+0.521 | 0       | 326.662+0.520 | 326.662245 | 0.5206945  | 236.262291  | 15.7508194  | -54.1508605 | 15   | 45   | 2.9498   | -     | 54    | 9     | 3.098  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 556 |       | G326.859+0.676 | 0       | 326.859+0.677 | 326.859057 | -0.676537  | 237.8091225 | 15.8539415  | -54.968     | 15   | 51   | 14.1894  | -     | 54    | 58    | 4.800  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 557 |       | G326.972+0.031 | 0       | 326.986+0.031 | 326.98648  | -0.030752  | 237.281968  | 15.8187972  | -54.384583  | 15   | 49   | 7.6699   | -     | 54    | 23    | 4.499  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 558 |       | G327.120+0.511 | 0       | 327.120+0.511 | 327.119635 | 0.51082    | 236.88637   | 15.79242467 | -53.877333  | 15   | 47   | 32.7288  | -     | 53    | 52    | 38.399 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12 PH198        |
| 560 |       | G327.291+0.577 | 0       | 327.291+0.578 | 327.291208 | -0.577576  | 238.2819775 | 15.88546517 | -54.6184155 | 15   | 53   | 7.6746   | -     | 54    | 37    | 6.296  | Y   | 5(-1)->6(0)-A+              | MIXED   |      | CAS09 CAS10-12              |
| 561 |       | G327.392+0.199 | 0       | 327.392+0.199 | 327.393111 | 0.198057   | 237.58029   | 15.838686   | -53.951915  | 15   | 50   | 19.2696  | -     | 53    | 57    | 6.894  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 562 |       | G327.402+0.444 | 0       | 327.402+0.444 | 327.402183 | 0.444475   | 237.33125   | 15.82208333 | -53.753861  | 15   | 49   | 19.5000  | -     | 53    | 45    | 13.900 | Y   | 5(-1)->6(0)-A+              | SFR     | 5.2  | CAS09 CAS10-12 PH198        |
| 563 |       | G327.566+0.849 | 0       | 327.566+0.850 | 327.566193 | -0.850267  | 238.948375  | 15.92989167 | -54.653167  | 15   | 55   | 47.6100  | -     | 54    | 39    | 11.401 | Y   | 5(-1)->6(0)-A+              | MIXED   |      | CAS10-12                    |
| 564 |       | G327.590+0.094 | 0       | 327.590+0.094 | 327.589867 | -0.094208  | 238.1534185 | 15.87689457 | -54.055192  | 15   | 52   | 36.8204  | -     | 54    | 3     | 18.691 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 565 |       | G327.618+0.111 | 0       | 327.618+0.111 | 327.618416 | -0.111107  | 238.20925   | 15.88061667 | -54.050181  | 15   | 52   | 50.2200  | -     | 54    | 3     | 0.652  | Y   | 5(-1)->6(0)-A+              | EVOLVED |      | CAS09 CAS10-12              |
| 566 |       | G327.714+0.389 | 0       | 327.710+0.394 | 327.710494 | -0.393985  | 238.637417  | 15.90916113 | -54.210111  | 15   | 54   | 32.9801  | -     | 54    | 12    | 36.400 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 567 |       | G327.808+0.634 | 0       | 327.808+0.634 | 327.808256 | -0.633732  | 239.028792  | 15.9352528  | -54.331778  | 15   | 56   | 6.9101   | -     | 54    | 19    | 54.401 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 568 |       | G327.863+0.098 | 0       | 327.863+0.098 | 327.862985 | 0.097527   | 238.306     | 15.88706667 | -53.733833  | 15   | 53   | 13.4400  | -     | 53    | 44    | 1.799  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 569 |       | G327.945+0.115 | 0       | 327.945+0.115 | 327.944720 | -0.114729  | 238.641291  | 15.9094194  | -53.8456395 | 15   | 54   | 33.9098  | -     | 53    | 50    | 44.302 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 570 |       | G328.140+0.432 | 0       | 328.140+0.432 | 328.140128 | -0.431563  | 239.240625  | 15.949375   | -53.963528  | 15   | 56   | 57.7500  | -     | 53    | 57    | 48.701 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 571 |       | G328.164+0.687 | 0       | 328.164+0.687 | 328.164316 | 0.587247   | 238.176542  | 15.87843613 | -53.164028  | 15   | 52   | 42.3701  | -     | 53    | 9     | 50.501 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 572 |       | G328.237+0.547 | 0       | 328.237+0.547 | 328.245307 | -0.5398025 | 239.490064  | 15.96640427 | -53.9782705 | 15   | 57   | 59.0554  | -     | 53    | 58    | 41.774 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12 CAS95B PH198 |
| 573 |       | G328.385+0.131 | 0       | 328.385+0.131 | 328.385081 | 0.130859   | 238.947208  | 15.92981387 | -53.375222  | 15   | 55   | 47.3299  | -     | 53    | 22    | 30.799 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 574 |       | G328.809+0.633 | 0       | 328.808+0.633 | 328.808329 | 0.632974   | 238.951875  | 15.930125   | -52.7185    | 15   | 55   | 48.4500  | -     | 52    | 43    | 6.600  | Y   | 2(1)->3(0)-E 5(-1)->6(0)-A+ | SFR     |      | CAS09 CAS10-12 CAS95B PH198 |
| 575 |       | G328.819+1.704 | 0       | 328.819+1.704 | 328.818541 | 1.704187   | 237.85175   | 15.85678333 | -51.884833  | 15   | 51   | 24.4200  | -     | 51    | 53    | 5.399  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 576 |       | G328.942+0.565 | 0       | 328.940+0.568 | 328.940871 | 0.5617915  | 239.195     | 15.94633333 | -52.687917  | 15   | 56   | 46.8000  | -     | 52    | 41    | 16.501 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 577 |       | G329.031+0.200 | 0       | 329.029+0.205 | 329.030122 | -0.201288  | 240.129427  | 16.00862847 | -53.210688  | 16   | 0    | 31.0625  | -     | 53    | 12    | 38.477 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12 CAS95B       |
| 578 |       | G329.066+0.308 | 0       | 329.066+0.308 | 329.066273 | -0.307597  | 240.291375  | 16.019425   | -53.26739   | 16   | 1    | 9.9300   | -     | 53    | 16    | 2.604  | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12 CAS95B       |
| 579 |       | G329.183+0.314 | 0       | 329.183+0.314 | 329.183326 | -0.3139425 | 240.4458725 | 16.02972483 | -53.1953605 | 16   | 1    | 47.0094  | -     | 53    | 11    | 43.298 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS09 CAS10-12              |
| 580 |       | G329.272+0.115 | 0       | 329.272+0.115 | 329.272162 | 0.114669   | 240.090708  | 16.0060472  | -52.813361  | 16   | 0    | 21.7699  | -     | 52    | 48    | 48.100 | Y   | 5(-1)->6(0)-A+              | SFR     |      | CAS10-12                    |
| 581 |       | G329.339+0.148 | 0       | 329.339+0.148 | 329.338911 | 0.148157   | 240.138041  | 16.00920273 | -52.7443895 | 16   | 0    | 33.1298  | -     | 52    | 44    | 39.802 | Y   | 5(-1)->6(0)-A+              | MIXED   |      | CAS09 CAS10-12              |

| no. | match | group-name     | gc.flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-in | ra-s | dec-sign | dec-d | dec-s  | vmean                      | vpeak                      | det | line           | type    | dist | refs                                           |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|-------|------|----------|-------|--------|----------------------------|----------------------------|-----|----------------|---------|------|------------------------------------------------|
| 582 |       | G329.341-0.644 | 0       | 329.341-0.644 | 329.340552  | -0.643534  | 241.007083  | 16.06713887 | -53.339194  | 16    | 4    | 1.6999   | -     | 21.098 | -81.4                      | -81.4                      | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS10-12                                       |
| 583 |       | G329.405-0.459 | 0       | 329.405-0.459 | 329.405863  | -0.459385  | 240.88502   | 16.05900133 | -53.157971  | 16    | 3    | 32.4048  | -     | 28.696 | -66.700<br>66.800          | 66.700<br>66.800           | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 584 |       | G329.469+0.503 | 0       | 329.469+0.502 | 329.4690555 | 0.502521   | 239.9197275 | 15.9946485  | -52.3909735 | 15    | 59   | 40.7346  | -     | 27.505 | -72                        | 70.500                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 585 |       | G329.526+0.216 | 0       | 329.526+0.216 | 329.526315  | 0.215632   | 240.29875   | 16.01991667 | -52.570694  | 16    | 1    | 11.7000  | -     | 14.498 | -92.8                      | 92.8                       | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 586 |       | G329.556+0.181 | 0       | 329.556+0.181 | 329.555596  | 0.180841   | 240.372667  | 16.02484447 | -52.577775  | 16    | 1    | 29.4401  | -     | 39.900 | -106.5                     | 106.5                      | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 587 |       | G329.610+0.114 | 0       | 329.610+0.114 | 329.6101265 | 0.1135615  | 240.5130815 | 16.03420543 | -52.5926395 | 16    | 2    | 3.1396   | -     | 33.502 | -60.05                     | 60.000                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 588 |       | G329.622+0.138 | 0       | 329.622+0.138 | 329.6219305 | 0.137956   | 240.50131   | 16.03342067 | -52.5665    | 16    | 2    | 0.3144   | -     | 59.400 | 60.100                     | 60.100                     | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS09<br>CAS10-12                              |
| 589 |       | G329.719+1.164 | 0       | 329.719+1.164 | 329.718778  | 1.164158   | 239.529542  | 15.96863613 | -51.725722  | 15    | 58   | 7.0901   | -     | 32.599 | -85.000                    | 84.800                     | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS10-12                                       |
| 590 |       | G330.070+1.064 | 0       | 330.070+1.064 | 330.069701  | 1.0637945  | 240.064291  | 16.00428607 | -51.573779  | 16    | 0    | 15.4298  | -     | 25.604 | -38.800                    | 38.800                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 591 |       | G330.226+0.290 | 0       | 330.226+0.290 | 330.225914  | 0.289698   | 241.078917  | 16.0719278  | -52.053556  | 16    | 4    | 18.9401  | -     | 12.802 | -90.5                      | 41.800                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 592 |       | G330.283+0.493 | 0       | 330.283+0.493 | 330.282984  | 0.493126   | 240.929417  | 16.06196113 | -51.863417  | 16    | 3    | 43.0601  | -     | 48.301 | -88.9                      | 88.9                       | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 593 |       | G330.878-0.367 | 0       | 330.875-0.383 | 330.8763975 | -0.374793  | 242.589354  | 16.1726236  | -52.10925   | 16    | 10   | 21.4450  | -     | 33.300 | 56.500<br>59.200<br>59.300 | 56.500<br>59.200<br>59.300 | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12                              |
| 594 |       | G330.954-0.182 | 0       | 330.953-0.182 | 330.952737  | -0.182237  | 242.468208  | 16.1645472  | -51.916     | 16    | 9    | 52.3699  | -     | 57.600 | -87.6                      | 87.500<br>87.600           | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>KRI13                     |
| 595 |       | G330.998+0.093 | 0       | 330.998+0.093 | 330.997815  | 0.092618   | 242.221167  | 16.1480778  | -51.683111  | 16    | 8    | 53.0801  | -     | 59.200 | -28.6                      | 28.6                       | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 596 |       | G331.059+0.375 | 0       | 331.059+0.375 | 331.058645  | 0.375358   | 241.986833  | 16.13245553 | -51.433278  | 16    | 7    | 56.8399  | -     | 59.801 | -82.5                      | 82.5                       | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 597 |       | G331.120-0.118 | 0       | 331.120-0.118 | 331.119606  | -0.117988  | 242.59604   | 16.17306933 | -51.755583  | 16    | 10   | 23.0496  | -     | 20.099 | -93.2                      | 93.000                     | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 598 |       | G331.132-0.244 | 0       | 331.132-0.244 | 331.131842  | -0.243921  | 242.749     | 16.18326667 | -51.839611  | 16    | 10   | 59.7600  | -     | 22.600 | -84.3                      | 84.100<br>84.300           | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>PHI98                     |
| 599 |       | G331.134+0.156 | 0       | 331.134+0.156 | 331.1339    | 0.156464   | 242.313208  | 16.15421387 | -51.544083  | 16    | 9    | 15.1699  | -     | 38.699 | -72.1                      | 82.500                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 600 |       | G331.278-0.188 | 0       | 331.278-0.188 | 331.278219  | -0.188173  | 242.860792  | 16.19071947 | -51.699083  | 16    | 11   | 26.5901  | -     | 56.699 | -78.2                      | 77.900<br>78.000           | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B<br>CAS96B<br>PHI98 |
| 601 |       | G331.342-0.346 | 0       | 331.342-0.346 | 331.3417655 | -0.3463655 | 243.110209  | 16.20734727 | -51.771221  | 16    | 12   | 26.4502  | -     | 16.396 | -66.2                      | 65.000;-<br>67.400         | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS10-12                                       |
| 602 |       | G331.425+0.264 | 0       | 331.425+0.264 | 331.4245805 | 0.2642425  | 242.538935  | 16.16926233 | -51.2678885 | 16    | 10   | 9.3444   | -     | 4.399  | -88.7                      | 88.7                       | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09                                          |
| 603 |       | G331.437-0.304 | 0       | 331.437-0.304 | 331.436724  | -0.303887  | 243.175     | 16.21166667 | -51.67525   | 16    | 12   | 42.0000  | -     | 30.900 | -89.9                      | 89.9                       | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS10-12                                       |
| 604 |       | G331.442-0.187 | 0       | 331.442-0.187 | 331.442049  | -0.186679  | 243.052042  | 16.20346947 | -51.886139  | 16    | 12   | 12.4901  | -     | 10.100 | -88.4                      | 87.800<br>88.400           | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 605 |       | G331.543-0.066 | 0       | 331.542-0.066 | 331.5426285 | -0.0663625 | 243.0378315 | 16.2025221  | -51.4295695 | 16    | 12   | 9.0796   | -     | 46.450 | -85                        | 84.000<br>84.100<br>85.900 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 606 |       | G331.556-0.121 | 0       | 331.556-0.121 | 331.555748  | -0.12121   | 243.113375  | 16.20755833 | -51.460611  | 16    | 12   | 27.2100  | -     | 38.200 | -103.4                     | 86.000                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 607 |       | G331.710+0.602 | 0       | 331.710+0.603 | 331.710044  | 0.602612   | 242.507375  | 16.16715833 | -50.825639  | 16    | 10   | 1.7700   | -     | 32.300 | -73.2                      | 97.000                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 608 |       | G331.900-1.186 | 0       | 331.900-1.186 | 331.89995   | -1.186377  | 244.703708  | 16.3136472  | -51.991167  | 16    | 18   | 49.1299  | -     | 28.201 | -46.2                      | 46.2                       | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                                       |
| 609 |       | G332.094-0.421 | 0       | 332.094-0.421 | 332.093525  | -0.420722  | 244.068541  | 16.27123607 | -51.3071395 | 16    | 16   | 16.4498  | -     | 25.702 | -58.55                     | 58.500                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 610 |       | G332.294+2.280 | 0       | 332.295+2.280 | 332.294775  | 2.2797115  | 241.4238315 | 16.0949221  | -49.19175   | 16    | 5    | 41.7196  | -     | 30.300 | -24                        | 58.600                     | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h<br>16 | ra-s<br>15 | dec-<br>sign | dec-<br>d | dec-<br>s | vmean | vpeak                                                              | det | line               | type    | dist | refs                        |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------------|------------|--------------|-----------|-----------|-------|--------------------------------------------------------------------|-----|--------------------|---------|------|-----------------------------|
| 611 |       | G332.295-0.094 | 0       | 332.295-0.094 | 332.295291  | -0.093712  | 243.939167  | 16.26261113 | -50.931583  | 16         | 45.4001    | -            | 50        | 55        | 46.6  | 42.600<br>46.600<br>47.000                                         | Y   | 5(-1)-<br>>6(0)-A+ | GALAXY  |      | CAS09<br>CAS10-12           |
| 612 |       | G332.351-0.436 | 0       | 332.351-0.436 | 332.35091   | -0.436358  | 244.381291  | 16.29208007 | -51.139442  | 16         | 31.5098    | -            | 51        | 8         | 53.05 | 52.900<br>52.900<br>53.200                                         | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 613 |       | G332.352-0.117 | 0       | 332.352-0.117 | 332.352261  | -0.1166505 | 244.0295625 | 16.2686375  | -50.9086385 | 16         | 7.0950     | -            | 50        | 54        | 43.2  | 41.800<br>41.800<br>44.600                                         | Y   | 5(-1)-<br>>6(0)-A+ | GALAXY  |      | CAS09<br>CAS10-12           |
| 614 |       | G332.365+0.605 | 0       | 332.364+0.607 | 332.363652  | 0.606662   | 243.256083  | 16.2170722  | -50.376917  | 16         | 13.4599    | -            | 50        | 22        | 48.4  | 48.4                                                               | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                    |
| 615 |       | G332.560-0.148 | 0       | 332.560-0.148 | 332.559969  | -0.147778  | 244.30046   | 16.28669733 | -50.78675   | 16         | 17.121104  | -            | 50        | 47        | 55.6  | 54.900<br>55.600                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 616 |       | G332.583+0.147 | 0       | 332.583+0.147 | 332.582927  | 0.146913   | 244.003583  | 16.26690553 | -50.558778  | 16         | 16.8599    | -            | 50        | 33        | -40   | -40                                                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 617 |       | G332.604-0.167 | 0       | 332.604-0.167 | 332.604058  | -0.167407  | 244.372125  | 16.291475   | -50.77014   | 16         | 17.293100  | -            | 50        | 46        | 50.9  | 49.900<br>50.900                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 618 |       | G332.653-0.621 | 0       | 332.653-0.621 | 332.6531625 | -0.6213175 | 244.931291  | 16.32875273 | -51.06025   | 16         | 19.435098  | -            | 51        | 3         | 50.6  | 50.6                                                               | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS09                       |
| 619 |       | G332.701-0.587 | 0       | 332.701-0.587 | 332.7009295 | -0.587488  | 244.9476025 | 16.32984017 | -51.0026255 | 16         | 19.474246  | -            | 51        | 0         | 62.7  | -62.7                                                              | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 620 |       | G332.725-0.621 | 0       | 332.726-0.621 | 332.7254945 | -0.620733  | 245.0125    | 16.33416667 | -51.009029  | 16         | 20.30000   | -            | 51        | 0         | 48.45 | 47.400<br>49.500                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 621 |       | G332.813-0.700 | 0       | 332.813-0.701 | 332.81285   | -0.700644  | 245.2005    | 16.3467     | -51.004333  | 16         | 20.481200  | -            | 51        | 0         | 53.1  | 53.1                                                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 622 |       | G332.826-0.549 | 0       | 332.826-0.549 | 332.8257535 | -0.5486185 | 245.045209  | 16.33634727 | -50.887264  | 16         | 20.108502  | -            | 50        | 53        | 61.75 | 61.700                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 623 |       | G332.854+0.817 | 0       | 332.854+0.817 | 332.853722  | 0.817497   | 243.585208  | 16.23901387 | -49.886944  | 16         | 14.204499  | -            | 49        | 53        | -49   | 61.800                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 624 |       | G332.963-0.680 | 0       | 332.942-0.686 | 332.952586  | -0.6824275 | 245.337335  | 16.35582233 | -50.892875  | 16         | 21.209604  | -            | 50        | 53        | 48.95 | 45.800<br>45.900<br>52.000                                         | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 625 |       | G332.960+0.135 | 0       | 332.960+0.135 | 332.959983  | 0.135301   | 244.44175   | 16.29611667 | -50.305     | 16         | 17.460200  | -            | 50        | 18        | 54.1  | 52.800                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 626 |       | G332.962+0.773 | 0       | 332.975+0.773 | 332.974606  | 0.772785   | 243.768792  | 16.2512528  | -49.835917  | 16         | 15.45101   | -            | 49        | 50        | -51   | -51                                                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 627 |       | G332.987-0.487 | 0       | 332.987-0.487 | 332.986506  | -0.487141  | 245.1575    | 16.34383333 | -50.730472  | 16         | 20.378000  | -            | 50        | 43        | 55.8  | -55.8                                                              | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                    |
| 628 |       | G333.029-0.063 | 0       | 333.029-0.063 | 333.029235  | -0.062844  | 244.736375  | 16.31575833 | -50.398361  | 16         | 18.567300  | -            | 50        | 23        | 40.4  | 40.200<br>40.400                                                   | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12<br>CAS96B |
| 629 |       | G333.029-0.015 | 0       | 333.029-0.015 | 333.029425  | -0.015003  | 244.68408   | 16.312272   | -50.364056  | 16         | 18.441792  | -            | 50        | 21        | 55.2  | 54.100                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 630 |       | G333.068-0.447 | 0       | 333.068-0.447 | 333.06796   | -0.4468515 | 245.203959  | 16.3469306  | -50.6445    | 16         | 20.489502  | -            | 50        | 38        | 54.45 | 54.400                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 631 |       | G333.108-0.501 | 0       | 333.109-0.500 | 333.108801  | -0.500351  | 245.309125  | 16.35394167 | -50.653639  | 16         | 21.141900  | -            | 50        | 39        | -61   | -61                                                                | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                    |
| 632 |       | G333.127-0.434 | 0       | 333.121-0.434 | 333.1271045 | -0.43667   | 245.2613125 | 16.35075417 | -50.597405  | 16         | 21.27150   | -            | 50        | 35        | 47.15 | 42.500<br>43.900<br>44.600<br>45.900<br>48.400<br>49.300<br>52.500 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 633 |       | G333.130-0.560 | 0       | 333.128-0.560 | 333.1290195 | -0.559988  | 245.398145  | 16.35987633 | -50.6815965 | 16         | 21.355548  | -            | 50        | 40        | 54.75 | 52.700<br>56.800                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |
| 634 |       | G333.163-0.101 | 0       | 333.163-0.101 | 333.163222  | -0.100727  | 244.927792  | 16.32851947 | -50.331444  | 16         | 19.426701  | -            | 50        | 19        | 95.3  | 95.200<br>95.300                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 635 |       | G333.184-0.091 | 0       | 333.184-0.091 | 333.184061  | -0.090767  | 244.940083  | 16.32933887 | -50.309722  | 16         | 19.456199  | -            | 50        | 18        | 84.7  | 81.900<br>84.700                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 636 |       | G333.234-0.061 | 0       | 333.234-0.060 | 333.233909  | -0.061562  | 244.963541  | 16.33090273 | -50.2539185 | 16         | 19.512498  | -            | 50        | 15        | 91.9  | 85.300<br>91.900                                                   | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12<br>CAS96B |
| 637 |       | G333.315+0.105 | 0       | 333.315+0.105 | 333.315012  | 0.105308   | 244.870875  | 16.324725   | -50.078139  | 16         | 19.290100  | -            | 50        | 4         | -45   | 41.200                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B |
| 638 |       | G333.387+0.032 | 0       | 333.387+0.032 | 333.3873765 | 0.0317755  | 245.0316225 | 16.3354415  | -50.079679  | 16         | 20.75894   | -            | 50        | 4         | 73.9  | 45.000<br>-73.9                                                    | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12           |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-g | dec-s | vmean  | vpeak                                                            | det | line               | type    | dist | refs                                           |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------|------|----------|-------|-------|-------|--------|------------------------------------------------------------------|-----|--------------------|---------|------|------------------------------------------------|
| 639 |       | G333.466-0.164 | 0       | 333.466-0.164 | 333.465982  | -0.164322  | 245.334083  | 16.35560553 | -50.1635    | 16   | 21   | 20.1799  | -     | 50    | 9     | 48.600 | 42.300<br>42.500                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>CAS96B          |
| 640 |       | G333.562-0.025 | 0       | 333.562-0.025 | 333.56214   | -0.024634  | 245.286667  | 16.35244447 | -49.996667  | 16   | 21   | 8.8001   | -     | 49    | 59    | 48.001 | 35.300<br>35.800                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 641 |       | G333.645+0.058 | 0       | 333.645+0.058 | 333.645494  | 0.057831   | 245.288083  | 16.35253887 | -49.879417  | 16   | 21   | 9.1399   | -     | 49    | 52    | 45.901 | 87.3                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 642 |       | G333.683-0.437 | 0       | 333.683-0.437 | 333.6824955 | -0.4367195 | 245.8740815 | 16.39160543 | -50.2023895 | 16   | 23   | 29.7796  | -     | 50    | 12    | 8.602  | 5.300<br>5.600                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 643 |       | G333.761-0.226 | 0       | 333.761-0.226 | 333.760515  | -0.225763  | 245.726126  | 16.38174167 | -49.998472  | 16   | 22   | 54.2700  | -     | 49    | 59    | 54.499 | 55.2                                                             | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                                       |
| 644 |       | G333.851+0.527 | 0       | 333.851+0.527 | 333.850968  | 0.526521   | 245.003833  | 16.33358887 | -49.401917  | 16   | 20   | 0.9199   | -     | 49    | 24    | 6.901  | 40.2                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 645 |       | G333.900-0.099 | 0       | 333.900-0.099 | 333.900331  | -0.098728  | 245.739125  | 16.38260833 | -49.80975   | 16   | 22   | 57.3900  | -     | 49    | 48    | 35.100 | 59.3                                                             | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 646 |       | G333.931-0.135 | 0       | 333.931-0.135 | 333.930631  | -0.134721  | 245.811792  | 16.3874528  | -49.813583  | 16   | 23   | 14.8301  | -     | 49    | 48    | 48.899 | 36.700<br>36.900                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 647 |       | G334.138-0.023 | 0       | 334.138-0.023 | 334.138172  | -0.023109  | 245.914833  | 16.3943222  | -49.587556  | 16   | 23   | 39.5599  | -     | 49    | 35    | 15.202 | 31.1                                                             | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 648 |       | G334.307-0.079 | 0       | 334.307-0.079 | 334.306795  | -0.07923   | 246.158833  | 16.41058887 | -49.506806  | 16   | 24   | 38.1199  | -     | 49    | 30    | 24.502 | 36.8                                                             | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 649 |       | G334.635-0.015 | 0       | 334.635-0.015 | 334.63506   | -0.014758  | 246.440542  | 16.42936947 | -49.227056  | 16   | 25   | 45.7301  | -     | 49    | 13    | 37.402 | 30                                                               | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 650 |       | G334.933-0.307 | 0       | 334.933-0.307 | 334.932502  | -0.306647  | 247.078375  | 16.47189167 | -49.216     | 16   | 28   | 18.8100  | -     | 49    | 12    | 57.600 | 102.8                                                            | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 651 |       | G334.935-0.098 | 0       | 334.935-0.098 | 334.934851  | -0.09812   | 246.851042  | 16.45673613 | -49.069806  | 16   | 27   | 24.2501  | -     | 49    | 4     | 11.302 | 19.5                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 652 |       | G335.060-0.427 | 0       | 335.060-0.427 | 335.059536  | -0.4274165 | 247.3463725 | 16.48975817 | -49.207529  | 16   | 29   | 23.1294  | -     | 49    | 12    | 27.104 | 47                                                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 653 |       | G335.426-0.240 | 0       | 335.426-0.240 | 335.425953  | -0.239546  | 247.52325   | 16.50155    | -48.812444  | 16   | 30   | 5.5800   | -     | 48    | 48    | 44.798 | 50.5                                                             | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                                       |
| 654 |       | G335.556-0.307 | 0       | 335.556-0.307 | 335.556219  | -0.3068245 | 247.73325   | 16.51555    | -48.763942  | 16   | 30   | 55.9800  | -     | 48    | 45    | 50.191 | 116.3                                                            | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12                              |
| 655 |       | G335.585-0.290 | 0       | 335.585-0.285 | 335.5851295 | -0.289448  | 247.744468  | 16.5162972  | -48.73075   | 16   | 30   | 58.6699  | -     | 48    | 43    | 50.700 | 49.3<br>47.300<br>47.400<br>48.600<br>49.300<br>51.300<br>51.400 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12<br>CAS95B<br>CAS96B          |
| 656 |       | G335.603-0.078 | 0       | 335.603-0.078 | 335.6033469 | -0.077715  | 247.530167  | 16.50201113 | -48.572278  | 16   | 30   | 7.2401   | -     | 48    | 34    | 20.201 | 50.4                                                             | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS96B                                         |
| 657 |       | G335.726+0.191 | 0       | 335.726+0.191 | 335.726461  | 0.190963   | 247.364042  | 16.49093613 | -48.298111  | 16   | 29   | 27.3701  | -     | 48    | 17    | 53.200 | 44.4                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>CAS96B          |
| 658 |       | G335.789+0.174 | 0       | 335.789+0.174 | 335.78905   | 0.174086   | 247.447208  | 16.49648053 | -48.264361  | 16   | 29   | 47.3299  | -     | 48    | 15    | 51.700 | 47.5<br>47.500<br>47.600                                         | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>CAS96B<br>PH198 |
| 659 |       | G335.824-0.177 | 0       | 335.824-0.177 | 335.823871  | -0.177456  | 247.868042  | 16.52453613 | -48.480333  | 16   | 31   | 28.3301  | -     | 48    | 28    | 49.199 | 26.1                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 660 |       | G336.018-0.827 | 0       | 336.018-0.827 | 336.0179935 | -0.827196  | 248.7885815 | 16.58590543 | -48.7798315 | 16   | 35   | 9.2596   | -     | 48    | 46    | 47.393 | 53.25                                                            | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 661 |       | G336.358-0.137 | 0       | 336.358-0.137 | 336.358238  | -0.137383  | 248.371542  | 16.5581028  | -48.062194  | 16   | 33   | 29.1701  | -     | 48    | 3     | 43.898 | 73.6                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 662 |       | G336.410-0.257 | 0       | 336.409-0.257 | 336.409392  | -0.256907  | 248.554917  | 16.5703278  | -48.105806  | 16   | 34   | 13.1801  | -     | 48    | 6     | 20.902 | 85.6<br>85.300<br>85.600<br>85.900                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR     | 5.5  | CAS09<br>CAS10-12<br>PH198                     |
| 663 |       | G336.433-0.262 | 0       | 336.433-0.262 | 336.43258   | -0.262183  | 248.58425   | 16.57228333 | -48.092278  | 16   | 34   | 20.2200  | -     | 48    | 5     | 32.201 | 93.3<br>93.000<br>93.300                                         | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>PH198                     |
| 664 |       | G336.464-0.157 | 0       | 336.464-0.157 | 336.463647  | -0.157095  | 248.500208  | 16.56668053 | -47.998194  | 16   | 34   | 0.0499   | -     | 47    | 59    | 53.498 | 85.9                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 665 |       | G336.496-0.271 | 0       | 336.496-0.271 | 336.496457  | -0.2707475 | 248.6584185 | 16.5772279  | -48.0510815 | 16   | 34   | 38.0204  | -     | 48    | 3     | 3.893  | 23.95                                                            | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 666 |       | G336.526-0.156 | 0       | 336.526-0.156 | 336.525836  | -0.156458  | 248.5625    | 16.57083333 | -47.952056  | 16   | 34   | 15.0000  | -     | 47    | 57    | 7.402  | 94.9                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 667 |       | G336.703-0.099 | 0       | 336.703-0.099 | 336.703015  | -0.098829  | 248.678167  | 16.57854447 | -47.782667  | 16   | 34   | 42.7601  | -     | 47    | 46    | 57.601 | 35.6                                                             | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)   | ra-<br>hr | ra-<br>min | ra-s    | dec-<br>sign | dec-<br>d | dec-<br>s | vmean  | vpeak                                                                                 | det | line               | type    | dist | refs                                           |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|------------|-----------|------------|---------|--------------|-----------|-----------|--------|---------------------------------------------------------------------------------------|-----|--------------------|---------|------|------------------------------------------------|
| 668 |       | G336.809+0.119 | 0       | 336.809+0.119 | 336.808863  | 0.119334   | 248.540292  | 16.5697528  | -47.557028 | 16        | 34         | 11.1101 | -            | 47        | 33        | 25.301 | -84.4                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 669 |       | G336.822+0.028 | 0       | 336.822+0.028 | 336.822402  | 0.027994   | 248.6595    | 16.5773     | -47.608944 | 16        | 34         | 38.2800 | -            | 47        | 36        | 32.198 | 76.700<br>76.800<br>-88.4                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 670 |       | G336.825+0.139 | 0       | 336.825+0.139 | 336.82527   | 0.139403   | 248.540917  | 16.56939447 | -47.531361 | 16        | 34         | 9.8201  | -            | 47        | 31        | 52.900 | -88.4                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 671 |       | G336.830-0.375 | 0       | 336.830-0.375 | 336.829825  | -0.374887  | 249.1091225 | 16.60727483 | -47.875308 | 16        | 36         | 26.1894 | -            | 47        | 52        | 31.109 | 22.75                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 672 |       | G336.864+0.005 | 0       | 336.864+0.005 | 336.86435   | 0.0048805  | 248.726833  | 16.58178887 | -47.593692 | 16        | 34         | 54.4399 | -            | 47        | 35        | 37.291 | 22.700<br>22.800<br>76.100<br>-127.3                                                  | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                              |
| 673 |       | G336.916-0.024 | 0       | 336.916-0.024 | 336.915773  | -0.023582  | 248.809468  | 16.5872972  | -47.575028 | 16        | 35         | 14.2699 | -            | 47        | 34        | 30.101 | 127.3                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 674 |       | G336.941-0.156 | 0       | 336.941-0.156 | 336.940974  | -0.156271  | 248.979968  | 16.59866387 | -47.645944 | 16        | 35         | 55.1899 | -            | 47        | 38        | 45.398 | 67.200<br>67.300<br>-68                                                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 675 |       | G336.957-0.225 | 0       | 336.957-0.225 | 336.95687   | -0.224542  | 249.070792  | 16.60471947 | -47.680167 | 16        | 36         | 16.9901 | -            | 47        | 40        | 48.601 | -68                                                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 676 |       | G336.958-0.977 | 0       | 336.958-0.977 | 336.95776   | -0.977017  | 249.906468  | 16.66043053 | -48.182889 | 16        | 39         | 37.5499 | -            | 48        | 10        | 58.400 | -49.2                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 677 |       | G336.983-0.183 | 0       | 336.983-0.183 | 336.983226  | -0.183177  | 249.051708  | 16.6034472  | -47.632833 | 16        | 36         | 12.4099 | -            | 47        | 37        | 58.199 | 80.600<br>80.800<br>-125.8                                                            | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 678 |       | G336.994-0.027 | 0       | 336.994-0.027 | 336.993848  | -0.027274  | 248.891583  | 16.5927722  | -47.51992  | 16        | 35         | 33.9799 | -            | 47        | 31        | 11.712 | 125.8                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12;<br>CAS96B<br>CAS10-12                |
| 679 |       | G337.052-0.226 | 0       | 337.052-0.226 | 337.052067  | -0.22596   | 249.167375  | 16.61115833 | -47.610667 | 16        | 36         | 40.1700 | -            | 47        | 36        | 38.401 | -77.6                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      |                                                |
| 680 |       | G337.097-0.929 | 0       | 337.097-0.929 | 337.096723  | -0.928729  | 249.990708  | 16.6660472  | -48.046972 | 16        | 39         | 57.7699 | -            | 48        | 2         | 49.099 | -40.3                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 681 |       | G337.132-0.068 | 0       | 337.132-0.068 | 337.132311  | -0.067512  | 249.073625  | 16.60490833 | -47.444722 | 16        | 36         | 17.6700 | -            | 47        | 26        | 40.999 | -60.6                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 682 |       | G337.153-0.395 | 0       | 337.153-0.395 | 337.152978  | -0.394755  | 249.453583  | 16.63023887 | -47.649028 | 16        | 37         | 48.8599 | -            | 47        | 38        | 56.501 | -49.5                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                                       |
| 683 |       | G337.176-0.032 | 0       | 337.176-0.032 | 337.175872  | -0.03234   | 249.0785    | 16.60523333 | -47.388833 | 16        | 36         | 18.8400 | -            | 47        | 23        | 19.799 | 64.7<br>64.900<br>-57.5                                                               | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 684 |       | G337.201+0.114 | 0       | 337.201+0.114 | 337.201342  | 0.114198   | 248.944     | 16.59926667 | -47.271306 | 16        | 35         | 46.5600 | -            | 47        | 16        | 16.702 | 57.5                                                                                  | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 685 |       | G337.202-0.094 | 0       | 337.202-0.094 | 337.201787  | -0.094077  | 249.17175   | 16.611145   | -47.411167 | 16        | 36         | 41.2200 | -            | 47        | 24        | 40.201 | -67.7                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 686 |       | G337.258-0.101 | 0       | 337.258-0.101 | 337.257931  | -0.100665  | 249.234667  | 16.61564447 | -47.374    | 16        | 36         | 56.3201 | -            | 47        | 22        | 28.400 | 69.200<br>69.300<br>-39.5                                                             | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 687 |       | G337.263-0.070 | 0       | 337.263-0.070 | 337.26279   | -0.06975   | 249.205667  | 16.61371113 | -47.349639 | 16        | 36         | 49.3601 | -            | 47        | 20        | 58.700 | 39.5                                                                                  | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                                       |
| 688 |       | G337.300-0.874 | 0       | 337.300-0.874 | 337.299605  | -0.874049  | 250.130583  | 16.6763722  | -47.858917 | 16        | 40         | 31.3399 | -            | 47        | 51        | 32.101 | -87.8                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 689 |       | G337.388-0.210 | 0       | 337.388-0.210 | 337.388407  | -0.209829  | 249.483375  | 16.632225   | -47.350333 | 16        | 37         | 56.0100 | -            | 47        | 21        | 1.199  | -56                                                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 690 |       | G337.404-0.402 | 0       | 337.404-0.402 | 337.404467  | -0.4019615 | 249.7105    | 16.64736667 | -47.466721 | 16        | 38         | 50.5200 | -            | 47        | 28        | 0.196  | -39.7                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS10-12                  |
| 691 |       | G337.517-0.348 | 0       | 337.517-0.348 | 337.517441  | -0.34848   | 249.762875  | 16.65085833 | -47.346861 | 16        | 39         | 3.0900  | -            | 47        | 20        | 48.700 | 9.4                                                                                   | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                                       |
| 692 |       | G337.613-0.060 | 0       | 337.613-0.060 | 337.6125375 | -0.059711  | 249.53975   | 16.63598333 | -47.083308 | 16        | 38         | 9.5400  | -            | 47        | 4         | 59.909 | 41.600<br>42.000<br>43.000<br>-43.100                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B<br>PH198           |
| 693 |       | G337.632-0.079 | 0       | 337.632-0.079 | 337.632058  | -0.078734  | 249.5796685 | 16.63864457 | -47.0815   | 16        | 38         | 19.1204 | -            | 47        | 4         | 53.400 | -56.9<br>56.800<br>56.900<br>57.000                                                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B<br>PH198           |
| 694 |       | G337.686+0.137 | 0       | 337.686+0.137 | 337.686414  | 0.137323   | 249.397583  | 16.62650553 | -46.896556 | 16        | 37         | 35.4199 | -            | 46        | 53        | 47.602 | 74.9                                                                                  | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 695 |       | G337.705-0.053 | 0       | 337.703-0.053 | 337.7052725 | -0.0531545 | 249.623458  | 16.64156387 | -47.009889 | 16        | 38         | 29.6299 | -            | 47        | 0         | 35.600 | -52.05<br>44.000<br>44.200<br>6(2)-<br>49.000<br>49.500<br>54.600<br>54.700<br>55.000 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>CAS96B<br>PH198 |
| 696 |       | G337.710+0.089 | 0       | 337.710+0.089 | 337.709725  | 0.089388   | 249.472542  | 16.6315028  | -46.911333 | 16        | 37         | 53.4101 | -            | 46        | 54        | 40.799 | -72.6<br>72.700<br>-63.9                                                              | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B                    |
| 697 |       | G337.720+0.065 | 0       | 337.720+0.065 | 337.719709  | 0.064676   | 249.509208  | 16.6339472  | -46.920444 | 16        | 38         | 2.2099  | -            | 46        | 55        | 13.598 | 63.9                                                                                  | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |
| 698 |       | G337.844-0.375 | 0       | 337.844-0.375 | 337.843827  | -0.374593  | 250.111126  | 16.674075   | -47.120389 | 16        | 40         | 26.6700 | -            | 47        | 7         | 13.400 | -38.6                                                                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                                       |

| no. | match | group-name     | gc.flag | source_name   | l           | b         | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sgn | dec-deg | dec-h | dec-s  | vmean | vpeak   | det | line           | type    | dist | refs                                 |
|-----|-------|----------------|---------|---------------|-------------|-----------|-------------|-------------|-------------|------|------|---------|---------|-------|--------|-------|---------|-----|----------------|---------|------|--------------------------------------|
| 699 |       | G337.919+0.457 | 0       | 337.920+0.456 | 337.9200475 | -0.456244 | 250.275209  | 16.68501393 | -47.1173605 | 16   | 41   | -       | 47      | 7     | 2.498  | 38.3  | 37.800  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                    |
| 700 |       | G337.966-0.169 | 0       | 337.966+0.169 | 337.965767  | -0.169271 | 250.004542  | 16.66696947 | -46.892917  | 16   | 40   | -       | 46      | 53    | 34.501 | 60.4  | 38.800  | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>CAS96B          |
| 701 |       | G337.997+0.136 | 0       | 337.997+0.136 | 337.997296  | 0.1363615 | 249.7020815 | 16.64680543 | -46.665971  | 16   | 38   | -       | 46      | 39    | 57.496 | 32.3  | 59.500  | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12                    |
| 702 |       | G338.075+0.012 | 0       | 338.069+0.011 | 338.0748    | 0.010972  | 249.912792  | 16.66085528 | -46.692528  | 16   | 39   | -       | 46      | 41    | 33.101 | 41.6  | 32.3    | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12<br>CAS96B          |
| 703 |       | G338.140+0.178 | 0       | 338.140+0.178 | 338.139951  | 0.177808  | 249.7955    | 16.65303333 | -46.532     | 16   | 39   | -       | 46      | 31    | 55.200 | 34.5  | 53.000  | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS10-12                             |
| 704 |       | G338.160-0.064 | 0       | 338.160-0.064 | 338.160485  | -0.063643 | 250.077917  | 16.67186113 | -46.677167  | 16   | 40   | -       | 46      | 40    | 37.801 | 66.1  | 66.1    | Y   | 5(-1)->6(0)-A+ | MIXED   |      | CAS10-12                             |
| 705 |       | G338.280+0.542 | 0       | 338.280+0.542 | 338.280288  | 0.542307  | 249.5378315 | 16.63585543 | -46.18425   | 16   | 38   | -       | 46      | 11    | 3.300  | 56.85 | 56.800  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                    |
| 706 |       | G338.287+0.120 | 0       | 338.287+0.120 | 338.287371  | 0.120091  | 250.000542  | 16.6667028  | -46.460306  | 16   | 40   | -       | 46      | 27    | 37.102 | 39.3  | 56.900  | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 707 |       | G338.325-0.409 | 0       | 338.325-0.409 | 338.325156  | -0.408898 | 250.614708  | 16.7076472  | -46.78175   | 16   | 42   | -       | 46      | 46    | 54.300 | 25.7  | 39.300  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 708 |       | G338.388+0.162 | 0       | 338.388+0.162 | 338.387888  | 0.162306  | 250.051542  | 16.6701028  | -46.357111  | 16   | 40   | -       | 46      | 21    | 25.600 | 32.8  | 40.000  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 709 |       | G338.392-0.403 | 0       | 338.392-0.403 | 338.391817  | -0.402735 | 250.671968  | 16.71146387 | -46.7275    | 16   | 42   | -       | 46      | 43    | 39.000 | 33.5  | 32.8    | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 710 |       | G338.396-0.007 | 0       | 338.396-0.007 | 338.396048  | -0.007103 | 250.243375  | 16.68289167 | -46.463278  | 16   | 40   | -       | 46      | 27    | 47.801 | 48.9  | 33.5    | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 711 |       | G338.432+0.058 | 0       | 338.432+0.058 | 338.431874  | 0.057572  | 250.207468  | 16.6804972  | -46.393611  | 16   | 40   | -       | 46      | 23    | 37.000 | 30.2  | 51.800  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B<br>PHI98 |
| 712 |       | G338.461-0.245 | 0       | 338.461-0.245 | 338.4605195 | -0.24474  | 250.5645815 | 16.70430543 | -46.571779  | 16   | 42   | -       | 46      | 34    | 18.404 | 50.45 | 50.400  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 713 |       | G338.472+0.289 | 0       | 338.472+0.289 | 338.4722915 | 0.289072  | 249.995459  | 16.66636393 | -46.2098315 | 16   | 39   | -       | 46      | 12    | 35.393 | 29.9  | 51.800  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                    |
| 714 |       | G338.497+0.207 | 0       | 338.497+0.207 | 338.497285  | 0.207282  | 250.107875  | 16.67385833 | -46.245117  | 16   | 40   | -       | 46      | 14    | 43.501 | 28.1  | 29.300  | Y   | 5(-1)->6(0)-A+ | UNK     |      | CAS10-12                             |
| 715 |       | G338.561+0.218 | 0       | 338.561+0.218 | 338.56147   | 0.217631  | 250.1581085 | 16.67721123 | -46.1905    | 16   | 40   | -       | 46      | 11    | 25.800 | 39.95 | 30.500  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                    |
| 716 |       | G338.566+0.110 | 0       | 338.566+0.110 | 338.566468  | 0.110232  | 250.279292  | 16.68528613 | -46.257861  | 16   | 41   | -       | 46      | 15    | 28.300 | -75   | 40.800  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 717 |       | G338.850+0.409 | 0       | 338.850+0.409 | 338.849543  | 0.409224  | 250.226208  | 16.6817472  | -45.847778  | 16   | 40   | -       | 45      | 50    | 52.001 | 55.8  | 74.700  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 718 |       | G338.875-0.084 | 0       | 338.875-0.084 | 338.875306  | -0.083898 | 250.784375  | 16.71895833 | -46.153556  | 16   | 43   | -       | 46      | 9     | 12.802 | 41.4  | 75.000  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 719 |       | G338.902+0.394 | 0       | 338.902+0.394 | 338.902039  | 0.394439  | 250.291917  | 16.6861278  | -45.818167  | 16   | 41   | -       | 45      | 49    | 5.401  | -26   | 41.300  | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>CAS96B          |
| 720 |       | G338.920+0.556 | 0       | 338.920+0.556 | 338.922397  | 0.5532405 | 250.140709  | 16.67604727 | -45.697805  | 16   | 40   | -       | 45      | 41    | 52.098 | 61.85 | 41.400  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12                    |
| 721 |       | G338.925+0.634 | 0       | 338.925+0.634 | 338.9254655 | 0.6338215 | 250.0573125 | 16.6704875  | -45.6420695 | 16   | 40   | -       | 45      | 38    | 31.450 | 62.7  | 65.600  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 722 |       | G338.934-0.062 | 0       | 338.935-0.062 | 338.934563  | -0.062027 | 250.816708  | 16.72111387 | -46.0945    | 16   | 43   | -       | 46      | 5     | 40.200 | 41.9  | 64.500  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 723 |       | G339.053-0.315 | 0       | 339.053-0.315 | 339.053015  | -0.314597 | 251.204125  | 16.74694167 | -46.170278  | 16   | 44   | -       | 46      | 10    | 13.001 | 111.6 | 41.9    | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 724 |       | G339.064+0.152 | 0       | 339.064+0.152 | 339.063604  | 0.151996  | 250.7065    | 16.71376667 | -45.856611  | 16   | 42   | -       | 45      | 51    | 23.800 | 85.6  | 111.700 | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 725 |       | G339.204-0.018 | 0       | 339.204-0.018 | 339.204404  | -0.018279 | 251.023667  | 16.73491113 | -45.862028  | 16   | 44   | -       | 45      | 51    | 43.301 | 14.2  | 87.500  | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS10-12                             |
| 726 |       | G339.282+0.136 | 0       | 339.282+0.136 | 339.288172  | 0.1375605 | 250.9334575 | 16.72889717 | -45.6966655 | 16   | 43   | -       | 45      | 41    | 47.996 | 72.35 | 14.2    | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS96B          |
| 727 |       | G339.476+0.185 | 0       | 339.476+0.185 | 339.475815  | 0.185331  | 251.057458  | 16.73716387 | -45.523556  | 16   | 44   | -       | 45      | 31    | 24.802 | 87.5  | 69.100  | Y   | 5(-1)->6(0)-A+ | SFR     |      | CAS10-12                             |
| 728 |       | G339.477+0.043 | 0       | 339.477+0.043 | 339.477028  | 0.043082  | 251.212417  | 16.74749447 | -45.615583  | 16   | 44   | -       | 45      | 36    | 56.099 | -9.3  | 70.100  | Y   | 5(-1)->6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>CAS96B          |

| no. | match | group_name     | gc_flag | source_name   | l           | b          | ra(deg)     | ra(hour)     | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-g | dec-s | vmean  | vpeak  | det | line                                                                               | type   | dist | refs                                                            |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|--------------|-------------|------|------|----------|-------|-------|-------|--------|--------|-----|------------------------------------------------------------------------------------|--------|------|-----------------------------------------------------------------|
| 729 |       | G339.584-0.127 | 0       | 339.582-0.127 | 339.582354  | -0.127004  | 251.495083  | 16.76633887  | -45.646444  | 16   | 45   | 58.8199  | -     | 45    | 38    | 47.198 | 30.400 | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12<br>CAS96B                                     |
| 730 |       | G339.621-0.121 | 0       | 339.622-0.121 | 339.622089  | -0.120517  | 251.524968  | 16.768333053 | -45.612028  | 16   | 46   | 5.9899   | -     | 45    | 36    | 43.301 | 31.300 | Y   | 5(-1)->6(0)-A+                                                                     | MIXED  |      | CAS09<br>CAS10-12<br>CAS96B                                     |
| 731 |       | G339.681-1.207 | 0       | 339.681-1.208 | 339.680522  | -1.208115  | 252.775885  | 16.85172567  | -46.267747  | 16   | 51   | 6.2124   | -     | 46    | 16    | 2.892  | 21.400 | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12<br>CAS95B                                     |
| 732 |       | G339.762+0.054 | 0       | 339.762+0.054 | 339.76161   | 0.054272   | 251.464833  | 16.76432222  | -45.392389  | 16   | 45   | 51.5599  | -     | 45    | 23    | 32.600 | 51     | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12<br>CAS96B                                     |
| 733 |       | G339.884-1.259 | 0       | 339.884-1.26  | 339.883975  | -1.2588185 | 253.019474  | 16.86796493  | -46.1428615 | 16   | 52   | 4.6738   | -     | 46    | 8     | 34.301 | 38.7   | Y   | 2(1)->3(0)-E<br>5(-1)->6(0)-A+<br>6(2)->5(3)-A-<br>6(2)->5(3)-A+<br>7(-2)->8(-1)-E | SFR    |      | CAS09<br>CAS10-12<br>CAS95B<br>ELL18<br>KRI13<br>KRI15<br>PHI98 |
| 734 |       | G339.909+0.240 | 0       | 339.909+0.240 | 339.908633  | 0.239638   | 251.400708  | 16.7600472   | -45.160139  | 16   | 45   | 36.1699  | -     | 45    | 9     | 36.500 | 12.2   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 735 |       | G339.949-0.539 | 0       | 339.949-0.539 | 339.948729  | -0.538815  | 252.283208  | 16.81888053  | -45.633     | 16   | 49   | 7.9699   | -     | 45    | 37    | 58.800 | 97.9   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 736 |       | G339.980-0.538 | 0       | 339.980-0.538 | 339.979845  | -0.538402  | 252.311333  | 16.82075553  | -45.608889  | 16   | 49   | 14.7199  | -     | 45    | 36    | 32.000 | 89.2   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 737 |       | G339.986-0.425 | 0       | 339.986-0.425 | 339.986305  | -0.424802  | 252.192968  | 16.81286387  | -45.530917  | 16   | 48   | 46.3099  | -     | 45    | 31    | 51.301 | 89.4   | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 738 |       | G340.034-1.110 | 0       | 340.034-1.110 | 340.034398  | -1.110285  | 252.991968  | 16.86613053  | -45.932361  | 16   | 51   | 58.0699  | -     | 45    | 55    | 56.500 | 27.5   | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 739 |       | G340.054-0.244 | 0       | 340.054-0.244 | 340.054428  | -0.2435665 | 252.0578725 | 16.80385817  | -45.3620815 | 16   | 48   | 13.8894  | -     | 45    | 21    | 43.493 | 59.55  | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12                                               |
| 740 |       | G340.118-0.021 | 0       | 340.118-0.021 | 340.118018  | -0.02129   | 251.875     | 16.79166667  | -45.170028  | 16   | 47   | 30.0000  | -     | 45    | 10    | 12.101 | 123.3  | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 741 |       | G340.182-0.047 | 0       | 340.182-0.047 | 340.18212   | -0.04707   | 251.961625  | 16.79744167  | -45.13775   | 16   | 47   | 50.7900  | -     | 45    | 8     | 15.900 | 131.1  | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 742 |       | G340.248-0.372 | 0       | 340.249-0.372 | 340.248834  | -0.371749  | 252.375333  | 16.8250222   | -45.295667  | 16   | 49   | 30.0799  | -     | 45    | 17    | 44.401 | 51.2   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 743 |       | G340.253-0.046 | 0       | 340.249-0.046 | 340.249213  | -0.045785  | 252.021583  | 16.80143887  | -45.085667  | 16   | 48   | 5.1799   | -     | 45    | 5     | 8.401  | 126.2  | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 744 |       | G340.518-0.152 | 0       | 340.518-0.152 | 340.517527  | -0.151875  | 252.3806685 | 16.8253779   | -44.9485    | 16   | 49   | 31.3604  | -     | 44    | 56    | 54.600 | 48.2   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12                                               |
| 745 |       | G340.543-0.162 | 0       | 340.543-0.162 | 340.542934  | -0.162038  | 252.414708  | 16.8276472   | -44.935528  | 16   | 49   | 39.5299  | -     | 44    | 56    | 7.901  | 51.7   | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 746 |       | G340.655-0.235 | 0       | 340.655-0.235 | 340.6554698 | -0.235421  | 252.595375  | 16.83969167  | -44.896694  | 16   | 50   | 22.8900  | -     | 44    | 53    | 48.098 | 21.7   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 747 |       | G340.785-0.096 | 0       | 340.785-0.10  | 340.785025  | -0.0959769 | 252.561833  | 16.83745553  | -44.707325  | 16   | 50   | 14.8399  | -     | 44    | 42    | 26.370 | 106.9  | Y   | 5(-1)->6(0)-A+<br>7(-2)->8(-1)-E                                                   | SFR    |      | CAS09<br>CAS10-12<br>CAS95B<br>ELL18<br>PHI98                   |
| 748 |       | G340.971-1.022 | 0       | 340.970-1.022 | 340.97031   | -1.021859  | 253.738833  | 16.9159222   | -45.151444  | 16   | 54   | 57.3199  | -     | 45    | 9     | 5.198  | 31.4   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 749 |       | G341.124-0.361 | 0       | 341.124-0.361 | 341.12444   | -0.361098  | 253.153167  | 16.8768778   | -44.614639  | 16   | 52   | 36.7601  | -     | 44    | 36    | 52.700 | 37.2   | Y   | 5(-1)->6(0)-A+                                                                     | GALAXY |      | CAS10-12                                                        |
| 750 |       | G341.218-0.212 | 0       | 341.218-0.212 | 341.217682  | -0.211778  | 253.07433   | 16.871622    | -44.44781   | 16   | 52   | 17.8392  | -     | 44    | 26    | 52.116 | 37.9   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS09<br>CAS10-12<br>CAS95B                                     |
| 751 |       | G341.238-0.270 | 0       | 341.238-0.270 | 341.238402  | -0.27008   | 253.155875  | 16.87705833  | -44.468806  | 16   | 52   | 37.4100  | -     | 44    | 28    | 7.702  | 51.4   | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 752 |       | G341.276+0.062 | 0       | 341.276+0.062 | 341.275677  | 0.061758   | 252.8308725 | 16.8553915   | -44.229029  | 16   | 51   | 19.4094  | -     | 44    | 13    | 44.504 | 72.15  | Y   | 5(-1)->6(0)-A+                                                                     | MIXED  |      | CAS09<br>CAS10-12                                               |
| 753 |       | G341.367+0.336 | 0       | 341.367+0.336 | 341.366548  | 0.336101   | 252.617583  | 16.8411722   | -43.983944  | 16   | 50   | 28.2199  | -     | 43    | 59    | 2.198  | 73.800 | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 754 |       | G341.973+0.233 | 0       | 341.973+0.233 | 341.972973  | 0.232858   | 253.262417  | 16.88416113  | -43.581861  | 16   | 53   | 2.9801   | -     | 43    | 34    | 54.700 | 12     | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 755 |       | G341.990-0.103 | 0       | 341.990-0.103 | 341.989741  | -0.10293   | 253.637042  | 16.90913613  | -43.780944  | 16   | 54   | 32.8901  | -     | 43    | 46    | 51.398 | 37     | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 756 |       | G342.251+0.308 | 0       | 342.251+0.308 | 342.250612  | 0.307773   | 253.424417  | 16.89496113  | -43.319444  | 16   | 53   | 41.8601  | -     | 43    | 19    | 9.998  | 122.7  | Y   | 5(-1)->6(0)-A+                                                                     | SFR    |      | CAS10-12                                                        |
| 757 |       | G342.338+0.305 | 0       | 342.338+0.305 | 342.337914  | 0.305134   | 253.502968  | 16.9001972   | -43.253417  | 16   | 54   | 0.7099   | -     | 43    | 15    | 12.301 | 112    | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 758 |       | G342.368+0.140 | 0       | 342.368+0.140 | 342.367656  | 0.140077   | 253.704792  | 16.9136528   | -43.334333  | 16   | 54   | 49.1501  | -     | 43    | 20    | 3.599  | 7.1    | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |
| 759 |       | G342.446-0.072 | 0       | 342.446-0.072 | 342.446297  | -0.071963  | 253.99975   | 16.93331667  | -43.40625   | 16   | 55   | 59.9400  | -     | 43    | 24    | 22.500 | 20.2   | Y   | 5(-1)->6(0)-A+                                                                     | UNK    |      | CAS10-12                                                        |

| no. | match | group-name     | gc.flag | source-name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sgn | dec-d | dec-s | vmean  | vpeak  | det | line                           | type  | dist | refs                                                   |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------|------|---------|-------|-------|--------|--------|-----|--------------------------------|-------|------|--------------------------------------------------------|
| 760 |       | G342.485+0.183 | 0       | 342.484+0.183 | 342.4842685 | 0.1831065  | 253.7595815 | 16.91730543 | -43.2166105 | 16   | 55   | -       | 43    | 12    | 59.798 | -42    | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 761 |       | G342.954+0.019 | 0       | 342.954+0.019 | 342.954163  | -0.018594  | 254.37775   | 16.95851667 | -42.976333  | 16   | 57   | -       | 42    | 58    | 34.799 | -3     | Y   | 5(-1)->6(0)-A+                 | UNK   |      | CAS10-12                                               |
| 762 |       | G343.354+0.067 | 0       | 343.354+0.067 | 343.353752  | -0.066708  | 254.767625  | 16.98450833 | -42.693056  | 16   | 59   | -       | 42    | 41    | 35.002 | -117.8 | Y   | 5(-1)->6(0)-A+                 | MIXED |      | CAS10-12                                               |
| 763 |       | G343.502+0.472 | 0       | 343.502+0.472 | 343.501534  | -0.472345  | 255.326667  | 17.0217778  | -42.826889  | 17   | 1    | -       | 42    | 49    | 36.800 | -39    | Y   | 5(-1)->6(0)-A+                 | MIXED |      | CAS10-12                                               |
| 764 |       | G343.756+0.163 | 0       | 343.756+0.163 | 343.756448  | -0.162808  | 255.207875  | 17.01385833 | -42.435611  | 17   | 0    | -       | 42    | 26    | 8.200  | -30.7  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 765 |       | G343.929+0.125 | 0       | 343.929+0.125 | 343.9294515 | 0.124928   | 255.045459  | 17.0030306  | -42.122029  | 17   | 0    | -       | 42    | 7     | 19.304 | 14.35  | Y   | 5(-1)->6(0)-A+                 | UNK   |      | CAS09<br>CAS10-12                                      |
| 766 |       | G344.228+0.569 | 0       | 344.227+0.569 | 344.2275305 | -0.568711  | 256.0324185 | 17.0688279  | -42.310971  | 17   | 4    | -       | 42    | 18    | 39.496 | 19.8   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12<br>CAS95B                            |
| 767 |       | G344.421+0.045 | 0       | 344.419+0.044 | 344.4199675 | 0.043505   | 255.53623   | 17.03574867 | -41.784555  | 17   | 2    | -       | 41    | 47    | 4.398  | -67.5  | Y   | 5(-1)->6(0)-A+                 | MIXED |      | CAS09<br>CAS10-12                                      |
| 768 |       | G344.582+0.024 | 0       | 344.581+0.024 | 344.5813985 | -0.023513  | 255.740459  | 17.04936393 | -41.698279  | 17   | 2    | -       | 41    | 41    | 53.804 | 1.4    | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 769 |       | G345.003+0.223 | 0       | 345.003+0.223 | 345.0034    | -0.2244065 | 256.296708  | 17.0864472  | -41.485525  | 17   | 5    | -       | 41    | 29    | 6.900  | -26.15 | Y   | 2(1)->3(0)-E<br>5(-1)->6(0)-A+ | SFR   |      | CAS09<br>KRI13<br>PHI98                                |
| 770 |       | G345.010+1.792 | 0       | 345.010+1.792 | 345.009494  | 1.792468   | 254.198182  | 16.94654547 | -40.2405    | 16   | 56   | -       | 40    | 14    | 25.800 | -18    | Y   | 2(1)->3(0)-E<br>5(-1)->6(0)-A+ | SFR   |      | CAS09<br>CAS10-12<br>CAS95B<br>ELL18<br>KRI13<br>PHI98 |
| 771 |       | G345.131+0.174 | 0       | 345.131+0.174 | 345.131432  | -0.174332  | 256.346833  | 17.08978887 | -41.353028  | 17   | 5    | -       | 41    | 21    | 10.901 | -28.9  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 772 |       | G345.198+0.030 | 0       | 345.198+0.030 | 345.198137  | -0.030201  | 256.247875  | 17.08319167 | -41.212694  | 17   | 4    | -       | 41    | 12    | 45.698 | -0.5   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 773 |       | G345.205+0.317 | 0       | 345.205+0.317 | 345.204903  | 0.317289   | 255.886958  | 17.05913053 | -40.996278  | 17   | 3    | -       | 40    | 59    | 46.601 | -63.5  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 774 |       | G345.407+0.951 | 0       | 345.407+0.952 | 345.4156875 | -0.9514395 | 257.404125  | 17.160275   | -41.5919005 | 17   | 9    | -       | 41    | 35    | 30.842 | 13.9   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 775 |       | G345.441+0.205 | 0       | 345.441+0.205 | 345.440984  | 0.204618   | 256.195292  | 17.07968613 | -40.877222  | 17   | 4    | -       | 40    | 52    | 37.999 | 0.9    | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 776 |       | G345.487+0.314 | 0       | 345.487+0.314 | 345.4869215 | 0.313536   | 256.1176685 | 17.07451123 | -40.7746395 | 17   | 4    | -       | 40    | 46    | 28.702 | -22.6  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 777 |       | G345.496+1.467 | 0       | 345.498+1.467 | 345.4976915 | 1.4668745  | 254.9285    | 16.99523333 | -40.060029  | 16   | 59   | -       | 40    | 3     | 36.104 | -14.2  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 778 |       | G345.505+0.348 | 0       | 345.50+0.35   | 345.504747  | 0.348319   | 256.095458  | 17.07303053 | -40.739361  | 17   | 4    | -       | 40    | 44    | 21.700 | -17.7  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12<br>CAS95B                            |
| 779 |       | G345.576+0.225 | 0       | 345.576+0.225 | 345.57592   | -0.224607  | 256.75625   | 17.11708333 | -41.028722  | 17   | 7    | -       | 41    | 1     | 43.399 | -126.8 | Y   | 5(-1)->6(0)-A+                 | UNK   |      | CAS10-12                                               |
| 780 |       | G345.807+0.044 | 0       | 345.807+0.044 | 345.807048  | -0.04427   | 256.749375  | 17.116625   | -40.735611  | 17   | 6    | -       | 40    | 44    | 8.200  | -2     | Y   | 5(-1)->6(0)-A+                 | UNK   |      | CAS10-12                                               |
| 781 |       | G345.829+0.046 | 0       | 345.824+0.044 | 345.823547  | 0.04387    | 256.669583  | 17.11130553 | -40.669417  | 17   | 6    | -       | 40    | 40    | 9.901  | -10.3  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 782 |       | G345.949+0.268 | 0       | 345.949+0.268 | 345.949327  | -0.268173  | 257.0985    | 17.1399     | -40.755972  | 17   | 8    | -       | 40    | 45    | 21.499 | -21.9  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 783 |       | G345.985+0.020 | 0       | 345.985+0.020 | 345.985088  | -0.020161  | 256.864917  | 17.1243278  | -40.578778  | 17   | 7    | -       | 40    | 34    | 43.601 | -83.2  | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 784 |       | G346.036+0.048 | 0       | 346.036+0.048 | 346.036174  | 0.048103   | 256.833417  | 17.1222278  | -40.496944  | 17   | 7    | -       | 40    | 29    | 48.998 | -6.4   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS10-12                                               |
| 785 |       | G346.232+0.119 | 0       | 346.231+0.119 | 346.23155   | 0.11899    | 256.912875  | 17.127525   | -40.298111  | 17   | 7    | -       | 40    | 17    | 53.200 | -95    | Y   | 5(-1)->6(0)-A+                 | UNK   |      | CAS10-12                                               |
| 786 |       | G346.480+0.221 | 0       | 346.480+0.221 | 346.4800955 | 0.2214235  | 257.000459  | 17.13336393 | -40.03775   | 17   | 8    | -       | 40    | 2     | 15.900 | -18.9  | Y   | 5(-1)->6(0)-A+                 | MIXED |      | CAS09<br>CAS10-12                                      |
| 787 |       | G346.481+0.132 | 0       | 346.481+0.132 | 346.4810245 | 0.1321265  | 257.0946685 | 17.13964457 | -40.090442  | 17   | 8    | -       | 40    | 5     | 25.591 | -5.5   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |
| 788 |       | G346.517+0.117 | 0       | 346.517+0.117 | 346.51687   | 0.117181   | 257.1383315 | 17.14255543 | -40.0706395 | 17   | 8    | -       | 40    | 4     | 14.302 | -0.9   | Y   | 5(-1)->6(0)-A+                 | SFR   |      | CAS09<br>CAS10-12                                      |

| no. | match | group-name     | gc-flag | source-name   | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-d | dec-s | vmean | vpeak                                | det | line               | type    | dist | refs                       |
|-----|-------|----------------|---------|---------------|-------------|------------|-------------|-------------|-------------|------|------|----------|-------|-------|-------|--------------------------------------|-----|--------------------|---------|------|----------------------------|
| 789 |       | G346.522+0.085 | 0       | 346.522+0.085 | 346.5222675 | 0.0850615  | 257.176209  | 17.1450806  | -40.0855    | 17   | 8    | 42.2902  | -     | 39    | 5.6   | 5.500<br>5.700                       | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 790 |       | G347.230+0.016 | 0       | 347.230+0.016 | 347.230041  | 0.015747   | 257.796583  | 17.18643887 | -39.557556  | 17   | 11   | 11.1799  | -     | 39    | 68.9  | -68.9                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 791 |       | G347.583+0.213 | 0       | 347.583+0.213 | 347.5832625 | 0.212693   | 257.8613315 | 17.19075543 | -39.15625   | 17   | 11   | 26.7196  | -     | 39    | 102.4 | 102.300<br>102.500                   | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 792 |       | G347.628+0.148 | 0       | 347.628+0.149 | 347.627942  | 0.148498   | 257.9621685 | 17.1974779  | -39.1581105 | 17   | 11   | 50.9204  | -     | 39    | 96.55 | 96.500<br>96.600                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 793 |       | G347.631+0.211 | 0       | 347.631+0.211 | 347.6314465 | 0.2106065  | 257.900209  | 17.19334727 | -39.1186105 | 17   | 11   | 36.0502  | -     | 39    | 91.9  | -91.9                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 794 |       | G347.817+0.018 | 0       | 347.817+0.018 | 347.817049  | 0.0177965  | 258.2418725 | 17.21612483 | -39.08225   | 17   | 12   | 58.0494  | -     | 39    | 24.85 | 24.100<br>25.600                     | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS09<br>CAS10-12          |
| 795 |       | G347.863+0.019 | 0       | 347.863+0.019 | 347.863193  | 0.0185925  | 258.275959  | 17.21839727 | -39.044442  | 17   | 13   | 6.2302   | -     | 39    | -32   | 29.300<br>34.700                     | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12          |
| 796 |       | G347.903+0.050 | 0       | 347.902+0.052 | 347.9025395 | 0.0516315  | 258.271291  | 17.21808607 | -38.993192  | 17   | 13   | 5.1098   | -     | 38    | 27.6  | 27.400<br>27.800                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 797 |       | G348.027+0.106 | 0       | 348.027+0.106 | 348.026868  | 0.105752   | 258.308833  | 17.22058887 | -38.860778  | 17   | 13   | 14.1199  | -     | 38    | 121.2 | -121.2                               | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS10-12                   |
| 798 |       | G348.195+0.768 | 0       | 348.195+0.768 | 348.194582  | 0.768053   | 257.750833  | 17.18338887 | -38.334861  | 17   | 11   | 0.1999   | -     | 38    | -0.8  | -0.8                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 799 |       | G348.550-0.979 | 0       | 348.550-0.979 | 348.549814  | -0.978728  | 259.835146  | 17.32234307 | -39.064239  | 17   | 19   | 20.4350  | -     | 39    | 12.9  | 10.000<br>10.300<br>10.600           | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>PH198 |
| 800 |       | G348.579-0.920 | 0       | 348.579-0.920 | 348.57876   | -0.919789  | 259.794209  | 17.31961393 | -39.006721  | 17   | 19   | 10.6102  | -     | 39    | 15.05 | 15.000<br>15.100                     | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 801 |       | G348.617-1.162 | 0       | 348.617-1.162 | 348.616771  | -1.161752  | 260.077708  | 17.33851387 | -39.114111  | 17   | 20   | 18.6499  | -     | 39    | 11.4  | -11.4                                | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS10-12                   |
| 802 |       | G348.654+0.244 | 0       | 348.654+0.244 | 348.653955  | 0.244307   | 258.634875  | 17.242325   | -38.271333  | 17   | 14   | 32.3700  | -     | 38    | 16.9  | 16.9                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 803 |       | G348.720-1.039 | 0       | 348.703-1.043 | 348.70374   | -1.0436161 | 260.01692   | 17.33446133 | -38.97525   | 17   | 20   | 4.0608   | -     | 38    | -3.5  | -3.300<br>-3.500<br>-3.700<br>-7.600 | Y   | 5(-1)-<br>>6(0)-A+ | EVOLVED |      | CAS09<br>CAS10-12<br>ELL18 |
| 804 |       | G348.723-0.078 | 0       | 348.723-0.078 | 348.723284  | -0.077529  | 259.019875  | 17.26799167 | -38.402444  | 17   | 16   | 4.7700   | -     | 38    | 11.5  | 11.5                                 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 805 |       | G348.885+0.096 | 0       | 348.884+0.096 | 348.8845495 | 0.09644    | 258.9588725 | 17.26392483 | -38.1701105 | 17   | 15   | 50.1294  | -     | 38    | 75.35 | 74.500<br>76.200                     | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS09<br>CAS10-12          |
| 806 |       | G348.892-0.180 | 0       | 348.892-0.180 | 348.891684  | -0.180081  | 259.250959  | 17.28339727 | -38.324692  | 17   | 17   | 0.2302   | -     | 38    | 1.45  | 1.400<br>1.500                       | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 807 |       | G349.067-0.017 | 0       | 349.067-0.017 | 349.067254  | -0.0173175 | 259.2114185 | 17.28076123 | -38.087308  | 17   | 16   | 50.7404  | -     | 38    | 9.25  | 11.600<br>6.900                      | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 808 |       | G349.092+0.106 | 0       | 349.092+0.105 | 349.091865  | 0.105188   | 259.10277   | 17.273518   | -37.996625  | 17   | 16   | 24.6648  | -     | 37    | 78.5  | 76.500<br>76.600<br>80.400           | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 809 |       | G349.151+0.021 | 0       | 349.151+0.021 | 349.150944  | 0.02143    | 259.232833  | 17.28218887 | -37.996639  | 17   | 16   | 55.8799  | -     | 37    | 14.6  | 81.500<br>14.6                       | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS10-12                   |
| 810 |       | G349.579-0.679 | 0       | 349.579-0.679 | 349.578963  | -0.678924  | 260.272667  | 17.35151113 | -38.048528  | 17   | 21   | 5.4401   | -     | 38    | -25   | -25                                  | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 811 |       | G349.799+0.108 | 0       | 349.799+0.108 | 349.798534  | 0.108386   | 259.615583  | 17.30770553 | -37.417639  | 17   | 18   | 27.7399  | -     | 37    | 64.7  | -64.7                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |
| 812 |       | G349.884+0.231 | 0       | 349.884+0.231 | 349.883562  | 0.230548   | 259.551542  | 17.30343613 | -37.277778  | 17   | 18   | 12.3701  | -     | 37    | 16.2  | 16.2                                 | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                   |
| 813 |       | G350.011-1.342 | 0       | 350.011-1.342 | 350.0111415 | -1.341715  | 261.27725   | 17.41848333 | -38.0668605 | 17   | 25   | 6.5400   | -     | 38    | -25.8 | -25.8                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 814 |       | G350.015+0.433 | 0       | 350.015+0.433 | 350.015421  | 0.4330085  | 259.4393725 | 17.29595817 | -37.053308  | 17   | 17   | 45.4494  | -     | 37    | -31   | 30.300<br>31.700                     | Y   | 5(-1)-<br>>6(0)-A+ | MIXED   |      | CAS09<br>CAS10-12          |
| 815 |       | G350.105+0.085 | 0       | 350.104+0.084 | 350.1046985 | 0.083814   | 259.862541  | 17.3241694  | -37.1814185 | 17   | 19   | 27.0098  | -     | 37    | 68.25 | 68.000<br>68.100<br>68.400<br>74.000 | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS09<br>CAS10-12          |
| 816 |       | G350.116+0.220 | 0       | 350.116+0.220 | 350.115572  | 0.22029    | 259.729625  | 17.31530833 | -37.093917  | 17   | 18   | 55.1100  | -     | 37    | 4.2   | 74.100<br>4.2                        | Y   | 5(-1)-<br>>6(0)-A+ | UNK     |      | CAS10-12                   |
| 817 |       | G350.189+0.003 | 0       | 350.189+0.003 | 350.188928  | 0.00279    | 260.005875  | 17.333725   | -37.158528  | 17   | 20   | 1.4100   | -     | 37    | 62.4  | -62.4                                | Y   | 5(-1)-<br>>6(0)-A+ | SFR     |      | CAS10-12                   |

| no. | match | group-name     | gc.flag | source_name                  | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h<br>17 | ra-s | dec-<br>sign | dec-<br>deg | dec-s | vmean  | vpeak  | det | line                                   | type  | dist | refs                                                  |
|-----|-------|----------------|---------|------------------------------|-------------|------------|-------------|-------------|-------------|------------|------|--------------|-------------|-------|--------|--------|-----|----------------------------------------|-------|------|-------------------------------------------------------|
| 818 |       | G350.299+0.122 | 0       | 350.2988895<br>350.299+0.122 | 350.2988895 | 0.122273   | 259.961959  | 17.33079727 | -36.999971  | 17         | 19   | 50.8702      | 36          | 59    | 59.896 | -62.1  | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 819 |       | G350.340+0.141 | 0       | 350.340457<br>350.340+0.141  | 350.340457  | 0.140907   | 259.972625  | 17.33150833 | -36.955222  | 17         | 19   | 53.4300      | -           | 36    | 57     | 18.799 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 820 |       | G350.344+0.116 | 0       | 350.343627<br>350.344+0.116  | 350.343627  | 0.116325   | 260.0001225 | 17.3333415  | -36.966692  | 17         | 20   | 0.0294       | -           | 36    | 58     | 0.091  | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 821 |       | G350.356+0.068 | 0       | 350.356019<br>350.356+0.068  | 350.356019  | -0.067694  | 260.198125  | 17.34654167 | -37.061667  | 17         | 20   | 47.5500      | -           | 37    | 3      | 42.001 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 822 |       | G350.470+0.029 | 0       | 350.470+0.029                | 350.469969  | 0.028947   | 260.180167  | 17.34534447 | -36.912944  | 17         | 20   | 43.2401      | -           | 36    | 54     | 46.598 | Y   | 5(-1)-<br>>6(0)-A+                     | UNK   |      | CAS10-12                                              |
| 823 |       | G350.520+0.349 | 0       | 350.520+0.350                | 350.520002  | -0.349467  | 260.6055    | 17.3737     | -37.087056  | 17         | 22   | 25.3200      | -           | 37    | 5      | 13.402 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 824 |       | G350.686+0.491 | 0       | 350.686+0.491                | 350.6859885 | -0.49087   | 260.869291  | 17.39128607 | -37.030221  | 17         | 23   | 28.6298      | -           | 37    | 1      | 48.796 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 825 |       | G350.776+0.138 | 0       | 350.776+0.138                | 350.77556   | 0.138095   | 260.28575   | 17.35238333 | -36.599667  | 17         | 21   | 8.5800       | -           | 36    | 35     | 58.801 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 826 |       | G351.161+0.699 | 0       | 351.160+0.697                | 351.160542  | 0.696681   | 259.9895815 | 17.33263877 | -35.9646685 | 17         | 19   | 57.4996      | -           | 35    | 57     | 52.807 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 827 |       | G351.236+0.673 | 0       | 351.242+0.670                | 351.242357  | 0.670065   | 260.074333  | 17.33828887 | -35.912778  | 17         | 20   | 17.8399      | -           | 35    | 54     | 46.001 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 828 |       | G351.251+0.652 | 0       | 351.251+0.652                | 351.251477  | 0.65162    | 260.099458  | 17.33996387 | -35.915833  | 17         | 20   | 23.8699      | -           | 35    | 54     | 56.999 | Y   | 5(-1)-<br>>6(0)-A+                     | MIXED |      | CAS10-12                                              |
| 829 |       | G351.382+0.181 | 0       | 351.382+0.181                | 351.382404  | -0.180952  | 261.039917  | 17.40266113 | -36.280361  | 17         | 24   | 9.5801       | -           | 36    | 16     | 49.300 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 830 |       | G351.417+0.645 | 0       | 351.417+0.645                | 351.4169391 | 0.645233   | 260.222375  | 17.34815833 | -35.783667  | 17         | 20   | 53.3700      | -           | 35    | 47     | 1.201  | Y   | 2(1)-<br>>3(0)-E<br>>5(1)-<br>>6(0)-A+ | MIXED |      | CAS09<br>CAS10-12<br>ELL18<br>HUN18<br>KRI13<br>PHI98 |
| 831 |       | G351.446+0.660 | 0       | 351.446+0.660                | 351.444964  | 0.65964    | 260.227542  | 17.3485028  | -35.752389  | 17         | 20   | 54.6101      | -           | 35    | 45     | 8.600  | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12<br>PHI98                            |
| 832 |       | G351.581+0.353 | 0       | 351.581+0.353                | 351.58094   | -0.352948  | 261.35467   | 17.42364467 | -36.212806  | 17         | 25   | 25.1208      | -           | 36    | 12     | 46.102 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 833 |       | G351.611+0.172 | 0       | 351.611+0.172                | 351.610918  | 0.1723     | 260.838542  | 17.38923613 | -35.892389  | 17         | 23   | 21.2501      | -           | 35    | 53     | 32.600 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 834 |       | G351.688+0.171 | 0       | 351.688+0.171                | 351.688102  | 0.170825   | 260.893833  | 17.3929222  | -35.829528  | 17         | 23   | 34.5199      | -           | 35    | 49     | 46.301 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 835 |       | G351.775+0.537 | 0       | IRAS 17233-3606              | 351.77463   | -0.536473  | 261.67737   | 17.445158   | -36.154889  | 17         | 26   | 42.5688      | -           | 36    | 9      | 17.600 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12<br>FAS95B<br>FAS95C<br>PHI98        |
| 836 |       | G352.083+0.167 | 0       | 352.083+0.167                | 352.097033  | 0.171568   | 261.176625  | 17.411775   | -35.49125   | 17         | 24   | 42.3900      | -           | 35    | 29     | 28.500 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 837 |       | G352.132+0.944 | 0       | 352.133+0.944                | 352.1326085 | -0.9440225 | 262.343     | 17.48953333 | -36.0833895 | 17         | 29   | 22.3200      | -           | 36    | 5      | 0.202  | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 838 |       | G352.518+0.155 | 0       | 352.517+0.155                | 352.5212455 | -0.1566325 | 261.8015835 | 17.4534389  | -35.323306  | 17         | 27   | 12.3800      | -           | 35    | 19     | 23.902 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 839 |       | G352.602+0.185 | 0       | 352.584+0.185                | 352.58364   | -0.18522   | 261.87325   | 17.45821667 | -35.287389  | 17         | 27   | 29.5800      | -           | 35    | 17     | 14.600 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 840 |       | G352.604+0.225 | 0       | 352.604+0.225                | 352.603986  | -0.225417  | 261.928042  | 17.46186947 | -35.292833  | 17         | 27   | 42.7301      | -           | 35    | 17     | 34.199 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 841 |       | G352.630+1.067 | 0       | IRAS 17278-3541              | 352.630198  | -1.0671431 | 262.8080417 | 17.52053611 | -35.73575   | 17         | 31   | 13.9300      | -           | 35    | 44     | 8.700  | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12<br>FUI14C                           |
| 842 |       | G352.855+0.201 | 0       | 352.855+0.201                | 352.855023  | -0.200554  | 262.073292  | 17.4715528  | -35.07025   | 17         | 28   | 17.5901      | -           | 35    | 4      | 12.900 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 843 |       | G353.216+0.243 | 0       | 353.216+0.249                | 353.215786  | -0.248775  | 262.365833  | 17.49105553 | -34.796472  | 17         | 29   | 27.7999      | -           | 34    | 47     | 47.299 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |
| 844 |       | G353.273+0.641 | 0       | 353.273+0.641                | 353.2731495 | 0.6411205  | 261.5066015 | 17.43377343 | -34.254169  | 17         | 26   | 1.5844       | -           | 34    | 15     | 15.008 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS09<br>CAS10-12                                     |
| 845 |       | G353.363+0.166 | 0       | 353.363+0.166                | 353.363168  | -0.165946  | 262.380833  | 17.49205553 | -34.027861  | 17         | 29   | 31.3999      | -           | 34    | 37     | 40.300 | Y   | 5(-1)-<br>>6(0)-A+                     | MIXED |      | CAS10-12                                              |
| 846 |       | G353.370+0.091 | 0       | 353.370+0.091                | 353.370098  | -0.090874  | 262.309458  | 17.4872972  | -34.580611  | 17         | 29   | 14.2699      | -           | 34    | 34     | 50.200 | Y   | 5(-1)-<br>>6(0)-A+                     | SFR   |      | CAS10-12                                              |

| no. | match | group_name     | gc_flag | source_name     | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-deg | dec-s | vmean  | vpeak  | det | line                           | type    | dist | refs                                                    |
|-----|-------|----------------|---------|-----------------|-------------|------------|-------------|-------------|-------------|------|------|----------|---------|-------|--------|--------|-----|--------------------------------|---------|------|---------------------------------------------------------|
| 847 |       | G353.378+0.438 | 0       | 353.378+0.438   | 353.378016  | 0.437734   | 261.781625  | 17.45210833 | -34.280694  | 17   | 27   | 7.5900   | 34      | 16    | 50.498 | -15.7  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 848 |       | G353.410-0.360 | 0       | IRAS 17271-3439 | 353.40978   | -0.360137  | 262.609042  | 17.50726947 | -34.696     | 17   | 30   | 26.1701  | 34      | 41    | 45.600 | 19.900 | Y   | 2(1)->3(0)-E<br>5(-1)->6(0)-A+ | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>FU114C<br>KRI13<br>PH198 |
| 849 |       | G353.429-0.090 | 0       | 353.429+0.090   | 353.429212  | -0.089601  | 262.347833  | 17.48985553 | -34.530639  | 17   | 29   | 23.4799  | 34      | 31    | 50.300 | -61.8  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 850 |       | G353.464+0.562 | 0       | 353.464+0.562   | 353.4636025 | 0.561832   | 261.714709  | 17.44764727 | -34.140471  | 17   | 26   | 51.5302  | 34      | 8     | 25.696 | 50.300 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                                       |
| 851 |       | G353.537-0.091 | 0       | 353.537+0.091   | 353.537461  | -0.091118  | 262.421875  | 17.49479167 | -34.441222  | 17   | 29   | 41.2500  | 34      | 26    | 28.399 | -56.6  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 852 |       | G354.206-0.038 | 0       | 354.206+0.038   | 354.205533  | -0.038096  | 262.812542  | 17.52083613 | -33.854194  | 17   | 31   | 15.0101  | 33      | 51    | 15.098 | -37.1  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 853 |       | G354.308-0.110 | 0       | 354.308+0.110   | 354.307744  | -0.109953  | 262.952333  | 17.53015553 | -33.808083  | 17   | 31   | 48.5599  | 33      | 48    | 29.099 | 18.8   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS10-12                                                |
| 854 |       | G354.496+0.083 | 0       | 354.496+0.083   | 354.49549   | 0.082561   | 262.882375  | 17.52549167 | -33.545556  | 17   | 31   | 31.7700  | 33      | 32    | 44.002 | 27     | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 855 |       | G354.615+0.472 | 0       | IRAS 17269-3312 | 354.6148244 | 0.471909   | 262.571216  | 17.50474773 | -33.231971  | 17   | 30   | 17.0918  | 33      | 13    | 55.096 | 24.5   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12<br>CAS95B<br>FU114C                   |
| 856 |       | G354.724+0.300 | 0       | 354.701+0.299   | 354.724323  | 0.300081   | 262.81479   | 17.520986   | -33.23492   | 17   | 31   | 15.5496  | 33      | 14    | 57.12  | 93.9   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 858 |       | G355.344+0.148 | 0       | 355.343+0.148   | 355.343744  | 0.1477485  | 263.370479  | 17.55803193 | -32.799652  | 17   | 33   | 28.9150  | 32      | 47    | 58.747 | 10.25  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 859 |       | G355.538-0.104 | 0       | 355.538-0.105   | 355.5417605 | -0.103863  | 263.74975   | 17.58331667 | -32.769555  | 17   | 34   | 59.9400  | 32      | 46    | 10.400 | 12.2   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS10-12                                                |
| 860 |       | G355.642+0.398 | 0       | 355.642+0.398   | 355.641988  | 0.397904   | 263.314167  | 17.5542778  | -32.413     | 17   | 33   | 15.4001  | 32      | 24    | 46.800 | -7.9   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 861 |       | G355.666+0.374 | 0       | 355.666+0.374   | 355.666208  | 0.373699   | 263.353833  | 17.5569222  | -32.405861  | 17   | 33   | 24.9199  | 32      | 24    | 21.100 | -3.3   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 862 |       | G356.054-0.095 | 0       | 356.054-0.095   | 356.053577  | -0.095251  | 264.068958  | 17.6045972  | -32.334083  | 17   | 36   | 16.5499  | 32      | 20    | 2.699  | 16.7   | Y   | 5(-1)->6(0)-A+                 | UNK     |      | CAS10-12                                                |
| 863 |       | G356.662-0.264 | 0       | 356.662-0.263   | 356.661854  | -0.2630875 | 264.6215    | 17.64143333 | -31.910779  | 17   | 38   | 29.1600  | 31      | 54    | 38.804 | 53.85  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                                       |
| 864 |       | G357.558-0.321 | 0       | 357.558-0.321   | 357.558037  | -0.3211465 | 265.2385835 | 17.68257223 | -31.1828055 | 17   | 40   | 57.2600  | 31      | 10    | 58.100 | 6.15   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 865 |       | G357.924-0.337 | 0       | 357.922-0.337   | 357.923861  | -0.336875  | 265.4797137 | 17.69864758 | -30.880611  | 17   | 41   | 55.1313  | 30      | 52    | 50.200 | -2.1   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12<br>HU16                                        |
| 866 |       | G357.967-0.162 | 0       | 357.965-0.164   | 357.967123  | -0.162821  | 265.334417  | 17.68896113 | -30.75192   | 17   | 41   | 20.2601  | 30      | 45    | 6.912  | -3.2   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS09<br>CAS10-12<br>HU16                               |
| 867 |       | G358.263-2.061 | 0       | 358.263-2.061   | 358.262961  | -2.0607585 | 267.406791  | 17.8271194  | -31.4883315 | 17   | 49   | 37.6298  | 31      | 29    | 17.993 | 4.95   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12                                       |
| 868 |       | G358.386-0.479 | 0       | 358.371-0.468   | 358.3709489 | -0.467969  | 265.883125  | 17.72554167 | -30.5693036 | 17   | 43   | 31.9500  | 30      | 34    | 9.493  | 1      | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS09<br>CAS10-12<br>HU16                               |
| 869 |       | G358.460-0.393 | 0       | 358.460-0.391   | 358.4601948 | -0.3919375 | 265.8625    | 17.72416667 | -30.4535975 | 17   | 43   | 27.0000  | 30      | 27    | 12.951 | 1.405  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12<br>HU16                                        |
| 870 |       | G358.539+0.330 | 0       | 358.539+0.330   | 358.539189  | 0.3300325  | 265.2008042 | 17.68005361 | -30.0056794 | 17   | 40   | 48.1930  | 30      | 0     | 20.446 |        | Y   | 5(-1)->6(0)-A+                 | EVOLVED |      | RIC19                                                   |
| 871 |       | G358.550+0.384 | 0       | 358.550+0.384   | 358.550387  | 0.3839887  | 265.1548333 | 17.67698889 | -29.9675842 | 17   | 40   | 37.1600  | 29      | 58    | 3.303  |        | Y   | 5(-1)->6(0)-A+                 | UNK     |      | RIC19                                                   |
| 872 |       | G358.721-0.126 | 0       | 358.721-0.126   | 358.721491  | -0.126186  | 265.759625  | 17.71730833 | -30.091639  | 17   | 43   | 2.3100   | 30      | 5     | 29.900 | 11.45  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12<br>HU16                                        |
| 873 |       | G358.809-0.085 | 0       | 358.809-0.085   | 358.808272  | -0.0854127 | 265.7725    | 17.71816667 | -29.9959953 | 17   | 43   | 5.4000   | 29      | 59    | 45.583 | 55.08  | Y   | 5(-1)->6(0)-A+                 | SFR     |      | RIC19<br>CAS10-12<br>HU16                               |
| 874 |       | G358.841-0.737 | 0       | 358.841-0.737   | 358.841228  | -0.7371429 | 266.4345332 | 17.76230221 | -30.3092702 | 17   | 45   | 44.2880  | 30      | 18    | 33.373 | 22.175 | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12<br>HU16                                        |
| 875 |       | G358.906+0.106 | 0       | 358.906+0.106   | 358.905747  | 0.105587   | 265.644042  | 17.7096028  | -29.813     | 17   | 42   | 34.5701  | 29      | 48    | 46.800 | 18.1   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12                                                |
| 876 |       | G358.931-0.030 | 0       | 358.931-0.030   | 358.930862  | -0.029536  | 265.79175   | 17.711945   | -29.862722  | 17   | 43   | 10.0200  | 29      | 51    | 45.799 | 15.9   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS10-12<br>HU16                                        |
| 877 |       | G358.980+0.084 | 0       | 358.973+0.088   | 358.9763329 | 0.0860571  | 265.7059856 | 17.71373237 | -29.7632631 | 17   | 42   | 49.4365  | 29      | 45    | 47.747 | 6.2    | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CAS10-12<br>RIC19                                       |
| 878 |       | G359.137+0.031 | 0       | 359.138+0.031   | 359.137521  | 0.0315     | 265.85696   | 17.72379733 | -29.65481   | 17   | 43   | 25.6704  | 29      | 39    | 17.316 | -3.9   | Y   | 5(-1)->6(0)-A+                 | MIXED   |      | CAS09<br>CAS10-12<br>CAS96<br>RIC19                     |
| 879 |       | G359.204+0.023 | 0       | g31             | 359.2040338 | 0.0226039  | 265.9058333 | 17.72705555 | -29.6028611 | 17   | 43   | 37.4000  | 29      | 36    | 10.300 | -4.1   | Y   | 5(-1)->6(0)-A+                 | SFR     |      | CHA11                                                   |

| no. | match | group_name       | gc_flag | source_name    | l           | b          | ra(deg)     | ra(hour)    | dec(deg)    | ra-h | ra-s | dec-sign | dec-deg | dec-s | vmean  | vpeak                                          | det | line           | type  | dist | refs                                        |
|-----|-------|------------------|---------|----------------|-------------|------------|-------------|-------------|-------------|------|------|----------|---------|-------|--------|------------------------------------------------|-----|----------------|-------|------|---------------------------------------------|
| 880 |       | G359.3944-0.0753 | 1       | 359.394-0.075  | 359.3943561 | -0.0752796 | 266.1162875 | 17.74108583 | -29.4920275 | 17   | 44   | 27.9090  | -       | 29    | 31.299 |                                                | Y   | 5(-1)->6(0)-A+ |       |      | RIC19                                       |
| 881 |       | G359.4363-0.1033 | 1       | 359.43-00.10   | 359.436259  | -0.103535  | 266.1691667 | 17.74461111 | -29.4710312 | 17   | 44   | 40.6000  | -       | 29    | 15.712 | 47.800<br>49.360<br>52.000<br>53.300<br>53.600 | Y   | 5(-1)->6(0)-A+ |       |      | CAS09<br>CAS10-12<br>CHA11<br>FU14C<br>HU16 |
| 882 |       | G359.615-0.243   | 0       | 359.615-0.243  | 359.6147895 | -0.243184  | 266.412875  | 17.76085533 | -29.3916685 | 17   | 45   | 39.0900  | -       | 29    | 30.007 | 56.300<br>19.300<br>21.770<br>22.500<br>22.800 | Y   | 5(-1)->6(0)-A+ | SFR   |      | CAS09<br>CAS10-12<br>CHA11<br>HU16<br>RIC19 |
| 883 |       | G359.703-0.218   | 0       | 359.703-0.218  | 359.7032805 | -0.2177872 | 266.4408792 | 17.76272528 | -29.3029017 | 17   | 45   | 45.8110  | -       | 29    | 18     | 10.446                                         | Y   | 5(-1)->6(0)-A+ | SFR   |      | RIC19                                       |
| 884 |       | G359.8024+0.1884 | 1       | 359.802+0.188  | 359.8023768 | 0.1884327  | 266.1033583 | 17.74022389 | -29.006335  | 17   | 44   | 24.8060  | -       | 29    | 0      | 22.806                                         | Y   | 5(-1)->6(0)-A+ |       |      | RIC19                                       |
| 885 |       | G359.820-0.225   | 0       | 359.820-0.225  | 359.8198496 | -0.2249478 | 266.5174292 | 17.76782861 | -29.2070944 | 17   | 46   | 4.1830   | -       | 29    | 12     | 25.540                                         | Y   | 5(-1)->6(0)-A+ |       |      | RIC19                                       |
| 886 |       | G359.9385+0.1704 | 1       | 359.938+0.170  | 359.938424  | 0.1702631  | 266.2023402 | 17.74682268 | -28.8998333 | 17   | 44   | 48.5616  | -       | 28    | 53     | 59.400                                         | Y   | 5(-1)->6(0)-A+ |       |      | CAS10-12<br>HU11                            |
| 887 |       | G359.970-0.457   | 0       | 359.970-0.457  | 359.969512  | -0.457401  | 266.834042  | 17.78893613 | -29.199833  | 17   | 47   | 20.1701  | -       | 29    | 11     | 59.399                                         | Y   | 5(-1)->6(0)-A+ | SFR   |      | CAS09<br>CAS10-12<br>CHA11                  |
| 893 |       | G69.540-0.976    | 0       | G069.539-0.975 |             |            |             |             |             |      |      |          |         |       | 7.64   | -0.100<br>14.700<br>7.640                      | Y   | 5(-1)->6(0)-A+ | SFR   | 2    | CAS09<br>CAS10-12<br>CHA11<br>XU08          |
| 902 |       | G173.481+2.446   | 0       | 05358+3543     |             |            |             |             |             |      |      |          |         |       | 12.8   | 12.800                                         | Y   | 5(-1)->6(0)-A+ | SFR   |      | BEU02<br>FU16<br>XU08                       |
| 455 |       | G302.080-44.926  | 0       | N66 Sc12       | 302.079841  | -44.926334 | 14.832083   | 0.988805533 | -72.188861  | 0    | 59   | 19.6999  | -       | 72    | 11     | 19.900                                         | N   | 5(-1)->6(0)-A+ |       |      | BRE13                                       |
| 456 |       | G302.098-44.933  | 0       | NGC 346 IR1    | 302.098152  | -44.933173 | 14.788792   | 0.985919467 | -72.182583  | 0    | 59   | 9.3101   | -       | 72    | 10     | 57.299                                         | N   | 5(-1)->6(0)-A+ |       |      | BRE13                                       |
| 559 |       | G327.282-0.468   | 0       | 327.282-0.469  | 327.281721  | -0.468494  | 238.150125  | 15.876675   | -54.54      | 15   | 52   | 36.0300  | -       | 54    | 32     | 24.000                                         | 0   | 5(-1)->6(0)-A+ | SFR   |      | CAS10-12                                    |
| 857 |       | G355.184-0.419   | 0       | 355.184-0.419  | 355.183788  | -0.419357  | 263.835375  | 17.589025   | -33.241278  | 17   | 35   | 20.4900  | -       | 33    | 14     | 28.601                                         | N   | 5(-1)->6(0)-A+ | SFR   |      | CAS10-12                                    |
| 888 |       | G0.483-0.703     | 0       | g13            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 889 |       | G0.868-0.696     | 0       | g2             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | MIXED |      | CHA11                                       |
| 890 |       | G0.706+0.407     | 0       | g5             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 891 |       | G359.3009+0.0334 | 0       | g30            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ |       |      | CHA11                                       |
| 892 |       | G0.956-0.785     | 0       | g1             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | MIXED |      | CHA11                                       |
| 894 |       | G0.780-0.740     | 0       | g4             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | MIXED |      | CHA11                                       |
| 895 |       | G0.084-0.641     | 0       | g20            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 896 |       | G359.8414-0.0793 | 0       | g25            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ |       |      | CHA11                                       |
| 897 |       | G0.542-0.476     | 0       | g11            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 898 |       | G359.570+0.270   | 0       | g28            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 899 |       | G1.0407-0.0714   | 0       | g0             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 900 |       | G0.831-0.209     | 0       | g3             |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |
| 901 |       | G49.267-0.338    | 0       | G49.27-0.34    |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CYG09                                       |
| 903 |       | G0.517-0.657     | 0       | g12            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | MIXED |      | CHA11                                       |
| 904 |       | G359.5993-0.0316 | 0       | g27            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ |       |      | CHA11                                       |
| 905 |       | G359.907-0.303   | 0       | g24            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | MIXED |      | CHA11                                       |
| 906 |       | G359.9316-0.0625 | 0       | g23            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ |       |      | CHA11                                       |
| 907 |       | G0.477-0.727     | 0       | g14            |             |            |             |             |             |      |      |          |         |       |        |                                                | N   | 5(-1)->6(0)-A+ | SFR   |      | CHA11                                       |