

# John R Barker

## List of Publications by Year in descending order

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149  
papers

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citations

38742

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92  
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152  
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152  
docs citations

152  
times ranked

3938  
citing authors

#	ARTICLE	IF	CITATIONS
1	Interstellar polycyclic aromatic hydrocarbons - The infrared emission bands, the excitation/emission mechanism, and the astrophysical implications. <i>Astrophysical Journal, Supplement Series</i> , 1989, 71, 733.	7.7	1,143
2	Polycyclic aromatic hydrocarbons and the unidentified infrared emission bands - Auto exhaust along the Milky Way. <i>Astrophysical Journal</i> , 1985, 290, L25.	4.5	1,035
3	Multiple-Well, multiple-path unimolecular reaction systems. I. MultiWell computer program suite. <i>International Journal of Chemical Kinetics</i> , 2001, 33, 232-245.	1.6	517
4	Free Radical Reactions Involving Cl <sup>•</sup> , Cl <sub>2</sub> - <sup>•</sup> , and SO <sub>4</sub> - <sup>•</sup> in the 248 nm Photolysis of Aqueous Solutions Containing S <sub>2</sub> O <sub>8</sub> <sup>2-</sup> and Cl <sup>-</sup> . <i>Journal of Physical Chemistry A</i> , 2004, 108, 295-308.	2.5	300
5	Polycyclic aromatic hydrocarbon formation in carbon-rich stellar envelopes. <i>Astrophysical Journal</i> , 1992, 401, 269.	4.5	299
6	Energy transfer in master equation simulations: A new approach. <i>International Journal of Chemical Kinetics</i> , 2009, 41, 748-763.	1.6	227
7	Energy-dependent energy transfer: Deactivation of azulene (SO <sub>2</sub> -E <sub>vib</sub> ) by 17 collider gases. <i>Journal of Chemical Physics</i> , 1983, 78, 6695-6708.	3.0	159
8	Hydrogen Peroxide Photolysis in Acidic Aqueous Solutions Containing Chloride Ions. I. Chemical Mechanism. <i>Journal of Physical Chemistry A</i> , 2003, 107, 1313-1324.	2.5	146
9	Photochemical smog. Rate parameter estimates and computer simulations. <i>The Journal of Physical Chemistry</i> , 1977, 81, 2483-2492.	2.9	127
10	Direct measurements of energy-transfer involving large molecules in the electronic ground state. <i>The Journal of Physical Chemistry</i> , 1984, 88, 11-18.	2.9	120
11	Anharmonicity and the interstellar polycyclic aromatic hydrocarbon infrared emission spectrum. <i>Astrophysical Journal</i> , 1987, 315, L61.	4.5	111
12	Kinetics and Mechanism of Methanol Oxidation in Supercritical Water. <i>The Journal of Physical Chemistry</i> , 1996, 100, 15834-15842.	2.9	109
13	Vibrational Energy Transfer Modeling of Nonequilibrium Polyatomic Reaction Systems. <i>Journal of Physical Chemistry A</i> , 2001, 105, 796-809.	2.5	109
14	Ab Initio Reaction Rate Constants Computed Using Semiclassical Transition-State Theory: HO + H <sub>2</sub> → H <sub>2</sub> O + H and Isotopologues. <i>Journal of Physical Chemistry A</i> , 2011, 115, 5118-5126.	2.5	109
15	Sums and Densities of Fully Coupled Anharmonic Vibrational States: A Comparison of Three Practical Methods. <i>Journal of Physical Chemistry A</i> , 2010, 114, 3718-3730.	2.5	105
16	Vibrational relaxation of highly excited toluene. <i>Journal of Chemical Physics</i> , 1991, 95, 176-188.	3.0	102
17	Master Equation Analysis of Pressure-Dependent Atmospheric Reactions. <i>Chemical Reviews</i> , 2003, 103, 4577-4592.	47.7	97
18	Collisional deactivation of highly vibrationally excited benzene pumped at 248 nm. <i>The Journal of Physical Chemistry</i> , 1990, 94, 6341-6350.	2.9	95

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19	Infrared emission studies of the vibrational deactivation of benzene derivatives. <i>International Reviews in Physical Chemistry</i> , 1993, 12, 305-338.	2.3	95
20	Energy-dependent collisional deactivation of vibrationally excited azulene. <i>Journal of Chemical Physics</i> , 1988, 88, 6219-6227.	3.0	93
21	A practical implementation of semi-classical transition state theory for polyatomics. <i>Chemical Physics Letters</i> , 2010, 499, 9-15.	2.6	92
22	Monte Carlo calculations on unimolecular reactions, energy transfer, and IR-multiphoton decomposition. <i>Chemical Physics</i> , 1983, 77, 301-318.	1.9	90
23	The decomposition of dimethyl peroxide and the rate constant for $\text{CH}_3\text{O} + \text{O}_2 \rightarrow \text{CH}_2\text{O} + \text{HO}_2$ . <i>International Journal of Chemical Kinetics</i> , 1977, 9, 31-53.	1.6	82
24	Reaction of HO with CO: Tunneling Is Indeed Important. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1549-1553.	4.6	79
25	Hydrogen Peroxide Photolysis in Acidic Aqueous Solutions Containing Chloride Ions. II. Quantum Yield of $\text{HO}^\bullet(\text{Aq})$ Radicals. <i>Journal of Physical Chemistry A</i> , 2003, 107, 1325-1332.	2.5	77
26	Energy-dependent cross sections for quenching of $\text{Na}(3p^2\ ^3P)$ by several gases. <i>Journal of Chemical Physics</i> , 1976, 65, 1427-1442.	3.0	76
27	Infrared multiphoton decomposition: A comparison of approximate models and exact solutions of the energy-grained master equation. <i>Journal of Chemical Physics</i> , 1980, 72, 3686-3694.	3.0	75
28	Temperature-dependent energy transfer: direct experiments using azulene. <i>The Journal of Physical Chemistry</i> , 1984, 88, 1012-1017.	2.9	72
29	Infrared emission spectra of benzene and naphthalene - Implications for the interstellar polycyclic aromatic hydrocarbon hypothesis. <i>Astrophysical Journal</i> , 1992, 388, L39.	4.5	72
30	Isotope effects in the vibrational deactivation of large molecules. <i>Journal of Chemical Physics</i> , 1992, 97, 1809-1817.	3.0	71
31	Multiple-Well, multiple-path unimolecular reaction systems. II. 2-methylhexyl free radicals. <i>International Journal of Chemical Kinetics</i> , 2001, 33, 246-261.	1.6	70
32	Collisional deactivation of highly vibrationally excited pyrazine. <i>Journal of Chemical Physics</i> , 1996, 105, 1383-1391.	3.0	65
33	Master Equation Models for the Pressure- and Temperature-Dependent Reactions $\text{HO} + \text{NO}_2 \rightarrow \text{HONO}_2$ and $\text{HO} + \text{NO}_2 \rightarrow \text{HOONO}$ . <i>Journal of Physical Chemistry A</i> , 2003, 107, 11057-11071.	2.5	65
34	Water Effect on the OH + HCl Reaction. <i>Journal of Physical Chemistry A</i> , 2012, 116, 4712-4719.	2.5	63
35	Master equation simulations of competing unimolecular and bimolecular reactions: application to OH production in the reaction of acetyl radical with O <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2007, 9, 4129.	2.8	62
36	A reduced mechanism for methanol oxidation in supercritical water. <i>Chemical Engineering Science</i> , 1998, 53, 857-867.	3.8	61

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37	Identifying trapping desorption in gasâ€‘surface scattering. Chemical Physics Letters, 2000, 329, 84-91.	2.6	61
38	HO + CO Reaction Rates and H/D Kinetic Isotope Effects: Master Equation Models with ab Initio SCTST Rate Constants. Journal of Physical Chemistry A, 2013, 117, 821-835.	2.5	61
39	Polycyclic aromatic hydrocarbons and molecular equilibria in carbon-rich stars. Astrophysical Journal, 1992, 394, 703.	4.5	61
40	Modeling the Organic Nitrate Yields in the Reaction of Alkyl Peroxy Radicals with Nitric Oxide. 2. Reaction Simulations. Journal of Physical Chemistry A, 2003, 107, 7434-7444.	2.5	60
41	Infrared multiphoton generation of radicals: A new technique for obtaining absolute rate constants. Application to reactions of CF <sub>3</sub> . Journal of Chemical Physics, 1979, 71, 3722-3727.	3.0	59
42	Reaction H+C <sub>2</sub> H <sub>4</sub> : Comparison of Three Experimental Techniques. Journal of Chemical Physics, 1970, 52, 2079-2088.	3.0	57
43	Modeling the Organic Nitrate Yields in the Reaction of Alkyl Peroxy Radicals with Nitric Oxide. 1. Electronic Structure Calculations and Thermochemistry. Journal of Physical Chemistry A, 2003, 107, 7429-7433.	2.5	57
44	Infrared multiphoton decomposition: photochemistry and photophysics. Accounts of Chemical Research, 1981, 14, 56-62.	15.6	56
45	Kinetic Isotope Effects for Cl + CH <sub>4</sub> → HCl + CH <sub>3</sub> Calculated Using ab Initio Semiclassical Transition State Theory. Journal of Physical Chemistry A, 2012, 116, 6408-6419.	2.5	56
46	Energy transfer rates for vibrationally excited gas-phase azulene in the electronic ground state. Chemical Physics Letters, 1981, 78, 253-258.	2.6	55
47	Temperature and Ionic Strength Effects on Some Reactions Involving Sulfate Radical [SO <sub>4</sub> <sup>-</sup> (aq)]. The Journal of Physical Chemistry, 1996, 100, 9780-9787.	2.9	53
48	Collisional Energy Transfer Probability Densities $\langle i \rangle P \langle i \rangle$ ( $\langle i \rangle E \langle i \rangle$ , $\langle i \rangle J \langle i \rangle$ ; $\langle i \rangle E^2 \langle i \rangle$ , $\langle i \rangle J^2 \langle i \rangle$ ) for Monatomics Colliding with Large Molecules. Journal of Physical Chemistry A, 2010, 114, 10619-10633.	2.5	53
49	CH <sub>2</sub> NH <sub>2</sub> + O <sub>2</sub> and CH <sub>3</sub> CHNH <sub>2</sub> + O <sub>2</sub> Reaction Kinetics: Photoionization Mass Spectrometry Experiments and Master Equation Calculations. Journal of Physical Chemistry A, 2014, 118, 2176-2186.	2.5	52
50	Excitation of CO <sub>2</sub> by energy transfer from highly vibrationally excited benzene derivatives. Journal of Chemical Physics, 1991, 95, 8108-8119.	3.0	50
51	Population distributions in the vibrational deactivation of benzene and benzene-d <sub>6</sub> . First and second moments derived from two-color infrared fluorescence measurements. Chemical Physics, 1993, 175, 99-111.	1.9	50
52	Time dependent thermal lensing measurements of Vâ€‘T energy transfer from highly excited NO <sub>2</sub> . Journal of Chemical Physics, 1990, 92, 4793-4804.	3.0	48
53	Sums of quantum states of nonseparable degrees of freedom: multidimensional Monte Carlo integration. The Journal of Physical Chemistry, 1987, 91, 3849-3854.	2.9	47
54	Energy dependence of infrared emission from azulene Câ€‘H stretching vibrations. Journal of Chemical Physics, 1988, 88, 6211-6218.	3.0	47

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55	Kinetic studies of the deactivation of O <sub>2</sub> ( <sup>1</sup> g+) and O( <sup>1</sup> D). International Journal of Chemical Kinetics, 1990, 22, 1283-1301.	1.6	47
56	Comparison of Three Isoelectronic Multiple-Well Reaction Systems: OH + CH <sub>2</sub> O, OH + CH <sub>2</sub> CH <sub>2</sub> , and OH + CH <sub>2</sub> NH. Journal of Physical Chemistry A, 2015, 119, 7578-7592.	2.5	47
57	Infrared multiphoton dissociation yields via a versatile new technique: intensity, fluence, and wavelength dependence for CF <sub>3</sub> I. Chemical Physics Letters, 1979, 65, 523-526.	2.6	46
58	Intramolecular vibrational energy relaxation. Decomposition of a series of chemically activated fluoroalkyl cyclopropanes. The Journal of Physical Chemistry, 1974, 78, 2535-2543.	2.9	45
59	Infrared fluorescence and collisional energy transfer parameters for vibrationally excited azulene*(S <sub>0</sub> ): dependence on internal energy (E <sub>vib</sub> ). Chemical Physics Letters, 1982, 85, 21-26.	2.6	45
60	Theory of the time-dependent-thermal-lensing (TDTL) technique as used in energy-transfer experiments. Chemical Physics, 1982, 68, 331-339.	1.9	43
61	Infrared emission from a polycyclic aromatic hydrocarbon (PAH) excited by ultraviolet laser. Astrophysical Journal, 1989, 341, L21.	4.5	43
62	Chlorine nitrate photolysis by a new technique: very low pressure photolysis. Chemical Physics Letters, 1979, 60, 385-390.	2.6	41
63	Collisional energy transfer and macroscopic disequilibrium. Application to azulene. Journal of Chemical Physics, 1985, 83, 124-132.	3.0	40
64	Quantum effects in large molecule collisional energy transfer?. Chemical Physics Letters, 1990, 174, 304-308.	2.6	38
65	Pressure- and temperature-dependent combustion reactions. Combustion and Flame, 2011, 158, 602-617.	5.2	38
66	Temperature effects in the collisional deactivation of highly vibrationally excited pyrazine by unexcited pyrazine. Journal of Chemical Physics, 1996, 105, 3012-3018.	3.0	37
67	Infrared multiphoton chemistry: Comparison of theory and experiment, solution of the master equation. Chemical Physics Letters, 1979, 62, 178-180.	2.6	36
68	Polycyclic aromatic hydrocarbon optical properties and contribution to the acceleration of stellar outflows. Astrophysical Journal, 1991, 377, 541.	4.5	36
69	Vibrational energy transfer in shock-heated norbornene. Journal of Chemical Physics, 1995, 103, 4953-4966.	3.0	34
70	Computational study of the hydroperoxo + hydroperoxo and hydroperoxo-d + hydroperoxo-d reactions. The Journal of Physical Chemistry, 1984, 88, 128-136.	2.9	33
71	IR photochemistry: A unified approach for single-channel reactions. II. Treatment of experimental data. Journal of Chemical Physics, 1981, 74, 3823-3830.	3.0	31
72	IR photochemistry: A unified approach for single-channel reactions. I. Theory and computational examples. Journal of Chemical Physics, 1981, 74, 3813-3822.	3.0	31

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73	Ion imaging the recoil energy distribution following vibrational predissociation of triplet state pyrazine- $\text{Ar}$ van der Waals clusters. <i>Chemical Physics Letters</i> , 1999, 302, 602-608.	2.6	31
74	Infrared photodecomposition of ethyl vinyl ether. A chemical probe of multiphoton dynamics. <i>Journal of the American Chemical Society</i> , 1977, 99, 8063-8064.	13.7	30
75	Radiative recombination in the electronic ground state. <i>The Journal of Physical Chemistry</i> , 1992, 96, 7361-7367.	2.9	30
76	Time-dependent-thermal-lensing (TDTL) studies on gas-phase azulene. <i>Chemical Physics</i> , 1982, 68, 341-349.	1.9	29
77	Predicted Chemical Activation Rate Constants for $\text{HO}_2 + \text{CH}_2\text{NH}$ : The Dominant Role of a Hydrogen-Bonded Pre-reactive Complex. <i>Journal of Physical Chemistry A</i> , 2016, 120, 7060-7070.	2.5	29
78	Quasiclassical Trajectory Simulations of Pyrazine- $\text{Argon}$ and Methylpyrazine- $\text{Argon}$ van der Waals Cluster Predissociation and Collisional Energy Transfer. <i>Journal of Physical Chemistry A</i> , 2000, 104, 10184-10193.	2.5	28
79	Vibrationally excited populations from IR-multiphoton absorption. II. Infrared fluorescence measurements. <i>Journal of Chemical Physics</i> , 1985, 83, 6261-6267.	3.0	26
80	Vibrationally excited populations from IR-multiphoton absorption. I. Absorbed energy and reaction yield measurements. <i>Journal of Chemical Physics</i> , 1985, 83, 6251-6260.	3.0	25
81	Vibrationally excited populations from IR-multiphoton absorption. 3. Energy transfer between 1,1,2-trifluoroethane and argon. <i>The Journal of Physical Chemistry</i> , 1986, 90, 461-465.	2.9	25
82	Non-RRKM Dynamics in the $\text{CH}_3\text{O}_2 + \text{NO}$ Reaction System. <i>Journal of Physical Chemistry A</i> , 2008, 112, 2553-2562.	2.5	25
83	Failure of intramolecular energy relaxation in unimolecular reaction systems. <i>Journal of Chemical Physics</i> , 1974, 60, 2932-2933.	3.0	24
84	A modified model for quenching and electronic-vibrational energy transfer. <i>Chemical Physics</i> , 1976, 18, 175-188.	1.9	24
85	Incubation in cyclohexene decomposition at high temperatures. <i>International Journal of Chemical Kinetics</i> , 1990, 22, 187-206.	1.6	24
86	On Modeling the Pressure-dependent Photoisomerization of trans-Stilbene by Including Slow Intramolecular Vibrational Energy Redistribution. <i>Journal of Physical Chemistry A</i> , 2006, 110, 7888-7897.	2.5	23
87	Level-to-level vibrational energy transfer studies: energy dependence and observation of product species for azulenes( $\text{S}_0$ , Evib) + $\text{CO}_2$ . <i>Chemical Physics Letters</i> , 1982, 90, 99-104.	2.6	22
88	Reactant states model: Predicted $k(E,J)$ for $\text{NO}_2(2A_1) \rightarrow \text{O}(3P) + \text{NO}(2\pi)$ , based on spectroscopic data. <i>Journal of Chemical Physics</i> , 1989, 91, 2239-2253.	3.0	22
89	A state-to-state statistical-dynamical theory for large molecule collisional energy transfer. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1997, 101, 566-573.	0.9	22
90	Tropospheric Oxidation of Ethyne and But-2-yne. 1. Theoretical Mechanistic Study. <i>Journal of Physical Chemistry A</i> , 2008, 112, 3656-3665.	2.5	22

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91	Optoacoustic measurements of IR multiphoton excitation of cis- $\beta$ , 4-dichlorocyclobutene. Journal of Chemical Physics, 1983, 78, 2163-2169.	3.0	21
92	Odd oxygen formation in the laser irradiation of $O_2$ at 248 nm: Evidence for reactions of $O_2$ in the Herzberg states with ground state $O_2$ . Journal of Geophysical Research, 1992, 97, 13039-13050.	3.3	21
93	Photochemical Kinetics of Vibrationally Excited Ozone Produced in the 248 nm Photolysis of $O_2/O_3$ Mixtures. Journal of Physical Chemistry A, 2000, 104, 6218-6226.	2.5	21
94	$CF_3CH_3 + HF + CF_2CH_2$ : A Non-RRKM Reaction?. Journal of Physical Chemistry A, 2006, 110, 2944-2954.	2.5	21
95	Oxidation of Ethyne and But-2-yne. 2. Master Equation Simulations. Journal of Physical Chemistry A, 2008, 112, 3666-3675.	2.5	21
96	An approximation for hindered rotor state energies. Chemical Physics Letters, 2004, 383, 203-207.	2.6	20
97	HO + OClO Reaction System: Featuring a Barrierless Entrance Channel with Two Transition States. Journal of Physical Chemistry A, 2015, 119, 5723-5731.	2.5	20
98	Deactivation of highly excited $CS_2$ and $SO_2$ by rare gases. Journal of Chemical Physics, 1998, 108, 2383-2394.	3.0	19
99	An introduction to global warming. American Journal of Physics, 1999, 67, 1216-1226.	0.7	19
100	Infrared multiphoton photophysics: Decomposition of $C_nF_{2n+1}I$ ( $n = 1, 2, 3$ ). Journal of Chemical Physics, 1982, 76, 406-416.	3.0	18
101	RO-Vibrational state densities based on spectroscopic data for non-separable systems. Chemical Physics Letters, 1989, 159, 499-504.	2.6	18
102	Temperature-Dependent Rate and Equilibrium Constants for $Br_2(aq) + Br^-(aq) \rightleftharpoons Br_3^-(aq)$ . Journal of Physical Chemistry A, 2002, 106, 11075-11082.	2.5	18
103	Quasi-Classical Trajectory Simulations of Intramolecular Vibrational Energy Redistribution in HONO <sub>2</sub> and DONO <sub>2</sub> . Journal of Physical Chemistry B, 2005, 109, 8304-8309.	2.6	18
104	When Rate Constants Are Not Enough. Journal of Physical Chemistry A, 2015, 119, 7451-7461.	2.5	18
105	Experimental Estimate of the Oscillator Strength of the $P_{2,3,12} \rightarrow S_{1,2}$ Transition of the Hydrogen Atom. Journal of the Optical Society of America, 1968, 58, 1615.	1.2	17
106	Energy-dependent cross sections for $Na(3P, )$ quenched by nitrogen. Chemical Physics Letters, 1973, 19, 235-239.	2.6	16
107	Emission from ozone excited electronic states. The Journal of Physical Chemistry, 1990, 94, 8390-8393.	2.9	16
108	Time of flight measurement of recoil energy distributions from vibrational predissociation of van der Waals clusters. Physical Chemistry Chemical Physics, 2000, 2, 813-821.	2.8	16

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109	Effects of Temperature and Ionic Strength on the Rate and Equilibrium Constants for the Reaction $I_2 + I^- \rightleftharpoons I_2 \cdot I^-$ . Journal of Physical Chemistry A, 2003, 107, 10296-10302.	2.5	15
110	Mechanism and Kinetics of the Reaction $NO_3 + C_2H_4$ . Journal of Physical Chemistry A, 2011, 115, 4894-4901.	2.5	15
111	Reaction rate constant for $OH + HOONO_2$ . Products over the temperature range 246 to 324 K. The Journal of Physical Chemistry, 1982, 86, 1661-1669.	2.9	14
112	Empirical potentials for rovibrational energy transfer of hydrogen fluoride in collisions with argon. Journal of Chemical Physics, 2001, 115, 4573-4585.	3.0	13
113	$NO_2$ photolysis products investigated by fluorescence and optoacoustic techniques. International Journal of Chemical Kinetics, 1985, 17, 991-1006.	1.6	12
114	Reaction of $NO$ with hypochlorous acid. International Journal of Chemical Kinetics, 1979, 11, 843-851.	1.6	11
115	Reaction of Hydrogen Atoms with Ethylene. Journal of Chemical Physics, 1969, 51, 850-851.	3.0	10
116	Quasiclassical Trajectory Simulations of $OH(v) + NO_2 \rightarrow HONO_2^* \rightarrow OH(v') + NO_2$ : Capture and Vibrational Deactivation Rate Constants. Journal of Physical Chemistry A, 2006, 110, 1267-1277.	2.5	10
117	Intramolecular Vibrational Energy Redistribution Involving the Torsion in $CF_3CH_3$ : A Molecular Dynamics Study. Journal of Physical Chemistry A, 2006, 110, 6851-6859.	2.5	10
118	On the Chaperon Mechanism: Application to $ClO + ClO \rightarrow ClOCl + O_2$ . Journal of Physical Chemistry A, 2007, 111, 8689-8698.	2.5	10
119	High temperature unimolecular decomposition of cyclopentanone. Proceedings of the Combustion Institute, 2019, 37, 267-273.	3.9	10
120	Memory effects during collisional energy transfer from highly excited $CS_2$ . Chemical Physics Letters, 1996, 259, 225-232.	2.6	9
121	Semiclassical transition state theory/master equation kinetics of $HO + CO$ : Performance evaluation. International Journal of Chemical Kinetics, 2020, 52, 1022-1045.	1.6	9
122	Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes: Erratum. Astrophysical Journal, 1993, 413, 445.	4.5	9
123	Laser-induced chemical kinetics: Absolute rate constants for the reactions $CF_2 + Br_2 \rightarrow CF_2Br + Br$ and $n-C_3F_7 + Br_2 \rightarrow n-C_3F_7Br + Br$ . International Journal of Chemical Kinetics, 1982, 14, 499-506.	1.6	7
124	IR photochemistry: A unified approach for single-channel reactions. A simple approximate solution of the master equation. Chemical Physics Letters, 1982, 86, 55-58.	2.6	7
125	Experimental Studies of Population Distributions Produced by Infrared Multiphoton Absorption. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1985, 89, 301-303.	0.9	7
126	Symmetry-specific densities of rovibrational energy levels for nonseparable systems. The Journal of Physical Chemistry, 1989, 93, 6578-6581.	2.9	7



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127	Absolute integrated cross sections for some O <sub>2</sub> Herzberg I transitions near 248–249 nm. <i>Journal of Chemical Physics</i> , 1995, 103, 6-13.	3.0	7
128	Atmospheric Reaction Rate Constants and Kinetic Isotope Effects Computed Using the HEAT Protocol and Semi-Classical Transition State Theory. , 2017, , 403-492.		7
129	Grains, or Molecules? Thermal, or Non-Thermal?. , 1989, , 197-205.		7
130	Experiments on collisional energy transfer. <i>Comprehensive Chemical Kinetics</i> , 2019, , 3-62.	2.3	6
131	Reply to “Comment on “When Rate Constants Are Not Enough””. <i>Journal of Physical Chemistry A</i> , 2016, 120, 313-317.	2.5	5
132	Monte Carlo stochastic simulation of the master equation for unimolecular reaction systems. <i>Comprehensive Chemical Kinetics</i> , 2019, , 409-463.	2.3	5
133	PHOTOTHERMAL STUDIES OF ENERGY TRANSFER AND REACTION RATES. , 1989, , 155-190.		5
134	Theoretical Study on the Kinetics of the Reaction CH <sub>2</sub> Br + NO <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2014, 118, 3313-3318.	2.5	4
135	<sc>OH</sc> + Isoprene: A Direct Dynamics Study. <i>Bulletin of the Korean Chemical Society</i> , 2017, 38, 651-660.	1.9	4
136	CH <sub>2</sub> + O <sub>2</sub> : reaction mechanism, biradical and zwitterionic character, and formation of CH <sub>2</sub> OO, the simplest Criegee intermediate. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 914-927.	2.8	4
137	O(3P) + HOONO <sub>2</sub> ? products: Temperature-dependent rate constant. <i>International Journal of Chemical Kinetics</i> , 1981, 13, 1151-1161.	1.6	3
138	H + HOONO <sub>2</sub> ? products: Temperature-dependent rate constant. <i>International Journal of Chemical Kinetics</i> , 1981, 13, 1163-1174.	1.6	3
139	Stalking the Step-Size Distribution: A Statistical “Dynamical Theory for Large-Molecule Collisional Energy Transfer. <i>ACS Symposium Series</i> , 1997, , 220-236.	0.5	3
140	Recoil Energy Distributions in van der Waals Cluster Vibrational Predissociation. <i>ACS Symposium Series</i> , 2000, , 151-166.	0.5	3
141	Free Radical Reactions Involving Cl <sup>•</sup> , and Cl <sub>2</sub> <sup>•</sup> , and SO <sub>4</sub> <sup>•</sup> in the 248 nm Photolysis of Aqueous Solutions Containing S <sub>2</sub> O <sub>8</sub> <sup>2-</sup> and Cl <sup>-</sup> . <i>ChemInform</i> , 2004, 35, no.	0.0	2
142	VLPP unimolecular rate theory. <i>International Journal of Chemical Kinetics</i> , 1975, 7, 943-949.	1.6	1
143	Master Equation Models for the Pressure- and Temperature-Dependent Reactions HO + NO <sub>2</sub> → HONO <sub>2</sub> and HO + NO <sub>2</sub> → HOONO. <i>ChemInform</i> , 2004, 35, no.	0.0	1
144	Nitrogen Oxides: Vehicle Emissions and Atmospheric Chemistry. <i>NATO Science for Peace and Security Series C: Environmental Security</i> , 2013, , 101-113.	0.2	1

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145	New light on acetone: a master equation model for gas phase photophysics and photochemistry. <i>Molecular Physics</i> , 2021, 119, .	1.7	1
146	Multiple-Well, multiple-path unimolecular reaction systems. II. 2-methylhexyl free radicals. <i>International Journal of Chemical Kinetics</i> , 2001, 33, 246-261.	1.6	1
147	Continuity and growth: An editorial. <i>International Journal of Chemical Kinetics</i> , 1984, 16, i-ii.	1.6	0
148	Grains, or Molecules? Thermal, or non-Thermal?. Symposium - International Astronomical Union, 1989, 135, 197-205.	0.1	0
149	A pioneer of direct measurements to advance modern gas-phase chemical kinetics. <i>International Journal of Chemical Kinetics</i> , 2021, 53, 3-6.	1.6	0