

Erratum

IRAS sources beyond the solar circle

VI. Analysis of the FIR, H₂O, and CO emission

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The last sentence of Sect. 3.3 on page 245 should read: Wouterloot & Walmsley (1986) distinguished between 'group 1' and 'group 2' sources; the latter (former) have $R_{100/60} > (<) 0.396 + 0.227 R_{60/25}$ and $R_{25/12} < (>) 0.519$.

In the upper part of Table 4, the columns 2 and 4, and the columns 3 and 5 were erroneously interchanged. The correct Table 4 is included below.

In Sect. 4 (page 255), the scaling for the case that each source contains a star cluster with an IMF of Miller & Scalo (1979) was wrong. In our new calculations the clusters have a most massive star with mass M in the interval $M_{low} - M_{high}$ with $M = (M_{low} + M_{high})/2.0$. For the scaling we assumed that the clusters also contain one star in the interval $M_{high} - 60 M_{\odot}$, which is however not included in the cluster luminosities. The results following this approach are given in the new version of Table 5c, and Fig. 25c. Our conclusions are not affected in the sense that if the sources contain star clusters with $M > 10 M_{\odot}$ the derived slopes of the IMF are steeper than in the case of single stars.

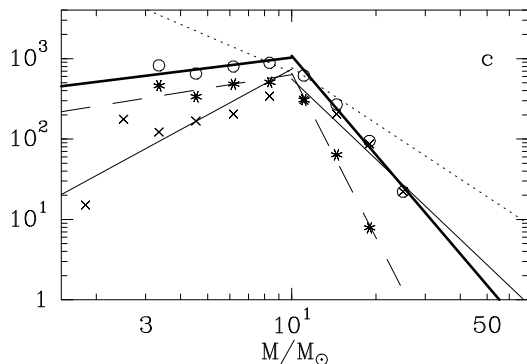


Fig. 5c. The IMF for these sources assuming that each FIR source contains a cluster with a Miller & Scalo (1979) mass distribution

Table 4. Average CO parameters as a function of L_{FIR}

$\log L_{FIR}/L_{\odot}$	H ₂ O maser		no maser	
	Δv_{co}	T_A^*	Δv_{co}	T_A^*
	$R_{60/25} > 0.75 * R_{25/12} + 0.64$			
2.0 - 3.0	$3.0 \pm -$	$12.7 \pm -$	2.3 ± 1.0	10.4 ± 6.0
3.0 - 3.5	3.8 ± 0.2	13.3 ± 5.8	2.1 ± 0.9	13.9 ± 5.7
3.5 - 4.0	3.0 ± 0.8	13.5 ± 6.4	2.2 ± 1.2	12.3 ± 8.3
4.0 - 4.5	2.4 ± 0.1	16.7 ± 9.2	2.5 ± 0.6	14.2 ± 8.8
4.5 - 6.0	$4.7 \pm -$	$25.8 \pm -$	2.9 ± 0.5	8.5 ± 8.1
	$R_{60/25} < 0.75 * R_{25/12} + 0.64$			
2.0 - 3.0	3.6 ± 1.2	13.5 ± 4.0	3.0 ± 1.6	10.3 ± 5.5
3.0 - 3.5	4.7 ± 1.1	14.1 ± 7.8	2.7 ± 0.9	11.4 ± 5.9
3.5 - 4.0	4.2 ± 2.9	15.0 ± 6.7	2.9 ± 1.2	12.9 ± 7.4
4.0 - 4.5	4.7 ± 2.0	19.2 ± 6.4	3.3 ± 1.2	14.0 ± 7.1
4.5 - 6.0	5.4 ± 2.3	22.1 ± 9.7	3.5 ± 1.0	19.5 ± 14.3

Table 5c. Mass distribution of IRAS sources, assuming that the luminosity of each IRAS source is due to a star cluster.

$\log(L/L_{\odot})$	M/M_{\odot}	$t(\text{yr})$	$d \log M$	N_M ML	N_M NML	N_M all
1.25	1.8	3.20E+6	0.122	15.1	-	-
1.75	2.5	1.56E+6	0.151	177	-	-
2.25	3.3	7.26E+5	0.124	122	460	823
2.75	4.5	3.87E+5	0.136	168	336	651
3.25	6.2	2.50E+5	0.136	205	483	799
3.75	8.3	1.78E+5	0.122	341	509	886
4.25	11.0	1.39E+5	0.120	305	306	616
4.75	14.5	1.20E+5	0.118	205	63.7	269
5.25	19.0	1.10E+5	0.115	86.9	7.90	94.8
5.75	25.0	1.06E+5	0.129	22.1	-	22.1
slope $M < 10 M_{\odot}$				$+1.9 \pm 0.4$	$+0.6 \pm 0.2$	$+0.4 \pm 0.2$
slope $M > 10 M_{\odot}$				-3.3 ± 0.4	-6.8 ± 0.2	-4.1 ± 0.2

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