

Vadim D Knyazev

List of Publications by Year in descending order

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76
papers

2,118
citations

201658

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docs citations

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times ranked

1435
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#	ARTICLE	IF	CITATIONS
1	Kinetics of three reactions involving the azide radical: $\text{H}\dot{\text{A}}+\text{HN}_3$, thermal decomposition of N_3 , and $\text{N}_3\dot{\text{A}}+\text{HN}_3$. Chemical Physics Letters, 2021, 771, 138515.	2.6	0
2	Kinetics and mechanism of the reactions of chloromethyl radical with acetylene and decomposition of 1-chloroallyl and 2-chloromethyl vinyl radicals. Chemical Physics Letters, 2018, 691, 431-436.	2.6	0
3	Kinetics of the Reaction of the Cyclopentadienyl Radical with Nitrogen Dioxide. Journal of Physical Chemistry A, 2018, 122, 6978-6984.	2.5	0
4	Kinetics and mechanism of the reaction of recombination of vinyl and hydroxyl radicals. Chemical Physics Letters, 2017, 685, 165-170.	2.6	4
5	Kinetics of the Self Reaction of Cyclopentadienyl Radicals. Journal of Physical Chemistry A, 2015, 119, 7418-7429.	2.5	18
6	Initial Stages of the Pyrolysis of Polyethylene. Journal of Physical Chemistry A, 2015, 119, 11737-11760.	2.5	9
7	Multistage mechanism of thermal decomposition of hydrogen azide. Combustion, Explosion and Shock Waves, 2014, 50, 10-24.	0.8	5
8	Kinetics and Mechanism of the Reaction of Fluorine Atoms with Pentafluoropropionic Acid. Journal of Physical Chemistry A, 2014, 118, 4013-4018.	2.5	7
9	Molecular Dynamics Simulation of $\text{C}\dot{\text{C}}$ Bond Scission in Polyethylene and Linear Alkanes: Effects of the Condensed Phase. Journal of Physical Chemistry A, 2014, 118, 2187-2195.	2.5	11
10	A numerical study of the superadiabatic flame temperature phenomenon in HN_3 flames. Combustion Theory and Modelling, 2012, 16, 927-939.	1.9	7
11	Kinetics of the Self Reaction of Cyclohexyl Radicals. Journal of Physical Chemistry A, 2011, 115, 8616-8622.	2.5	6
12	Kinetics and mechanism of the reaction of fluorine atoms with trifluoroacetic acid. Chemical Physics Letters, 2011, 512, 172-177.	2.6	9
13	Kinetics of the self reaction of neopentyl radicals. Chemical Physics Letters, 2011, 513, 37-41.	2.6	3
14	MODELING OF SELF-IGNITION, STRUCTURE, AND VELOCITY OF PROPAGATION OF THE FLAME OF HYDROGEN AZIDE. International Journal of Energetic Materials and Chemical Propulsion, 2011, 10, 107-122.	0.3	1
15	Classical trajectories and RRKM modeling of collisional excitation and dissociation of benzylammonium and tert-butyl benzylammonium ions in a quadrupole-hexapole-quadrupole tandem mass spectrometer. Journal of the American Society for Mass Spectrometry, 2010, 21, 425-439.	2.8	13
16	Monte Carlo/RRKM/Classical Trajectories Modeling of Collisional Excitation and Dissociation of n -Butylbenzene Ion in Multipole Collision Cells of Tandem Mass Spectrometers. Journal of Physical Chemistry A, 2010, 114, 6384-6393.	2.5	8
17	Thermal Decomposition of HN_3 . Journal of Physical Chemistry A, 2010, 114, 839-846.	2.5	8
18	Kinetics of the Gas-Phase Reaction of OH with Chlorobenzene. Journal of Physical Chemistry A, 2009, 113, 10452-10459.	2.5	13

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19	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
20	Effects of Chain Length on the Rates of C-C Bond Dissociation in Linear Alkanes and Polyethylene. Journal of Physical Chemistry A, 2007, 111, 3875-3883.	2.5	28
21	Blister-colorimetric determination of phosphate ions in water, agricultural samples, and biological samples. Journal of Analytical Chemistry, 2007, 62, 37-41.	0.9	3
22	Kinetic Study of the Gas-Phase Reaction of OH with Br ₂ . Journal of Physical Chemistry A, 2006, 110, 9169-9174.	2.5	12
23	Kinetics of the Gas-Phase Reaction of OH with HCl. Journal of Physical Chemistry A, 2006, 110, 936-943.	2.5	34
24	Correction of a calibration scale for the rapid visual semiquantitative determination of phosphate ions in agricultural samples. Journal of Analytical Chemistry, 2006, 61, 1149-1153.	0.9	3
25	Kinetics of the reaction between vinyl radical and ethylene. Chemical Physics Letters, 2005, 408, 339-343.	2.6	12
26	Thermal decomposition of dichloroacetone and its reaction with H atoms. Proceedings of the Combustion Institute, 2005, 30, 975-983.	3.9	9
27	Kinetics of the CH ₂ Cl + CH ₃ and CHCl ₂ + CH ₃ Radical-Radical Reactions. Journal of Physical Chemistry A, 2005, 109, 6249-6254.	2.5	5
28	Kinetics of the Unimolecular Decomposition of the 2-Chloroallyl Radical. Journal of Physical Chemistry A, 2005, 109, 8149-8157.	2.5	4
29	Temperature-Dependent Kinetics of the Gas-Phase Reactions of OH with Cl ₂ , CH ₄ , and C ₃ H ₈ . Journal of Physical Chemistry A, 2004, 108, 10464-10472.	2.5	38
30	Reactivity Extrapolation from Small to Large Molecular Systems via Isodesmic Reactions for Transition States. Journal of Physical Chemistry A, 2004, 108, 10714-10722.	2.5	9
31	Kinetics and Thermochemistry of the Reaction of 2-Chloroallyl Radicals with Molecular Oxygen. Journal of Physical Chemistry A, 2004, 108, 11339-11344.	2.5	2
32	Kinetics of the reaction of the CCl ₂ biradical with NO. Chemical Physics Letters, 2003, 381, 766-770.	2.6	6
33	Kinetics of the CCl ₃ + CH ₃ Radical-Radical Reaction. Journal of Physical Chemistry A, 2003, 107, 6558-6564.	2.5	3
34	Kinetics of Reactions of Cl Atoms with Ethane, Chloroethane, and 1,1-Dichloroethane. Journal of Physical Chemistry A, 2003, 107, 6565-6573.	2.5	43
35	Kinetics of the Self-Reaction of C ₂ H ₅ Radicals. Journal of Physical Chemistry A, 2003, 107, 6804-6813.	2.5	19
36	Kinetics of the Unimolecular Decomposition of the C ₂ Cl ₃ Radical. Journal of Physical Chemistry A, 2003, 107, 6574-6579.	2.5	13

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37	Kinetics and Products of the Self-Reaction of Propargyl Radicals. Journal of Physical Chemistry A, 2003, 107, 8893-8903.	2.5	57
38	Isodesmic Reactions for Transition States: Reactions of Cl Atoms with Methane and Halogenated Methanes. Journal of Physical Chemistry A, 2003, 107, 11082-11091.	2.5	20
39	Kinetics of the Reaction of C ₂ Cl ₃ with Cl ₂ . Journal of Physical Chemistry A, 2003, 107, 1776-1778.	2.5	6
40	Kinetics of the Reaction of the CCl ₂ Biradical with Molecular Chlorine. Journal of Physical Chemistry A, 2003, 107, 10292-10295.	2.5	5
41	Computational Study of the Reactions of H Atoms with Chlorinated Alkanes. Isodesmic Reactions for Transition States. Journal of Physical Chemistry A, 2002, 106, 11603-11615.	2.5	21
42	Formation of CO in the Reaction of Oxygen Atoms with CH ₃ : Reaction over a Barrier but Not through a Saddle Point. Journal of Physical Chemistry A, 2002, 106, 8741-8756.	2.5	16
43	Kinetics of Reactions of Cl Atoms with Methane and Chlorinated Methanes. Journal of Physical Chemistry A, 2002, 106, 10532-10542.	2.5	68
44	Computational Study of the Mechanism and Product Yields in the Reaction Systems C ₂ H ₃ + CH ₃ ⁺ , C ₃ H ₆ ⁺ , H + C ₃ H ₅ and C ₂ H ₃ + CH ₃ ⁺ CH ₄ + C ₂ H ₂ . Journal of Physical Chemistry A, 2002, 106, 6952-6966.	2.5	12
45	Kinetics of the Reaction between Propargyl Radical and Acetylene. Journal of Physical Chemistry A, 2002, 106, 5613-5617.	2.5	44
46	Kinetics of the reaction between methyl radical and acetylene. Proceedings of the Combustion Institute, 2002, 29, 1237-1245.	3.9	9
47	Inhibition of premixed methane flames by manganese and tin compounds. Combustion and Flame, 2002, 129, 221-238.	5.2	47
48	Blister Drop Pellet Tests for Nitrates and Nitrites. Journal of Analytical Chemistry, 2002, 57, 75-82.	0.9	2
49	Kinetics of the Reaction of the CHCl ₂ Radical with Oxygen Atoms. Journal of Physical Chemistry A, 2001, 105, 76-81.	2.5	9
50	Kinetics of the Reactions of n-Alkyl (C ₂ H ₅ , n-C ₃ H ₇ , and n-C ₄ H ₉) Radicals with CH ₃ . Journal of Physical Chemistry A, 2001, 105, 6490-6498.	2.5	32
51	Kinetics of the Reactions of Allyl and Propargyl Radicals with CH ₃ . Journal of Physical Chemistry A, 2001, 105, 3196-3204.	2.5	35
52	Kinetics of Reactions of H Atoms With Methane and Chlorinated Methanes. Journal of Physical Chemistry A, 2001, 105, 3107-3122.	2.5	72
53	Kinetics of Reactions of H Atoms With Ethane and Chlorinated Ethanes. Journal of Physical Chemistry A, 2001, 105, 6900-6909.	2.5	40
54	Experimental Study of the Reaction between Vinyl and Methyl Radicals in the Gas Phase. Temperature and Pressure Dependence of Overall Rate Constants and Product Yields. Journal of Physical Chemistry A, 2000, 104, 9687-9697.	2.5	35

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55	Chemically and Thermally Activated Decomposition of Secondary Butyl Radical. Journal of Physical Chemistry A, 2000, 104, 10747-10765.	2.5	57
56	Incorporation of Non-Steady-State Unimolecular and Chemically Activated Kinetics into Complex Kinetic Schemes. 1. Isothermal Kinetics at Constant Pressure. Journal of Physical Chemistry A, 1999, 103, 3944-3954.	2.5	33
57	Kinetics of the $\text{CH}_2\text{CH}_2\text{Cl}^\bullet$, $\text{C}_2\text{H}_4 + \text{Cl}$ Reaction. Journal of Physical Chemistry A, 1999, 103, 3216-3221.	2.5	19
58	Comment on "Hindered rotor density-of-states interpolation function" [J. Chem. Phys. 106, 6675 (1997)] and "The hindered rotor density-of-states" [J. Chem. Phys. 108, 1748 (1998)]. Journal of Chemical Physics, 1999, 111, 7161-7162.	3.0	14
59	Kinetics and Thermochemistry of the Reactions of CH_3CCl_2 and $(\text{CH}_3)_2\text{CCl}$ Radicals with Molecular Oxygen. Journal of Physical Chemistry A, 1998, 102, 1760-1769.	2.5	10
60	Thermochemistry and Kinetics of the Reaction of 1-Methylallyl Radicals with Molecular Oxygen. Journal of Physical Chemistry A, 1998, 102, 8932-8940.	2.5	34
61	Nonharmonic Degrees of Freedom: Densities of States and Thermodynamic Functions. Journal of Physical Chemistry A, 1998, 102, 9167-9176.	2.5	17
62	Density of States of One-Dimensional Hindered Internal Rotors and Separability of Rotational Degrees of Freedom. Journal of Physical Chemistry A, 1998, 102, 3916-3922.	2.5	56
63	Thermochemistry of the $\text{R}^\bullet\text{O}_2$ Bond in Alkyl and Chloroalkyl Peroxy Radicals. Journal of Physical Chemistry A, 1998, 102, 1770-1778.	2.5	139
64	Unimolecular Decomposition of the FCO Radical. Journal of Physical Chemistry A, 1997, 101, 849-852.	2.5	16
65	Experimental and Theoretical Study of the $\text{C}_2\text{H}_3^\bullet$, $\text{H} + \text{C}_2\text{H}_2$ Reaction. Tunneling and the Shape of Falloff Curves. The Journal of Physical Chemistry, 1996, 100, 16899-16911.	2.9	101
66	Unimolecular Decomposition of <i>n</i> -C ₄ H ₉ and <i>iso</i> -C ₄ H ₉ Radicals. The Journal of Physical Chemistry, 1996, 100, 5318-5328.	2.9	68
67	Kinetics of the $\text{C}_2\text{H}_3 + \text{H}_2^\bullet$, $\text{H} + \text{C}_2\text{H}_4$ and $\text{CH}_3 + \text{H}_2^\bullet$, $\text{H} + \text{CH}_4$ Reactions. The Journal of Physical Chemistry, 1996, 100, 11346-11354.	2.9	116
68	Kinetics of the Reaction of Vinyl Radical With Molecular Oxygen. The Journal of Physical Chemistry, 1995, 99, 2247-2249.	2.9	46
69	Kinetics and Thermochemistry of the Reaction of 1-Chloroethyl Radical with Molecular Oxygen. The Journal of Physical Chemistry, 1995, 99, 230-238.	2.9	26
70	Energy Dependence of ΔE_{rtb} and the Shape of Falloff Curves: Implications for Modeling of Experimental Data. The Journal of Physical Chemistry, 1995, 99, 14738-14741.	2.9	17
71	Experimental and Theoretical Study of the <i>sec</i> -C ₄ H ₉ \cdot CH ₃ + C ₃ H ₆ Reaction. The Journal of Physical Chemistry, 1994, 98, 11099-11108.	2.9	29
72	Unimolecular Decomposition of <i>t</i> -C ₄ H ₉ Radical. The Journal of Physical Chemistry, 1994, 98, 5279-5289.	2.9	64

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73	Weak collision effects in the reaction ethyl radical .dblarw. ethene + hydrogen. The Journal of Physical Chemistry, 1993, 97, 871-880.	2.9	101
74	Kinetics of the thermal decomposition of the n-propyl radical. Proceedings of the Combustion Institute, 1992, 24, 629-635.	0.3	28
75	The mechanism of O(3P) atom reaction with ethylene and other simple olefins. International Journal of Chemical Kinetics, 1992, 24, 545-561.	1.6	41
76	Modeling the Thermal Decomposition of Large Molecules and Nanostructures. , 0, , 219-244.		1