

John N Crowley

List of Publications by Year in descending order

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132
papers

9,874
citations

76326

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h-index

45317

90
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249
all docs

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docs citations

249
times ranked

6249
citing authors

#	ARTICLE	IF	CITATIONS
19	Pyruvic acid in the boreal forest: gas-phase mixing ratios and impact on radical chemistry. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3697-3711.	4.9	19
20	A new marine biogenic emission: methane sulfonamide (MSAM), dimethyl sulfide (DMS), and dimethyl sulfone (DMSO) measured in air over the Arabian Sea. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6081-6094.	4.9	24
21	Net ozone production and its relationship to nitrogen oxides and volatile organic compounds in the marine boundary layer around the Arabian Peninsula. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 6769-6787.	4.9	43
22	Kinetic and mechanistic study of the reaction between methane sulfonamide (CH ₃ SO ₂ NH ₂) and OH. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 2695-2707.	4.9	25
23	Evolution of NO ₃ reactivity during the oxidation of isoprene. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10459-10475.	4.9	10
24	Measurements of carbonyl compounds around the Arabian Peninsula: overview and model comparison. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 10807-10829.	4.9	14
25	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume VII – Criegee intermediates. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13497-13519.	4.9	55
26	Measurement of NO _x and NO _y with a thermal dissociation cavity ring-down spectrometer (TD-CRDS): instrument characterisation and first deployment. <i>Atmospheric Measurement Techniques</i> , 2020, 13, 5739-5761.	3.1	10
27	Reaction between CH ₃ C(O)OOH (peracetic acid) and OH in the gas phase: a combined experimental and theoretical study of the kinetics and mechanism. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 13541-13555.	4.9	5
28	Shipborne measurements of total OH reactivity around the Arabian Peninsula and its role in ozone chemistry. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11501-11523.	4.9	40
29	Alkyl nitrates in the boreal forest: formation via the NO ₃ -, OH- and O ₃ -induced oxidation of biogenic volatile organic compounds and ambient lifetimes. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 10391-10403.	4.9	28
30	Kinetics of the OH+NO ₂ reaction: rate coefficients (217–333 K). <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 10643-10657.	4.9	8
31	Non-methane hydrocarbon (C ₂ H ₈) sources and sinks around the Arabian Peninsula. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 7209-7232.	4.9	35
32	Laser-induced fluorescence-based detection of atmospheric nitrogen dioxide and comparison of different techniques during the PARADE2011 field campaign. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 1461-1481.	3.1	12
33	Chemical ionization quadrupole mass spectrometer with an electrical discharge ion source for atmospheric trace gas measurement. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 1935-1954.	3.1	21
34	Diurnal variability, photochemical production and loss processes of hydrogen peroxide in the boundary layer over Europe. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11953-11968.	4.9	14
35	Trapping of HCl and oxidised organic trace gases in growing ice at temperatures relevant to cirrus clouds. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 11939-11951.	4.9	7
36	Shipborne measurements of ClNO ₂ in the Mediterranean Sea and around the Arabian Peninsula during summer. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 12121-12140.	4.9	23

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37	Products and mechanism of the OH-initiated photo-oxidation of perfluoro ethyl vinyl ether, C ₂ F ₅ OCF ₂ . Physical Chemistry Chemical Physics, 2018, 20, 11306-11316.	2.8	5
38	Absolute and relative-rate measurement of the rate coefficient for reaction of perfluoro ethyl vinyl ether (C ₂ F ₅ OCF ₂) with OH. Physical Chemistry Chemical Physics, 2018, 20, 3761-3767.	2.8	2
39	Temperature-(208–318 K) and pressure-(18–696 Torr) dependent rate coefficients for the reaction between OH and HNO ₃ . Atmospheric Chemistry and Physics, 2018, 18, 2381-2394.	4.9	18
40	Direct measurement of NO ₃ radical reactivity in a boreal forest. Atmospheric Chemistry and Physics, 2018, 18, 3799-3815.	4.9	45
41	IUPAC in the (real) clouds. Chemistry International, 2018, 40, 10-13.	0.3	1
42	Oxidation processes in the eastern Mediterranean atmosphere: evidence from the modelling of HO ₂ and measurements over Cyprus. Atmospheric Chemistry and Physics, 2018, 18, 10825-10847.	4.9	35
43	Insights into HO ₂ and RO ₂ chemistry in the boreal forest via measurement of peroxyacetic acid, peroxyacetic nitric anhydride (PAN) and hydrogen peroxide. Atmospheric Chemistry and Physics, 2018, 18, 13457-13479.	4.9	28
44	Reactive quenching of electronically excited NO ₂ and NO ₃ by H ₂ O as potential sources of atmospheric HO ₂ radicals. Atmospheric Chemistry and Physics, 2018, 18, 14005-14015.	4.9	8
45	Direct measurements of NO ₃ reactivity in and above the boundary layer of a mountaintop site: identification of reactive trace gases and comparison with OH reactivity. Atmospheric Chemistry and Physics, 2018, 18, 12045-12059.	4.9	29
46	The Essential Role for Laboratory Studies in Atmospheric Chemistry. Environmental Science & Technology, 2017, 51, 2519-2528.	10.0	75
47	Glyoxal measurement with a proton transfer reaction time of flight mass spectrometer (PTR-TOFMS): characterization and calibration. Journal of Mass Spectrometry, 2017, 52, 30-35.	1.6	27
48	Nitrate radicals and biogenic volatile organic compounds: oxidation, mechanisms, and organic aerosol. Atmospheric Chemistry and Physics, 2017, 17, 2103-2162.	4.9	307
49	Temperature-dependent rate coefficients for the reactions of the hydroxyl radical with the atmospheric biogenics isoprene, alpha-pinene and delta-3-carene. Atmospheric Chemistry and Physics, 2017, 17, 15137-15150.	4.9	10
50	Day and night-time formation of organic nitrates at a forested mountain site in south-west Germany. Atmospheric Chemistry and Physics, 2017, 17, 4115-4130.	4.9	36
51	Atmospheric chemistry, sources and sinks of carbon suboxide, C ₃ O ₂ . Atmospheric Chemistry and Physics, 2017, 17, 8789-8804.	4.9	6
52	Volatile organic compounds (VOCs) in photochemically aged air from the eastern and western Mediterranean. Atmospheric Chemistry and Physics, 2017, 17, 9547-9566.	4.9	35
53	Measurement of ambient NO ₃ reactivity: design, characterization and first deployment of a new instrument. Atmospheric Measurement Techniques, 2017, 10, 1241-1258.	3.1	16
54	A two-channel thermal dissociation cavity ring-down spectrometer for the detection of ambient NO ₂ , RO ₂ and RONO ₂ . Atmospheric Measurement Techniques, 2016, 9, 553-576.	3.1	48

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55	A five-channel cavity ring-down spectrometer for the detection of NO ₂ , NO ₃ , N ₂ O ₅ , total peroxy nitrates and total alkyl nitrates. <i>Atmospheric Measurement Techniques</i> , 2016, 9, 5103-5118.	3.1	42
56	Adsorption isotherms for hydrogen chloride (HCl) on ice surfaces between 190 and 220 K. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13799-13810.	2.8	14
57	Aerosol Chemistry Resolved by Mass Spectrometry: Linking Field Measurements of Cloud Condensation Nuclei Activity to Organic Aerosol Composition. <i>Environmental Science & Technology</i> , 2016, 50, 10823-10832.	10.0	22
58	Estimating N ₂ O ₅ uptake coefficients using ambient measurements of NO ₃ , N ₂ O ₅ , ClNO ₂ and particle-phase nitrate. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 13231-13249.	4.9	71
59	Daytime formation of nitrous acid at a coastal remote site in Cyprus indicating a common ground source of atmospheric HONO and NO. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 14475-14493.	4.9	69
60	Chemical and meteorological influences on the lifetime of NO ₃ at a semi-rural mountain site during PARADE. <i>Atmospheric Chemistry and Physics</i> , 2016, 16, 4867-4883.	4.9	51
61	Simulations of atmospheric OH, O ₃ and NO ₃ reactivities within and above the boreal forest. <i>Atmospheric Chemistry and Physics</i> , 2015, 15, 3909-3932.	4.9	57
62	Kinetics and mechanism of the reaction of perfluoro propyl vinyl ether (PPVE). <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 18558-18566.	2.8	12
63	Theoretical study of the OH-initiated atmospheric oxidation mechanism of perfluoro methyl vinyl ether, CF ₃ OCF ₂ . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 28697-28704.	2.8	10
64	Pressure dependent OH yields in the reactions of CH ₃ CO and HOCH ₂ CO with O ₂ . <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 10990.	2.8	21
65	Direct Kinetic Study of OH and O ₃ Formation in the Reaction of CH ₃ C(O)O ₂ with HO ₂ . <i>Journal of Physical Chemistry A</i> , 2014, 118, 974-985.	2.5	58
66	Heterogeneous reaction of N ₂ O ₅ with illite and Arizona test dust particles. <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 245-254.	4.9	30
67	Pressure dependent photolysis quantum yields for CH ₃ C(O)CH ₃ at 300 and 308 nm and at 298 and 228 K. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 10500.	2.8	8
68	The detection of nocturnal N ₂ O ₅ as HNO ₃ by alkali- and aqueous-denuder techniques. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 231-237.	3.1	18
69	Peroxyacetyl nitrate (PAN) and peroxyacetic acid (PAA) measurements by iodide chemical ionisation mass spectrometry: first analysis of results in the boreal forest and implications for the measurement of PAN fluxes. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 1129-1139.	4.9	67
70	Diel peroxy radicals in a semi-industrial coastal area: nighttime formation of free radicals. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 5731-5749.	4.9	10
71	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume VI – heterogeneous reactions with liquid substrates. <i>Atmospheric Chemistry and Physics</i> , 2013, 13, 8045-8228.	4.9	167
72	Intercomparison of NO ₃ radical detection instruments in the atmosphere simulation chamber SAPHIR. <i>Atmospheric Measurement Techniques</i> , 2013, 6, 1111-1140.	3.1	49

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73	Comparison of NO_2 and NO_3 mixing ratios during NO3Comp 2007 in SAPHIR. Atmospheric Measurement Techniques, 2012, 5, 2763-2777.	3.1	21
74	Significant concentrations of nitryl chloride observed in rural continental Europe associated with the influence of sea salt chloride and anthropogenic emissions. Geophysical Research Letters, 2012, 39, .	4.0	116
75	Does acetone react with HO_2 in the upper-troposphere?. Atmospheric Chemistry and Physics, 2012, 12, 1339-1351.	4.9	11
76	Effect of chemical degradation on fluxes of reactive compounds – a study with a stochastic Lagrangian transport model. Atmospheric Chemistry and Physics, 2012, 12, 4843-4854.	4.9	52
77	Summertime total OH reactivity measurements from boreal forest during HUMPPA-COPEC 2010. Atmospheric Chemistry and Physics, 2012, 12, 8257-8270.	4.9	111
78	Reaction of Hydroxyl Radicals with $\text{C}_4\text{H}_5\text{N}$ (Pyrrole): Temperature and Pressure Dependent Rate Coefficients. Journal of Physical Chemistry A, 2012, 116, 6051-6058.	2.5	34
79	Hydroxyl radical buffered by isoprene oxidation over tropical forests. Nature Geoscience, 2012, 5, 190-193.	12.9	170
80	Kinetics and mechanism of the heterogeneous reaction of N_2O_5 with mineral dust particles. Physical Chemistry Chemical Physics, 2012, 14, 8551.	2.8	52
81	Removal of the potent greenhouse gas NF_3 by reactions with the atmospheric oxidants $\text{O}(\text{1D})$, OH and O_3 . Physical Chemistry Chemical Physics, 2011, 13, 18600.	2.8	23
82	Variable lifetimes and loss mechanisms for NO_3 and NO_2 during the DOMINO campaign: contrasts between marine, urban and continental air. Atmospheric Chemistry and Physics, 2011, 11, 10853-10870.	4.9	55
83	Uptake of NO_3 and NO_2 to Saharan dust, ambient urban aerosol and soot: a relative rate study. Atmospheric Chemistry and Physics, 2010, 10, 2965-2974.	4.9	51
84	Nocturnal nitrogen oxides at a rural mountain-site in south-western Germany. Atmospheric Chemistry and Physics, 2010, 10, 2795-2812.	4.9	97
85	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume V – heterogeneous reactions on solid substrates. Atmospheric Chemistry and Physics, 2010, 10, 9059-9223.	4.9	312
86	Modelling the reversible uptake of chemical species in the gas phase by ice particles formed in a convective cloud. Atmospheric Chemistry and Physics, 2010, 10, 4977-5000.	4.9	28
87	Rate coefficients for the reactions $\text{CH}_3 + \text{Br}_2$ (224–358 K), $\text{CH}_3 + \text{CO} + \text{Br}_2$ (228 and 298 K), and $\text{Cl} + \text{Br}_2$ (228 and 298 K). International Journal of Chemical Kinetics, 2010, 42, 575-585.	1.6	6
88	The interaction of H_2O_2 with ice surfaces between 203 and 233 K. Physical Chemistry Chemical Physics, 2010, 12, 15544.	2.8	28
89	A cavity ring down/cavity enhanced absorption device for measurement of ambient NO_3 and NO_2 . Atmospheric Measurement Techniques, 2009, 2, 1-13.	3.1	66
90	Photolysis of $\text{CH}_3\text{C(O)CH}_3$ at 248 and 266 nm: pressure and temperature dependent overall quantum yields. Physical Chemistry Chemical Physics, 2009, 11, 6173.	2.8	14

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91	Atmospheric oxidation capacity sustained by a tropical forest. <i>Nature</i> , 2008, 452, 737-740.	27.8	864
92	Interaction of formic and acetic acid with ice surfaces between 187 and 227 K. Investigation of single species- and competitive adsorption. <i>Physical Chemistry Chemical Physics</i> , 2008, 10, 2345.	2.8	54
93	Adsorption Isotherm of Formic Acid on the Surface of Ice, as Seen from Experiments and Grand Canonical Monte Carlo Simulation. <i>Journal of Physical Chemistry C</i> , 2008, 112, 8976-8987.	3.1	51
94	The atmospheric chemistry of sulphuryl fluoride, SO ₂ F ₂ . <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 1547-1557.	4.9	24
95	The Comparative Reactivity Method – a new tool to measure total OH Reactivity in ambient air. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 2213-2227.	4.9	188
96	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume IV – gas phase reactions of organic halogen species. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 4141-4496.	4.9	221
97	Direct detection of OH formation in the reactions of HO ₂ with CH ₃ C(O)O ₂ and other substituted peroxy radicals. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 4877-4889.	4.9	181
98	The interaction of N ₂ O ₅ with mineral dust: aerosol flow tube and Knudsen reactor studies. <i>Atmospheric Chemistry and Physics</i> , 2008, 8, 91-109.	4.9	78
99	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume III – gas phase reactions of inorganic halogens. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 981-1191.	4.9	317
100	Heterogeneous reactions of HOI, ICl and IBr on sea salt and sea salt proxies. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 3136.	2.8	27
101	Photolysis of CH ₃ C(O)CH ₃ (248 nm, 266 nm), CH ₃ C(O)C ₂ H ₅ (248 nm) and CH ₃ C(O)Br (248 nm): pressure dependent quantum yields of CH ₃ formation. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 4098.	2.8	41
102	Absolute rate coefficients for the reactions of O(1D) with a series of n-alkanes. <i>Chemical Physics Letters</i> , 2007, 443, 12-16.	2.6	18
103	Reaction of HO with Glycolaldehyde, HOCH ₂ CHO: Rate Coefficients (240–362 K) and Mechanism. <i>Journal of Physical Chemistry A</i> , 2007, 111, 897-908.	2.5	32
104	The reaction of IO with CH ₃ SCH ₃ : products and temperature dependent rate coefficients by laser induced fluorescence. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 847.	2.8	23
105	Reaction of HO with hydroxyacetone (HOCH ₂ C(O)CH ₃): rate coefficients (233–363 K) and mechanism. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 236-246.	2.8	44
106	Laser induced fluorescence studies of iodine oxide chemistry : Part II. The reactions of IO with CH ₃ O ₂ , CF ₃ O ₂ and O ₃ . <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 5185.	2.8	53
107	Influence of summertime deep convection on formaldehyde in the middle and upper troposphere over Europe. <i>Journal of Geophysical Research</i> , 2006, 111, .	3.3	50
108	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume II – gas phase reactions of organic species. <i>Atmospheric Chemistry and Physics</i> , 2006, 6, 3625-4055.	4.9	1,508

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109	Determination of the Adsorption Isotherm of Methanol on the Surface of Ice. An Experimental and Grand Canonical Monte Carlo Simulation Study. <i>Journal of the American Chemical Society</i> , 2006, 128, 15300-15309.	13.7	72
110	Reaction of O(3P) with the alkyl iodides: CF ₃ I, CH ₃ I, CH ₂ I ₂ , C ₂ H ₅ I, 1-C ₃ H ₇ I and 2-C ₃ H ₇ I. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2172.	2.8	31
111	Evaluated kinetic and photochemical data for atmospheric chemistry: Volume I - gas phase reactions of O(1D), HO ₂ , NO ₂ , and SO ₂ species. <i>Atmospheric Chemistry and Physics</i> , 2004, 4, 1461-1738.	4.9	1,597
112	Reaction of HO and DO with 2-vinylfuran. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 4612.	2.8	0
113	Reaction between OH and HCHO: temperature dependent rate coefficients (202–399 K) and product pathways (298 K). <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 4821-4827.	2.8	43
114	Reaction between OH and CH ₃ CHO. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 106-111.	2.8	27
115	Heterogeneous reactivity of NO and HNO ₃ on mineral dust in the presence of ozone. <i>Physical Chemistry Chemical Physics</i> , 2003, 5, 883-887.	2.8	28
116	Ozone decomposition on Saharan dust: an experimental investigation. <i>Atmospheric Chemistry and Physics</i> , 2003, 3, 119-130.	4.9	146
117	Interaction of methanol, acetone and formaldehyde with ice surfaces between 198 and 223 K. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 5270-5275.	2.8	94
118	Reaction between OH and CH ₃ CHO. <i>Physical Chemistry Chemical Physics</i> , 2002, 4, 3628-3638.	2.8	48
119	The heterogeneous reactivity of gaseous nitric acid on authentic mineral dust samples, and on individual mineral and clay mineral components. <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 2474-2482.	2.8	81
120	Uptake and reaction of HOI and IONO ₂ on frozen and dry NaCl/NaBr surfaces and H ₂ SO ₄ . <i>Physical Chemistry Chemical Physics</i> , 2001, 3, 1679-1687.	2.8	38
121	OH kinetics and photochemistry of HNO ₃ in the presence of water vapor. <i>Chemical Physics Letters</i> , 2001, 341, 93-98.	2.6	13
122	Rate Coefficients for Reaction of OH with Acetone between 202 and 395 K. <i>Journal of Physical Chemistry A</i> , 2000, 104, 2695-2705.	2.5	136
123	Reaction of HO ₂ with ClO: Flow Tube Studies of Kinetics and Product Formation between 215 and 298 K. <i>Journal of Physical Chemistry A</i> , 2000, 104, 1674-1685.	2.5	32
124	Mass-Independent Oxygen Isotope Fractionation in Atmospheric CO as a Result of the Reaction CO + OH. , 1998, 281, 544-546.		135
125	OH Formation in the Photoexcitation of NO ₂ beyond the Dissociation Threshold in the Presence of Water Vapor. <i>Journal of Physical Chemistry A</i> , 1997, 101, 4178-4184.	2.5	71
126	Is the hydroxyl radical formed in the gas-phase ozonolysis of alkenes?. <i>Geophysical Research Letters</i> , 1997, 24, 1611-1614.	4.0	37

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127	Implications of the large carbon kinetic isotope effect in the reaction $\text{CH}_4 + \text{Cl}$ for the $^{13}\text{C}/^{12}\text{C}$ ratio of stratospheric CH_4 . <i>Geophysical Research Letters</i> , 1996, 23, 2227-2230.	4.0	33
128	The TDLAS instrument for the detection of total inorganic chlorine in the stratosphere. <i>Geophysical Research Letters</i> , 1996, 23, 3611-3614.	4.0	6
129	Kinetic Investigations of the Reactions of CD_3O_2 with NO and NO_3 at 298 K. <i>The Journal of Physical Chemistry</i> , 1996, 100, 17846-17854.	2.9	14
130	Optical detection of NO_3 and NO_2 in "pure" HNO_3 vapor, the liquid-phase decomposition of HNO_3 . <i>International Journal of Chemical Kinetics</i> , 1993, 25, 795-803.	1.6	16
131	Determination of product branching ratio of the ClO self-reaction at 298 K. <i>Geophysical Research Letters</i> , 1993, 20, 1423-1426.	4.0	4
132	Room temperature rate coefficient for the reaction between CH_3O_2 and NO_3 . <i>International Journal of Chemical Kinetics</i> , 1990, 22, 673-681.	1.6	28