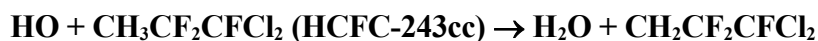


IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation – Data Sheet oClOx60

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. The citation for this data sheet is: Atkinson, R., Baulch, D. L., Cox, R. A., Crowley, J. N., Hampson, R. F., Hynes, R. G., Jenkin, M. E., Rossi, M. J., Troe, J., and Wallington, T. J.: Atmos. Chem. Phys., 9, 4141, 2008; IUPAC Task Group on Atmospheric Chemical Kinetic Data Evaluation, <http://iupac.pole-ether.fr>.

This data sheet last evaluated: June 2015; last change in preferred values: November 2003.



Rate coefficient data

$k/\text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	Temp./K	Reference	Technique/ Comments
<i>Absolute Rate Coefficients</i>			
$7.1 \times 10^{-13} \exp[-(1690 \pm 230)/T]$ $(2.1 \pm 0.2) \times 10^{-15}$	295-367 295	Nelson et al., 1992	DF-LIF

Preferred Values

Parameter	Value	T/K
$k / \text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	2.4×10^{-15}	298
$k / \text{cm}^3 \text{ molecule}^{-1} \text{ s}^{-1}$	$7.0 \times 10^{-13} \exp(-1690/T)$	290-370
<i>Reliability</i>		
$\Delta \log k$	± 0.30	298
$\Delta(E/R)$	± 300	290-370

Comments on Preferred Values

The preferred values are based on the sole study of Nelson et al. (1992).

References

Nelson, D. D., Jr., Zahniser, M. S. and Kolb, C. E.: J. Phys. Chem., 96, 249, 1992.

