Cosmic-ray ionization of molecular clouds (Corrigendum)

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A&A 501, 619–631 (2009), DOI: [10.1051/0004-6361/200911794](https://doi.org/10.1051/0004-6361/200911794)

Key words. cosmic rays – ISM: clouds – atomic processes – molecular processes – errata, addenda

The coefficients of the fitting formula for the high-column density behavior of the cosmic-ray ionization rate (Eq. (28)), given in Table 5 of this paper, are not correct¹. The correct version of Table 5 is:

Table 5. Fitting coefficients for Eq. (28) describing the attenuation of CR protons (p , also including heavy nuclei) and electrons (e).

k	Spectrum	$\zeta_{0,k}$ (s^{-1})	$\Sigma_{0,k}$ ($g\ cm^{-2}$)
p	W98	2.6×10^{-18}	244
p	M02	2.7×10^{-18}	251
e	C00	2.5×10^{-19}	106
e	E00	7.8×10^{-18}	81

The results and the conclusions of the paper are unaffected. For convenience, we give a single fitting formula combining the low- and high-column density approximations, Eqs. (27) and (28),

$$\zeta_k^{H_2} = \frac{\zeta_{0,k}^{(low)} \zeta_{0,k}^{(high)}}{\zeta_{0,k}^{(high)} [N(H_2)/10^{20}\ cm^{-2}]^a + \zeta_{0,k}^{(low)} [\exp(\Sigma/\Sigma_{0,k}) - 1]}, \quad (1)$$

where “low” and “high” refer to the values listed in Tables 4 and 5, respectively, and the other symbols are defined in the text.

¹ We thank Ilse Cleeves for pointing out this mistake.