Simon North

List of Publications by Year
in descending order

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126 papers	3,943 citations	101543 36 h-index	144013 57 g-index
129 all docs	129 docs citations	129 times ranked	2430 citing authors

#	Article	IF	Citations
1	A Two Transition State Model for Radicalâ^'Molecule Reactions:Â A Case Study of the Addition of OH to C2H4. Journal of Physical Chemistry A, 2005, 109, 6031-6044.	2.5	218
2	Evidence for stepwise dissociation dynamics in acetone at 248 and 193 nm. Journal of Chemical Physics, 1995, 102, 4447-4460.	3.0	198
3	The multiplexed chemical kinetic photoionization mass spectrometer: A new approach to isomer-resolved chemical kinetics. Review of Scientific Instruments, 2008, 79, 104103.	1.3	190
4	The ultraviolet photodissociation dynamics of pyrrole. Chemical Physics, 1994, 187, 35-47.	1.9	125
5	No Straight Path: Roaming in Both Ground- and Excited-State Photolytic Channels of NO ₃ â† NO + O ₂. Science, 2012, 335, 1075-1078.	12.6	112
6	Primary and secondary processes in the 193 nm photodissociation of vinyl chloride. Journal of Chemical Physics, 1998, 108, 5414-5425.	3.0	101
7	Quantification of Hydroxycarbonyls from OHâ^'Isoprene Reactions. Journal of the American Chemical Society, 2004, 126, 2686-2687.	13.7	91
8	Photodissociation dynamics of CH2BrCl studied using resonance enhanced multiphoton ionization (REMPI) with time-of-flight mass spectrometry. Journal of Chemical Physics, 1999, 111, 5771-5779.	3.0	81
9	Determination of the barrier height to CH3CO dissociation. Chemical Physics Letters, 1994, 224, 38-42.	2.6	77
10	Hydroxy Peroxy Nitrites and Nitrates from OH Initiated Reactions of Isoprene. Journal of the American Chemical Society, 2002, 124, 9600-9605.	13.7	72
11	A Two Transition State Model for Radicalâ^'Molecule Reactions:Â Applications to Isomeric Branching in the OHâ^'Isoprene Reaction. Journal of Physical Chemistry A, 2007, 111, 5582-5592.	2.5	71
12	Theoretical Study of OHâ^'O2â^'Isoprene Peroxy Radicals. Journal of Physical Chemistry A, 2001, 105, 471-477.	2.5	69
13	Nonintuitive Asymmetry in the Three-Body Photodissociation of CH3COCN. Journal of Physical Chemistry A, 1997, 101, 9224-9232.	2.5	68
14	Kinetic studies of OH-initiated reactions of isoprene. Journal of Geophysical Research, 2000, 105, 24627-24635.	3.3	68
15	Experimental and Computational Study of the OHâ^'Isoprene Reaction:Â Isomeric Branching and Low-Pressure Behavior. Journal of Physical Chemistry A, 2000, 104, 6609-6616.	2.5	66
16	Coherence brightened laser source for atmospheric remote sensing. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 15185-15190.	7.1	65
17	Simultaneous velocity and temperature measurements in gaseous flow fields using the VENOM technique. Optics Letters, 2011, 36, 196.	3.3	64
18	OH/OD Initiated Oxidation of Isoprene in the Presence of O2 and NO. Journal of Physical Chemistry A, 2004, 108, 10688-10697.	2.5	63

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19	Theoretical study of isomeric branching in the isopreneâ€“OH reaction: implications to final product yields in isoprene oxidation. Chemical Physics Letters, 2000, 326, 109-114.	2.6	62
20	Evidence of Roaming Dynamics and Multiple Channels for Molecular Elimination in NO₃ Photolysis. Journal of Physical Chemistry Letters, 2010, 1, 2455-2458.	4.6	62
21	TRANSIENTLASERFREQUENCYMODULATIONSPECTROSCOPY. Annual Review of Physical Chemistry, 2000, 51, 243-274.	10.8	60
22	Computationally Efficient Methodology to Calculate Cå^'H and Cå^'X (X = F, Cl, and Br) Bond Dissociation Energies in Haloalkanes. Journal of Physical Chemistry A, 2000, 104, 436-442.	2.5	60
23	Molecular Tagging Using Vibrationally Excited Nitric Oxide in an Underexpanded Jet Flowfield. AIAA Journal, 2009, 47, 2597-2604.	2.6	60
24	Primary and Secondary Processes in the Photodissociation of CHBr3â€. Journal of Physical Chemistry A, 2000, 104, 10085-10091.	2.5	59
25	Two-component molecular tagging velocimetry utilizing NO fluorescence lifetime and NO_2 photodissociation techniques in an underexpanded jet flowfield. Applied Optics, 2009, 48, 4414.	2.1	58
26	Vector signatures of adiabatic and diabatic dynamics in the photodissociation of ICN. Journal of Chemical Physics, 1999, 111, 6735-6749.	3.0	55
27	Photodissociation of Bromoform at 248 nm:â€‰ Single and Multiphoton Processes. Journal of Physical Chemistry A, 2004, 108, 1482-1488.	2.5	53
28	The near ultraviolet photodissociation dynamics of azomethane. Journal of Chemical Physics, 1993, 99, 4423-4429.	3.0	49
29	Line shape analysis of Doppler broadened frequencyâ€modulated line spectra. Journal of Chemical Physics, 1996, 104, 2129-2135.	3.0	49
30	Adiabatic and diabatic dynamics in the photodissociation of CH2BrCl. Physical Chemistry Chemical Physics, 2000, 2, 3785-3790.	2.8	47
31	Vector and scalar correlations in statistical dissociation: The photodissociation of NCCN at 193 nm. Journal of Chemical Physics, 1997, 106, 60-76.	3.0	46
32	Simultaneous velocity and temperature measurements in gaseous flowfields using the vibrationally excited nitric oxide monitoring technique: a comprehensive study. Applied Optics, 2012, 51, 1216.	1.8	40
33	Vibrationally excited NO tagging by NO(A^2Î£^+) fluorescence and quenching for simultaneous velocimetry and thermometry in gaseous flows. Optics Letters, 2014, 39, 2771.	3.3	39
34	Quantum phase space theory for the calculation of vâ‹…j vector correlations. Journal of Chemical Physics, 1996, 104, 1864-1874.	3.0	37
35	Unraveling the dissociation of dimethyl sulfoxide following absorption at 193 nm. Journal of Chemical Physics, 1997, 106, 539-550.	3.0	37
36	Laser Transient Absorption Spectroscopy of Bromomethylene. Journal of Molecular Spectroscopy, 1998, 188, 68-77.	1.2	37

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37	Photodissociation of acrylonitrile at 193 nm: A photofragment translational spectroscopy study using synchrotron radiation for product photoionization. Journal of Chemical Physics, 1998, 108, 5784-5794.	3.0	35
38	Ion Imaging Study of NO₃ Radical Photodissociation Dynamics: Characterization of Multiple Reaction Pathways. Journal of Physical Chemistry A, 2011, 115, 3218-3226.	2.5	34
39	Photodissociation dynamics of the methyl radical 3sRydberg state. Journal of Chemical Physics, 1995, 102, 792-798.	3.0	32
40	Experimental study of hydroxyalkyl peroxy radicals from OH-initiated reactions of isoprene. Chemical Physics Letters, 2001, 343, 49-54.	2.6	32
41	Oxidation mechanism of Î´-hydroxyisoprene alkoxy radicals: hydrogen abstraction versus 1,5 H-shift. Chemical Physics Letters, 2003, 369, 204-213.	2.6	31
42	Multiphoton ionization of phenol in nonaqueous solutions: characterization of the cation and ion-molecule chemistry. The Journal of Physical Chemistry, 1991, 95, 5186-5190.	2.9	30
43	The unimolecular dissociation of vinylcyanide: A theoretical investigation of a complex multichannel reaction. Journal of Chemical Physics, 1999, 110, 2862-2871.	3.0	30
44	A unified model for simulating liquid and gas phase, intermolecular energy transfer: N2 + C6F6 collisions. Journal of Chemical Physics, 2014, 140, 194103.	3.0	30
45	Anisotropy of photofragment recoil as a function of dissociation lifetime, excitation frequency, rotational level, and rotational constant. Journal of Chemical Physics, 2006, 125, 133316.	3.0	29
46	Calibration of an Actively Controlled Expansion Hypersonic Wind Tunnel. , 2010, , .		29
47	Photofragment translational spectroscopy with state-selective â€œuniversal detection:â€•The ultraviolet photodissociation of CS2. Journal of Chemical Physics, 2000, 112, 5301-5307.	3.0	28
48	Ion imaging study of IO radical photodissociation: Accurate bond dissociation energy determination. Chemical Physics Letters, 2008, 457, 303-306.	2.6	28
49	The radical photodissociation channel of acrylonitrile. Chemical Physics Letters, 1996, 263, 148-153.	2.6	27
50	Investigation of the Atmospheric Oxidation Pathways of Bromoform and Dibromomethane:Â Initiation via UV Photolysis and Hydrogen Abstraction. Journal of Physical Chemistry A, 2004, 108, 7247-7252.	2.5	26
51	Isomer-Selective Study of the OH-Initiated Oxidation of Isoprene in the Presence of O₂ and NO: 2. The Major OH Addition Channel. Journal of Physical Chemistry A, 2010, 114, 2553-2560.	2.5	26
52	CN radical reaction rate measurements by time-resolved FM spectroscopy. , 1997, 29, 127-129.		24
53	Decomposition Products of 50 Mass% Hydroxylamine/Water Under Runaway Reaction Conditions. Chemical Engineering Research and Design, 2003, 81, 121-124.	5.6	24
54	Photodissociation of the BrO radical using velocity map ion imaging: Excited state dynamics and accurate D00(BrO) evaluation. Journal of Chemical Physics, 2006, 124, 134304.	3.0	24

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55	Stereodynamics of multistate roaming. Physical Chemistry Chemical Physics, 2012, 14, 6733.	2.8	23
56	The near ultraviolet dissociation dynamics of azomethane: Correlated V-T energy disposal and product appearance times. Journal of Chemical Physics, 1998, 109, 7238-7245.	3.0	22
57	Cyclization reactions in isoprene derived Î²-hydroxy radicals: implications for the atmospheric oxidation mechanism. Physical Chemistry Chemical Physics, 2003, 5, 3638-3642.	2.8	22
58	Isomer-Selective Study of the OH Initiated Oxidation of Isoprene in the Presence of O₂ and NO. I. The Minor Inner OH-Addition Channel. Journal of Physical Chemistry A, 2010, 114, 904-912.	2.5	22
59	The fate of the hydroxyalkoxy radical in the OH-initiated oxidation of isoprene. International Journal of Chemical Kinetics, 2002, 34, 255-261.	1.6	20
60	A method for the determination of speed-dependent semi-classical vector correlations from sliced image anisotropies. Journal of Chemical Physics, 2011, 135, 094201.	3.0	20
61	Photodissociation dynamics of OCS near 214 nm using ion imaging. Journal of Chemical Physics, 2016, 145, 024310.	3.0	20
62	Vector correlations in the 308 nm photodissociation of ICN. Chemical Physics Letters, 1997, 276, 103-109.	2.6	19
63	Experimental Study of NO Reaction with Isoprene Hydroxyalkyl Peroxy Radicals. Journal of Physical Chemistry A, 2003, 107, 11013-11019.	2.5	19
64	Development of a miniature calorimeter for identification and detection of explosives and other energetic compounds. Journal of Hazardous Materials, 2007, 142, 662-668.	12.4	19
65	On the Design and Calibration of an Actively Controlled Expansion Hypersonic Wind Tunnel. , 2009, , .		19
66	Repetitively Pulsed Hypersonic Flow Apparatus for Diagnostic Development. AIAA Journal, 2012, 50, 691-697.	2.6	19
67	The ultraviolet photodissociation of jet-cooled ClO and BrO radicals. Journal of Chemical Physics, 2002, 116, 4176-4183.	3.0	18
68	Theoretical Study of the Alkoxy Radicals Derived from Isoprene:Â Pressure- and Temperature-Dependent Decomposition Rates. Journal of Physical Chemistry A, 2003, 107, 6408-6414.	2.5	18
69	Low-temperature collisional quenching of NO A2Î£+(vâ€² = 0) by NO(X2Î) and O2 between 34 and 109 K. Journal of Chemical Physics, 2014, 141, 074313.	3.0	18
70	Investigation of the Atmospheric Oxidation Pathways of Bromoform:â€‰ Initiation via OH/Cl Reactions. Journal of Physical Chemistry A, 2002, 106, 6395-6400.	2.5	17
71	The UV photodissociation dynamics of ClO radical using velocity map ion imaging. Journal of Chemical Physics, 2005, 123, 174303.	3.0	17
72	Measuring the internal energies of species emitted from hypervelocity nanoprojectile impacts on surfaces using recalibrated benzylpyridinium probe ions. Journal of Chemical Physics, 2013, 138, 214301.	3.0	17

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73	Ene-diamine versus Imine-amine Isomeric Preferences. Journal of Organic Chemistry, 2005, 70, 8409-8416.	3.2	15
74	Radiofrequency plasma stabilization of a low-Reynolds-number channel flow. Journal of Fluid Mechanics, 2014, 748, 663-691.	3.4	15
75	Non-statistical intermolecular energy transfer from vibrationally excited benzene in a mixed nitrogen-benzene bath. Journal of Chemical Physics, 2018, 149, 134101.	3.0	15
76	Theoretical Calculation of ClONO2and BrONO2Bond Dissociation Energies. Journal of Physical Chemistry A, 2003, 107, 888-896.	2.5	14
77	Design and characterization of late-mixing flash pyrolytic reactor molecular-beam source. Review of Scientific Instruments, 2005, 76, 124101.	1.3	14
78	The unimolecular dissociation of 2-butenenitrile: measurements of the CN elimination channel using FM Doppler spectroscopy. Chemical Physics, 2000, 254, 309-317.	1.9	13
79	Simultaneous three-dimensional velocimetry and thermometry in gaseous flows using the stereoscopic vibrationally excited nitric oxide monitoring technique. Optics Letters, 2016, 41, 1376.	3.3	13
80	Roaming in the dark. Nature Chemistry, 2011, 3, 504-505.	13.6	12
81	The ultraviolet photodissociation dynamics of IBr studied using state-selective translational spectroscopy. Chemical Physics, 1999, 249, 237-248.	1.9	11
82	Diode laser measurements of CD3 quantum yields and internal energy for the dissociation of dimethyl sulfoxide-d6. Journal of Chemical Physics, 1997, 106, 1346-1352.	3.0	10
83	The OH-Initiated Oxidation of 1,3-Butadiene in the Presence of O2and NO:Â A Photolytic Route To Study Isomeric Selective Reactivity. Journal of Physical Chemistry A, 2005, 109, 7915-7922.	2.5	10
84	Algebraic turbulent energy flux models for hypersonic shear flows. Progress in Aerospace Sciences, 2010, 46, 49-61.	12.1	10
85	OH initiated oxidation of 1,3-butadiene in the presence of O2 and NO. Chemical Physics Letters, 2010, 494, 8-13.	2.6	10
86	A method to analyze molecular tagging velocimetry data using the Hough transform. Review of Scientific Instruments, 2015, 86, 105106.	1.3	10
87	Origin of the â€œoddâ€•behavior in the ultraviolet photochemistry of ozone. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21065-21069.	7.1	10
88	Quantum yields and energy partitioning in the ultraviolet photodissociation of 1,2 dibromo-tetrafluoroethane (Halon-2402). Journal of Chemical Physics, 2000, 113, 7149-7157.	3.0	9
89	Vibrational state-dependent predissociation dynamics of ClO (A2Î3/2): Insight from correlated fine structure branching ratios. Physical Chemistry Chemical Physics, 2006, 8, 2964-2971.	2.8	9
90	Photofragment vector correlations as a probe of Kâ€scrambling in unimolecular dissociation. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1997, 101, 459-464.	0.9	8

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91	Probing the nature of the K-rotor in unimolecular reactions: Scalar and vector correlations in the photodissociation of NCNO. Journal of Chemical Physics, 2002, 116, 7027-7034.	3.0	8
92	Correlated fine structure branching ratios arising from state-selected predissociation of ClO (A2Î3/2). Physical Chemistry Chemical Physics, 2009, 11, 4770.	2.8	8
93	Scientists' Perspective on Introducing Authentic Inquiry to High School Teachers During an Intensive Threeâ€Week Summer Professional Development Experience. School Science and Mathematics, 2009, 109, 162-174.	0.9	8
94	Resolving the energy and temperature dependence of C6H6âˆ— collisional relaxation via time-dependent bath temperature measurements. Journal of Chemical Physics, 2016, 145, 014308.	3.0	8
95	Vector correlations in the 308 nm photodissociation of ICN. Chemical Physics Letters, 1997, 276, 103-109.	2.6	8
96	Multiphoton-induced chemistry of phenol in hexane at 266 nm. Chemical Physics Letters, 1990, 166, 167-172.	2.6	7
97	Temperature-dependent photodissociation dynamics of ICN at 262 nm. Chemical Physics Letters, 2001, 334, 47-54.	2.6	7
98	Photodissociation of ClONO2at 235 nm:Â Final Product Yields and Energy Partitioning. Journal of Physical Chemistry A, 2002, 106, 1004-1010.	2.5	7
99	The three-body dissociation dynamics of Cl2O at 248 and 193nm. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 209, 56-60.	3.9	7
100	OH Radical Initiated Oxidation of 1,3-Butadiene: Isomeric Selective Study of the Dominant Addition Channel. Journal of Physical Chemistry A, 2010, 114, 5299-5305.	2.5	6
101	A method of extracting speed-dependent vector correlations from 2 + 1 REMPI ion images. Journal of Chemical Physics, 2017, 147, 013947.	3.0	6
102	Nascent O2 (aâ€˜1Î”g, v = 0, 1) rotational distributions from the photodissociation of jet-cooled O3 in the Hartley band. Journal of Chemical Physics, 2018, 149, 134309.	3.0	6
103	Evidence for lambda doublet propensity in the UV photodissociation of ozone. Journal of Chemical Physics, 2019, 151, 224302.	3.0	6
104	Comparison of intermolecular energy transfer from vibrationally excited benzene in mixed nitrogenâ€“benzene baths at 140 K and 300 K. Journal of Chemical Physics, 2020, 153, 144116.	3.0	6
105	Separation of spinâ€“orbit coupled metastable states of Kr+ and Xe+ by ion mobility. Journal of Chemical Physics, 2001, 114, 1709-1715.	3.0	5
106	The role of triplet states in the long wavelength absorption region of bromine nitrate. Journal of Chemical Physics, 2003, 119, 7864-7870.	3.0	5
107	A New Java Program for Graphical Illustration of the Franckâ€“Condon Principle: Application to the I₂ Spectroscopy Experiment in the Undergraduate Physical Chemistry Laboratory. Journal of Chemical Education, 2010, 87, 345-345.	2.3	5
108	The role of near resonance electronic energy transfer on the collisional quenching of NO (A2Î£+) by C6H6 and C6F6 at low temperature. Chemical Physics, 2018, 501, 86-92.	1.9	5

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109	Comment on â€œenergy partitioning in photodissociation of methyl, ethyl, and n-propyl iodides at 304 nmâ€• Chemical Physics, 1996, 211, 515-516.	1.9	4
110	Nitric Oxide Laser-Induced Fluorescence Imaging Methods and Their Application to Study High-Speed Flows. , 2018, , 599-630.		3
111	Towards Vibrationally Excited Nitric Oxide Monitoring (VENOM) in a Laminar, Hypersonic Boundary Layer. , 2020, , .		3
112	Temperature perturbation related to the invisible ink vibrationally excited nitric oxide monitoring (VENOM) technique: a simulation study. Applied Optics, 2019, 58, 2702.	1.8	3
113	Dynamics and vector correlations of vacuum ultraviolet (VUV) photodissociation of CO₂ at 155 nm. Physical Chemistry Chemical Physics, 2022, 24, 2592-2600.	2.8	3
114	Uv Multiphoton Induced Chemistry of Nitrobenzene in Solution. Laser Chemistry, 1990, 10, 177-184.	0.5	2
115	Treatment of theK-Quantum Number in Unimolecular Reaction Theory:Â Insights from Product Correlations. Journal of the American Chemical Society, 2002, 124, 14472-14477.	13.7	2
116	Ion imaging studies of ClONO2 photodissociation: Primary branching ratios and secondary dissociation. Chemical Physics, 2009, 364, 90-97.	1.9	2
117	Photodissociation dynamics of Cl2O at 235nm using velocity map ion imaging. Journal of Photochemistry and Photobiology A: Chemistry, 2011, 221, 123-127.	3.9	2
118	Vibrational state-selected photodissociation of ClO+. Chemical Physics, 2012, 408, 43-49.	1.9	2
119	Unimolecular Dissociation Reactions of Methyl Benzoate Radical Cation. Journal of Physical Chemistry A, 2008, 112, 11590-11597.	2.5	1
120	Experimental and theoretical investigation of correlated fine structure branching ratios arising from state-selected predissociation of BrO (A²Î_{3/2}). Physical Chemistry Chemical Physics, 2014, 16, 607-615.	2.8	1
121	Anomalous Intensities in the 2+1 REMPI Spectrum of the E ¹Îâ€“X ¹Î£⁺ Transition of CO. Journal of Physical Chemistry A, 2019, 123, 2780-2788.	2.5	1
122	Empirical assignment of absorbing electronic state contributions to OCS photodissociation product state populations from 214 to 248â€¯nm. Chemical Physics, 2019, 520, 1-7.	1.9	1
123	Transient frequency-modulated spectroscopy: application to the measurement of vector and scalar correlations in molecular photodissociation. , 1998, , .		0
124	Eneâ€”Diamine versus Imineâ€”Amine Isomeric Preferences.. ChemInform, 2006, 37, no.	0.0	0
125	Repetitively Pulsed Hypersonic Test Facility for Advanced Laser Diagnostic Development. , 2012, , .		0
126	Non-adiabatic Atomic Coherence at Work in the Oxygen Laser Source for Atmospheric Remote Sensing. , 2012, , .		0