Laboratory rotational spectroscopy of isotopic acetone, $\text{CH}_3^{13}\text{C}(\text{O})\text{CH}_3$ and $^{13}\text{CH}_3\text{C}(\text{O})\text{CH}_3$, and astronomical search in Sagittarius B2(N2) (*Corrigendum*)

Matthias H. Ordu¹, Oliver Zingsheim¹, Arnaud Belloche², Frank Lewen¹, Robin T. Garrod³, Karl M. Menten²,
Stephan Schlemmer¹, and Holger S. P. Müller¹

¹ I. Physikalisches Institut, Universität zu Köln, Zùlpicher Str. 77, 50937 Köln, Germany
e-mail: zingsheim@ph1.uni-koeln.de

² Max-Planck-Institut für Radioastronomie, Auf dem Hügel 69, 53121 Bonn, Germany

³ Departments of Chemistry and Astronomy, University of Virginia, Charlottesville, VA 22904, USA

A&A, 629, A72 (2019), <https://doi.org/10.1051/0004-6361/201935887>

Key words. molecular data – methods: laboratory: molecular – techniques: spectroscopic – radio lines: ISM – ISM: molecules –
errata, addenda

Typographical errors occurred during the production process in Tables A.1 and A.2. These tables are published here and the corrected values are in bold.

Table A.1. Spectroscopic parameters^(a) of the vibrationally excited state $\nu_{12} = 1$ of $\text{CH}_3\text{C}(\text{O})\text{CH}_3$.

Parameter	$\nu_{12} = 1$	Parameter	$\nu_{12} = 1$
ρ	0.0624819 (165)	$[M_{KJ}]_{10}/\mu\text{Hz}$	331.8 (233)
$\beta/^\circ$	25.6443 (66)	$[\Phi_J]_{10}/\text{Hz}$	2.243 (37)
A/MHz	10177.0066 (33)	$[L_{JK}]_{10}/\text{mHz}$	3.586 (267)
B/MHz	8502.97353 (212)	$[M_{JK}]_{10}/\mu\text{Hz}$	-66.7 (42)
C/MHz	4910.34514 (154)	$[L_J]_{10}/\mu\text{Hz}$	-234.4 (216)
Δ_J/kHz	4.9566 (102)	$[B_{021}]_{10}/\text{kHz}$	9.27 (39)
Δ_{JK}/kHz	0.460 (41)	$[(B - C)/4]_{10}/\text{kHz}$	-463.5 (63)
Δ_K/kHz	1.631 (91)	$[B_{012}]_{10}/\text{kHz}$	-142.82 (203)
δ_J/kHz	2.0942 (54)	$[\delta_K]_{10}/\text{kHz}$	-2.328 (54)
δ_K/kHz	0.6937 (212)	$[m_K]_{10}/\mu\text{Hz}$	43.45 (181)
Φ_J/mHz	120.5 (246)	$[\phi_K]_{10}/\text{Hz}$	1.580 (108)
Φ_{JK}/Hz	14.530 (198)	$[\phi_J]_{10}/\text{mHz}$	521.4 (97)
Φ_{KJ}/Hz	-24.27 (55)	$[l_{JK}]_{10}/\text{mHz}$	-2.926 (139)
Φ_K/Hz	-14.68 (70)	$[m_{JK}]_{10}/\mu\text{Hz}$	-2.075 (122)
ϕ_J/mHz	72.8 (127)	$[d_2]_{10}/\text{Hz}$	-186.6 (57)
ϕ_{JK}/Hz	6.922 (102)	$[B_{024}]_{10}/\text{Hz}$	2.807 (165)
ϕ_K/mHz	-868 (146)	$[B_{064}]_{10}/\mu\text{Hz}$	-124.6(61)
$\epsilon_{1-1}/\text{MHz}$	100.977 (60)	$[h_2]_{10}/\text{Hz}$	-1.1388 (191)
ϵ_{10}/GHz	5.61430 (201)	$[B_{224}]_{10}/\text{mHz}$	-2.073 (149)
ϵ_{11}/MHz	67.223 (61)	$[B_{244}]_{10}/\mu\text{Hz}$	34.34 (209)
ϵ_{20}/MHz	19.329 (108)	$[l_2]_{10}/\mu\text{Hz}$	133.3 (117)
L_K/mHz	16.34 (114)	$[h_3]_{10}/\text{mHz}$	-506.7 (95)
L_{JK}/mHz	-2.486 (91)	$[B_{046}]_{10}/\mu\text{Hz}$	16.92 (68)
l_{JK}/mHz	-1.534 (58)	$[B_{226}]_{10}/\mu\text{Hz}$	2.129 (122)
$[B_{010}^-]_{1-1}/\text{kHz}$	-885.7 (160)	$[A - (B + C)/2]_{11}/\text{kHz}$	-209.2 (49)
$[B_{100}^-]_{1-1}/\text{MHz}$	-4.156 (78)	$[\Delta_K]_{11}/\text{kHz}$	6.362 (61)
$[A - (B + C)/2]_{1-1}/\text{kHz}$	26.08 (141)	$[\Phi_K]_{11}/\text{Hz}$	-17.702 (210)
$[\Delta_K]_{1-1}/\text{kHz}$	1.1225 (199)	$[(B + C)/2]_{11}/\text{kHz}$	24.29 (131)
$[\Phi_K]_{1-1}/\text{Hz}$	-1.380 (59)	$[\Delta_{JK}]_{11}/\text{kHz}$	-1.3051 (251)
$[(B + C)/2]_{1-1}/\text{kHz}$	-38.80 (89)	$[\Delta_J]_{11}/\text{Hz}$	-202.7 (80)
$[\Delta_{JK}]_{1-1}/\text{kHz}$	-1.2087 (213)	$[\Phi_J]_{11}/\text{mHz}$	441.0 (164)
$[\Delta_J]_{1-1}/\text{Hz}$	182.4 (54)	$[L_{JK}]_{11}/\text{mHz}$	4.529 (170)
$[\Phi_{JK}]_{1-1}/\text{Hz}$	3.210 (65)	$[L_J]_{11}/\mu\text{Hz}$	-436 (35)
$[\Phi_J]_{1-1}/\text{Hz}$	-1.6468 (297)	$[(B - C)/4]_{11}/\text{kHz}$	-32.49 (40)
$[L_{JK}]_{1-1}/\text{mHz}$	-1.899 (109)	$[\delta_K]_{11}/\text{kHz}$	21.08 (30)
$[L_J]_{1-1}/\text{mHz}$	1.487 (63)	$[\phi_K]_{11}/\text{Hz}$	-70.98 (111)
$[\delta_K]_{1-1}/\text{Hz}$	426.7 (81)	$[l_K]_{11}/\text{mHz}$	68.39 (156)
$[\phi_K]_{1-1}/\text{Hz}$	-1.497 (115)	$[\delta_J]_{11}/\text{Hz}$	-86.9 (40)
$[\delta_J]_{1-1}/\text{Hz}$	84.56 (261)	$[\phi_{JK}]_{11}/\text{Hz}$	2.931 (95)
$[\phi_J]_{1-1}/\text{mHz}$	-541.3 (116)	$[\phi_J]_{11}/\text{mHz}$	266.7 (91)
$[l_{JK}]_{1-1}/\mu\text{Hz}$	-491.6 (293)	$[l_J]_{11}/\mu\text{Hz}$	-191.0 (215)
$[l_J]_{1-1}/\mu\text{Hz}$	631.4 (227)	$[B_{024}]_{11}/\text{Hz}$	3.543 (98)
$[B_{024}]_{1-1}/\text{mHz}$	-879.4 (244)	$[B_{224}]_{11}/\text{mHz}$	-2.40 (32)
$[B_{044}]_{1-1}/\mu\text{Hz}$	-673 (47)	$[B_{026}]_{11}/\text{mHz}$	-5.68 (38)
$[h_2]_{1-1}/\text{mHz}$	641.6 (113)	$[l_3]_{11}/\mu\text{Hz}$	149.2 (212)
$[l_2]_{1-1}/\mu\text{Hz}$	-566.7 (299)	$[l_4]_{11}/\mu\text{Hz}$	177.0 (150)
$[h_3]_{1-1}/\text{mHz}$	356.5 (56)	$[A - (B + C)/2]_{20}/\text{kHz}$	285.8 (48)
$[l_3]_{1-1}/\mu\text{Hz}$	-615.8 (249)	$[\Delta_K]_{20}/\text{kHz}$	-1.339 (59)
$[l_4]_{1-1}/\mu\text{Hz}$	-160.3 (59)	$[\Phi_K]_{20}/\text{Hz}$	-1.901 (133)
$[B_{010}^-]_{10}/\text{MHz}$	-25.80 (45)	$[(B + C)/2]_{20}/\text{kHz}$	-205.0 (43)
$[B_{210}^-]_{10}/\text{kHz}$	44.06 (61)	$[\Delta_{JK}]_{20}/\text{kHz}$	2.824 (88)
$[A - (B + C)/2]_{10}/\text{MHz}$	-1.9353 (232)	$[\Phi_{KJ}]_{20}/\text{Hz}$	2.226 (101)
$[\Delta_K]_{10}/\text{kHz}$	-4.351 (84)	$[\Delta_J]_{20}/\text{kHz}$	-1.251 (32)
$[\Phi_K]_{10}/\text{Hz}$	-1.13 (38)	$[(B - C)/4]_{20}/\text{kHz}$	507.8 (70)
$[M_K]_{10}/\mu\text{Hz}$	250.2 (207)	$[\delta_K]_{20}/\text{Hz}$	251 (32)
$[B_{100}]_{10}/\text{MHz}$	137.0 (40)	$[\delta_J]_{20}/\text{Hz}$	-46.42 (224)
$[(B + C)/2]_{10}/\text{kHz}$	373.4 (57)	$[\phi_{JK}]_{20}/\text{mHz}$	597.0 (264)
$[\Delta_{JK}]_{10}/\text{kHz}$	4.526 (87)	$[\phi_J]_{20}/\text{mHz}$	-239.0 (113)
$[\Phi_{KJ}]_{10}/\text{Hz}$	6.77 (63)	$[d_2]_{20}/\text{Hz}$	761.2 (193)
$[M_{KKJ}]_{10}/\mu\text{Hz}$	-518 (39)	$[h_3]_{20}/\text{mHz}$	197.2 (76)
$[\Phi_{JK}]_{10}/\text{Hz}$	-8.38 (34)		
No. of transitions fit	1621		
No. of lines fit	1298		
Standard deviation ^(b)	1.36		

Notes. ^(a)Numbers in parentheses are one standard deviation in units of the least significant figures. ^(b)Weighted unitless value for the entire fit.

Table A.2. Spectroscopic parameters^(a) of the vibrationally excited state $\nu_{17} = 1$ of $\text{CH}_3\text{C}(\text{O})\text{CH}_3$.

Parameter	$\nu_{17} = 1$
ρ	0.062788 (80)
$\beta/^\circ$	27.100 (45)
A/MHz	10191.123(98)
B/MHz	8480.859 (81)
C/MHz	4910.06430 (229)
Δ_J/kHz	7.812 (109)
Δ_{JK}/kHz	2.84 (118)
Δ_K/kHz	-37.67 (191)
δ_J/kHz	3.535 (54)
δ_K/kHz	2.57 (46)
Φ_J/Hz	10.314 (283)
Φ_{JK}/Hz	-41.17 (111)
Φ_{KJ}/Hz	-6.42 (31)
Φ_K/Hz	-42.93 (178)
ϕ_J/Hz	5.153 (141)
$\epsilon_{1-1}/\text{MHz}$	-30.21 (74)
ϵ_{10}/GHz	12.9700 (287)
ϵ_{11}/MHz	102.91 (295)
ϵ_{20}/MHz	458.9 (32)
ϵ_{30}/MHz	21.24 (32)
$[A - (B + C)/2]_{1-1}/\text{kHz}$	-302.8 (68)
$[(B + C)/2]_{1-1}/\text{kHz}$	36.29 (68)
$[\Delta_{JK}]_{1-1}/\text{kHz}$	1.0376 (295)
$[\Delta_J]_{1-1}/\text{Hz}$	-395.6 (117)
$[\delta_K]_{1-1}/\text{Hz}$	341.7 (136)
$[\delta_J]_{1-1}/\text{Hz}$	-193.4 (59)
$[B_{010}]_{10}/\text{MHz}$	43.83 (282)
$[A - (B + C)/2]_{10}/\text{kHz}$	-461 (97)
$[\Delta_K]_{10}/\text{kHz}$	-17.97 (54)
$[(B + C)/2]_{10}/\text{kHz}$	812.4 (211)
$[B_{210}]_{10}/\text{kHz}$	8.41 (40)
$[\Delta_{JK}]_{10}/\text{kHz}$	13.051 (258)
$[\Delta_J]_{10}/\text{Hz}$	-882.8 (224)
$[\Phi_{JK}]_{10}/\text{Hz}$	6.45 (32)
$[B_{011}]_{10}/\text{kHz}$	-437 (69)
$[B_{101}]_{10}/\text{MHz}$	-5.693 (107)
$[B_{211}]_{10}/\text{kHz}$	-2.599 (194)
$[(B - C)/4]_{10}/\text{kHz}$	339.0 (98)
$[\phi_K]_{10}/\text{Hz}$	24.97 (86)
$[\phi_J]_{10}/\text{mHz}$	-299.8 (219)
$[d_2]_{10}/\text{Hz}$	468.6 (114)
$[B_{024}]_{10}/\text{Hz}$	-3.529 (146)
$[h_2]_{10}/\text{mHz}$	-482 (35)
$[h_3]_{10}/\text{mHz}$	-182.5 (126)
$[(B + C)/2]_{11}/\text{kHz}$	108.9 (66)
$[\Delta_J]_{11}/\text{Hz}$	7.58 (48)
$[(B - C)/4]_{11}/\text{kHz}$	61.4 (31)
$[\delta_K]_{11}/\text{Hz}$	314.4 (182)
$[A - (B + C)/2]_{20}/\text{kHz}$	-298.2 (261)
$[\Delta_K]_{20}/\text{kHz}$	2.654 (88)
$[(B + C)/2]_{20}/\text{kHz}$	263.3 (59)
$[\delta_K]_{20}/\text{Hz}$	966.6 (249)
No. of transitions fit	939
No. of lines fit	719
Standard deviation ^(b)	1.62

Notes. ^(a)Numbers in parentheses are one standard deviation in units of the least significant figures. ^(b)Weighted unitless value for the entire fit.