

# John R Barker

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2035102/publications.pdf>

Version: 2024-02-01

149  
papers

9,036  
citations

38660

50  
h-index

42291

92  
g-index

152  
all docs

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.	3.0	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.	1.6	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.	1.0	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.	1.1	300
5	Polycyclic aromatic hydrocarbon formation in carbon-rich stellar envelopes. <i>Astrophysical Journal</i> , 1992, 401, 269.	1.6	299
6	Energy transfer in master equation simulations: A new approach. <i>International Journal of Chemical Kinetics</i> , 2009, 41, 748-763.	1.0	227
7	Energy-dependent energy transfer: Deactivation of azulene (S <sub>0</sub> , $\lambda_{\text{exc}} = 680$ nm) by 17 collider gases. <i>Journal of Chemical Physics</i> , 1983, 78, 6695-6708.	1.2	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.	1.1	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.	1.6	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.	1.1	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.	1.1	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.	1.1	105
16	Vibrational relaxation of highly excited toluene. <i>Journal of Chemical Physics</i> , 1991, 95, 176-188.	1.2	102
17	Master Equation Analysis of Pressure-Dependent Atmospheric Reactions. <i>Chemical Reviews</i> , 2003, 103, 4577-4592.	23.0	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

#	ARTICLE	IF	CITATIONS
19	Infrared emission studies of the vibrational deactivation of benzene derivatives. <i>International Reviews in Physical Chemistry</i> , 1993, 12, 305-338.	0.9	95
20	Energy-dependent collisional deactivation of vibrationally excited azulene. <i>Journal of Chemical Physics</i> , 1988, 88, 6219-6227.	1.2	93
21	A practical implementation of semi-classical transition state theory for polyatomics. <i>Chemical Physics Letters</i> , 2010, 499, 9-15.	1.2	92
22	Monte Carlo calculations on unimolecular reactions, energy transfer, and IR-multiphoton decomposition. <i>Chemical Physics</i> , 1983, 77, 301-318.	0.9	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.	1.0	82
24	Reaction of HO with CO: Tunneling Is Indeed Important. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 1549-1553.	2.1	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.	1.1	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.	1.2	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.	1.2	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.	1.6	72
30	Isotope effects in the vibrational deactivation of large molecules. <i>Journal of Chemical Physics</i> , 1992, 97, 1809-1817.	1.2	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.	1.0	70
32	Collisional deactivation of highly vibrationally excited pyrazine. <i>Journal of Chemical Physics</i> , 1996, 105, 1383-1391.	1.2	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.	1.1	65
34	Water Effect on the OH + HCl Reaction. <i>Journal of Physical Chemistry A</i> , 2012, 116, 4712-4719.	1.1	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.	1.3	62
36	A reduced mechanism for methanol oxidation in supercritical water. <i>Chemical Engineering Science</i> , 1998, 53, 857-867.	1.9	61

#	ARTICLE	IF	CITATIONS
37	Identifying trapping desorption in gasâ€‘surface scattering. <i>Chemical Physics Letters</i> , 2000, 329, 84-91.	1.2	61
38	HO + CO Reaction Rates and H/D Kinetic Isotope Effects: Master Equation Models with ab Initio SCTST Rate Constants. <i>Journal of Physical Chemistry A</i> , 2013, 117, 821-835.	1.1	61
39	Polycyclic aromatic hydrocarbons and molecular equilibria in carbon-rich stars. <i>Astrophysical Journal</i> , 1992, 394, 703.	1.6	61
40	Modeling the Organic Nitrate Yields in the Reaction of Alkyl Peroxy Radicals with Nitric Oxide. 2. Reaction Simulations. <i>Journal of Physical Chemistry A</i> , 2003, 107, 7434-7444.	1.1	60
41	Infrared multiphoton generation of radicals: A new technique for obtaining absolute rate constants. Application to reactions of CF <sub>3</sub> . <i>Journal of Chemical Physics</i> , 1979, 71, 3722-3727.	1.2	59
42	Reaction H+C <sub>2</sub> H <sub>4</sub> : Comparison of Three Experimental Techniques. <i>Journal of Chemical Physics</i> , 1970, 52, 2079-2088.	1.2	57
43	Modeling the Organic Nitrate Yields in the Reaction of Alkyl Peroxy Radicals with Nitric Oxide. 1. Electronic Structure Calculations and Thermochemistry. <i>Journal of Physical Chemistry A</i> , 2003, 107, 7429-7433.	1.1	57
44	Infrared multiphoton decomposition: photochemistry and photophysics. <i>Accounts of Chemical Research</i> , 1981, 14, 56-62.	7.6	56
45	Kinetic Isotope Effects for Cl + CH <sub>4</sub> → HCl + CH <sub>3</sub> Calculated Using ab Initio Semiclassical Transition State Theory. <i>Journal of Physical Chemistry A</i> , 2012, 116, 6408-6419.	1.1	56
46	Energy transfer rates for vibrationally excited gas-phase azulene in the electronic ground state. <i>Chemical Physics Letters</i> , 1981, 78, 253-258.	1.2	55
47	Temperature and Ionic Strength Effects on Some Reactions Involving Sulfate Radical [SO <sub>4</sub> <sup>-</sup> (aq)]. <i>The Journal of Physical Chemistry</i> , 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. <i>Journal of Physical Chemistry A</i> , 2010, 114, 10619-10633.	1.1	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. <i>Journal of Physical Chemistry A</i> , 2014, 118, 2176-2186.	1.1	52
50	Excitation of CO <sub>2</sub> by energy transfer from highly vibrationally excited benzene derivatives. <i>Journal of Chemical Physics</i> , 1991, 95, 8108-8119.	1.2	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. <i>Chemical Physics</i> , 1993, 175, 99-111.	0.9	50
52	Time dependent thermal lensing measurements of Vâ€‘T energy transfer from highly excited NO <sub>2</sub> . <i>Journal of Chemical Physics</i> , 1990, 92, 4793-4804.	1.2	48
53	Sums of quantum states of nonseparable degrees of freedom: multidimensional Monte Carlo integration. <i>The Journal of Physical Chemistry</i> , 1987, 91, 3849-3854.	2.9	47
54	Energy dependence of infrared emission from azulene Câ€‘H stretching vibrations. <i>Journal of Chemical Physics</i> , 1988, 88, 6211-6218.	1.2	47

#	ARTICLE	IF	CITATIONS
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.	1.0	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.	1.1	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.	1.2	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.	1.2	45
60	Theory of the time-dependent-thermal-lensing (TDTL) technique as used in energy-transfer experiments. Chemical Physics, 1982, 68, 331-339.	0.9	43
61	Infrared emission from a polycyclic aromatic hydrocarbon (PAH) excited by ultraviolet laser. Astrophysical Journal, 1989, 341, L21.	1.6	43
62	Chlorine nitrate photolysis by a new technique: very low pressure photolysis. Chemical Physics Letters, 1979, 60, 385-390.	1.2	41
63	Collisional energy transfer and macroscopic disequilibrium. Application to azulene. Journal of Chemical Physics, 1985, 83, 124-132.	1.2	40
64	Quantum effects in large molecule collisional energy transfer?. Chemical Physics Letters, 1990, 174, 304-308.	1.2	38
65	Pressure- and temperature-dependent combustion reactions. Combustion and Flame, 2011, 158, 602-617.	2.8	38
66	Temperature effects in the collisional deactivation of highly vibrationally excited pyrazine by unexcited pyrazine. Journal of Chemical Physics, 1996, 105, 3012-3018.	1.2	37
67	Infrared multiphoton chemistry: Comparison of theory and experiment, solution of the master equation. Chemical Physics Letters, 1979, 62, 178-180.	1.2	36
68	Polycyclic aromatic hydrocarbon optical properties and contribution to the acceleration of stellar outflows. Astrophysical Journal, 1991, 377, 541.	1.6	36
69	Vibrational energy transfer in shock-heated norbornene. Journal of Chemical Physics, 1995, 103, 4953-4966.	1.2	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.	1.2	31
72	IR photochemistry: A unified approach for single-channel reactions. I. Theory and computational examples. Journal of Chemical Physics, 1981, 74, 3813-3822.	1.2	31

#	ARTICLE	IF	CITATIONS
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.	1.2	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.	6.6	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.	0.9	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.	1.1	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.	1.1	28
79	Vibrationally excited populations from IR-multiphoton absorption. II. Infrared fluorescence measurements. <i>Journal of Chemical Physics</i> , 1985, 83, 6261-6267.	1.2	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.	1.2	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.	1.1	25
83	Failure of intramolecular energy relaxation in unimolecular reaction systems. <i>Journal of Chemical Physics</i> , 1974, 60, 2932-2933.	1.2	24
84	A modified model for quenching and electronic-vibrational energy transfer. <i>Chemical Physics</i> , 1976, 18, 175-188.	0.9	24
85	Incubation in cyclohexene decomposition at high temperatures. <i>International Journal of Chemical Kinetics</i> , 1990, 22, 187-206.	1.0	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.	1.1	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.	1.2	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.	1.2	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.	1.1	22

#	ARTICLE	IF	CITATIONS
91	Optoacoustic measurements of IR multiphoton excitation of cis- $\beta$ , 4-dichlorocyclobutene. Journal of Chemical Physics, 1983, 78, 2163-2169.	1.2	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.	1.1	21
94	$CF_3CH_3 + HF + CF_2CH_2$ : A Non-RRKM Reaction?. Journal of Physical Chemistry A, 2006, 110, 2944-2954.	1.1	21
95	Oxidation of Ethyne and But-2-yne. 2. Master Equation Simulations. Journal of Physical Chemistry A, 2008, 112, 3666-3675.	1.1	21
96	An approximation for hindered rotor state energies. Chemical Physics Letters, 2004, 383, 203-207.	1.2	20
97	HO + OClO Reaction System: Featuring a Barrierless Entrance Channel with Two Transition States. Journal of Physical Chemistry A, 2015, 119, 5723-5731.	1.1	20
98	Deactivation of highly excited $CS_2$ and $SO_2$ by rare gases. Journal of Chemical Physics, 1998, 108, 2383-2394.	1.2	19
99	An introduction to global warming. American Journal of Physics, 1999, 67, 1216-1226.	0.3	19
100	Infrared multiphoton photophysics: Decomposition of $C_nF_{2n+1}I$ ( $n = 1, 2, 3$ ). Journal of Chemical Physics, 1982, 76, 406-416.	1.2	18
101	RO-Vibrational state densities based on spectroscopic data for non-separable systems. Chemical Physics Letters, 1989, 159, 499-504.	1.2	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.	1.1	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.	1.2	18
104	When Rate Constants Are Not Enough. Journal of Physical Chemistry A, 2015, 119, 7451-7461.	1.1	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.	1.2	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.	1.3	16

#	ARTICLE	IF	CITATIONS
109	Effects of Temperature and Ionic Strength on the Rate and Equilibrium Constants for the Reaction $I_2 + I^- \rightleftharpoons I_3^-$ . Journal of Physical Chemistry A, 2003, 107, 10296-10302.	1.1	15
110	Mechanism and Kinetics of the Reaction $NO_3 + C_2H_4$ . Journal of Physical Chemistry A, 2011, 115, 4894-4901.	1.1	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.	1.2	13
113	$N_2O_5$ photolysis products investigated by fluorescence and optoacoustic techniques. International Journal of Chemical Kinetics, 1985, 17, 991-1006.	1.0	12
114	Reaction of NO with hypochlorous acid. International Journal of Chemical Kinetics, 1979, 11, 843-851.	1.0	11
115	Reaction of Hydrogen Atoms with Ethylene. Journal of Chemical Physics, 1969, 51, 850-851.	1.2	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.	1.1	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.	1.1	10
118	On the Chaperon Mechanism: Application to $ClO + ClO \rightarrow ClOCl + O_2$ . Journal of Physical Chemistry A, 2007, 111, 8689-8698.	1.1	10
119	High temperature unimolecular decomposition of cyclopentanone. Proceedings of the Combustion Institute, 2019, 37, 267-273.	2.4	10
120	Memory effects during collisional energy transfer from highly excited $CS_2$ . Chemical Physics Letters, 1996, 259, 225-232.	1.2	9
121	Semiclassical transition state theory/master equation kinetics of $HO + CO$ : Performance evaluation. International Journal of Chemical Kinetics, 2020, 52, 1022-1045.	1.0	9
122	Polycyclic Aromatic Hydrocarbon Formation in Carbon-rich Stellar Envelopes: Erratum. Astrophysical Journal, 1993, 413, 445.	1.6	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.	1.0	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.	1.2	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



#	ARTICLE	IF	CITATIONS
127	Absolute integrated cross sections for some O <sub>2</sub> Herzberg I transitions near 248–249 nm. Journal of Chemical Physics, 1995, 103, 6-13.	1.2	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. Comprehensive Chemical Kinetics, 2019, , 3-62.	2.3	6
131	Reply to “Comment on “When Rate Constants Are Not Enough”” Journal of Physical Chemistry A, 2016, 120, 313-317.	1.1	5
132	Monte Carlo stochastic simulation of the master equation for unimolecular reaction systems. Comprehensive Chemical Kinetics, 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> . Journal of Physical Chemistry A, 2014, 118, 3313-3318.	1.1	4
135	<sc>OH</sc> + Isoprene: A Direct Dynamics Study. Bulletin of the Korean Chemical Society, 2017, 38, 651-660.	1.0	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. Physical Chemistry Chemical Physics, 2022, 24, 914-927.	1.3	4
137	O(3P) + HOONO <sub>2</sub> ? products: Temperature-dependent rate constant. International Journal of Chemical Kinetics, 1981, 13, 1151-1161.	1.0	3
138	H + HOONO <sub>2</sub> ? products: Temperature-dependent rate constant. International Journal of Chemical Kinetics, 1981, 13, 1163-1174.	1.0	3
139	Stalking the Step-Size Distribution: A Statistical “Dynamical Theory for Large-Molecule Collisional Energy Transfer. ACS Symposium Series, 1997, , 220-236.	0.5	3
140	Recoil Energy Distributions in van der Waals Cluster Vibrational Predissociation. ACS Symposium Series, 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> . ChemInform, 2004, 35, no.	0.1	2
142	VLPP unimolecular rate theory. International Journal of Chemical Kinetics, 1975, 7, 943-949.	1.0	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. ChemInform, 2004, 35, no.	0.1	1
144	Nitrogen Oxides: Vehicle Emissions and Atmospheric Chemistry. NATO Science for Peace and Security Series C: Environmental Security, 2013, , 101-113.	0.1	1

#	ARTICLE	IF	CITATIONS
145	New light on acetone: a master equation model for gas phase photophysics and photochemistry. <i>Molecular Physics</i> , 2021, 119, .	0.8	1
146	Multiple-Well, multiple-path unimolecular reaction systems. II. 2-methylhexyl free radicals. , 2001, 33, 246.		1
147	Continuity and growth: An editorial. <i>International Journal of Chemical Kinetics</i> , 1984, 16, i-ii.	1.0	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 gasâ€phase chemical kinetics. <i>International Journal of Chemical Kinetics</i> , 2021, 53, 3-6.	1.0	0