David M Jonas

List of Publications by Year
in descending order

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	Relations between absorption, emission, and excited state chemical potentials from nanocrystal 2D spectra. Science Advances, 2021, 7, .	10.3	10
2	Femtosecond nonadiabatic dynamics in photosynthetic light harvesting. EPJ Web of Conferences, 2019, 205, 09036.	0.3	0
3	Purification of Oleylamine for Materials Synthesis and Spectroscopic Diagnostics for <i>trans</i> Isomers. Chemistry of Materials, 2019, 31, 1223-1230.	6.7	51
4	Carrier Dynamics and Interactions for Bulklike Photoexcitation of Colloidal Indium Arsenide Quantum Dots. Journal of Physical Chemistry C, 2019, 123, 848-858.	3.1	3
5	Nonadiabatic conical nodes are near but not at an elliptical conical intersection. Chemical Physics, 2019, 520, 108-121.	1.9	0
6	Electronic energy transfer through non-adiabatic vibrational-electronic resonance. II. 1D spectra for a dimer. Journal of Chemical Physics, 2018, 148, 084308.	3.0	16
7	Vibrational and Nonadiabatic Coherence in 2D Electronic Spectroscopy, the Jahnâ€“Teller Effect, and Energy Transfer. Annual Review of Physical Chemistry, 2018, 69, 327-352.	10.8	62
8	Tribute to Veronica Vaida. Journal of Physical Chemistry A, 2018, 122, 1157-1158.	2.5	0
9	Interferometrically stable, enclosed, spinning sample cell for spectroscopic experiments on air-sensitive samples. Review of Scientific Instruments, 2017, 88, 014101.	1.3	4
10	Nonadiabatic eigenfunctions can have conical nodes. Chemical Physics Letters, 2017, 683, 268-275.	2.6	5
11	Using coherence to enhance function in chemical and biophysical systems. Nature, 2017, 543, 647-656.	27.8	477
12	Bandgap Inhomogeneity of a PbSe Quantum Dot Ensemble from Two-Dimensional Spectroscopy and Comparison to Size Inhomogeneity from Electron Microscopy. Nano Letters, 2017, 17, 762-771.	9.1	33
13	Nonadiabatic Eigenfunctions Can Have Amplitude, Signed Conical Nodes, or Signed Higher Order Nodes at a Conical Intersection with Circular Symmetry. Journal of Physical Chemistry A, 2017, 121, 7401-7413.	2.5	7
14	Electronic energy transfer through non-adiabatic vibrational-electronic resonance. I. Theory for a dimer. Journal of Chemical Physics, 2017, 147, 154308.	3.0	40
15	Sample exchange by beam scanning with applications to noncollinear pumpâ€“probe spectroscopy at kilohertz repetition rates. Review of Scientific Instruments, 2017, 88, 064101.	1.3	4
16	Nodeless vibrational amplitudes and quantum nonadiabatic dynamics in the nested funnel for a pseudo Jahn-Teller molecule or homodimer. Journal of Chemical Physics, 2017, 147, 194306.	3.0	12
17	Pulse Propagation Effects in Optical 2D Fourier-Transform Spectroscopy: Theory. Journal of Physical Chemistry A, 2015, 119, 3936-3960.	2.5	19
18	Sagnac Interferometer for Two-Dimensional Spectroscopy in the Pump-Probe Geometry. Springer Proceedings in Physics, 2015, , 428-431.	0.2	1

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19	Enhanced interferometric detection in two-dimensional spectroscopy with a Sagnac interferometer. Optics Letters, 2014, 39, 513.	3.3	19
20	Vibronic coherence unveiled. Nature Chemistry, 2014, 6, 173-175.	13.6	17
21	Two-dimensional Fourier transform electronic spectroscopy at a conical intersection. Journal of Chemical Physics, 2014, 140, 124312.	3.0	30
22	Sagnac Interferometer for Two-Dimensional Femtosecond Spectroscopy in the Pump-Probe Geometry. , 2014, , .		1
23	Absolute Measurement of Femtosecond Pumpâ€"Probe Signal Strength. Journal of Physical Chemistry A, 2013, 117, 6332-6345.	2.5	11
24	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
25	Simultaneous All-Optical Determination of Molecular Concentration and Extinction Coefficient. Analytical Chemistry, 2013, 85, 5514-5521.	6.5	7
26	Pulse Propagation Effects in Optical 2D Fourier-Transform Spectroscopy: Experiment. Journal of Physical Chemistry A, 2013, 117, 6279-6287.	2.5	23
27	Lightweight hollow rooftop mirrors for stabilized interferometry. Optical Engineering, 2013, 52, 105103.	1.0	5
28	Absolute femtosecond measurements of Auger recombination dynamics in lead sulfide quantum dots. EPJ Web of Conferences, 2013, 41, 04035.	0.3	2
29	A New Mechanism for Photosynthetic Energy Transfer. EPJ Web of Conferences, 2013, 41, 08020.	0.3	0
30	Alignment, Vibronic Level Splitting, and Coherent Coupling Effects on the Pumpâ^'Probe Polarization Anisotropy. Journal of Physical Chemistry A, 2011, 115, 4101-4113.	2.5	22
31	Femtosecond Pump-Probe Polarization Spectroscopy of Vibronic Dynamics at Conical Intersections and Funnels. Advanced Series in Physical Chemistry, 2011, , 715-745.	1.5	6
32	Bulklike Hot Carrier Dynamics in Lead Sulfide Quantum Dots. Nano Letters, 2010, 10, 2498-2505.	9.1	77
33	Spectral restoration for femtosecond spectral interferometry with attosecond accuracy. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 1104.	2.1	18
34	Preface to the Robert W. Field Festschrift. Journal of Physical Chemistry A, 2009, 113, 13043-13044.	2.5	0
35	Propagation and Beam Geometry Effects on Two-Dimensional Fourier Transform Spectra of Multilevel Systems. Journal of Physical Chemistry A, 2009, 113, 13287-13299.	2.5	20
36	Femtosecond Electronic Dynamics via a Conical Funnel. Springer Series in Chemical Physics, 2009, , 385-387.	0.2	1

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37	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
38	The polarization anisotropy of vibrational quantum beats in resonant pump-probe experiments: Diagrammatic calculations for square symmetric molecules. Journal of Chemical Physics, 2008, 129, 174509.	3.0	32
39	Polarized pump-probe measurements of electronic motion via a conical intersection. Journal of Chemical Physics, 2008, 128, 144510.	3.0	47
40	Femtosecond two-dimensional Fourier transform electronic spectroscopy. , 2007, , .		0
41	Propagation, beam geometry, and detection distortions of peak shapes in two-dimensional Fourier transform spectra. Journal of Chemical Physics, 2007, 126, 044511.	3.0	68
42	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
43	Dispersion Relations in Two-Dimensional Spectroscopy. , 2006, , .		0
44	Absorptive propagation effects in femtosecond four-wave-mixing. , 2006, , .		0
45	Response functions for dimers and square-symmetric molecules in four-wave-mixing experiments with polarized light. Journal of Chemical Physics, 2005, 123, 044102.	3.0	25
46	2D Correlation Analysis of the Continuum in Single Molecule Surface Enhanced Raman Spectroscopy. Journal of the American Chemical Society, 2005, 127, 7292-7293.	13.7	58
47	Three-dimensional view of signal propagation in femtosecond four-wave mixing with application to the boxcars geometry. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 655.	2.1	36
48	Mid-infrared electric field characterization using a visible charge-coupled-device-based spectrometer. Optics Letters, 2005, 30, 1228.	3.3	58
49	Propagation and detection distortions of four-wave mixing signals: application to 2D spectroscopy. Springer Series in Chemical Physics, 2005, , 572-574.	0.2	1
50	CHEMISTRY: Multidimensional Snapshots of Chemical Dynamics. Science, 2004, 305, 1575-1577.	12.6	35
51	Fourier algorithm for four-wave-mixing signals from optically dense systems with memory. Optics Letters, 2004, 29, 1811.	3.3	15
52	TWO-DIMENSIONALFEMTOSECONDSPECTROSCOPY. Annual Review of Physical Chemistry, 2003, 54, 425-463.	10.8	1,029
53	CHEMISTRY: Optical Analogs of 2D NMR. Science, 2003, 300, 1515-1517.	12.6	61
54	Role of cyclic sets of transition dipoles in the pumpâ€“probe polarization anisotropy: Application to square symmetric molecules and perpendicular chromophore pairs. Journal of Chemical Physics, 2003, 119, 1611-1622.	3.0	38

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55	Spectral relaxation in pumpâ€"probe transients. Journal of Chemical Physics, 2003, 118, 9348-9356.	3.0	19
56	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
57	Femtosecond 2D Fourier transform study of electronic reorientation in silicon naphthalocyanine. Springer Series in Chemical Physics, 2003, , 557-559.	0.2	1
58	Solvatochromism and Solvation Dynamics of Structurally Related Cyanine Dyes. Journal of Physical Chemistry A, 2002, 106, 9407-9419.	2.5	90
59	Polar Solvation Dynamics in the Femtosecond Evolution of Two-Dimensional Fourier Transform Spectra. Journal of Physical Chemistry A, 2002, 106, 7651-7654.	2.5	64
60	Polar and non-polar solvation in the femtosecond evolution of 2D Fourier transform spectra. , 2002, , .		0
61	Femtosecond 2D Fourier transform study of electronic reorientation in silicon naphthalocyanine. , 2002, , .		0
62	Two-dimensional Fourier transform electronic spectroscopy. Journal of Chemical Physics, 2001, 115, 6606-6622.	3.0	349
63	Pumpâ€"probe polarization anisotropy study of doubly degenerate electronic reorientation in silicon naphthalocyanine. Journal of Chemical Physics, 2001, 115, 6281-6284.	3.0	30
64	Two-dimensional spectroscopy and harmonically coupled anharmonic oscillators. Chemical Physics, 2001, 266, 237-250.	1.9	25
65	Peak shapes in femtosecond 2D correlation spectroscopy. Chemical Physics, 2001, 266, 295-309.	1.9	63
66	Complete femtosecond linear free induction decay, Fourier algorithm for dispersion relations, and accuracy of the rotating wave approximation. Journal of Chemical Physics, 2001, 114, 4649.	3.0	20
67	Time dependent 2D Fourier transform spectra reveal femtosecond solvation dynamics. Springer Series in Chemical Physics, 2001, , 519-521.	0.2	1
68	Time and frequency resolved femtosecond solvent dynamics. Journal of Luminescence, 2000, 87-89, 126-129.	3.1	19
69	Phase-resolved time-domain nonlinear optical signals. Physical Review A, 2000, 62, .	2.5	38
70	Time dependent 2D Fourier transform spectra reveal femtosecond solvent dynamics. , 2000, , .		0
71	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
72	Two-Dimensional Electronic Correlation and Relaxation Spectra:Â Theory and Model Calculations. Journal of Physical Chemistry A, 1999, 103, 10489-10505.	2.5	244

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73	Two-dimensional electronic spectroscopy. Chemical Physics Letters, 1998, 297, 307-313.	2.6	344
74	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
75	<title>Detection of the complete electric field of femtosecond four-wave mixing signals</title>. , 1998, 3273, 46.		0
76	Pumpâ^'Probe Polarization Anisotropy Study of Femtosecond Energy Transfer within the Photosynthetic Reaction Center of Rhodobacter sphaeroides R26. The Journal of Physical Chemistry, 1996, 100, 12660-12673.	2.9	203
77	Dynamics in Isolated Bacterial Light Harvesting Antenna (LH2) ofRhodobacter sphaeroidesat Room Temperature. The Journal of Physical Chemistry, 1996, 100, 2399-2409.	2.9	185
78	Prompt solvent-induced electronic predissociation of femtosecond pumped iodine. A computational study. Chemical Physics Letters, 1995, 245, 629-638.	2.6	33
79	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
80	Femtosecond Wavepacket Spectroscopy: Influence of Temperature, Wavelength, and Pulse Duration. The Journal of Physical Chemistry, 1995, 99, 2594-2608.	2.9	163
81	HIGH RESOLUTION SPECTROSCOPY OF CHEMICAL ISOMERIZATION: STIMULATED EMISSION PUMPING OF HCN. Advanced Series in Physical Chemistry, 1995, , 513-541.	1.5	2
82	New Scheme for Extracting Molecular Dynamics from Spectra: Case Study on Vibrationally Highly Excited Acetylene. Laser Chemistry, 1994, 14, 183-190.	0.5	11
83	Intramolecular vibrational redistribution of energy in the stimulated emission pumping spectrum of acetylene. Journal of Chemical Physics, 1993, 99, 7350-7370.	3.0	129
84	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
85	Rotationally resolved ultravioletâ€"ultraviolet double resonance study of the nonplanar áº¼ state of acetylene. Journal of Chemical Physics, 1992, 97, 7180-7196.	3.0	27
86	High resolution vacuum ultraviolet Stark measurement of the dipole moment of AÌƒâ€‰1Aâ€˜ HCN. Journal of Chemical Physics, 1992, 96, 7209-7217.	3.0	5
87	Axisâ€switching transitions and the stimulated emission pumping spectrum of HCN. Journal of Chemical Physics, 1992, 97, 2284-2298.	3.0	56
88	Experimental distinction of electric and magnetic transition moments. Journal of Chemical Physics, 1992, 96, 7189-7190.	3.0	4
89	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
90	High resolution vacuum ultraviolet fluorescence excitation spectrum and predissociation of AÌƒâ€‰1Aâ€˜ HCN. Journal of Chemical Physics, 1990, 92, 3988-3989.	3.0	20

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91	Stimulated-emission pumping studies of acetylene XËœÎ£1g+ in the 11 400â€“15 700-cm^â ˆ1 region: the onset of mixing. Journal of the Optical Society of America B: Optical Physics, 1990, 7, 1805.	2.1	41
92	Spin statistics: An error in Landau and Lifschitzâ€™ Quantum Mechanics. Journal of Chemical Physics, 1989, 90, 5563-5565.	3.0	16
93	High resolution spectroscopic detection of acetyleneâ€“vinylidene isomerization by spectral cross correlation. Journal of Chemical Physics, 1989, 91, 3976-3987.	3.0	101
94	Acetylene: Isomerization and Dissociation. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1988, 92, 329-336.	0.9	51