

IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet of FO_x36

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This data sheet updated: 3rd February 2004.

FO₂ + CO → products

Rate coefficient data

k/cm ³ molecule ⁻¹ s ⁻¹	Temp./K	Reference	Technique/ Comments
<i>Absolute Rate Coefficients</i> <5.1 x 10 ⁻¹⁶	298	Sehested <i>et al.</i> , 1994 ¹	PR-UVA(a)

Comments

- (a) Pulse radiolysis of CO-O₂-SF₆ mixtures in a high pressure cell at 18 bar SF₆. The decay of FO₂ radicals was monitored in absorption at 220 nm.

Preferred Values

$k < 6 \times 10^{-16} \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$ at 298 K.

Comments on Preferred Values

The preferred room temperature upper limit is based on results of the pulse radiolysis-UV absorption study of Sehested *et al.*¹ This is the sole reported study of this reaction.

References

- ¹ J. Sehested, K. Sehested, O. J. Nielsen, and T. J. Wallington, *J. Phys. Chem.* **98**, 6731 (1994).