

John J Orlando

List of Publications by Year in descending order

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98
papers

5,777
citations

74677

40
h-index

86272

71
g-index

104
all docs

104
docs citations

104
times ranked

5625
citing authors

#	ARTICLE	IF	CITATIONS
1	A global simulation of tropospheric ozone and related tracers: Description and evaluation of MOZART, version 2. <i>Journal of Geophysical Research</i> , 2003, 108, n/a-n/a.	3.3	866
2	Laboratory studies of organic peroxy radical chemistry: an overview with emphasis on recent issues of atmospheric significance. <i>Chemical Society Reviews</i> , 2012, 41, 6294.	40.3	426
3	The Atmospheric Chemistry of Alkoxy Radicals. <i>Chemical Reviews</i> , 2003, 103, 4657-4690.	51.4	332
4	The reactions of ozone with alkenes: An important source of HOx in the boundary layer. <i>Geophysical Research Letters</i> , 1996, 23, 3727-3730.	4.0	255
5	The Chemistry Mechanism in the Community Earth System Model Version 2 (CESM2). <i>Journal of Advances in Modeling Earth Systems</i> , 2020, 12, e2019MS001882.	3.7	222
6	A Product Yield Study of the Reaction of HO ₂ Radicals with Ethyl Peroxy (C ₂ H ₅ O ₂), Acetyl Peroxy (CH ₃ C(O)O ₂), and Acetonyl Peroxy (CH ₃ C(O)CH ₂ O ₂) Radicals. <i>Journal of Physical Chemistry A</i> , 2004, 108, 5979-5989.	2.6	215
7	Laboratory and Theoretical Study of the Oxy Radicals in the OH- and Cl-Initiated Oxidation of Ethene. <i>Journal of Physical Chemistry A</i> , 1998, 102, 8116-8123.	2.6	148
8	Multi-instrument comparison and compilation of non-methane organic gas emissions from biomass burning and implications for smoke-derived secondary organic aerosol precursors. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 1471-1489.	5.0	125
9	H+O ₃ Fourier transform infrared emission and laser absorption studies of OH (X̄=21) radical: An experimental dipole moment function and state-to-state Einstein A coefficients. <i>Journal of Chemical Physics</i> , 1990, 93, 7003-7019.	3.1	123
10	Product studies of the OH- and ozone-initiated oxidation of some monoterpenes. <i>Journal of Geophysical Research</i> , 2000, 105, 11561-11572.	3.3	109
11	High levels of molecular chlorine in the Arctic atmosphere. <i>Nature Geoscience</i> , 2014, 7, 91-94.	11.9	107
12	Rate coefficients and mechanisms of the reaction of Cl-atoms with a series of unsaturated hydrocarbons under atmospheric conditions. <i>International Journal of Chemical Kinetics</i> , 2003, 35, 334-353.	1.7	91
13	Mechanism of the OH-initiated oxidation of methacrolein. <i>Geophysical Research Letters</i> , 1999, 26, 2191-2194.	4.0	89
14	The Atmospheric Chemistry of Glycolaldehyde. <i>Journal of Atmospheric Chemistry</i> , 2001, 39, 171-189.	3.2	82
15	The Essential Role for Laboratory Studies in Atmospheric Chemistry. <i>Environmental Science & Technology</i> , 2017, 51, 2519-2528.	10.5	80
16	The Atmospheric Chemistry of the Acetonyl Radical. <i>Journal of Physical Chemistry A</i> , 2000, 104, 11578-11588.	2.6	75
17	Rate Coefficients and Product Yields from Reaction of OH with 1-Penten-3-ol, (Z)-2-Penten-1-ol, and Allyl Alcohol (2-Propen-1-ol). <i>Journal of Physical Chemistry A</i> , 2001, 105, 3564-3569.	2.6	72
18	Rate coefficients for the reactions of OH radicals with Methylglyoxal and Acetaldehyde. <i>International Journal of Chemical Kinetics</i> , 1995, 27, 1009-1020.	1.7	67

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19	Pressure dependence of the rate coefficients and product yields for the reaction of CH ₃ CO radicals with O ₂ . International Journal of Chemical Kinetics, 1997, 29, 655-663.	1.7	66
20	The rate and mechanism of the gas-phase oxidation of hydroxyacetone. Atmospheric Environment, 1999, 33, 1621-1629.	4.2	65
21	Database for the kinetics of the gas-phase atmospheric reactions of organic compounds. Earth System Science Data, 2020, 12, 1203-1216.	8.9	63
22	Thermal decomposition pathways for peroxyacetyl nitrate (PAN): Implications for atmospheric methyl nitrate levels. Atmospheric Environment Part A General Topics, 1992, 26, 3111-3118.	1.3	61
23	Mechanism of the reaction of OH radicals with acetone and acetaldehyde at 251 and 296 K. Physical Chemistry Chemical Physics, 2002, 4, 2189-2193.	2.9	60
24	Spectroscopic and Kinetic Properties of HO ₂ Radicals and the Enhancement of the HO ₂ Self Reaction by CH ₃ OH and H ₂ O. Journal of Physical Chemistry A, 2010, 114, 369-378.	2.6	59
25	Rate Coefficients for the Thermal Decomposition of BrONO ₂ and the Heat of Formation of BrONO ₂ . The Journal of Physical Chemistry, 1996, 100, 19398-19405.	2.9	57
26	Decomposition of $\dot{\text{I}}^2$ -Hydroxypropoxy Radicals in the OH-Initiated Oxidation of Propene. A Theoretical and Experimental Study. Journal of Physical Chemistry A, 1999, 103, 4693-4702.	2.6	57
27	The chemistry in climate model ECHAM6.3-HAM2.3-MOZ1.0. Geoscientific Model Development, 2018, 11, 1695-1723.	3.7	57
28	The UV-visible absorption spectrum and photolysis quantum yields of methylglyoxal. Journal of Geophysical Research, 1995, 100, 14189.	3.3	56
29	Title is missing!. Journal of Atmospheric Chemistry, 1999, 33, 321-330.	3.2	56
30	Chemistry of the Cyclopentoxy and Cyclohexoxy Radicals at Subambient Temperatures. Journal of Physical Chemistry A, 2000, 104, 5072-5079.	2.6	56
31	Mechanisms for the Reactions of OH with Two Unsaturated Aldehydes: Crotonaldehyde and Acrolein. Journal of Physical Chemistry A, 2002, 106, 12252-12259.	2.6	56
32	The atmospheric chemistry of the HC(O)CO radical. International Journal of Chemical Kinetics, 2001, 33, 149-156.	1.7	55
33	Atmospheric fate of CF ₃ Br, CF ₂ Br ₂ , CF ₂ ClBr, and CF ₂ BrCF ₂ Br. Journal of Geophysical Research, 1991, 96, 5025-5043.	3.3	54
34	Ozone dynamics and snow-atmosphere exchanges during ozone depletion events at Barrow, Alaska. Journal of Geophysical Research, 2012, 117, .	3.3	53
35	Rediscovery of Cerebrosterol. Lipids, 2007, 42, 5-14.	1.8	52
36	Rate coefficients for quenching of Cl(2P _{1/2}) by various atmospheric gases. Journal of the Chemical Society, Faraday Transactions, 1995, 91, 3055.	1.8	49

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37	Comprehensive isoprene and terpene gas-phase chemistry improves simulated surface ozone in the southeastern US. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 3739-3776.	5.0	49
38	Atmospheric Oxidation of CH ₃ Br: Chemistry of the CH ₂ BrO Radical. <i>The Journal of Physical Chemistry</i> , 1996, 100, 7026-7033.	2.9	47
39	Upper Limit for the Rate Coefficient for the Reaction HO ₂ + NO ₂ → HONO + O ₂ . <i>Environmental Science & Technology</i> , 1995, 29, 202-206.	10.5	45
40	Branching Ratios for the Reaction of Selected Carbonyl-Containing Peroxy Radicals with Hydroperoxy Radicals. <i>Journal of Physical Chemistry A</i> , 2012, 116, 6264-6281.	2.6	45
41	Atmospheric chemistry of CH ₂ BR ₂ : Rate coefficients for its reaction with Cl atoms and OH and the chemistry of the CHBr ₂ O radical. <i>International Journal of Chemical Kinetics</i> , 1996, 28, 433-442.	1.7	44
42	Gas phase UV absorption spectra for peracetic acid, and for acetic acid monomers and dimers. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2003, 157, 161-166.	4.0	44
43	Atmospheric Acetaldehyde: Importance of Air-Sea Exchange and a Missing Source in the Remote Troposphere. <i>Geophysical Research Letters</i> , 2019, 46, 5601-5613.	4.0	42
44	Organic peroxy radical chemistry in oxidation flow reactors and environmental chambers and their atmospheric relevance. <i>Atmospheric Chemistry and Physics</i> , 2019, 19, 813-834.	5.0	40
45	Photolysis of ozone at 308 and 248 nm: Quantum yield of O(¹ D) as a function of temperature. <i>Geophysical Research Letters</i> , 1997, 24, 1091-1094.	4.0	34
46	Atmospheric chemistry of acetone: Kinetic study of the CH ₃ C(O)CH ₂ O ₂ +NO/NO ₂ reactions and decomposition of CH ₃ C(O)CH ₂ O ₂ NO ₂ . <i>International Journal of Chemical Kinetics</i> , 1998, 30, 475-489.	1.7	32
47	Temperature dependence of the rate coefficients for the reaction of chlorine atoms with chloromethanes. <i>International Journal of Chemical Kinetics</i> , 1999, 31, 515-524.	1.7	32
48	Infrared measurements of BrO (X ² Σ ⁻). <i>Journal of Molecular Spectroscopy</i> , 1991, 145, 278-289.	1.3	29
49	The atmospheric oxidation of diethyl ether: chemistry of the C ₂ H ₅ OCH(O [•])CH ₃ radical between 218 and 335 K. <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 4189.	2.9	29
50	FT-IR Product Studies of the Cl-Initiated Oxidation of CH ₃ Cl in the Presence of NO. <i>Journal of Physical Chemistry A</i> , 1999, 103, 3963-3968.	2.6	28
51	The atmospheric oxidation of ethyl formate and ethyl acetate over a range of temperatures and oxygen partial pressures. <i>International Journal of Chemical Kinetics</i> , 2010, 42, 397-413.	1.7	26
52	Atmospheric Processing of Nitrophenols and Nitrocresols From Biomass Burning Emissions. <i>Journal of Geophysical Research D: Atmospheres</i> , 2020, 125, e2020JD033401.	3.3	26
53	Rates and Mechanisms for the Reactions of Chlorine Atoms with Iodoethane and 2-Iodopropane. <i>Journal of Physical Chemistry A</i> , 2005, 109, 6659-6675.	2.6	24
54	Quantifying the nitrogen isotope effects during photochemical equilibrium between NO and NO ₂ : implications for δ ¹⁵ N in tropospheric reactive nitrogen. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 9805-9819.	5.0	23

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55	Rate coefficients and production of vibrationally excited HCl from the reactions of chlorine atoms with methanol, ethanol, acetaldehyde and formaldehyde. <i>Physical Chemistry Chemical Physics</i> , 2004, 6, 2224.	2.9	22
56	Rate coefficients for the reactions of O(3P) with selected biogenic Hydrocarbons. <i>International Journal of Chemical Kinetics</i> , 1995, 27, 997-1008.	1.7	20
57	Arctic springtime observations of volatile organic compounds during the OASIS 2009 campaign. <i>Journal of Geophysical Research D: Atmospheres</i> , 2016, 121, 9789-9813.	3.3	20
58	Temperature-dependent rate coefficient measurements for the reaction of bromine atoms with trichloroethene, ethene, acetylene, and tetrachloroethene in air. <i>International Journal of Chemical Kinetics</i> , 2001, 33, 198-211.	1.7	19
59	EGF receptor-independent action of TGF- β protects Naked2 from AO7-mediated ubiquitylation and proteasomal degradation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 13433-13438.	7.6	19
60	Atmospheric chemistry of isopropyl formate and <i>tert</i> -butyl formate. <i>International Journal of Chemical Kinetics</i> , 2010, 42, 479-498.	1.7	19
61	Rate Constants and Kinetic Isotope Effects for Methoxy Radical Reacting with NO ₂ and O ₂ . <i>Journal of Physical Chemistry A</i> , 2014, 118, 3552-3563.	2.6	19
62	Fourier transform infrared spectrum of the $\hat{1}/23$ band of HCO. <i>Journal of Molecular Spectroscopy</i> , 1988, 130, 445-453.	1.3	18
63	The temperature dependence of the UV-visible absorption cross-sections of NOCl. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 1992, 69, 1-5.	4.0	18
64	High-Resolution Infrared Spectrum of the $\hat{1}/21$ and $\hat{1}/23$ Bands of Dichlorine Monoxide, Cl ₂ O. <i>Journal of Molecular Spectroscopy</i> , 1996, 175, 68-72.	1.3	18
65	Identification of BrONO as the Major Product in the Gas-Phase Reaction of Br with NO ₂ . <i>Journal of Physical Chemistry A</i> , 2000, 104, 2048-2053.	2.6	18
66	Atmospheric Chemistry of HFC-236cb: Fate of the Alkoxy Radical CF ₃ CF ₂ CFHO. <i>Journal of Physical Chemistry A</i> , 1997, 101, 2828-2832.	2.6	17
67	Oxidation Mechanisms for Ethyl Chloride and Ethyl Bromide under Atmospheric Conditions. <i>Journal of Physical Chemistry A</i> , 2002, 106, 312-319.	2.6	17
68	Chemical Tomography in a Fresh Wildland Fire Plume: A Large Eddy Simulation (LES) Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2021, 126, e2021JD035203.	3.3	17
69	Temperature dependence of the infrared absorption cross sections of carbon tetrachloride. <i>Geophysical Research Letters</i> , 1992, 19, 1005-1008.	4.0	16
70	Unique isoprene oxidation products demonstrate chlorine atom chemistry occurs in the Houston, Texas urban area. <i>Journal of Atmospheric Chemistry</i> , 2008, 61, 227-242.	3.2	16
71	Atmospheric Chemistry of Hydrazoic Acid (HN ₃): UV Absorption Spectrum, HO Reaction Rate, and Reactions of the \hat{a} N ₃ Radical. <i>Environmental Science & Technology</i> , 2005, 39, 1632-1640.	10.5	15
72	A steady-state continuous flow chamber for the study of daytime and nighttime chemistry under atmospherically relevant NO levels. <i>Atmospheric Measurement Techniques</i> , 2018, 11, 2537-2551.	3.1	15

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73	Molecular characterization of alkyl nitrates in atmospheric aerosols by ion mobility mass spectrometry. <i>Atmospheric Measurement Techniques</i> , 2019, 12, 5535-5545.	3.1	15
74	Heterogeneous Nucleation Drives Particle Size Segregation in Sequential Ozone and Nitrate Radical Oxidation of Catechol. <i>Environmental Science & Technology</i> , 2021, 55, 15637-15645.	10.5	15
75	Modeling the Fractionation Process in TREF Systems. III. Model Validation With Low Molecular Weight Homopolymers. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 1996, 34, 1147-1154.	2.4	12
76	Upper limits for the rate coefficients for reactions of BrO with formaldehyde and HBr. <i>Geophysical Research Letters</i> , 2000, 27, 2633-2636.	4.0	12
77	Atmospheric Fate of a New Polyfluoroalkyl Building Block, C ₃ F ₇ OCHF ₂ SCH ₂ CH ₂ OH. <i>Environmental Science & Technology</i> , 2022, 56, 6027-6035.	10.5	12
78	Bromine atom production and chain propagation during springtime Arctic ozone depletion events in Barrow, Alaska. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 3401-3421.	5.0	11
79	Temperature and pressure dependence of the rate coefficient for the reaction NO ₃ + NO ₂ + N ₂ ? N ₂ O ₅ + N ₂ . <i>Journal of the Chemical Society, Faraday Transactions</i> , 1991, 87, 2345.	1.8	10
80	An FT-IR study of the isomerization of 1-butoxy radicals under atmospheric conditions. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2006, 177, 109-115.	4.0	10
81	Quantum yields for Cl(2P _{3/2,1/2}), ClO and O(3P) in the photolysis of chlorine nitrate at 308 nm. <i>Journal of the Chemical Society, Faraday Transactions</i> , 1997, 93, 2675-2682.	1.8	9
82	Experimentally Determined Site-Specific Reactivity of the Gas-Phase OH and Cl + <i>i</i> -Butanol Reactions Between 251 and 340 K. <i>Journal of Physical Chemistry A</i> , 2016, 120, 9968-9981.	2.6	9
83	Exploration of oxidative chemistry and secondary organic aerosol formation in the Amazon during the wet season: explicit modeling of the Manaus urban plume with GECKO-A. <i>Atmospheric Chemistry and Physics</i> , 2020, 20, 5995-6014.	5.0	9
84	UV absorption cross-sections of cis-BrONO. <i>Chemical Physics Letters</i> , 2000, 317, 603-608.	2.7	8
85	Temperature-Dependent Branching Ratios of Deuterated Methoxy Radicals (CH ₂ DO) Reacting With O ₂ . <i>Journal of Physical Chemistry A</i> , 2012, 116, 6295-6302.	2.6	7
86	Formation and Evolution of Catechol-Derived SOA Mass, Composition, Volatility, and Light Absorption. <i>ACS Earth and Space Chemistry</i> , 2022, 6, 1067-1079.	2.8	7
87	The Role of Snow in Controlling Halogen Chemistry and Boundary Layer Oxidation During Arctic Spring: A 1D Modeling Case Study. <i>Journal of Geophysical Research D: Atmospheres</i> , 2022, 127, .	3.3	6
88	The atmospheric oxidation of hydroxyacetone: Chemistry of activated and stabilized CH ₃ C(O)CH(OH)OO radicals between 252 and 298 K. <i>International Journal of Chemical Kinetics</i> , 2020, 52, 236-250.	1.7	5
89	Large Eddy Simulation for Investigating Coupled Forest Canopy and Turbulence Influences on Atmospheric Chemistry. <i>Journal of Advances in Modeling Earth Systems</i> , 2022, 14, .	3.7	5
90	Evolution of OH reactivity in NO-free volatile organic compound photooxidation investigated by the fully explicit GECKO-A model. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 14649-14669.	5.0	4

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91	Upper stratospheric ClO and HOCl trends (2005–2020): Aura Microwave Limb Sounder and model results. <i>Atmospheric Chemistry and Physics</i> , 2022, 22, 4779-4799.	5.0	4
92	The Impact of Ethnicity on Cardiovascular Risk Reduction and Heart Age After Bariatric Surgery. <i>Obesity Surgery</i> , 2020, 30, 1679-1684.	2.4	3
93	UV absorption spectrum of BrOCl. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2000, 134, 133-137.	4.0	2
94	Rate coefficient upper limits for the BrONO ₂ and ClONO ₂ + O ₃ reactions. <i>Geophysical Research Letters</i> , 1998, 25, 3567-3569.	4.0	1
95	Lesões complexa da traqueia: correção com retalho pediculado de músculo intercostal. <i>Jornal Brasileiro De Pneumologia</i> , 2009, 35, 1250-1253.	0.8	1
96	Influence of Organized Turbulence on OH Reactivity at a Deciduous Forest. <i>Geophysical Research Letters</i> , 2023, 50, .	4.0	1
97	PP266 [Lung & Other]: MECHANICAL POWER, NORMALIZED MECHANICAL POWER AND MECHANICAL ENERGY DURING PEDIATRIC MECHANICAL VENTILATION IN PRESSURE-CONTROL AND VOLUME-CONTROL MODES. <i>Pediatric Critical Care Medicine</i> , 2022, 23, .	0.6	0
98	Contamination of tea leaves by anthraquinone: The atmosphere as a possible source. <i>Ambio</i> , 2023, 52, 1373-1388.	5.8	0