Dana D Dlott

List of Publications by Year
in descending order

272	10,895	30047 54	43868 91
papers	citations	h-index	g-index

276	276	276	7061
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measurement of the Distribution of Site Enhancements in Surface-Enhanced Raman Scattering. Science, 2008, 321, 388-392.	6.0	988
2	Ultrafast Flash Thermal Conductance of Molecular Chains. Science, 2007, 317, 787-790.	6.0	401
3	Shocked molecular solids: Vibrational up pumping, defect hot spot formation, and the onset of chemistry. Journal of Chemical Physics, 1990, 92, 3798-3812.	1.2	269
4	Vibrational Energy Relaxation and Spectral Diffusion in Water and Deuterated Water. Journal of Physical Chemistry A, 2000, 104, 4866-4875.	1.1	251
5	Chemical reaction initiation and hot-spot formation in shocked energetic molecular materials. The Journal of Physical Chemistry, 1993, 97, 1901-1913.	2.9	235
6	Dynamics of Energy Transport in Molecular Crystals: The Picosecond Transient-Grating Method. Physical Review Letters, 1978, 41, 131-134.	2.9	231
7	In Situ Spectroscopic Examination of a Low Overpotential Pathway for Carbon Dioxide Conversion to Carbon Monoxide. Journal of Physical Chemistry C, 2012, 116, 15307-15312.	1.5	230
8	Nonresonant Background Suppression in Broadband Vibrational Sum-Frequency Generation Spectroscopy. Journal of Physical Chemistry C, 2007, 111, 13645-13647.	1.5	170
9	Vibrational Substructure in the OH Stretching Transition of Water and HOD. Journal of Physical Chemistry A, 2004, 108, 9054-9063.	1.1	166
10	Watching Vibrational Energy Transfer in Liquids with Atomic Spatial Resolution. Science, 2002, 296, 2201-2203.	6.0	149
11	Three-Dimensional Spectroscopy of Vibrational Energy Relaxation in Liquid Methanol. Journal of Physical Chemistry A, 2000, 104, 9101-9112.	1.1	137
12	Vibrational energy redistribution in polyatomic liquids: 3D infraredâ€“Raman spectroscopy. Chemical Physics, 2001, 266, 149-166.	0.9	136
13	Reaction pathways of ethanol electrooxidation on polycrystalline platinum catalysts in acidic electrolytes. Journal of Catalysis, 2011, 278, 181-188.	3.1	132
14	Vibrational Energy Redistribution in Polyatomic Liquids:â€‰Ultrafast IRâˆ’Raman Spectroscopy of Acetonitrile. Journal of Physical Chemistry A, 1998, 102, 8193-8201.	1.1	131
15	Vibrational Energy Transfer Across a Reverse Micelle Surfactant Layer. Science, 2004, 306, 473-476.	6.0	114
16	Thinking big (and small) about energetic materials. Materials Science and Technology, 2006, 22, 463-473.	0.8	114
17	ULTRAFASTSPECTROSCOPY OFSHOCKWAVES INMOLECULARMATERIALS. Annual Review of Physical Chemistry, 1999, 50, 251-278.	4.8	108
18	Quantitative vibrational sum-frequency generation spectroscopy of thin layer electrochemistry: CO on a Pt electrode. Surface Science, 2005, 585, 3-16.	0.8	104

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19	Printing of protein microarrays via a capillary-free fluid jetting mechanism. Proteomics, 2005, 5, 4138-4144.	1.3	104
20	Fast Spectroscopy of Laser-Initiated Nanoenergetic Materials. Journal of Physical Chemistry B, 2003, 107, 4485-4493.	1.2	94
21	Simplified laser-driven flyer plates for shock compression science. Review of Scientific Instruments, 2012, 83, 103901.	0.6	94
22	Laser-driven flyer plates for shock compression science: Launch and target impact probed by photon Doppler velocimetry. Review of Scientific Instruments, 2014, 85, 043908.	0.6	92
23	Coherent Raman measurements of polymer thinâ€film pressure and temperature during picosecond laser ablation. Journal of Applied Physics, 1995, 77, 5950-5960.	1.1	90
24	Vibrational relaxation and spectral evolution following ultrafast OH stretch excitation of water. Chemical Physics Letters, 2003, 371, 594-600.	1.2	88
25	Ultrafast infrared-Raman studies of vibrational energy redistribution in polyatomic liquids. , 2000, 31, 263-274.		84
26	Vibrational Energy Redistribution in Polyatomic Liquids:â€‰Ultrafast IRâ^'Raman Spectroscopy of Nitromethane. Journal of Physical Chemistry A, 1999, 103, 971-979.	1.1	83
27	Ultrasonic hammer produces hot spots in solids. Nature Communications, 2015, 6, 6581.	5.8	83
28	Ultrafast Mode-Specific Intermolecular Vibrational Energy Transfer to Liquid Nitromethane. The Journal of Physical Chemistry, 1995, 99, 9102-9109.	2.9	80
29	Shock Wave Chemistry in a Metalâ€“Organic Framework. Journal of the American Chemical Society, 2017, 139, 4619-4622.	6.6	80
30	Time-resolved optical microscopy of a laser-based forward transfer process. Applied Physics Letters, 2001, 78, 3169-3171.	1.5	78
31	Vibrational substructure in the OH stretching band of water. Chemical Physics Letters, 2003, 378, 281-288.	1.2	78
32	Structural Transition in an Ionic Liquid Controls CO₂ Electrochemical Reduction. Journal of Physical Chemistry C, 2015, 119, 20892-20899.	1.5	78
33	Ultrafast Nonlinear Coherent Vibrational Sum-Frequency Spectroscopy Methods To Study Thermal Conductance of Molecules at Interfaces. Accounts of Chemical Research, 2009, 42, 1343-1351.	7.6	77
34	New Developments in the Physical Chemistry of Shock Compression. Annual Review of Physical Chemistry, 2011, 62, 575-597.	4.8	75
35	Ultrahigh time-resolution vibrational spectroscopy of shocked molecular solids. Journal of Applied Physics, 1997, 81, 2157-2166.	1.1	73
36	Vibrational energy relaxation pathways of water. Chemical Physics Letters, 2003, 380, 404-410.	1.2	73

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37	Shock Wave Energy Absorption in Metalâ€“Organic Framework. Journal of the American Chemical Society, 2019, 141, 2220-2223.	6.6	69
38	Shock initiation of explosives: High temperature hot spots explained. Applied Physics Letters, 2017, 111, .	1.5	68
39	Ultrafast imaging of 0.532â€Ì¼m laser ablation of polymers: Time evolution of surface damage and blast wave generation. Journal of Applied Physics, 1989, 65, 4548-4563.	1.1	66
40	Vibrational sum frequency generation studies of the (2Ã—2)â†'(âˆš19Ã—âˆš19) phase transition of CO on Pt(111) electrodes. Journal of Chemical Physics, 2006, 125, 154705.	1.2	66
41	Applications of ultrafast temperature jump spectroscopy to condensed phase molecular dynamics. The Journal of Physical Chemistry, 1992, 96, 7178-7186.	2.9	65
42	Vibrational Dynamics of Carbon Monoxide at the Active Site of Myoglobin: Picosecond Infrared Free-Electron Laser Pump-Probe Experiments. The Journal of Physical Chemistry, 1994, 98, 11213-11219.	2.9	65
43	Mutant and Wild-Type Myoglobin-CO Protein Dynamics:Â Vibrational Echo Experiments. Journal of Physical Chemistry B, 1997, 101, 1468-1475.	1.2	63
44	Plume and jetting regimes in a laser based forward transfer process as observed by time-resolved optical microscopy. Applied Surface Science, 2002, 197-198, 181-187.	3.1	63
45	Direct measurement of polymer temperature during laser ablation using a molecular thermometer. Journal of Applied Physics, 1992, 72, 2440-2448.	1.1	60
46	Vibrational Echo Studies of Myoglobinâˆ'CO. The Journal of Physical Chemistry, 1996, 100, 15620-15629.	2.9	60
47	Ultrafast vibrational energy redistribution within Câ€“H and Oâ€“H stretching modes of liquid methanol. Chemical Physics Letters, 2000, 321, 419-425.	1.2	59
48	Ultrafast Chemistry of Nanoenergetic Materials Studied by Time-Resolved Infrared Spectroscopy:â€‰ Aluminum Nanoparticles in Teflon. Journal of Physical Chemistry C, 2007, 111, 10278-10284.	1.5	59
49	In Situ Probing of Solid-Electrolyte Interfaces with Nonlinear Coherent Vibrational Spectroscopy. Journal of the Electrochemical Society, 2012, 159, A244-A252.	1.3	59
50	Interfacial Processes of a Model Lithium Ion Battery Anode Observed, in Situ, with Vibrational Sum-Frequency Generation Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 10227-10233.	1.5	58
51	Picosecond coherent Raman investigation of the relaxation of low frequency vibrational modes in amino acids and peptides. Journal of Chemical Physics, 1984, 81, 4932-4949.	1.2	57
52	Vibrational relaxation and vibrational cooling in low temperature molecular crystals. Journal of Chemical Physics, 1988, 88, 949-967.	1.2	57
53	High-Speed Laser-Launched Flyer Impacts Studied with Ultrafast Photography and Velocimetry. Journal of Dynamic Behavior of Materials, 2016, 2, 194-206.	1.1	57
54	Temperature-dependent vibrational dephasing in molecular crystals: a picosecond cars study of naphthalene. Chemical Physics Letters, 1982, 90, 386-390.	1.2	56

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55	A picosecond CARS study of vibron dynamics in molecular crystals: Temperature dependence of homogeneous and inhomogeneous linewidths. Journal of Chemical Physics, 1984, 80, 1394-1406.	1.2	55
56	Propagation of shock-induced chemistry in nanoenergetic materials: The first micrometer. Journal of Applied Physics, 2004, 95, 3667-3676.	1.1	54
57	Compact broadband vibrational sum-frequency generation spectrometer with nonresonant suppression. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2010, 75, 1289-1296.	2.0	54
58	Vibrational energy redistribution in liquid benzene. Chemical Physics Letters, 1999, 303, 176-182.	1.2	53
59	Hydrogen-Bond Disruption by Vibrational Excitations in Water. Journal of Physical Chemistry A, 2007, 111, 3196-3208.	1.1	53
60	Ultrafast Energy Transfer in High Explosives: Vibrational Cooling. The Journal of Physical Chemistry, 1995, 99, 4525-4530.	2.9	51
61	Real-Time Investigations of Pt(111) Surface Transformations in Sulfuric Acid Solutions. Journal of the American Chemical Society, 2010, 132, 14036-14038.	6.6	51
62	Study of Ethanol Electrooxidation in Alkaline Electrolytes with Isotope Labels and Sum-Frequency Generation. Journal of Physical Chemistry Letters, 2011, 2, 2236-2240.	2.1	51
63	Studies of electrochemical interfaces by broadband sum frequency generation. Journal of Electroanalytical Chemistry, 2017, 800, 114-125.	1.9	51
64	Direct Measurement of Ultrafast Multiphonon Up-Pumping in High Explosives. The Journal of Physical Chemistry, 1994, 98, 7759-7766.	2.9	50
65	Picosecond coherent Raman study of solid-state chemical reactions during laser polymer ablation. Applied Physics Letters, 1994, 64, 715-717.	1.5	50
66	Ultrafast Dynamics of Shock Compression of Molecular Monolayers. Physical Review Letters, 2005, 94, 015501.	2.9	50
67	Ultrafast dynamics of heat flow across molecules. Chemical Physics, 2008, 350, 31-44.	0.9	50
68	Vibrational Dynamics of Carbon Monoxide at the Active Sites of Mutant Heme Proteinsâ€. The Journal of Physical Chemistry, 1996, 100, 12100-12107.	2.9	48
69	Experimental determination of the triplet exciton intermolecular interaction matrix element and the exciton-phonon scattering rate in molecular crystals. Chemical Physics Letters, 1976, 41, 305-310.	1.2	47
70	Ultrafast vibrational energy transfer in the real world: laser ablation, energetic solids, and hemeproteins. Journal of the Optical Society of America B: Optical Physics, 1990, 7, 1638.	0.9	47
71	Ultrafast Raman Spectroscopy of Shock Fronts in Molecular Solids. Physical Review Letters, 1997, 78, 4585-4588.	2.9	47
72	Near-infrared laser ablation of poly tetrafluoroethylene (Teflon) sensitized by nanoenergetic materials. Applied Physics Letters, 2004, 85, 1493-1495.	1.5	46

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73	Vibrational Relaxation of Normal and Deuterated Liquid Nitromethane. Journal of Physical Chemistry B, 2008, 112, 232-241.	1.2	46
74	Unidirectional Vibrational Energy Flow in Nitrobenzene. Journal of Physical Chemistry A, 2013, 117, 6066-6072.	1.1	46
75	Vibrational energy transfer and localization in disordered solids by picosecond CARS spectroscopy. Journal of Chemical Physics, 1983, 79, 5286-5291.	1.2	45
76	Nanoshocks in Molecular Materials. Accounts of Chemical Research, 2000, 33, 37-45.	7.6	45
77	Theory of ultrahot molecular solids: Vibrational cooling and shockâ€induced multiphonon up pumping in crystalline naphthalene. Journal of Chemical Physics, 1990, 93, 1695-1709.	1.2	44
78	Tuning the Vibrational Relaxation of CO Bound to Heme and Metalloporphyrin Complexes. The Journal of Physical Chemistry, 1996, 100, 18023-18032.	2.9	44
79	The New Wave in Shock Waves. Journal of Physical Chemistry B, 1998, 102, 2121-2130.	1.2	44
80	Hot spots in energetic materials generated by infrared and ultrasound, detected by thermal imaging microscopy. Review of Scientific Instruments, 2014, 85, 023705.	0.6	44
81	Multichannel emission spectrometer for high dynamic range optical pyrometry of shock-driven materials. Review of Scientific Instruments, 2016, 87, 103107.	0.6	44
82	Fast molecular processes in energetic materials. Theoretical and Computational Chemistry, 2003, 13, 125-191.	0.2	42
83	Laser polymer ablation threshold lowered by nanometer hot spots. Applied Physics Letters, 1994, 64, 184-186.	1.5	41
84	A model for ultrafast vibrational cooling in molecular crystals. Journal of Chemical Physics, 1988, 89, 830-841.	1.2	40
85	When vibrations interact: ultrafast energy relaxation of vibrational pairs in polyatomic liquids. Chemical Physics Letters, 1998, 293, 405-411.	1.2	40
86	Shock initiation of explosives: Temperature spikes and growth spurts. Applied Physics Letters, 2016, 109, .	1.5	40
87	Observing Hot Spot Formation in Individual Explosive Crystals Under Shock Compression. Journal of Physical Chemistry A, 2020, 124, 4646-4653.	1.1	40
88	Fast spectroscopy of energy release in nanometric explosives. Chemical Physics Letters, 2003, 368, 189-194.	1.2	39
89	Shock Initiation of Nano-Al + Teflon: Time-Resolved Emission Studies. Journal of Physical Chemistry C, 2013, 117, 4866-4875.	1.5	39
90	Picosecond Nd:YAG regenerative amplifier with acoustooptic injection and electrooptic VFET pulse switchout. IEEE Journal of Quantum Electronics, 1988, 24, 411-417.	1.0	38

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91	Ultrafast imaging of optical damage dynamics and laserâ€produced wave propagation in polymethyl methacrylate. Journal of Applied Physics, 1988, 64, 2955-2958.	1.1	38
92	High-power picosecond mid-infrared optical parametric amplifier for infrared Raman spectroscopy. Optics Letters, 1997, 22, 1796.	1.7	38
93	Excited state dynamics in pure molecular crystals: perylene and the excimer problem. Chemical Physics Letters, 1979, 64, 88-93.	1.2	37
94	Vibrational spectroscopy of solid state molecular dimers. Chemical Physics Letters, 1983, 96, 57-64.	1.2	37
95	Orientation dependence of shock-induced heating in anharmonic molecular crystals. Journal of Applied Physics, 1998, 83, 5203-5211.	1.1	37
96	Vibrational sum-frequency generation study of the CO2 electrochemical reduction at Pt/EMIM-BF4 solid/liquid interfaces. Journal of Electroanalytical Chemistry, 2017, 800, 144-150.	1.9	36
97	Vibrational cooling in large molecular systems: Pentacene in naphthalene. Journal of Chemical Physics, 1989, 90, 3590-3602.	1.2	35
98	Sum-frequency generation of acetate adsorption on Au and Pt surfaces: Molecular structure effects. Journal of Chemical Physics, 2010, 133, 234702.	1.2	35
99	Effects of water on low-overpotential CO₂ reduction in ionic liquid studied by sum-frequency generation spectroscopy. Physical Chemistry Chemical Physics, 2017, 19, 10491-10501.	1.3	35
100	Detonation on a tabletop: Nitromethane with high time and space resolution. Journal of Applied Physics, 2018, 124, .	1.1	35
101	Theory of vibrational cooling in molecular crystals: Application to crystalline naphthalene. Journal of Chemical Physics, 1988, 89, 842-858.	1.2	34
102	Ultrafast temperature jump in polymers: Phonons and vibrations heat up at different rates. Journal of Chemical Physics, 1993, 99, 4140-4151.	1.2	34
103	Controlling Vibrational Energy Flow in Liquid Alkylbenzenes. Journal of Physical Chemistry B, 2013, 117, 10898-10904.	1.2	34
104	High dynamic range emission measurements of shocked energetic materials: Octahydro-1,3,5,7-tetranitro-1,3,5,7-tetrazocine (HMX). Journal of Applied Physics, 2016, 119, .	1.1	34
105	Shock Initiation Microscopy with High Time and Space Resolution. Propellants, Explosives, Pyrotechnics, 2020, 45, 223-235.	1.0	34
106	Applications of infrared free-electron lasers: basic research on the dynamics of molecular systems. IEEE Journal of Quantum Electronics, 1991, 27, 2697-2713.	1.0	33
107	Molecular dynamics simulation of nanoscale thermal conduction and vibrational cooling in a crystalline naphthalene cluster. Journal of Chemical Physics, 1991, 94, 8203-8209.	1.2	33
108	Multiphonon up-pumping and molecular hot spots in superheated polymers studied by ultrafast optical calorimetry. Chemical Physics Letters, 1992, 192, 315-320.	1.2	32

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109	Dynamics of Myoglobinâ^'CO with the Proximal Histidine Removed:Â Vibrational Echo Experiments. Journal of Physical Chemistry B, 1998, 102, 331-333.	1.2	32
110	Molecular dynamics observed 60 ps behind a solidâ€state shock front. Journal of Chemical Physics, 1995, 103, 8313-8321.	1.2	31
111	Vibrational Energy Dynamics of Normal and Deuterated Liquid Benzene. Journal of Physical Chemistry A, 2009, 113, 1445-1452.	1.1	31
112	Modifying Vibrational Energy Flow in Aromatic Molecules: Effects of Ortho Substitution. Journal of Physical Chemistry A, 2014, 118, 965-973.	1.1	31
113	Spatially Resolved Vibrational Energy Transfer in Molecular Monolayers. Journal of Physical Chemistry A, 2008, 112, 3523-3529.	1.1	30
114	Vibrational Energy Relaxation of Liquid Aryl-Halides X-C₆H₅ (X = F, Cl, Br, I). Journal of Physical Chemistry A, 2010, 114, 10500-10507.	1.1	30
115	Optical windows as materials for high-speed shock wave detectors. AIP Advances, 2018, 8, .	0.6	30
116	A new method for studying picosecond dynamics of shocked solids: application to crystalline energetic materials. Chemical Physics Letters, 1995, 244, 224-230.	1.2	29
117	Coherent Raman spectroscopy of nanoshocks. Journal of Applied Physics, 1997, 82, 1080-1087.	1.1	29
118	Ultrafast Dynamics of Self-Assembled Monolayers under Shock Compression:â€‰ Effects of Molecular and Substrate Structure. Journal of Physical Chemistry B, 2005, 109, 5033-5044.	1.2	29
119	Vibrational Relaxation in Metalloporphyrin CO Complexes. Journal of the American Chemical Society, 1996, 118, 7853-7854.	6.6	28
120	Effects of high carrier densities on phonon and carrier lifetimes in Si by time-resolved anti-Stokes Raman scattering. Applied Physics Letters, 2007, 90, 252104.	1.5	28
121	Surface Nonlinear Vibrational Spectroscopy of Energetic Materials:â€‰ HMX. Journal of Physical Chemistry C, 2007, 111, 2235-2241.	1.5	28
122	Long-lived vibrational modes in amino acid crystals probed by picosecond CARS spectroscopy. Chemical Physics Letters, 1983, 103, 109-114.	1.2	27
123	Shock Compression of Organic Polymers and Proteins:Â Ultrafast Structural Relaxation Dynamics and Energy Landscapes. Journal of Physical Chemistry B, 2000, 104, 4239-4252.	1.2	27
124	Vibrational energy dynamics of water studied with ultrafast Stokes and anti-Stokes Raman spectroscopy. Chemical Physics Letters, 2004, 397, 40-45.	1.2	27
125	The vibrational Stokes shift of water (HOD in D2O). Journal of Chemical Physics, 2004, 120, 8345-8348.	1.2	27
126	Vibrational energy in molecules probed with high time and space resolution. International Reviews in Physical Chemistry, 2007, 26, 223-248.	0.9	27

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127	Vibrational Energy Dynamics of Glycine,N-Methylacetamide, and Benzoate Anion in Aqueous (D₂O) Solution. Journal of Physical Chemistry A, 2009, 113, 75-84.	1.1	26
128	Ultrafast Condensed-Phase Emission from Energetic Composites of Teflon and Nanoaluminum. Journal of Physical Chemistry A, 2010, 114, 6731-6741.	1.1	26
129	Comparing Boron and Aluminum Nanoparticle Combustion in Teflon Using Ultrafast Emission Spectroscopy. Journal of Physical Chemistry C, 2012, 116, 2751-2760.	1.5	26
130	Hot-spot generation and growth in shocked plastic-bonded explosives studied by optical pyrometry. Journal of Applied Physics, 2019, 125, .	1.1	26
131	Timeâ€dependent selfâ€focusing and a 20 ps delay in laser ablation of polymers. Applied Physics Letters, 1989, 54, 2274-2276.	1.5	25
132	Ultrafast Dynamics of Shock Waves in Polymers and Proteins: The Energy Landscape. Physical Review Letters, 1999, 83, 5034-5037.	2.9	25
133	Ultrafast microscopy of laser ablation of refractory materials: ultra low threshold stress-induced ablation. Journal of Photochemistry and Photobiology A: Chemistry, 2001, 145, 183-194.	2.0	25
134	Hot spot generation in energetic materials created by long-wavelength infrared radiation. Applied Physics Letters, 2014, 104, .	1.5	25
135	Ultrafast microscopy of shock waves using a shock target array with an optical nanogauge. Journal of Applied Physics, 1994, 75, 4975-4983.	1.1	24
136	Time-resolved emission of dye probes in a shock-compressed polymer. Journal of Applied Physics, 2012, 112, 103508.	1.1	24
137	Time-Resolved Spectroscopy of Initiation and Ignition of Flash-Heated Nanoparticle Energetic Materials. Journal of Physical Chemistry C, 2012, 116, 14737-14747.	1.5	24
138	Ultrafast Excitation of Molecular Adsorbates on Flash-Heated Gold Surfaces. Journal of Physical Chemistry A, 2009, 113, 12105-12114.	1.1	23
139	Vibrational relaxation of guest and host in mixed molecular crystals. Journal of Chemical Physics, 1988, 88, 2361-2371.	1.2	22
140	Dynamics of a polymer shock optical microgauge studied by picosecond coherent Raman spectroscopy. Applied Physics Letters, 1994, 65, 3051-3053.	1.5	22
141	Vibrational relaxation of an amino acid in aqueous solution. Chemical Physics Letters, 2007, 447, 134-139.	1.2	22
142	Electrochemically Driven Reorientation of Three Ionic States of p-Aminobenzoic Acid on Ag(111). Journal of Physical Chemistry C, 2009, 113, 2417-2424.	1.5	22
143	Dynamics of polymer response to nanosecond shock compression. Applied Physics Letters, 2014, 104, 101914.	1.5	22
144	Shock initiation and hot spots in plastic-bonded 1,3,5-triamino-2,4,6-trinitrobenzene (TATB). Applied Physics Letters, 2020, 116, .	1.5	22

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145	High-Pressure Raman Spectroscopy of Molecular Monolayers Adsorbed on a Metal Surface. Journal of Physical Chemistry C, 2009, 113, 5751-5757.	1.5	21
146	Effect of Carbon Chain Length on the Dynamics of Heat Transfer at a Gold/Hydrocarbon Interface: Comparison of Simulation with Experiment. Journal of Physical Chemistry C, 2011, 115, 9622-9628.	1.5	21
147	Application of a two-color free-electron laser to condensed-matter molecular dynamics. Journal of the Optical Society of America B: Optical Physics, 1989, 6, 977.	0.9	20
148	Ultrafast shock-induced orientation of polycrystalline films: Applications to high explosives. Journal of Applied Physics, 1999, 85, 2068-2074.	1.1	20
149	High-energy flat-top beams for laser launching using a Gaussian mirror. Applied Optics, 2010, 49, 3723.	2.1	20
150	Ignition of Nanocomposite Thermites by Electric Spark and Shock Wave. Propellants, Explosives, Pyrotechnics, 2014, 39, 444-453.	1.0	20
151	Mechanochemistry of Metalâ€“Organic Frameworks under Pressure and Shock. Accounts of Chemical Research, 2020, 53, 2806-2815.	7.6	20
152	Ultrafast infrared spectroscopy in biomolecules: Active site dynamics of heme proteins. Biospectroscopy, 1996, 2, 277-299.	0.7	19
153	Dynamic absorption in optical pyrometry of hot spots in plastic-bonded triaminotrinitrobenzene. Applied Physics Letters, 2019, 114, .	1.5	19
154	Reply to: Comment on â€˜Vibrational relaxation and spectral diffusion following ultrafast OH stretch excitation of waterâ€™, by H.J. Bakker, A.J. Lock, D. Madsen. Chemical Physics Letters, 2004, 385, 332-335.	1.2	18
155	Ultrafast Shock Compression of Self-Assembled Monolayers:â€‰ A Molecular Picture. Journal of Physical Chemistry B, 2005, 109, 5045-5054.	1.2	18
156	Broad-band sum frequency generation study of formic acid chemisorption on a Pt (1 0 0) electrode. Journal of Electroanalytical Chemistry, 2010, 649, 32-36.	1.9	18
157	Vibrational relaxation of carbon monoxide in model heme compounds. 6-coordinate metalloporphyrins (M = Fe, Ru, OS). Chemical Physics Letters, 1995, 244, 218-223.	1.2	17
158	Real time ultrafast spectroscopy of shock front pore collapse. Journal of Applied Physics, 2001, 90, 5139-5146.	1.1	17
159	Ultrafast pressure-sensitive paint for shock compression spectroscopy. Journal of Applied Physics, 2014, 115, .	1.1	17
160	Exploration of CdTe quantum dots as mesoscale pressure sensors via time-resolved shock-compression photoluminescent emission spectroscopy. Journal of Applied Physics, 2016, 120, .	1.1	17
161	Temperature dependent libron relaxation in naphthalene. Journal of Chemical Physics, 1984, 80, 1369-1370.	1.2	16
162	Ultra-low threshold laser ablation investigated by time-resolved microscopy. Applied Surface Science, 2002, 197-198, 3-10.	3.1	16

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163	Single Molecules under High Pressure. Journal of Physical Chemistry C, 2015, 119, 6373-6381.	1.5	16
164	Laser-excited optical emission response of CdTe quantum dot/polymer nanocomposite under shock compression. Applied Physics Letters, 2016, 108, .	1.5	16
165	Ultrafast vibrational spectroscopy imaging of nanoshock planar propagation. Shock Waves, 2002, 12, 129-136.	1.0	15
166	Simulation of the absorption spectra of nanometallic Al particles with coreâ€“shell structure: size-dependent interband transitions. Journal of Nanoparticle Research, 2010, 12, 777-787.	0.8	15
167	Shock initiation of nano-Al/Teflon: High dynamic range pyrometry measurements. Journal of Applied Physics, 2017, 121, .	1.1	15
168	Drop hammer with high-speed thermal imaging. Review of Scientific Instruments, 2018, 89, 115104.	0.6	15
169	Dynamics of molecular crystal vibrations. Topics in Applied Physics, 1989, , 167-200.	0.4	14
170	MULTI-PHONON UP-PUMPING IN ENERGETIC MATERIALS. Advanced Series in Physical Chemistry, 2005, , 303-333.	1.5	14
171	Shock compression dynamics under a microscope. AIP Conference Proceedings, 2017, , .	0.3	14
172	Picosecond vibrational cooling in mixed molecular crystals studied with a new coherent raman scattering technique. Chemical Physics Letters, 1988, 147, 18-24.	1.2	13
173	Ultrafast Proton Transfer in Polymer Blends Triggered by Shock Waves. Journal of the American Chemical Society, 2017, 139, 3974-3977.	6.6	13
174	Shock-induced kinetics and cellular structures of liquid nitromethane detonation. Combustion and Flame, 2021, 225, 5-12.	2.8	13
175	Ultrafast emission spectroscopy of exploding nanoaluminum in Teflon: Observations of aluminum fluoride. Chemical Physics Letters, 2011, 512, 211-216.	1.2	12
176	Three-Dimensional Spectroscopy of Vibrational Energy in Liquids: Nitromethane and Acetonitrile. Journal of Physical Chemistry B, 2013, 117, 15444-15451.	1.2	12
177	Mechanochemistry for shock wave energy dissipation. AIP Conference Proceedings, 2017, , .	0.3	12
178	Thermal Explosions of Polymer-Bonded Explosives with High Time and Space Resolution. Journal of Physical Chemistry C, 2018, 122, 14289-14295.	1.5	12
179	Hot Spot Chemistry in Several Polymerâ€Bound Explosives under Nanosecond Shock Conditions. Propellants, Explosives, Pyrotechnics, 2020, 45, 338-346.	1.0	12
180	Hot spot ignition and growth from tandem micro-scale simulations and experiments on plastic-bonded explosives. Journal of Applied Physics, 2022, 131, .	1.1	12

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181	Time-resolved three-color coherent Raman scattering applied to polycrystalline and opaque solids. Journal of the Optical Society of America B: Optical Physics, 1991, 8, 813.	0.9	11
182	Sum-Frequency Spectroscopy of Molecular Adsorbates on Low-Index Ag Surfaces: Effects of Azimuthal Rotation. Analytical Chemistry, 2009, 81, 1154-1161.	3.2	11
183	A thin-film hugoniot measurement using a laser-driven flyer plate. AIP Conference Proceedings, 2012, , .	0.3	11
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