Joshua Baraban

List of Publications by Year
in descending order

47 papers	1,039 citations	394421 19 h-index	454955 30 g-index
48 all docs	48 docs citations	48 times ranked	1170 citing authors

#	Article	IF	Citations
1	Distinguishing thermal from non-thermal contributions to plasmonic hydrodefluorination. Nature Catalysis, 2022, 5, 244-246.	34.4	13
2	Maximal kinetic energy and angular distribution analysis of spatial map imaging: Application to photoelectrons from a single quantum state of H2O. Journal of Chemical Physics, 2021, 154, 134201.	3.0	2
3	The matrix infrared spectra of fulvenone (C ₅ H ₄ =C=O) and its thermal decomposition products. Molecular Physics, 2021, 119, .	1.7	1
4	Photodissociation transition states characterized by chirped pulse millimeter wave spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 146-151.	7.1	11
5	Decomposition of the simplest ketohydroperoxide in the ozonolysis of ethylene. Physical Chemistry Chemical Physics, 2020, 22, 16949-16955.	2.8	8
6	The Threshold Photoelectron Spectrum of Fulvenone: A Reactive Ketene Derivative in Lignin Valorization. ChemPhysChem, 2020, 21, 2217-2222.	2.1	21
7	Synchrotron-Based High Resolution Far-Infrared Spectroscopy of trans-Butadiene. Journal of Physical Chemistry A, 2020, 124, 2427-2435.	2.5	4
8	Experimental practices required to isolate thermal effects in plasmonic photo-catalysis: lessons from recent experiments. OSA Continuum, 2020, 3, 483.	1.8	38
9	Frontispiece: The Hunt for Elusive Molecules: Insights from Joint Theoretical and Experimental Investigations. Chemistry - A European Journal, 2019, 25, .	3.3	0
10	The Hunt for Elusive Molecules: Insights from Joint Theoretical and Experimental Investigations. Chemistry - A European Journal, 2019, 25, 7243-7258.	3.3	8
11	High-accuracy extrapolated ab initio thermochemistry. IV. A modified recipe for computational efficiency. Journal of Chemical Physics, 2019, 150, 224102.	3.0	58
12	Comment on â€œQuantifying hot carrier and thermal contributions in plasmonic photocatalysisâ€• Science, 2019, 364, .	12.6	108
13	Rotational Characterization of the Elusive gauche-Isoprene. Journal of Physical Chemistry Letters, 2019, 10, 1981-1985.	4.6	8
14	The Molecular Structure of gauche â€1,3â€Butadiene: Experimental Establishment of Nonâ€planarity. Angewandte Chemie, 2018, 130, 1839-1843.	2.0	10
15	The equilibrium structure of hydrogen peroxide. Journal of Molecular Spectroscopy, 2018, 343, 92-95.	1.2	20
16	The Molecular Structure of gaucheâ€1,3â€Butadiene: Experimental Establishment of Nonâ€planarity. Angewandte Chemie - International Edition, 2018, 57, 1821-1825.	13.8	46
17	Butadiene and Heterodienes Revisited. Journal of Organic Chemistry, 2018, 83, 8473-8482.	3.2	12
18	Thermal Decompositions of the Lignin Model Compounds: Salicylaldehyde and Catechol. Journal of Physical Chemistry A, 2018, 122, 5911-5924.	2.5	20

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19	Thermal Decomposition of Potential Ester Biofuels. Part I: Methyl Acetate and Methyl Butanoate. Journal of Physical Chemistry A, 2017, 121, 4658-4677.	2.5	31
20	Active Thermochemical Tables: The Adiabatic Ionization Energy of Hydrogen Peroxide. Journal of Physical Chemistry A, 2017, 121, 8799-8806.	2.5	33
21	Tabletop Femtosecond VUV Photoionization and PEPICO Detection of Microreactor Pyrolysis Products. Journal of Physical Chemistry A, 2017, 121, 5280-5289.	2.5	8
22	Measuring flow profiles in heated miniature reactors with X-ray fluorescence spectroscopy. Proceedings of the Combustion Institute, 2017, 36, 4603-4610.	3.9	17
23	Ab initio effective rotational and rovibrational Hamiltonians for non-rigid systems via curvilinear second order vibrational MÃ¸llerâ€“Plesset perturbation theory. Journal of Chemical Physics, 2016, 145, 174106.	3.0	32
24	Communication: An accurate calculation of the S1 C2H2â€ˆcis-trans isomerization barrier height. Journal of Chemical Physics, 2016, 144, 111102.	3.0	21
25	An optically accessible pyrolysis microreactor. Review of Scientific Instruments, 2016, 87, 014101.	1.3	9
26	Pyrolysis of the Simplest Carbohydrate, Glycolaldehyde (CHOâ€˜CH₂OH), and Glyoxal in a Heated Microreactor. Journal of Physical Chemistry A, 2016, 120, 2161-2172.	2.5	13
27	Probing cis-trans isomerization in the S1 state of C2H2 via H-atom action and hot band-pumped IR-UV double resonance spectroscopies. Journal of Chemical Physics, 2015, 143, 084310.	3.0	11
28	Heavy atom vibrational modes and low-energy vibrational autodetachment in nitromethane anions. Journal of Chemical Physics, 2015, 142, 234304.	3.0	2
29	Observation of Translation-to-Vibration Excitation in Acetylene Scattering from Au(111): A REMPI Based Approach. Zeitschrift Fur Physikalische Chemie, 2015, 229, 1929-1949.	2.8	10
30	Communication: The ground electronic state of Si2C: Rovibrational level structure, quantum monodromy, and astrophysical implications. Journal of Chemical Physics, 2015, 142, 231101.	3.0	21
31	Communication: Observation of local-bender eigenstates in acetylene. Journal of Chemical Physics, 2015, 143, 071101.	3.0	3
32	Discovery of a Missing Link: Detection and Structure of the Elusive Disilicon Carbide Cluster. Journal of Physical Chemistry Letters, 2015, 6, 2107-2111.	4.6	36
33	Spectroscopic characterization of isomerization transition states. Science, 2015, 350, 1338-1342.	12.6	45
34	DISCOVERY OF SiCSi IN IRC+10216: A MISSING LINK BETWEEN GAS AND DUST CARRIERS OF Siâ€“C BONDS. Astrophysical Journal Letters, 2015, 806, L3.	8.3	75
35	Isomerization and Fragmentation of Cyclohexanone in a Heated Micro-Reactor. Journal of Physical Chemistry A, 2015, 119, 12635-12647.	2.5	11
36	Simplified Cartesian Basis Model for Intrapolyad Emission Intensities in the Bent-to-Linear Electronic Transition of Acetylene. Journal of Physical Chemistry A, 2015, 119, 857-865.	2.5	3

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37	Photoelectron Spectroscopy of the Methide Anion: Electron Affinities of ^{â€¢}CH₃ and ^{â€¢}CD₃ and Inversion Splittings of CH₃^{â€“} and CD₃^{â€“}. Journal of the American Chemical Society, 2015, 137, 12939-12945.	13.7	25
38	On the HCN â€“ HNC Energy Difference. Journal of Physical Chemistry A, 2015, 119, 10929-10934.	2.5	32
39	Reduced dimension rovibrational variational calculations of the S1 state of C2H2. II. The S1 rovibrational manifold and the effects of isomerization. Journal of Chemical Physics, 2014, 140, 024313.	3.0	9
40	Full dimensional Franck-Condon factors for the acetylene Ã¹Auâ€”X̃¹Σg+1 transition. II. Vibrational overlap factors for levels involving excitation in ungerade modes. Journal of Chemical Physics, 2014, 141, 134305.	3.0	8
41	Laser-Induced Fluorescence Study of the S₁ State of Doubly-Substituted ¹³C Acetylene and Harmonic Force Field Determination. Journal of Physical Chemistry A, 2013, 117, 13696-13703.	2.5	9
42	High-Accuracy Estimates for the Vinylidene-Acetylene Isomerization Energy and the Ground State Rotational Constants of :Cî•ĊH₂. Journal of Physical Chemistry A, 2013, 117, 11679-11683.	2.5	40
43	Anharmonic force fields of cis- and trans-S₁ C₂H₂. Molecular Physics, 2012, 110, 2725-2733.	1.7	14
44	The Ã¹¹A_u state of acetylene: ungerade vibrational levels in the region 45,800â€“46,550â€‰cm^{â¯1}. Molecular Physics, 2012, 110, 2707-2723.	1.7	19
45	Cis-trans isomerization in the S1 state of acetylene: Identification of cis-well vibrational levels. Journal of Chemical Physics, 2011, 134, 244310.	3.0	21
46	Reduced dimension discrete variable representation study of cisâ€“trans isomerization in the S1 state of C2H2. Journal of Chemical Physics, 2011, 134, 244311.	3.0	23
47	In vivo comparative study of RNAi methodologies by in ovo electroporation in the chick embryo. Developmental Dynamics, 2004, 231, 592-600.	1.8	55