

David M Jonas

List of Publications by Year in descending order

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94
papers

5,995
citations

109321

35
h-index

69250

77
g-index

105
all docs

105
docs citations

105
times ranked

3604
citing authors

#	ARTICLE	IF	CITATIONS
1	TWO-DIMENSIONAL FEMTOSECOND SPECTROSCOPY. Annual Review of Physical Chemistry, 2003, 54, 425-463.	10.8	1,029
2	Using coherence to enhance function in chemical and biophysical systems. Nature, 2017, 543, 647-656.	27.8	477
3	Electronic resonance with anticorrelated pigment vibrations drives photosynthetic energy transfer outside the adiabatic framework. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 1203-1208.	7.1	468
4	Two-dimensional Fourier transform electronic spectroscopy. Journal of Chemical Physics, 2001, 115, 6606-6622.	3.0	349
5	Two-dimensional electronic spectroscopy. Chemical Physics Letters, 1998, 297, 307-313.	2.6	344
6	Two-Dimensional Electronic Correlation and Relaxation Spectra: A Theory and Model Calculations. Journal of Physical Chemistry A, 1999, 103, 10489-10505.	2.5	244
7	Pump-Probe Polarization Anisotropy Study of Femtosecond Energy Transfer within the Photosynthetic Reaction Center of Rhodospirillum rubrum. The Journal of Physical Chemistry, 1996, 100, 12660-12673.	2.9	203
8	Dynamics in Isolated Bacterial Light Harvesting Antenna (LH2) of Rhodospirillum rubrum at Room Temperature. The Journal of Physical Chemistry, 1996, 100, 2399-2409.	2.9	185
9	Femtosecond wave packet and chemical reaction dynamics of iodine in solution: Tunable probe study of motion along the reaction coordinate. Journal of Chemical Physics, 1993, 99, 153-168.	3.0	164
10	Femtosecond Wavepacket Spectroscopy: Influence of Temperature, Wavelength, and Pulse Duration. The Journal of Physical Chemistry, 1995, 99, 2594-2608.	2.9	163
11	Heterodyne detection of the complete electric field of femtosecond four-wave mixing signals. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 2338.	2.1	143
12	Intramolecular vibrational redistribution of energy in the stimulated emission pumping spectrum of acetylene. Journal of Chemical Physics, 1993, 99, 7350-7370.	3.0	129
13	Experimental distinction between phase shifts and time delays: Implications for femtosecond spectroscopy and coherent control of chemical reactions. Journal of Chemical Physics, 1999, 111, 10934-10956.	3.0	127
14	Vibrationally highly excited acetylene as studied by dispersed fluorescence and stimulated emission pumping spectroscopy: Vibrational assignment of the feature states. Journal of Chemical Physics, 1991, 95, 6330-6342.	3.0	124
15	High resolution spectroscopic detection of acetylene vinylidene isomerization by spectral cross correlation. Journal of Chemical Physics, 1989, 91, 3976-3987.	3.0	101
16	Solvatochromism and Solvation Dynamics of Structurally Related Cyanine Dyes. Journal of Physical Chemistry A, 2002, 106, 9407-9419.	2.5	90
17	Bulklike Hot Carrier Dynamics in Lead Sulfide Quantum Dots. Nano Letters, 2010, 10, 2498-2505.	9.1	77
18	Observation of Ultrafast Energy Transfer from the Accessory Bacteriochlorophylls to the Special Pair in Photosynthetic Reaction Centers. The Journal of Physical Chemistry, 1995, 99, 6263-6266.	2.9	69

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19	Propagation, beam geometry, and detection distortions of peak shapes in two-dimensional Fourier transform spectra. <i>Journal of Chemical Physics</i> , 2007, 126, 044511.	3.0	68
20	Polar Solvation Dynamics in the Femtosecond Evolution of Two-Dimensional Fourier Transform Spectra. <i>Journal of Physical Chemistry A</i> , 2002, 106, 7651-7654.	2.5	64
21	Peak shapes in femtosecond 2D correlation spectroscopy. <i>Chemical Physics</i> , 2001, 266, 295-309.	1.9	63
22	Vibrational and Nonadiabatic Coherence in 2D Electronic Spectroscopy, the Jahn-Teller Effect, and Energy Transfer. <i>Annual Review of Physical Chemistry</i> , 2018, 69, 327-352.	10.8	62
23	CHEMISTRY: Optical Analogs of 2D NMR. <i>Science</i> , 2003, 300, 1515-1517.	12.6	61
24	2D Correlation Analysis of the Continuum in Single Molecule Surface Enhanced Raman Spectroscopy. <i>Journal of the American Chemical Society</i> , 2005, 127, 7292-7293.	13.7	58
25	Mid-infrared electric field characterization using a visible charge-coupled-device-based spectrometer. <i>Optics Letters</i> , 2005, 30, 1228.	3.3	58
26	Axis-switching transitions and the stimulated emission pumping spectrum of HCN. <i>Journal of Chemical Physics</i> , 1992, 97, 2284-2298.	3.0	56
27	Acetylene: Isomerization and Dissociation. <i>Zeitschrift Fur Elektrotechnik Und Elektrochemie</i> , 1988, 92, 329-336.	0.9	51
28	Purification of Oleylamine for Materials Synthesis and Spectroscopic Diagnostics for <i>trans</i> Isomers. <i>Chemistry of Materials</i> , 2019, 31, 1223-1230.	6.7	51
29	Polarized pump-probe measurements of electronic motion via a conical intersection. <i>Journal of Chemical Physics</i> , 2008, 128, 144510.	3.0	47
30	Stimulated-emission pumping studies of acetylene X ¹ Σ ⁺ g ⁺ in the 11 400-15 700-cm ⁻¹ region: the onset of mixing. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1990, 7, 1805.	2.1	41
31	Electronic energy transfer through non-adiabatic vibrational-electronic resonance. I. Theory for a dimer. <i>Journal of Chemical Physics</i> , 2017, 147, 154308.	3.0	40
32	Phase-resolved time-domain nonlinear optical signals. <i>Physical Review A</i> , 2000, 62, .	2.5	38
33	Role of cyclic sets of transition dipoles in the pump-probe polarization anisotropy: Application to square symmetric molecules and perpendicular chromophore pairs. <i>Journal of Chemical Physics</i> , 2003, 119, 1611-1622.	3.0	38
34	Three-dimensional view of signal propagation in femtosecond four-wave mixing with application to the boxcars geometry. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2005, 22, 655.	2.1	36
35	CHEMISTRY: Multidimensional Snapshots of Chemical Dynamics. <i>Science</i> , 2004, 305, 1575-1577.	12.6	35
36	Prompt solvent-induced electronic predissociation of femtosecond pumped iodine. A computational study. <i>Chemical Physics Letters</i> , 1995, 245, 629-638.	2.6	33

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37	Bandgap Inhomogeneity of a PbSe Quantum Dot Ensemble from Two-Dimensional Spectroscopy and Comparison to Size Inhomogeneity from Electron Microscopy. <i>Nano Letters</i> , 2017, 17, 762-771.	9.1	33
38	The polarization anisotropy of vibrational quantum beats in resonant pump-probe experiments: Diagrammatic calculations for square symmetric molecules. <i>Journal of Chemical Physics</i> , 2008, 129, 174509.	3.0	32
39	Pump-probe polarization anisotropy study of doubly degenerate electronic reorientation in silicon naphthalocyanine. <i>Journal of Chemical Physics</i> , 2001, 115, 6281-6284.	3.0	30
40	Two-dimensional Fourier transform electronic spectroscopy at a conical intersection. <i>Journal of Chemical Physics</i> , 2014, 140, 124312.	3.0	30
41	Rotationally resolved ultraviolet-ultraviolet double resonance study of the nonplanar $\hat{a}^{3/4}$ state of acetylene. <i>Journal of Chemical Physics</i> , 1992, 97, 7180-7196.	3.0	27
42	Two-dimensional spectroscopy and harmonically coupled anharmonic oscillators. <i>Chemical Physics</i> , 2001, 266, 237-250.	1.9	25
43	Response functions for dimers and square-symmetric molecules in four-wave-mixing experiments with polarized light. <i>Journal of Chemical Physics</i> , 2005, 123, 044102.	3.0	25
44	Pulse Propagation Effects in Optical 2D Fourier-Transform Spectroscopy: Experiment. <i>Journal of Physical Chemistry A</i> , 2013, 117, 6279-6287.	2.5	23
45	Alignment, Vibronic Level Splitting, and Coherent Coupling Effects on the Pump-Probe Polarization Anisotropy. <i>Journal of Physical Chemistry A</i> , 2011, 115, 4101-4113.	2.5	22
46	High resolution vacuum ultraviolet fluorescence excitation spectrum and predissociation of $\text{Al}^1\text{A}^{\sim}$ HCN. <i>Journal of Chemical Physics</i> , 1990, 92, 3988-3989.	3.0	20
47	Complete femtosecond linear free induction decay, Fourier algorithm for dispersion relations, and accuracy of the rotating wave approximation. <i>Journal of Chemical Physics</i> , 2001, 114, 4649.	3.0	20
48	Propagation and Beam Geometry Effects on Two-Dimensional Fourier Transform Spectra of Multilevel Systems. <i>Journal of Physical Chemistry A</i> , 2009, 113, 13287-13299.	2.5	20
49	Time and frequency resolved femtosecond solvent dynamics. <i>Journal of Luminescence</i> , 2000, 87-89, 126-129.	3.1	19
50	Spectral relaxation in pump-probe transients. <i>Journal of Chemical Physics</i> , 2003, 118, 9348-9356.	3.0	19
51	Enhanced interferometric detection in two-dimensional spectroscopy with a Sagnac interferometer. <i>Optics Letters</i> , 2014, 39, 513.	3.3	19
52	Pulse Propagation Effects in Optical 2D Fourier-Transform Spectroscopy: Theory. <i>Journal of Physical Chemistry A</i> , 2015, 119, 3936-3960.	2.5	19
53	Spectral restoration for femtosecond spectral interferometry with attosecond accuracy. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010, 27, 1104.	2.1	18
54	Vibronic coherence unveiled. <i>Nature Chemistry</i> , 2014, 6, 173-175.	13.6	17

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55	Spin statistics: An error in Landau and Lifschitz's Quantum Mechanics. <i>Journal of Chemical Physics</i> , 1989, 90, 5563-5565.	3.0	16
56	Electronic energy transfer through non-adiabatic vibrational-electronic resonance. II. 1D spectra for a dimer. <i>Journal of Chemical Physics</i> , 2018, 148, 084308.	3.0	16
57	Fourier algorithm for four-wave-mixing signals from optically dense systems with memory. <i>Optics Letters</i> , 2004, 29, 1811.	3.3	15
58	Nodeless vibrational amplitudes and quantum nonadiabatic dynamics in the nested funnel for a pseudo Jahn-Teller molecule or homodimer. <i>Journal of Chemical Physics</i> , 2017, 147, 194306.	3.0	12
59	New Scheme for Extracting Molecular Dynamics from Spectra: Case Study on Vibrationally Highly Excited Acetylene. <i>Laser Chemistry</i> , 1994, 14, 183-190.	0.5	11
60	Absolute Measurement of Femtosecond Pump-Probe Signal Strength. <i>Journal of Physical Chemistry A</i> , 2013, 117, 6332-6345.	2.5	11
61	Relations between absorption, emission, and excited state chemical potentials from nanocrystal 2D spectra. <i>Science Advances</i> , 2021, 7, .	10.3	10
62	Simultaneous All-Optical Determination of Molecular Concentration and Extinction Coefficient. <i>Analytical Chemistry</i> , 2013, 85, 5514-5521.	6.5	7
63	Nonadiabatic Eigenfunctions Can Have Amplitude, Signed Conical Nodes, or Signed Higher Order Nodes at a Conical Intersection with Circular Symmetry. <i>Journal of Physical Chemistry A</i> , 2017, 121, 7401-7413.	2.5	7
64	Femtosecond Pump-Probe Polarization Spectroscopy of Vibronic Dynamics at Conical Intersections and Funnel. <i>Advanced Series in Physical Chemistry</i> , 2011, , 715-745.	1.5	6
65	High resolution vacuum ultraviolet Stark measurement of the dipole moment of $\Lambda^1\hat{f}\hat{a}\hat{\%}1A\hat{\sim}$ HCN. <i>Journal of Chemical Physics</i> , 1992, 96, 7209-7217.	3.0	5
66	Lightweight hollow rooftop mirrors for stabilized interferometry. <i>Optical Engineering</i> , 2013, 52, 105103.	1.0	5
67	Nonadiabatic eigenfunctions can have conical nodes. <i>Chemical Physics Letters</i> , 2017, 683, 268-275.	2.6	5
68	Experimental distinction of electric and magnetic transition moments. <i>Journal of Chemical Physics</i> , 1992, 96, 7189-7190.	3.0	4
69	Interferometrically stable, enclosed, spinning sample cell for spectroscopic experiments on air-sensitive samples. <i>Review of Scientific Instruments</i> , 2017, 88, 014101.	1.3	4
70	Sample exchange by beam scanning with applications to noncollinear pump-probe spectroscopy at kilohertz repetition rates. <i>Review of Scientific Instruments</i> , 2017, 88, 064101.	1.3	4
71	Carrier Dynamics and Interactions for Bulklike Photoexcitation of Colloidal Indium Arsenide Quantum Dots. <i>Journal of Physical Chemistry C</i> , 2019, 123, 848-858.	3.1	3
72	HIGH RESOLUTION SPECTROSCOPY OF CHEMICAL ISOMERIZATION: STIMULATED EMISSION PUMPING OF HCN. <i>Advanced Series in Physical Chemistry</i> , 1995, , 513-541.	1.5	2

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73	Absolute femtosecond measurements of Auger recombination dynamics in lead sulfide quantum dots. EPJ Web of Conferences, 2013, 41, 04035.	0.3	2
74	Propagation and detection distortions of four-wave mixing signals: application to 2D spectroscopy. Springer Series in Chemical Physics, 2005, , 572-574.	0.2	1
75	Sagnac Interferometer for Two-Dimensional Spectroscopy in the Pump-Probe Geometry. Springer Proceedings in Physics, 2015, , 428-431.	0.2	1
76	Femtosecond Electronic Dynamics via a Conical Funnel. Springer Series in Chemical Physics, 2009, , 385-387.	0.2	1
77	Time dependent 2D Fourier transform spectra reveal femtosecond solvation dynamics. Springer Series in Chemical Physics, 2001, , 519-521.	0.2	1
78	Polar and non-polar solvation in the femtosecond evolution of 2D Fourier transform spectra. Springer Series in Chemical Physics, 2003, , 423-425.	0.2	1
79	Femtosecond 2D Fourier transform study of electronic reorientation in silicon naphthalocyanine. Springer Series in Chemical Physics, 2003, , 557-559.	0.2	1
80	Sagnac Interferometer for Two-Dimensional Femtosecond Spectroscopy in the Pump-Probe Geometry. , 2014, , .		1
81	<title>Detection of the complete electric field of femtosecond four-wave mixing signals</title>. , 1998, 3273, 46.		0
82	Femtosecond two-dimensional Fourier transform electronic spectroscopy. , 2007, , .		0
83	Preface to the Robert W. Field Festschrift. Journal of Physical Chemistry A, 2009, 113, 13043-13044.	2.5	0
84	A New Mechanism for Photosynthetic Energy Transfer. EPJ Web of Conferences, 2013, 41, 08020.	0.3	0
85	Tribute to Veronica Vaida. Journal of Physical Chemistry A, 2018, 122, 1157-1158.	2.5	0
86	Femtosecond nonadiabatic dynamics in photosynthetic light harvesting. EPJ Web of Conferences, 2019, 205, 09036.	0.3	0
87	Nonadiabatic conical nodes are near but not at an elliptical conical intersection. Chemical Physics, 2019, 520, 108-121.	1.9	0
88	Time dependent 2D Fourier transform spectra reveal femtosecond solvent dynamics. , 2000, , .		0
89	Polar and non-polar solvation in the femtosecond evolution of 2D Fourier transform spectra. , 2002, , .		0
90	Femtosecond 2D Fourier transform study of electronic reorientation in silicon naphthalocyanine. , 2002, , .		0

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91	Dispersion Relations in Two-Dimensional Spectroscopy. , 2006, , .		0
92	Absorptive propagation effects in femtosecond four-wave-mixing. , 2006, , .		0
93	Propagation, beam geometry, and detection distortions of peak shapes in two-dimensional Fourier transform spectroscopy. Springer Series in Chemical Physics, 2007, , 338-340.	0.2	0
94	Propagation and beam geometry effects on 2D Fourier transform spectra of multi-level systems. Springer Series in Chemical Physics, 2009, , 424-426.	0.2	0