

G Barney Ellison

List of Publications by Year in descending order

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60
papers

5,343
citations

136740

32
h-index

138251

58
g-index

61
all docs

61
docs citations

61
times ranked

5852
citing authors

#	ARTICLE	IF	CITATIONS
1	Bond Dissociation Energies of Organic Molecules. <i>Accounts of Chemical Research</i> , 2003, 36, 255-263.	7.6	2,601
2	The C-H Bond Energy of Benzene. <i>Journal of the American Chemical Society</i> , 1995, 117, 2590-2599.	6.6	293
3	The properties of a micro-reactor for the study of the unimolecular decomposition of large molecules. <i>International Reviews in Physical Chemistry</i> , 2014, 33, 447-487.	0.9	129
4	Identification of Adsorbed Phenyl (C ₆ H ₅) Groups on Metal Surfaces: Electron-Induced Dissociation of Benzene on Au(111). <i>Journal of Physical Chemistry B</i> , 2001, 105, 8387-8394.	1.2	128
5	Thermochemistry of the benzyl and allyl radicals and ions. <i>International Journal of Mass Spectrometry and Ion Processes</i> , 1996, 156, 109-131.	1.9	124
6	The electronic states of Si ₂ and Si ⁺ as revealed by photoelectron spectroscopy. <i>Journal of Chemical Physics</i> , 1987, 87, 5116-5124.	1.2	96
7	Radical Chemistry in the Thermal Decomposition of Anisole and Deuterated Anisoles: An Investigation of Aromatic Growth. <i>Journal of Physical Chemistry A</i> , 2010, 114, 9043-9056.	1.1	96
8	Intense, hyperthermal source of organic radicals for matrix-isolation spectroscopy. <i>Review of Scientific Instruments</i> , 2003, 74, 3077-3086.	0.6	83
9	Thermal Decomposition of Furan Generates Propargyl Radicals. <i>Journal of Physical Chemistry A</i> , 2009, 113, 8540-8547.	1.1	81
10	Thermal Decomposition Mechanisms of the Methoxyphenols: Formation of Phenol, Cyclopentadienone, Vinylacetylene, and Acetylene. <i>Journal of Physical Chemistry A</i> , 2011, 115, 13381-13389.	1.1	80
11	Unimolecular thermal fragmentation of ortho-benzyne. <i>Journal of Chemical Physics</i> , 2007, 126, 044312.	1.2	73
12	Photoelectron spectroscopy of HNO ⁺ and DNO ⁺ . <i>Journal of Chemical Physics</i> , 1983, 78, 6541-6558.	1.2	71
13	Photoelectron spectroscopy, gas phase acidity, and thermochemistry of tert-butyl hydroperoxide: Mechanisms for the rearrangement of peroxy radicals. <i>Journal of Chemical Physics</i> , 1998, 109, 10293-10310.	1.2	71
14	Electronic states of organic molecules. 3. Photoelectron spectra of cycloalkenes and methylenecycloalkanes. <i>Journal of the American Chemical Society</i> , 1976, 98, 7179-7182.	6.6	64
15	Unimolecular thermal decomposition of phenol and d ₅ -phenol: Direct observation of cyclopentadiene formation via cyclohexadienone. <i>Journal of Chemical Physics</i> , 2012, 136, 044309.	1.2	64
16	Pyrolysis of furan in a microreactor. <i>Journal of Chemical Physics</i> , 2013, 139, 124305.	1.2	63
17	Biomass pyrolysis: Thermal decomposition mechanisms of furfural and benzaldehyde. <i>Journal of Chemical Physics</i> , 2013, 139, 104310.	1.2	63
18	NH ₂ electron affinity. <i>Journal of Chemical Physics</i> , 1989, 91, 2762-2763.	1.2	61

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19	Propargyl Radical: Ab Initio Anharmonic Modes and the Polarized Infrared Absorption Spectra of Matrix-Isolated HCCCH ₂ . <i>Journal of Physical Chemistry A</i> , 2005, 109, 3812-3821.	1.1	55
20	Chirped-pulse millimeter-wave spectroscopy for dynamics and kinetics studies of pyrolysis reactions. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 15739-15751.	1.3	54
21	Photoelectron spectroscopy of HCCN ⁺ and HCNC ⁺ reveals the quasilinear triplet carbenes, HCCN and HCNC. <i>Journal of Chemical Physics</i> , 2002, 117, 4323-4339.	1.2	52
22	Thermal decomposition of CH ₃ CHO studied by matrix infrared spectroscopy and photoionization mass spectroscopy. <i>Journal of Chemical Physics</i> , 2012, 137, 164308.	1.2	49
23	The thermal decomposition of the benzyl radical in a heated micro-reactor. I. Experimental findings. <i>Journal of Chemical Physics</i> , 2015, 142, 044307.	1.2	46
24	The Molecular Structure of <i>gauche</i> -1,3-Butadiene: Experimental Establishment of Nonplanarity. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1821-1825.	7.2	46
25	Polarized Infrared Absorption Spectra of Matrix-Isolated Allyl Radicals. <i>Journal of Physical Chemistry A</i> , 2001, 105, 7514-7524.	1.1	45
26	The products of the thermal decomposition of CH ₃ CHO. <i>Journal of Chemical Physics</i> , 2011, 135, 014306.	1.2	43
27	The photoelectron spectroscopy of HO ⁺ . <i>Journal of Chemical Physics</i> , 1985, 83, 5400-5406.	1.2	41
28	Photoelectron spectroscopy of CH ₂ N ⁺ . <i>Journal of Chemical Physics</i> , 1991, 94, 3517-3528.	1.2	41
29	Organic Peroxyl Radical Photolysis in the Near-Infrared: Effects on Tropospheric Chemistry. <i>Journal of Physical Chemistry A</i> , 1999, 103, 10169-10178.	1.1	41
30	Laser-induced fluorescence studies of ion collisional excitation in a drift field: Rotational excitation of N ₂ in helium. <i>Journal of Chemical Physics</i> , 1983, 79, 5448-5456.	1.2	38
31	Laser ablation with resonance-enhanced multiphoton ionization time-of-flight mass spectrometry for determining aromatic lignin volatilization products from biomass. <i>Review of Scientific Instruments</i> , 2011, 82, 033104.	0.6	37
32	Fourier transform infrared absorption spectroscopy of jet-cooled radicals. <i>Review of Scientific Instruments</i> , 1995, 66, 2430-2441.	0.6	34
33	Active Thermochemical Tables: The Adiabatic Ionization Energy of Hydrogen Peroxide. <i>Journal of Physical Chemistry A</i> , 2017, 121, 8799-8806.	1.1	33
34	Thermal Decomposition of Potential Ester Biofuels. Part I: Methyl Acetate and Methyl Butanoate. <i>Journal of Physical Chemistry A</i> , 2017, 121, 4658-4677.	1.1	31
35	Unimolecular thermal decomposition of dimethoxybenzenes. <i>Journal of Chemical Physics</i> , 2014, 140, 234302.	1.2	30
36	Photoelectron spectroscopy of BH ⁺ . <i>Journal of Chemical Physics</i> , 1989, 90, 795-806.	1.2	28

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37	The thermal decomposition of the benzyl radical in a heated micro-reactor. II. Pyrolysis of the tropyli radical. <i>Journal of Chemical Physics</i> , 2016, 145, 014305.	1.2	28
38	Acetic acid formation via the hydration of gas-phase ketene under ambient conditions. <i>Chemical Physics Letters</i> , 2013, 565, 1-4.	1.2	27
39	Polarized Matrix Infrared Spectra of Cyclopentadienone: Observations, Calculations, and Assignment for an Important Intermediate in Combustion and Biomass Pyrolysis. <i>Journal of Physical Chemistry A</i> , 2014, 118, 708-718.	1.1	27
40	Chirped-Pulse Fourier Transform Microwave Spectroscopy Coupled with a Flash Pyrolysis Microreactor: Structural Determination of the Reactive Intermediate Cyclopentadienone. <i>Journal of Physical Chemistry Letters</i> , 2014, 5, 2201-2207.	2.1	27
41	Vacuum ultraviolet laser pulsed field ionization-photoelectron study of allyl radical CH ₂ CHCH ₂ . <i>Journal of Chemical Physics</i> , 2007, 126, 171101.	1.2	23
42	Pyrolysis of Cyclopentadienone: Mechanistic Insights from a Direct Measurement of Product Branching Ratios. <i>Journal of Physical Chemistry A</i> , 2015, 119, 7222-7234.	1.1	23
43	Theoretical Study of Reaction of Ketene with Water in the Gas Phase: Formation of Acetic Acid?. <i>Journal of Physical Chemistry A</i> , 2013, 117, 10997-11005.	1.1	22
44	The Threshold Photoelectron Spectrum of Fulvenone: A Reactive Ketene Derivative in Lignin Valorization. <i>ChemPhysChem</i> , 2020, 21, 2217-2222.	1.0	21
45	Use of a Flowing Afterglow SIFT Apparatus To Study the Reactions of Ions with Organic Radicals. <i>Journal of Physical Chemistry A</i> , 2004, 108, 9733-9741.	1.1	20
46	Thermal Decompositions of the Lignin Model Compounds: Salicylaldehyde and Catechol. <i>Journal of Physical Chemistry A</i> , 2018, 122, 5911-5924.	1.1	20
47	Measuring flow profiles in heated miniature reactors with X-ray fluorescence spectroscopy. <i>Proceedings of the Combustion Institute</i> , 2017, 36, 4603-4610.	2.4	17
48	The ionisation energy of cyclopentadienone: a photoelectron-photoion coincidence study. <i>Molecular Physics</i> , 2015, 113, 2350-2358.	0.8	16
49	Five Birds with One Stone: Photoelectron Photoion Coincidence Unveils Rich Phthalide Pyrolysis Chemistry. <i>Journal of Physical Chemistry A</i> , 2021, 125, 1738-1746.	1.1	15
50	Isomerization and Fragmentation of Cyclohexanone in a Heated Micro-Reactor. <i>Journal of Physical Chemistry A</i> , 2015, 119, 12635-12647.	1.1	11
51	The Molecular Structure of gauche-1,3-Butadiene: Experimental Establishment of Nonplanarity. <i>Angewandte Chemie</i> , 2018, 130, 1839-1843.	1.6	10
52	Pyrolysis Pathways of the Furanic Ether 2-Methoxyfuran. <i>Journal of Physical Chemistry A</i> , 2015, 119, 9962-9977.	1.1	9
53	An optically accessible pyrolysis microreactor. <i>Review of Scientific Instruments</i> , 2016, 87, 014101.	0.6	9
54	Tabletop Femtosecond VUV Photoionization and PEPICO Detection of Microreactor Pyrolysis Products. <i>Journal of Physical Chemistry A</i> , 2017, 121, 5280-5289.	1.1	8

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55	Pyrolysis Mechanisms of Lignin Model Compounds Using a Heated Micro-Reactor. <i>Green Chemistry and Sustainable Technology</i> , 2016, , 145-171.	0.4	6
56	A Conical Intersection Influences the Ground State Rearrangement of Fulvene to Benzene. <i>Journal of Physical Chemistry A</i> , 2022, 126, 1429-1447.	1.1	6
57	Photochemistry of Matrix-Isolated and Thin Film Acid Chlorides:â€™ Quantum Yields and Product Structures. <i>Journal of Physical Chemistry A</i> , 1999, 103, 965-970.	1.1	5
58	DSMC Simulations of a Photoionization Mass Spectrometer. , 2016, , .		2
59	Chemistry of Atmospheres: An Introduction to the Chemistry of the Atmospheres of Earth, the Planets, and their Satellites, 3rd Edition (Wayne, Richard P.). <i>Journal of Chemical Education</i> , 2003, 80, 264.	1.1	0
60	Oxidative Activity of Hydrogen on Nickel and Inconel. <i>Journal of Engineering for Gas Turbines and Power</i> , 2012, 134, .	0.5	0