

Erratum: “In Search for Infall Motion in molecular clumps II: HCO+ (1-0) and HCN (1-0) Observations toward a Sub-sample of Infall Candidates” (2020, RAA, 20, 115)

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In the paper “In Search for Infall Motion in molecular clumps II: HCO+ (1-0) and HCN (1-0) Observations toward a Sub-sample of Infall Candidates” by Yang et al. (RAA 2020 Vol.20 No.8, 115(14pp), doi: 10.1088/1674C4527/20/8/115), the formula (4) is incorrectly reproduced from Myers et al. (1996). The formula should be:

$$V_{\text{in}} = \frac{\sigma^2}{V_{\text{red}} - V_{\text{blue}}} \ln \left(\frac{1 + e((T_{\text{blue}} - T_{\text{dip}})/T_{\text{dip}})}{1 + e((T_{\text{red}} - T_{\text{dip}})/T_{\text{dip}})} \right) \quad (4)$$

where σ is the velocity dispersion of the optically thin line. As the result, the infall velocities based on this formula were overestimated. The corrected infall velocities are listed in Table 3, and the distribution of V_{in} is shown in Figure 5.

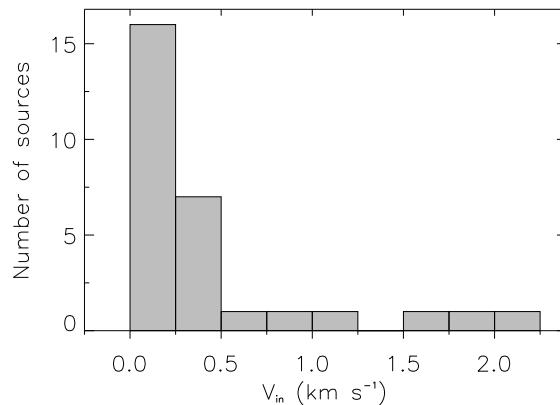


Fig. 5 Distribution of infall velocities for 31 confirmed sources with double-peaked profile in HCO⁺ (1-0).

Table 3 Infall Velocities of Confirmed Infall Sources with Double-peaked HCO⁺ (1-0) Profile

Source Name	V_{in} (km s ⁻¹)	Source Name	V_{in} (km s ⁻¹)
G012.72+0.69	0.04(0.04)	G053.11+0.09	0.19(0.04)
G012.87–0.20	0.36(0.01)	G053.12+0.08	0.11(0.02)
G012.96–0.23	2.02(0.12)	G053.14+0.09	0.04(0.03)
G013.97–0.15	0.09(0.02)	G079.24+0.53	0.71(0.22)
G014.02–0.19	0.45(0.01)	G079.71+0.15	0.12(0.03)
G014.11–0.16	0.34(0.02)	G081.72+0.57	0.97(0.10)
G014.26–0.17	0.44(0.03)	G081.72+1.28	0.16(0.05)
G017.09+0.82	0.04(0.01)	G081.90+1.43	0.02(0.04)
G025.82–0.18	1.53(0.20)	G082.17+0.07	0.01(0.02)
G026.32–0.07	1.21(0.13)	G085.05–1.25	0.41(0.10)
G028.20–0.07	0.06(0.03)	G108.99+2.73	0.16(0.04)
G028.97+3.54	0.44(0.10)	G110.32+2.52	0.08(0.01)
G029.60–0.63	1.78(0.20)	G110.32+2.54	<0.01(0.01)
G036.02–1.36	0.30(0.10)	G121.31+0.64	0.29(0.15)
G039.45–1.17	0.06(0.03)	G172.77+2.09	0.04(0.23)
G053.10+0.11	0.10(0.08)		

Columns are (from left to right) the source name, its infall velocity, the source name, and its infall velocity. The values in parentheses give the uncertainties.