

## IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet SOx43

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: 19<sup>th</sup> November 2001.

---

### HSO<sub>2</sub> + O<sub>2</sub> → products

#### Rate coefficient data

<i>k</i> /cm <sup>3</sup> molecule <sup>-1</sup> s <sup>-1</sup>	Temp./K	Reference	Technique/ Comments
<i>Absolute Rate Coefficients</i> 3.0 x 10 <sup>-13</sup>	296	Lovejoy, Wang and Howard, 1987 <sup>1</sup>	DF-LMR

#### Preferred Values

$k = 3.0 \times 10^{-13} \text{ cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$  at 298 K.

#### Reliability

$\Delta \log k = \pm 0.8$  at 298 K.

#### Comments on Preferred Values

There is only one study of this reaction.<sup>1</sup> The method used to obtain the rate coefficient was indirect, and this leads us to suggest substantial error limits despite the high quality of the experimental work.

#### References

<sup>1</sup> E. R. Lovejoy, N. S. Wang, and C. J. Howard, *J. Phys. Chem.* **91**, 5749 (1987).