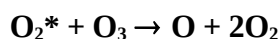


## IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet Ox5

Website: <http://iupac.pole-ether.fr>. See website for latest evaluated data. Data sheets can be downloaded for personal use only and must not be retransmitted or disseminated either electronically or in hardcopy without explicit written permission.

This data sheet updated: 2<sup>nd</sup> October 2001.

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### Comments

Arnold and Comes<sup>1,2</sup> have studied this reaction of vibrationally excited oxygen molecules in the ground electronic state with ozone and they report a rate coefficient of  $2.8 \times 10^{-15} \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$  at 298 K. The vibrationally excited oxygen molecules were produced in the reaction of O(<sup>1</sup>D) atoms with O<sub>3</sub> following the UV photolysis of ozone. This is the only reported study of this rate coefficient, and we make no recommendation. For further discussion the reader is referred to the review by Steinfeld *et al.*<sup>3</sup>

### References

- <sup>1</sup> I. Arnold and F. J. Comes, *Chem. Phys.* **47**, 125 (1980).
- <sup>2</sup> I. Arnold and F. J. Comes, *J. Mol. Struct.* **61**, 223 (1980).
- <sup>3</sup> J. I. Steinfeld, S. M. Adler-Golden, and J. W. Gallagher, *J. Phys. Chem. Ref. Data* **16**, 911 (1987).