Roseanne J Sension

List of Publications by Year
in descending order

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102	4,121	87723	118652
papers	citations	38 h-index	62 g-index

105	105	105	2712
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Femtosecond laser studies of the cisâ€stilbene photoisomerization reactions. Journal of Chemical Physics, 1993, 98, 6291-6315.	1.2	247
2	Ultrafast photoinduced electron transfer to C60. Chemical Physics Letters, 1991, 185, 179-183.	1.2	218
3	Photodissociation of water in the first absorption band: a prototype for dissociation on a repulsive potential energy surface. The Journal of Physical Chemistry, 1992, 96, 3201-3213.	2.9	196
4	Transient absorption studies of carbon (C60) in solution. The Journal of Physical Chemistry, 1991, 95, 6075-6078.	2.9	193
5	Vacuum ultraviolet resonance Raman studies of the excited electronic states of ethylene. Journal of Chemical Physics, 1989, 90, 1377-1389.	1.2	120
6	Time-Resolved Spectroscopic Studies of B12Coenzymes:Â The Photolysis and Geminate Recombination of Adenosylcobalamin. Journal of the American Chemical Society, 1998, 120, 7286-7292.	6.6	98
7	Time-Resolved Spectroscopic Studies of B12Coenzymes:Â The Identification of a Metastable Cob(III)alamin Photoproduct in the Photolysis of Methylcobalamin. Journal of the American Chemical Society, 1998, 120, 3597-3603.	6.6	97
8	Quantum path to photosynthesis. Nature, 2007, 446, 740-741.	13.7	96
9	Time-Resolved Spectroscopic Studies of B12 Coenzymes:â€‰ A Comparison of the Primary Photolysis Mechanism in Methyl-, Ethyl-, n-Propyl-, and 5â€˜-Deoxyadenosylcobalamin. Journal of the American Chemical Society, 2002, 124, 434-441.	6.6	93
10	Femtosecond laser studies of the cis-stilbene photoisomerization reactions: the cis-stilbene to dihydrophenanthrene reaction. The Journal of Physical Chemistry, 1991, 95, 10380-10385.	2.9	88
11	Comment on: Rotational friction coefficients for ellipsoids and chemical molecules with slip boundary conditions. Journal of Chemical Physics, 1993, 98, 2490-2490.	1.2	86
12	Time-Resolved Spectroscopic Studies of B12 Coenzymes:â€‰ The Photolysis of Methylcobalamin Is Wavelength Dependent. Journal of Physical Chemistry B, 1999, 103, 10532-10539.	1.2	86
13	The ultrafast photochemical ring-opening reaction of 1,3-cyclohexadiene in cyclohexane. Journal of Chemical Physics, 1998, 108, 556-563.	1.2	80
14	Energy Cascades, Excited State Dynamics, and Photochemistry in Cob(III)alamins and Ferric Porphyrins. Accounts of Chemical Research, 2015, 48, 860-867.	7.6	79
15	Ultrafast polyene dynamics: the ring opening of 1,3-cyclohexadiene derivatives. Physical Chemistry Chemical Physics, 2014, 16, 4439.	1.3	78
16	Femtosecond laser study of energy disposal in the solution phase isomerization of stilbene. Journal of Chemical Physics, 1990, 93, 9185-9188.	1.2	76
17	Comparison of experiment and theory for the resonance Raman spectrum of I2 in solution. I. The Raman excitation profile of I2 in nâ€hexane. Journal of Chemical Physics, 1986, 85, 3791-3806.	1.2	75
18	Femtosecond transient absorption study of the ring-opening reaction of 1,3-cyclohexadiene. Chemical Physics Letters, 1995, 242, 415-420.	1.2	74

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19	Time-Resolved Spectroscopic Studies of B12Coenzymes:Â Influence of Solvent on the Photolysis of Adenosylcobalamin. Journal of Physical Chemistry B, 2001, 105, 12180-12188.	1.2	72
20	Vibrational energy redistribution and relaxation in the photoisomerization of cisâ€stilbene. Journal of Chemical Physics, 1992, 97, 5239-5242.	1.2	71
21	Ultrafast Excited-State Dynamics in Vitamin B12and Related Cob(III)alamins. Journal of the American Chemical Society, 2006, 128, 801-808.	6.6	70
22	Time-Resolved Measurements of the Photolysis and Recombination of Adenosylcobalamin Bound to Glutamate Mutase. Journal of Physical Chemistry B, 2005, 109, 18146-18152.	1.2	65
23	Polarized XANES Monitors Femtosecond Structural Evolution of Photoexcited Vitamin B₁₂. Journal of the American Chemical Society, 2017, 139, 1894-1899.	6.6	64
24	Far ultraviolet resonance Raman scattering. Highly excited torsional levels of ethylene. Journal of the American Chemical Society, 1987, 109, 5036-5038.	6.6	63
25	Time-Resolved Spectroscopic Studies of B12Coenzymes:Â Comparison of the Influence of Solvent on the Primary Photolysis Mechanism and Geminate Recombination of Methyl-, Ethyl-,n-Propyl-, and 5â€˜-Deoxyadenosylcobalamin. Journal of Physical Chemistry B, 2005, 109, 21954-21962.	1.2	63
26	Influence of Environment on the Electronic Structure of Cob(III)alamins:â€‰ Time-Resolved Absorption Studies of the S1 State Spectrum and Dynamics. Journal of the American Chemical Society, 2007, 129, 7578-7585.	6.6	60
27	Resonance Raman Studies of the Low-Lying Dissociative Rydberg-Valence States ofH2O,D2O, and HDO. Physical Review Letters, 1988, 61, 694-697.	2.9	58
28	Photolysis and Recombination of Adenosylcobalamin Bound to Glutamate Mutase. Journal of the American Chemical Society, 2004, 126, 1598-1599.	6.6	58
29	Transient X-Ray Fragmentation: Probing a Prototypical Photoinduced Ring Opening. Physical Review Letters, 2012, 108, 253006.	2.9	56
30	Subpicosecond Ring Opening of 7-Dehydrocholesterol Studied by Ultrafast Spectroscopy. Journal of Physical Chemistry A, 1999, 103, 10730-10736.	1.1	54
31	Resonance Raman studies of guanidinium and substituted guanidinium ions. The Journal of Physical Chemistry, 1990, 94, 4015-4025.	2.9	48
32	Control of retinal isomerization in bacteriorhodopsin in the high-intensity regime. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10896-10900.	3.3	48
33	Solvent-Dependent Cage Dynamics of Small Nonpolar Radicals: Lessons from the Photodissociation and Geminate Recombination of Alkylcobalamins. Journal of Physical Chemistry A, 2009, 113, 8513-8522.	1.1	47
34	Broadband ultrafast transient absorption of iron (III) tetraphenylporphyrin chloride in the condensed phase. Chemical Physics, 2013, 422, 220-228.	0.9	43
35	Ultrafast Polyene Dynamics in Solution:Â The Conformational Relaxation and Thermalization of Highly Excitedcis-1,3,5-Hexatriene as a Function of Initial Conformation and Solvent. Journal of Physical Chemistry A, 1998, 102, 10588-10598.	1.1	41
36	Ultrafast Excited-State Dynamics and Photolysis in Base-Off B₁₂ Coenzymes and Analogues: Absence of the trans-Nitrogenous Ligand Opens a Channel for Rapid Nonradiative Decay. Journal of Physical Chemistry B, 2010, 114, 12398-12405.	1.2	41

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37	The ultrafast ground and excited state dynamics ofcis-hexatriene in cyclohexane. Journal of Chemical Physics, 1997, 107, 4985-4993.	1.2	40
38	Resonance raman study of the first absorption band of H2S. Chemical Physics Letters, 1990, 165, 487-493.	1.2	39
39	The internal conversions of trans- and cis-1,3,5-hexatriene in cyclohexane solution studied with sub-50 fs UV pulses. Chemical Physics Letters, 2000, 323, 365-371.	1.2	34
40	Ultrafast X-ray Absorption Near Edge Structure Reveals Ballistic Excited State Structural Dynamics. Journal of Physical Chemistry A, 2018, 122, 4963-4971.	1.1	34
41	Toward the Design of Photoresponsive Conditional Antivitamins B₁₂: A Transient Absorption Study of an Arylcobalamin and an Alkynylcobalamin. Journal of the American Chemical Society, 2016, 138, 14250-14256.	6.6	33
42	Comparison of experiment and theory for the resonance Raman spectrum of I2 in solution. II. The Raman excitation and depolarization profiles in nâ€hexane. Journal of Chemical Physics, 1987, 87, 6221-6232.	1.2	32
43	Femtosecond studies of the iodineâ€“mesitylene chargeâ€transfer complex. Journal of Chemical Physics, 1995, 103, 7877-7886.	1.2	32
44	Structure and function in the isolated reaction center complex of Photosystem II: energy and charge transfer dynamics and mechanism. Photosynthesis Research, 2002, 72, 147-158.	1.6	32
45	Spectral phase effects on nonlinear resonant photochemistry of 1,3-cyclohexadiene in solution. Journal of Chemical Physics, 2006, 124, 114506.	1.2	32
46	Resonance emission studies of the photodissociating water molecule. Chemical Physics, 1990, 141, 393-400.	0.9	31
47	On the structure of iodine charge-transfer complexes in solution. Chemical Physics Letters, 1995, 242, 177-183.	1.2	30
48	Ultrafast electrocyclic ring opening of 7-dehydrocholesterol in solution: The influence of solvent on excited state dynamics. Journal of Chemical Physics, 2011, 134, 104503.	1.2	30
49	Solvent Dependent Conformational Relaxation ofcis-1,3,5-Hexatriene. Journal of Physical Chemistry A, 2006, 110, 9325-9333.	1.1	29
50	Comparison of experiment and theory for the resonance Raman spectrum of I2 in solution. III. Perfluorohexane and chloroform. Journal of Chemical Physics, 1987, 87, 6233-6239.	1.2	28
51	Resonance Raman spectroscopy of the B1u region of benzene: Analysis in terms of pseudoâ€jahnâ€“Teller distortion. Journal of Chemical Physics, 1992, 96, 2617-2628.	1.2	27
52	Transient Absorption Studies of the Primary Charge Separation in Photosystem II. The Journal of Physical Chemistry, 1996, 100, 1945-1949.	2.9	27
53	Comparison of experiment and theory for the resonance Raman spectrum of I2 in solution. IV. Band shapes and hot bands. Journal of Chemical Physics, 1988, 88, 2289-2295.	1.2	26
54	Multiphoton Control of the 1,3-Cyclohexadiene Ring-Opening Reaction in the Presence of Competing Solvent Reactions. Journal of Physical Chemistry A, 2008, 112, 6811-6822.	1.1	26

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55	Femtosecond laser study of the alignment of reactant and products in the photoisomerization reactions of cis-stilbene. The Journal of Physical Chemistry, 1991, 95, 2946-2948.	2.9	25
56	Initial charge separation kinetics of bacterial photosynthetic reaction centers in oriented Langmuir-Blodgett films in an applied electric field. Chemical Physics, 1995, 197, 343-354.	0.9	25
57	The Photoactive Excited State of the B₁₂-Based Photoreceptor CarH. Journal of Physical Chemistry B, 2020, 124, 10732-10738.	1.2	25
58	Emission spectroscopy of H2O dissociating in theBÌƒâ€‰1A1state: Rapid bending motion manifested through excitation of high bending states of H2O (XÌƒ). Journal of Chemical Physics, 1993, 99, 1050-1056.	1.2	24
59	Photostability of Hydroxocobalamin: Ultrafast Excited State Dynamics and Computational Studies. Journal of Physical Chemistry Letters, 2016, 7, 143-147.	2.1	23
60	Vacuum ultraviolet resonance Raman studies of the valence excited electronic states of benzene and benzeneâ€d6: The E1u state and a putative A2u state. Journal of Chemical Physics, 1991, 94, 873-882.	1.2	19
61	Excited electronic states and internal conversion in cyanocobalamin. Chinese Chemical Letters, 2015, 26, 439-443.	4.8	19
62	Photochemical Ring-Opening and Ground State Relaxation in Î±-Terpinene with Comparison to Provitamin D3. Journal of Physical Chemistry B, 2013, 117, 4696-4704.	1.2	18
63	Ultrafast XANES Monitors Femtosecond Sequential Structural Evolution in Photoexcited Coenzyme B₁₂. Journal of Physical Chemistry B, 2020, 124, 199-209.	1.2	17
64	Structure and Function in the Isolated Reaction Center Complex of Photosystem II. 1. Ultrafast Fluorescence Measurements of PSII. Journal of Physical Chemistry B, 1997, 101, 5232-5238.	1.2	16
65	Nitrosylcobalt(II) Tetraphenylporphinate: Femtosecond and Longer Studies of the Dynamics of NO Loss. Journal of the American Chemical Society, 1995, 117, 4429-4430.	6.6	15
66	Optical Control of Excited-State Vibrational Coherences of a Molecule in Solution:Â The Influence of the Excitation Pulse Spectrum and Phase in LD690â€. Journal of Physical Chemistry B, 2006, 110, 20023-20031.	1.2	15
67	Ultrafast ring-opening reactions: a comparison of Î±-terpinene, Î±-phellandrene, and 7-dehydrocholesterol with 1,3-cyclohexadiene. Faraday Discussions, 2013, 163, 159.	1.6	14
68	Ligand Recruitment and Spin Transitions in the Solid-State Photochemistry of Fe^(III)TPPCl. Journal of Physical Chemistry A, 2012, 116, 8321-8333.	1.1	13
69	Primed for Efficient Motion: Ultrafast Excited State Dynamics and Optical Manipulation of a Four Stage Rotary Molecular Motor. Journal of Physical Chemistry A, 2018, 122, 7548-7558.	1.1	13
70	Probing the Biexponential Dynamics of Ring-Opening in 7-Dehydrocholesterol. Journal of Physical Chemistry A, 2016, 120, 6575-6581.	1.1	12
71	Off to the Races: Comparison of Excited State Dynamics in Vitamin B₁₂ Derivatives Hydroxocobalamin and Aquocobalamin. Journal of Physical Chemistry A, 2018, 122, 6693-6703.	1.1	12
72	Probing the Excited State of Methylcobalamin Using Polarized Time-Resolved X-ray Absorption Spectroscopy. Journal of Physical Chemistry B, 2019, 123, 6042-6048.	1.2	12

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73	Vibrational relaxation of I2 in complexing solvents: The role of solventâ€“solute attractive forces. Journal of Chemical Physics, 1998, 109, 9494-9501.	1.2	11
74	Experimental and Theoretical Characterization of Ultrafast Water-Soluble Photochromic Photoacids. Journal of Physical Chemistry B, 2021, 125, 4120-4131.	1.2	11
75	The far infrared spectra of IBr chargeâ€“transfer complexes. Journal of Chemical Physics, 1987, 86, 6665-6668.	1.2	10
76	Communications: Photoinitiated bond dissociation of bromoiodomethane in solution: Comparison of one-photon and two-photon excitations and the formation of iso-CH2Brâ€“I and iso-CH2Iâ€“Br. Journal of Chemical Physics, 2010, 132, 141102.	1.2	10
77	Antivitamins B₁₂ in a Microdrop: The Excited-State Structure of a Precious Sample Using Transient Polarized X-ray Absorption Near-Edge Structure. Journal of Physical Chemistry Letters, 2019, 10, 5484-5489.	2.1	10
78	The vibrational relaxation of I2 (Xâ€‰1Î£g+) in mesitylene. Journal of Chemical Physics, 1998, 108, 4992-5001.	1.2	9
79	The influence of the optical pulse shape on excited state dynamics in provitamin D3. Faraday Discussions, 2011, 153, 117.	1.6	9
80	Exceptional Photochemical Stability of the Coâ€“C Bond of Alkynyl Cobalamins, Potential Antivitamins B₁₂ and Core Elements of B₁₂-Based Biological Vectors. Inorganic Chemistry, 2020, 59, 6422-6431.	1.9	9
81	Solvent Dependence of Excited State Lifetimes in 7-Dehydrocholesterol and Simple Polyenes. ACS Symposium Series, 2002, , 148-158.	0.5	8
82	Phase control of the competition between electronic transitions in a solvated laser dye. Chemical Physics, 2008, 350, 75-86.	0.9	8
83	Solvent dependent branching between C-I and C-Br bond cleavage following 266 nm excitation of CH2BrI. Journal of Chemical Physics, 2013, 139, 194307.	1.2	8
84	Ultrafast Excited State Dynamics and Fluorescence from Vitamin B₁₂ and Organometallic [Co]â€“Câ‰¡Câ€“R Cobalamins. Journal of Physical Chemistry B, 2020, 124, 6651-6656.	1.2	7
85	Structure and Function in the Isolated Reaction-Center Complex of Photosystem II. 2. Models for Energy Relaxation and Charge Separation in a Protein Matrix. Journal of Physical Chemistry B, 2003, 107, 2162-2169.	1.2	6
86	Probing the Formation and Conformational Relaxation of Previtamin D₃ and Analogues in Solution and in Lipid Bilayers. Journal of Physical Chemistry B, 2021, 125, 10085-10096.	1.2	4
87	Extracting Information from Adaptive Control Experiments. Israel Journal of Chemistry, 2012, 52, 397-406.	1.0	3
88	The Entropic Origin of Solvent Effects on the Single Bond cZt-tZt Isomerization Rate Constant of 1,3,5-cis-Hexatriene in Alkane and Alcohol Solvents: A Molecular Dynamics Study. Journal of Physical Chemistry B, 2014, 118, 7869-7877.	1.2	3
89	Visualizing ultrafast chemical dynamics with X-rays. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 26550-26552.	3.3	3
90	Following photoexcited electrons in reactions. Science, 2017, 356, 31-31.	6.0	2

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91	Ultrafast excited state dynamics of provitamin D3 and analogs in solution and in lipid bilayers. Journal of Chemical Physics, 2021, 154, 094309.	1.2	2
92	Direct Observation of Ultrafast Excited State Dynamics in Condensed Phase Photochemistry and Photobiology.. Springer Series in Chemical Physics, 2001, , 648-650.	0.2	2
93	Time-resolved spectroscopy: Advances in understanding the electronic structure and dynamics of cobalamins. Methods in Enzymology, 2022, , 303-331.	0.4	2
94	Introduction of a Computational Laboratory into the Physical Chemistry Curriculum. ACS Symposium Series, 2007, , 220-234.	0.5	1
95	Ballistic excited state dynamics revealed by polarized fs-XANES. EPJ Web of Conferences, 2019, 205, 05014.	0.1	1
96	Control of 1,3-Cyclohexadiene Ring-Opening. Springer Series in Chemical Physics, 2007, , 249-251.	0.2	1
97	The Influence of Solvent and Chirp on the Excited State Dynamics of 7-Dehydrocholesterol in Solution. , 2010, , .		0
98	Direct Observation of Ultrafast Excited State Dynamics in Condensed Phase Photochemistry and Photobiology. , 2000, , .		0
99	Ultrafast Studies of the Electronic Structure and Dynamics of B12 Cofactors. , 2006, , 382-386.		0
100	Solvent Dependent Conformational Relaxation of cis-1,3,5-Hexatriene. , 2006, , 189-192.		0
101	Excited state Spectroscopy, Coherence, and Control in the Isomerization of Polyenes in Solution. , 2009, , .		0
102	Ultrafast Excited-State Dynamics and Photochemistry of Base-off Adenosylcobalamin and n-Propylcobalamin. , 2010, , .		0