Non-thermal desorption of complex organic molecules

E. Dartois, M. Chabot, T. Id Barkach, H. Rothard, B. Augé, A. N. Agnihotri, A. Domaracka, P. Boduch

A&A 628, C2 (2019)
https://doi.org/10.1051/0004-6361/201834787e

Astronomy & Astrophysics

Non-thermal desorption of complex organic molecules

Efficient CH_3OH and CH_3COOCH_3 sputtering by cosmic rays *(Corrigendum)*

E. Dartois[1], M. Chabot[2], T. Id Barkach[2], H. Rothard[3], B. Augé[4], A. N. Agnihotri[5], A. Domaracka[3], and P. Boduch[3]

[1] Institut des Sciences Moléculaires d'Orsay (ISMO), UMR8214, CNRS – Université de Paris-Sud, Université Paris-Saclay, Bât 520, Rue André Rivière, 91405 Orsay, France
e-mail: emmanuel.dartois@u-psud.fr
[2] Institut de Physique Nucléaire d'Orsay (IPNO), CNRS-IN2P3, Université de Paris-Sud, Université Paris-Saclay, 91406 Orsay, France
[3] Centre de Recherche sur les Ions, les Matériaux et la Photonique, CIMAP-CIRIL-GANIL, Normandie Université, ENSICAEN, UNICAEN, CEA, CNRS, 14000 Caen, France
[4] Centre de Sciences Nucléaires et de Sciences de la Matière (CSNSM), CNRS/IN2P3, Université de Paris-Sud, Université Paris-Saclay, 91405 Orsay, France
[5] Department of Physics, Indian Institute of Technology, Hauz Khas, New Delhi 110016, India

A&A, 627, A55 (2019), https://doi.org/10.1051/0004-6361/201834787

Key words. astrochemistry – cosmic rays – molecular processes – ISM: lines and bands – solid state: volatile – errata, addenda

A typographical error must be corrected in Table 2. The integrated band strength (A value, cm molec^{-1}) for the CO_2 stretch at 2350 cm^{-1} was incorrectly typeset and attributed the same value as the CH_3OH C–O stretch (1.8×10^{-17}cm molec^{-1}), and the reference D'Hendecourt & Allamandola (1986). They have been replaced in Table 2.

Table 2. Integrated band strengths used in the analysis.

Species	Mode	Position cm^{-1}	A cm molec^{-1}	Ref.
CO	CO stretch	2140	1.1×10^{-17}	Jiang et al. (1975)
			1.1×10^{-17}	Gerakines et al. (1995)
			1.12×10^{-17}	Bouilloud et al. (2015)
			1.1×10^{-17}	Adopted for this work
CO_2	CO_2 stretch	2350	7.6×10^{-17}	Gerakines et al. (1995)
H_2O	OH stretch	3600–2700	2.2×10^{-16}	D'Hendecourt & Allamandola (1986)
			$2.2 \pm^{0}_{0.2} \times 10^{-16}$	Adopted for this work
CH_3OH	OH stretch	3600–2700	1.1×10^{-16}	D'Hendecourt & Allamandola (1986)
			1.28×10^{-16}	Palumbo et al. (1999)
			1.0×10^{-16}	Bouilloud et al. (2015)
			$1.1 \pm 0.15 \times 10^{-16}$	Adopted for this work
CH_3OH	C–O stretch	1030	1.8×10^{-17}	D'Hendecourt & Allamandola (1986)
			1.8×10^{-17}	Sandford & Allamandola (1993)
			1.2×10^{-17}	Palumbo et al. (1999)
			1.07×10^{-17}	Bouilloud et al. (2015)
			$1.5 \pm^{0.3}_{0.4} \times 10^{-17}$	Adopted for this work
CH_3COOCH_3	C–O stretch	1255	5×10^{-17} [(a)]	D'Hendecourt & Allamandola (1986)
			$5 \pm 0 \times 10^{-17}$	Adopted for this work

Notes. [(a)]Band strength from the CO stretching mode of ethyl acetate measurement.