LETTER TO THE EDITOR

Deuteration as an evolutionary tracer in massive-star formation^{★,★★} (Corrigendum)

F. Fontani¹, A. Palau², P. Caselli³, Á. Sánchez-Monge⁴, M. J. Butler⁵, J. C. Tan^{5,6}, I. Jiménez-Serra⁷, G. Busquet²,
S. Leurini⁸, and M. Audard^{9,10}

¹ INAF – Osservatorio Astrofisico di Arcetri, L.go E. Fermi 5, 50125 Firenze, Italy
e-mail: fontani@arcetri.astro.it

² Institut de Ciències de l'Espai (CSIC-IEEC), Campus UAB-Facultat de Ciències, Torre C5-parell 2, 08193 Bellaterra, Spain

³ School of Physics and Astronomy, E.C. Stoner Building, University of Leeds, Leeds LS2 9JT, UK

⁴ I. Physikalisches Institut der Universität zu Köln, Zùlpic her Str. 77, 50937 Köln, Germany

⁵ Department of Astronomy, University of Florida, Gainesville, 32611, USA

⁶ Department of Physics, University of Florida, Gainesville, 32611, USA

⁷ European Southern Observatory, Karl-Schwarzschild-Str. 2, 85748 Garching, Germany

⁸ Max-Planck-Institut für Radioastronomie, Auf dem Hügel 69, 53121 Bonn, Germany

⁹ ISDC Data Center for Astrophysics, University of Geneva, Ch. d'Ecogia 16, 1290 Versoix, Switzerland

¹⁰ Geneva Observatory, University of Geneva, ch. des Maillettes 51, 1290 Versoix, Switzerland

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In the published Letter, Table A.3 contains incorrect peak velocities of the N_2H^+ (3–2) and N_2D^+ (2–1) lines. This was due to a systematic shift of -15 km s^{-1} applied to the central channel of the spectra during the observations (to avoid possible spikes at band centre), and not corrected at a later stage. This error only affected the values listed in Cols. 3 and 8 of the Table, and does not affect the other parameters derived from the fits, as well as any conclusion of the paper. The correct Table is included below.

Moreover, the names of cores G034-F1(MM8) and G034-F2(MM7) given in Tables A.1 and A.3 had been switched. The correct coordinates are: RA = 18:53:16.5, Dec = +01:26:10 for G034-F1(MM8), and RA = 18:53:19.1, Dec = +01:26:53 for G034-F2(MM7). Therefore, all parameters given in Tables A.1 and A.3 for G034-F1(MM8) were in reality for G034-F2(MM7),

and vice-versa. We apologize for any confusion that may have occurred due to these mistakes.

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^{★★} Table 1 is available in electronic form at <http://www.aanda.org>

Table 1. Observational and derived line parameters.

	Source	N_2H^+ (3–2)				N_2D^+ (2–1)				$T_k^{††}$ (K)
		$\int T_{MB} dv$ (K km s ⁻¹)	V_{LSR} (km s ⁻¹)	$FWHM$ (km s ⁻¹)	τ	$T_{ex}^{\dagger}$ (K)	$\int T_{MB} dv$ (K km s ⁻¹)	V_{LSR} (km s ⁻¹)	$FWHM$ (km s ⁻¹)	
HMSCs	I00117-MM2	2.9(0.1)	-35.51(0.01)	2.27(0.04)	<0.1	7 ^a	0.48(0.02)	-35(1)	1.65(0.7)	10(1)
	AFGL5142-EC	20.7(0.1)	-2.21(0.01)	3.42(0.01)	0.51(0.01)	44.1(0.1) ^b	0.48(0.03)	-2.73(0.04)	1.35(0.1)	3.8(0.6)
	05358-mm3	43.0(0.1)	-15.34(0.01)	2.200(0.003)	5(2)	34(4) ^b	0.16(0.02)	-15.5(0.2)	2.9(0.4)	1.1(0.3)
	G034-G2(MM2)	2.0(0.1)	42.2(0.02)	1.950(0.003)	1.51(0.01)	7.57(0.03) ^b	0.76(0.03)	41.80(0.08)	1.6(0.3)	13(2)
	G034-F2(MM7)	1.65(0.05)	58.3(0.1)	2.84(0.3)	<0.1	16 ^c	0.25(0.03)	57.7(0.2)	1.4(0.9)	1.8(0.3)
	G034-F1(MM8)	1.08(0.08)	58.1(0.2)	2.5(0.5)	–	16 ^c	0.17(0.03)	57(4)	2.0(1.5)	1.2(0.3)
	G028-C1(MM9)	2.4(0.1)	80.32(0.03)	2.4(0.2)	3(1)	6.4(0.4) ^b	0.50(0.03)	80.10(0.08)	2.6(0.3)	13(2)
	I20293-WC	9.4(0.1)	7.490(0.008)	3.560(0.003)	<0.1	8.5 ^a	0.82(0.03)	7.3(0.3)	1.0(0.9)	11(2)
	I22134-G	6.9(0.1)	-18.20(0.01)	1.01(0.02)	3.3(0.2)	15.9(0.3) ^b	0.06(0.01)	-19.7(0.2)	0.8(0.5)	1.8(0.2)
	I22134-B	2.4(0.1)	-18.3(0.04)	0.83(0.03)	2.3(0.3)	10.4(0.4) ^b	0.09(0.02)	-18.8(0.06)	0.5(0.4)	1.0(0.1)
HMPOs	I00117-MM1	5.5(0.1)	-35.89(0.01)	1.500(0.04)	2.4(0.3)	19.3(0.4) ^b	≤0.07	–	–	1.26(0.1)
	I04579-VLA1 ^{†††}	1.23(0.02)	-17.51(0.06)	1.8(0.2)	<0.1	74 ^d	≤0.14	–	–	0.4(0.05)
	AFGL5142-MM	27.2(0.1)	-2.470(0.004)	2.820(0.006)	3.4(0.1)	39.24(0.01) ^b	0.40(0.02)	-2.7(0.1)	2.3(0.3)	6.1(0.6)
	05358-mm1	30.3(0.1)	-15.588(0.003)	2.040(0.003)	5(1)	46(2) ^b	0.15(0.02)	-15.7(0.3)	2.5(0.6)	7.2(0.7)
	18089-1732	31.4(0.2)	32.40(0.004)	4.960(0.001)	<0.1	38 ^d	0.29(0.03)	33.3(0.6)	3(1)	7.0(0.7)
	18517+0437	19.2(0.1)	44.44(0.03)	3.08(0.01)	<0.1	47 ^e	0.15(0.02)	44.2(0.5)	3(1)	4.6(0.5)
	G75-core	6.5(0.1)	0.01(0.02)	3.99(0.04)	<0.1	96 ^d	≤0.05	–	–	2.40(2)
	I20293-MM1	29.6(0.1)	6.69(0.02)	1.610(0.002)	6.4(0.1)	50.1(0.1) ^b	0.64(0.03)	5.69(0.08)	1.8(0.3)	7.3(0.7)
	I21307	6.5(0.1)	-46.29(0.02)	2.98(0.05)	<0.1	21 ^d	≤0.06	–	–	1.5(0.1)
	I23385	9.41(0.08)	-49.88(0.01)	3.02(0.03)	<0.1	37 ^d	0.08(0.05)	-48(3)	1.2(0.9)	2.1(0.2)
UCHII	G5.89-0.39	84.1(0.3)	9.180(0.003)	5.900(0.009)	<0.1	20 ^f	0.50(0.03)	7.6(0.1)	1.5(0.3)	19(2)
	I19035-VLA1	13.7(0.2)	32.62(0.01)	4.49(0.03)	<0.1	19.0(0.2) ^g	0.18(0.03)	32.5(0.1)	1.4(0.3)	3.2(0.3)
	19410+2336	33.3(0.1)	22.90(0.005)	3.550(0.001)	<0.1	21 ^d	0.52(0.05)	22.5(0.08)	1.5(0.3)	7.4(0.7)
	ONI	30.9(0.2)	12.579(0.001)	4.340(0.001)	<0.1	26 ^d	0.17(0.05)	11.7(0.9)	3.13(1.65)	6.6(0.7)
	I22134-VLA1	2.5(0.08)	-18.11(0.01)	1.300(0.06)	1.9(0.4)	10.6(0.5) ^b	0.08(0.01)	-19.2(0.4)	0.7(1.0)	1.0(0.1)
	23033+5951	19.6(0.1)	-52.72(0.03)	3.530(0.002)	<0.1	25 ^d	0.52(0.02)	-53.2(0.5)	0.8(0.5)	4.4(0.4)
	NGC7538-IRS9	13.9(0.1)	-56.814(0.006)	3.42(0.03)	<0.1	20 ^f	0.14(0.02)	-57(2)	2.6(0.5)	3.2(0.3)
UC HII										

Notes. Columns 2–6 list integrated intensity over all the hyperfine components ($\int T_{MB} dv$), peak velocity (V_{LSR}), full width at half maximum (FWHM) corrected for hyperfine splitting, opacity (τ) and excitation temperature (T_{ex}), from N_2H^+ (3–2); Cols. 7–9 list $\int T_{MB} dv$, V_{LSR} and FWHM for the N_2D^+ (2–1) lines. In Cols. 10 and 11 we give the N_2H^+ and N_2D^+ column densities, respectively, and their ratio (D_{HSC}) is given in Col. 12. Column 13 shows the kinetic temperature (T_k) measured from ammonia observations. Uncertainties are given in parentheses. ^(†) T_{ex} associated with uncertainties are calculated from the data, the others are assumed as explained in the footnotes; ^(††) T_k are derived from ammonia rotation temperatures following Tafalla et al. (2004); ^(†††) $T_{ex} \sim 1/2 T_k$, based on the results derived in this work for the HMPOs with well constrained T_{ex} and T_k , except the “warm” ones; ^(b) derived from the (3–2) line parameters obtained from the hyperfine fitting procedure and corrected for filling factor (see also the CLASS User Manual (<http://iram.fr/IRAMFR/GILDAS/doc/html/class.html/class.html>)); ^(c) average value for HMPOs; ^(d) $T_{ex} \sim T_k$, based on the results derived in this work for the HMPOs with well constrained T_{ex} and T_k , and on the findings of Fontani et al. (2006) towards a sample of massive cores containing both HMPOs and UC HII regions; ^(e) average value for HMPOs; ^(f) computed from the N_2H^+ (1–0) line; ^(g) from VLA observations (Busquet 2010; Sánchez-Monge 2011; Palau, priv. comm.); ^(h) from Effelsberg observations (Pillai et al. 2006); ⁽ⁱ⁾ from Effelsberg observations (Molinari et al. 1996); ^(j) from Effelsberg observations (Sridharan et al. 2002); ^(k) from VLA observations (Fontani et al. 2004); ^(m) from Effelsberg observations (Iijima et al. 1999); ⁽ⁿ⁾ N_2H^+ parameters are derived from the (1–0) line, for which $\int T_{MB} dv$ is the integrated intensity of the isolated component ($F_1 F = 1, 0-1, 1$) appropriately normalised and assumed to be optically thin. However, because observations were obtained under very bad weather conditions, the D_{HSC} upper limit derived from this source is unreliable and we decided to exclude it in the following analysis.