Judit ZÃ¡dor

List of Publications by Year in descending order

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Version: 2024-02-01

63	2,983	159358	168136
papers	citations	30 h-index	53 g-index

69	69	69	2322
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kinetics of elementary reactions in low-temperature autoignition chemistry. Progress in Energy and Combustion Science, 2011, 37, 371-421.	15.8	586
2	The reaction between propene and hydroxyl. Physical Chemistry Chemical Physics, 2009, 11, 11040.	1.3	147
3	Direct observation and kinetics of a hydroperoxyalkyl radical (QOOH). Science, 2015, 347, 643-646.	6.0	130
4	Uncertainty analysis of updated hydrogen and carbon monoxide oxidation mechanisms. Proceedings of the Combustion Institute, 2005, 30, 1273-1281.	2.4	97
5	OH and HO₂ chemistry in clean marine air during SOAPEX-2. Atmospheric Chemistry and Physics, 2004, 4, 839-856.	1.9	92
6	Local and Global Uncertainty Analyses of a Methane Flame Model. Journal of Physical Chemistry A, 2005, 109, 9795-9807.	1.1	90
7	The reaction of hydroxyethyl radicals with O2: A theoretical analysis and experimental product study. Proceedings of the Combustion Institute, 2009, 32, 271-277.	2.4	90
8	Combustion chemistry in the twenty-first century: Developing theory-informed chemical kinetics models. Progress in Energy and Combustion Science, 2021, 83, 100886.	15.8	89
9	Low-temperature combustion chemistry of biofuels: pathways in the initial low-temperature (550) Tj ETQq1 1 0.784314 rgBT /Overlock	1.3	88
10	Unimolecular Reaction Pathways of a Î³-Ketohydroperoxide from Combined Application of Automated Reaction Discovery Methods. Journal of the American Chemical Society, 2018, 140, 1035-1048.	6.6	82
11	Local and global uncertainty analysis of complex chemical kinetic systems. Reliability Engineering and System Safety, 2006, 91, 1232-1240.	5.1	81
12	KinBot: Automated stationary point search on potential energy surfaces. Computer Physics Communications, 2020, 248, 106947.	3.0	80
13	Formally direct pathways and low-temperature chain branching in hydrocarbon autoignition: the cyclohexyl + O2 reaction at high pressure. Physical Chemistry Chemical Physics, 2009, 11, 1320.	1.3	76
14	First principles study of photo-oxidation degradation mechanisms in P3HT for organic solar cells. Physical Chemistry Chemical Physics, 2014, 16, 8092-8099.	1.3	70
15	Directly measuring reaction kinetics of Ë™QOOH â€“ a crucial but elusive intermediate in hydrocarbon autoignition. Physical Chemistry Chemical Physics, 2013, 15, 10753.	1.3	58
16	Pressure-Dependent OH Yields in Alkene + HO₂ Reactions: A Theoretical Study. Journal of Physical Chemistry A, 2011, 115, 10218-10225.	1.1	56
17	Uncertainty analysis of NO production during methane combustion. International Journal of Chemical Kinetics, 2008, 40, 754-768.	1.0	55
18	Probing the low-temperature chain-branching mechanism of n -butane autoignition chemistry via time-resolved measurements of ketohydroperoxide formation in photolytically initiated n- C 4 H 10 oxidation. Proceedings of the Combustion Institute, 2015, 35, 291-298.	2.4	48

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19	Adventures on the C3H5O potential energy surface: OH + propyne, OH + allene and related reactions. Proceedings of the Combustion Institute, 2015, 35, 181-188.	2.4	42
20	Theoretical kinetics of O + C2H4. Proceedings of the Combustion Institute, 2017, 36, 219-227.	2.4	42
21	Low-Temperature Combustion Chemistry of n-Butanol: Principal Oxidation Pathways of Hydroxybutyl Radicals. Journal of Physical Chemistry A, 2013, 117, 11983-12001.	1.1	40
22	Pressure-Dependent Competition among Reaction Pathways from First- and Second-O₂ Additions in the Low-Temperature Oxidation of Tetrahydrofuran. Journal of Physical Chemistry A, 2016, 120, 6582-6595.	1.1	40
23	Measurement and investigation of chamber radical sources in the European Photoreactor (EUPHORE). Journal of Atmospheric Chemistry, 2006, 55, 147-166.	1.4	38
24	Unconventional Peroxy Chemistry in Alcohol Oxidation: The Water Elimination Pathway. Journal of Physical Chemistry Letters, 2013, 4, 350-354.	2.1	38
25	Multiscale Informatics for Low-Temperature Propane Oxidation: Further Complexities in Studies of Complex Reactions. Journal of Physical Chemistry A, 2015, 119, 7095-7115.	1.1	37
26	Uncertainty quantification in the ab initio rate-coefficient calculation for the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mtext>CH</mml:mtext></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub><mml:mo stretchy="false">(</mml:mo><mml:mtext>OH</mml:mtext><mml:mo) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 452 Td (stretchy="false">)	2.4	36
27	Proceedings of the Combustion Institute, 2013, 34, 583-590. New experiments and validated master-equation modeling for OH production in propyl+O2 reactions. Proceedings of the Combustion Institute, 2011, 33, 293-299.	2.4	35
28	Time scale and dimension analysis of a budding yeast cell cycle model. BMC Bioinformatics, 2006, 7, 494.	1.2	34
29	Elucidating reactivity regimes in cyclopentane oxidation: Jet stirred reactor experiments, computational chemistry, and kinetic modeling. Proceedings of the Combustion Institute, 2017, 36, 469-477.	2.4	34
30	Influence of oxygenation in cyclic hydrocarbons on chain-termination reactions from R + O2: tetrahydropyran and cyclohexane. Proceedings of the Combustion Institute, 2017, 36, 597-606.	2.4	33
31	Threshold photoelectron spectrum of the benzyl radical. Molecular Physics, 2015, 113, 2217-2227.	0.8	32
32	Comment on â€œWhen Rate Constants Are Not Enoughâ€• Journal of Physical Chemistry A, 2016, 120, 306-312.	1.1	30
33	Quantitative assessment of uncertainties for a model of tropospheric ethene oxidation using the European Photoreactor (EUPHORE). Atmospheric Environment, 2005, 39, 2805-2817.	1.9	29
34	Temperature-Dependent Kinetics of the Vinyl Radical (C₂H₃) Self-Reaction. Journal of Physical Chemistry A, 2009, 113, 1278-1286.	1.1	27
35	Similarity of Sensitivity Functions of Reaction Kinetic Models. Journal of Physical Chemistry A, 2003, 107, 2216-2238.	1.1	26
36	Kinetics and mechanism of the reactions of CH3CO and CH3C(O)CH2 radicals with O2. Low-pressure discharge flow experiments and quantum chemical computations. Physical Chemistry Chemical Physics, 2007, 9, 4142.	1.3	26

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37	Low-temperature combustion chemistry of novel biofuels: resonance-stabilized QOOH in the oxidation of diethyl ketone. Physical Chemistry Chemical Physics, 2014, 16, 13027-13040.	1.3	25
38	High-Temperature Measurements and a Theoretical Study of the Reaction of OH with 1,3-Butadiene. Journal of Physical Chemistry A, 2010, 114, 8312-8318.	1.1	24
39	Decomposition and isomerization of 1-pentanol radicals and the pyrolysis of 1-pentanol. Combustion and Flame, 2018, 196, 500-514.	2.8	23
40	Initiation Reactions in Acetylene Pyrolysis. Journal of Physical Chemistry A, 2017, 121, 4203-4217.	1.1	22
41	Unimolecular dissociation of hydroxypropyl and propoxy radicals. Proceedings of the Combustion Institute, 2013, 34, 519-526.	2.4	21
42	A Combined Experimental and Theoretical Study of the Reaction OH + 2-Butene in the 400â€“800 K Temperature Range. Journal of Physical Chemistry A, 2015, 119, 7742-7752.	1.1	21
43	Photoionization Mass Spectrometric Measurements of Initial Reaction Pathways in Low-Temperature Oxidation of 2,5-Dimethylhexane. Journal of Physical Chemistry A, 2014, 118, 10188-10200.	1.1	19
44	Quantitative Detection of Products and Radical Intermediates in Low-Temperature Oxidation of Cyclopentane. Journal of Physical Chemistry A, 2021, 125, 4467-4479.	1.1	19
45	Critical Assessment of Photoionization Efficiency Measurements for Characterization of Soot-Precursor Species. Journal of Physical Chemistry A, 2017, 121, 4475-4485.	1.1	18
46	Accelerated Saddle Point Refinement through Full Exploitation of Partial Hessian Diagonalization. Journal of Chemical Theory and Computation, 2019, 15, 6536-6549.	2.3	18
47	Analysis of a budding yeast cell cycle model using the shapes of local sensitivity functions. International Journal of Chemical Kinetics, 2008, 40, 710-720.	1.0	17
48	On the similarity of the sensitivity functions of methane combustion models. Combustion Theory and Modelling, 2005, 9, 721-738.	1.0	16
49	Competing Channels in the Propene + OH Reaction: Experiment and Validated Modeling over a Broad Temperature and Pressure Range. Zeitschrift Fur Physikalische Chemie, 2011, 225, 1271-1291.	1.4	14
50	Direct measurement of Ë™OH and HO₂Ë™ formation in Ë™R + O₂ reactions of cyclohexane and tetrahydropyran. Physical Chemistry Chemical Physics, 2018, 20, 10815-10825.	1.3	13
51	Simulated production of OH, HO2, CH2O, and CO2 during dilute fuel oxidation can predict 1st-stage ignition delays. Combustion and Flame, 2020, 216, 472-484.	2.8	12
52	Investigation of the correlation of sensitivity vectors of hydrogen combustion models. International Journal of Chemical Kinetics, 2004, 36, 238-252.	1.0	10
53	Stereoisomer-dependent unimolecular kinetics of 2,4-dimethyloxetanyl peroxy radicals. Faraday Discussions, 0, 238, 295-319.	1.6	9
54	Photoionization Efficiencies of Five Polycyclic Aromatic Hydrocarbons. Journal of Physical Chemistry A, 2017, 121, 4447-4454.	1.1	8

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55	A New Pathway for Intersystem Crossing: Unexpected Products in the O(³P) + Cyclopentene Reaction. Journal of Physical Chemistry A, 2021, 125, 9785-9801.	1.1	7
56	Thermochemistry of the smallest QOOH radical from the roaming fragmentation of energy selected methyl hydroperoxide ions. Physical Chemistry Chemical Physics, 2018, 20, 21085-21094.	1.3	6
57	Unimolecular isomerisation of 1,5-hexadiyne observed by threshold photoelectron photoion coincidence spectroscopy. Faraday Discussions, 0, 238, 645-664.	1.6	6
58	Geometry optimization speedup through a geodesic approach to internal coordinates. Journal of Chemical Physics, 2021, 155, 094105.	1.2	5
59	A Filon-like integration strategy for calculating exact exchange in periodic boundary conditions: a plane-wave DFT implementation. Materials Theory, 2020, 4, .	2.2	5
60	OH yields for C2H5CO+O2 at low pressure: Experiment and theory. Chemical Physics Letters, 2010, 495, 179-181.	1.2	4
61	A theoretical investigation of the hydrolysis of uranium hexafluoride: the initiation mechanism and vibrational spectroscopy. Physical Chemistry Chemical Physics, 2022, 24, 9634-9647.	1.3	4
62	Rate constant for the reaction of bromine atoms with ethane: Kinetic and thermochemical implications. Reaction Kinetics and Catalysis Letters, 2008, 95, 355-363.	0.6	2
63	Comment on â€œInfluence of Multiple Conformations and Paths on Rate Constants and Product Branching Ratios. Thermal Decomposition of 1-Propanol Radicalsâ€• Journal of Physical Chemistry A, 2019, 123, 1129-1130.	1.1	1