## Keith A Nelson

## List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/1343204/publications.pdf

Version: 2024-02-01

252 papers

16,831 citations

64 h-index 123 g-index

255 all docs

255 docs citations

255 times ranked 11545 citing authors

#	Article	IF	CITATIONS
1	Tin and zinc microparticle impacts above the critical adhesion velocity. Surface and Coatings Technology, 2022, 432, 128053.	2.2	2
2	Observation of second sound in graphite over 200 K. Nature Communications, 2022, 13, 285.	5.8	36
3	Terahertz Field-Induced Reemergence of Quenched Photoluminescence in Quantum Dots. Nano Letters, 2022, , .	4.5	O
4	Direct Observation of Coherent Longitudinal and Shear Acoustic Phonons in TaAs Using Ultrafast X-Ray Diffraction. Physical Review Letters, 2022, 128, 155301.	2.9	7
5	Nonlinear Optical Absorption in Nanoscale Films Revealed through Ultrafast Acoustics. Nano Letters, 2022, 22, 4362-4367.	4.5	4
6	Nanotwinning-assisted dynamic recrystallization at high strains and strain rates. Nature Materials, 2022, 21, 786-794.	13.3	46
7	Site-specific study of jetting, bonding, and local deformation during high-velocity metallic microparticle impact. Acta Materialia, 2021, 202, 159-169.	3.8	35
8	Imaging of photoacoustic-mediated permeabilization of giant unilamellar vesicles (GUVs). Scientific Reports, 2021, 11, 2775.	1.6	10
9	Nanoscale Transient Magnetization Gratings Created and Probed by Femtosecond Extreme Ultraviolet Pulses. Nano Letters, 2021, 21, 2905-2911.	4.5	16
10	Enantioselective orientation of chiral molecules induced by terahertz pulses with twisted polarization. Physical Review Research, 2021, 3, .	1.3	19
11	High-velocity micro-projectile impact testing. Applied Physics Reviews, 2021, 8, .	5.5	46
12	Hard X-ray transient grating spectroscopy on bismuth germanate. Nature Photonics, 2021, 15, 499-503.	15.6	31
13	Modelling of micro-particles perforations into human tissue surrogate: Numerical and analytical aspects. Extreme Mechanics Letters, 2021, 45, 101299.	2.0	2
14	Supersonic impact resilience of nanoarchitected carbon. Nature Materials, 2021, 20, 1491-1497.	13.3	73
15	Generating THz fields and Delivering Them to Samples for Maximum Effect. , 2021, , .		0
16	Generation and detection of 50 GHz surface acoustic waves by extreme ultraviolet pulses. Applied Physics Letters, 2021, 119, .	1.5	15
17	The effect of substrate temperature on the critical velocity in microparticle impact bonding. Applied Physics Letters, 2021, 119, .	1.5	10
18	Nonlinear rotational spectroscopy reveals many-body interactions in water molecules. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	9

#	Article	IF	Citations
19	Radiative contribution to thermal grating decay. Journal of Applied Physics, 2021, 130, 205103.	1.1	1
20	All-optical fluorescence blinking control in quantum dots with ultrafast mid-infrared pulses. Nature Nanotechnology, 2021, 16, 1355-1361.	15.6	21
21	Green's functions of the Boltzmann transport equation with the full scattering matrix for phonon nanoscale transport beyond the relaxation-time approximation. Physical Review B, 2021, 104, .	1.1	10
22	Material hardness at strain rates beyond 106 sâ^'1 via high velocity microparticle impact indentation. Scripta Materialia, 2020, 177, 198-202.	2.6	44
23	Laser-driven high-velocity microparticle launcher in atmosphere and under vacuum. International Journal of Impact Engineering, 2020, 137, 103465.	2.4	16
24	Cleavable comonomers enable degradable, recyclable thermoset plastics. Nature, 2020, 583, 542-547.	13.7	253
25	Pressure-Thresholded Response in Cylindrically Shocked Cyclotrimethylene Trinitramine (RDX). Journal of Physical Chemistry A, 2020, 124, 3301-3313.	1.1	7
26	Interferometric and fluorescence analysis of shock wave effects on cell membrane. Communications Physics, 2020, 3, .	2.0	7
27	Direct observation of large electron–phonon interaction effect on phonon heat transport. Nature Communications, 2020, 11, 6040.	5.8	41
28	$\mbox{\ensuremath{\mbox{\scriptsize (i)}}}$ In situ $\mbox{\ensuremath{\mbox{\scriptsize (i)}}}$ observations of jetting in the divergent rebound regime for high-velocity metallic microparticle impact. Applied Physics Letters, 2020, 117, .	1.5	9
29	High-Strain-Rate Behavior of a Viscoelastic Gel Under High-Velocity Microparticle Impact. Experimental Mechanics, 2020, 60, 1179-1186.	1.1	11
30	Multi-frame interferometric imaging with a femtosecond stroboscopic pulse train for observing irreversible phenomena. Review of Scientific Instruments, 2020, 91, 033711.	0.6	5
31	Particle size effects in metallic microparticle impact-bonding. Acta Materialia, 2020, 194, 40-48.	3.8	42
32	Room Temperature Terahertz Electroabsorption Modulation by Excitons in Monolayer Transition Metal Dichalcogenides. Nano Letters, 2020, 20, 5214-5220.	4.5	14
33	Surface oxide and hydroxide effects on aluminum microparticle impact bonding. Acta Materialia, 2020, 197, 28-39.	3.8	32
34	Crystalline-like ordering of 8CB liquid crystals revealed by time-domain Brillouin scattering. Journal of Chemical Physics, 2020, 152, 014202.	1.2	9
35	xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mrow><mml:msup><mml:mrow><mml:mi>Na</mml:mi></mml:mrow><mml:mrow><mm <mml:math <br="" xmlns:mml="http://www.w3.org/1998/Math/MathML">display="inline"&gt;<mml:mrow><mml:mi>i²</mml:mi></mml:mrow></mml:math> -Alumina Driven by</mm </mml:mrow></mml:msup></mml:mrow>	nl:mo>+ 1<br 2.9	nml:mo>
36	Single-Cycle Terahertz Pulses, Physical Review Letters, 2020, 124, 147401. Thermal transport exceeding bulk heat conduction due to nonthermal micro/nanoscale phonon populations. Applied Physics Letters, 2020, 116, .	1.5	7

3

#	Article	IF	Citations
37	Microparticle impact-bonding modes for mismatched metals: From co-deformation to splatting and penetration. Acta Materialia, 2020, 199, 480-494.	3.8	31
38	Effect of optically induced potential on the energy of trapped exciton polaritons below the condensation threshold. Physical Review B, 2019, $100$ , .	1.1	15
39	Terahertz-Driven Stark Spectroscopy of CdSe and CdSe–CdS Core–Shell Quantum Dots. Nano Letters, 2019, 19, 8125-8131.	4.5	15
40	Nanoscale transient gratings excited and probed by extreme ultraviolet femtosecond pulses. Science Advances, 2019, 5, eaaw5805.	4.7	54
41	Long mean free paths of room-temperature THz acoustic phonons in a high thermal conductivity material. Physical Review B, 2019, 100, .	1.1	20
42	Molecular dependencies of dynamic stiffening and strengthening through high strain rate microparticle impact of polyurethane and polyurea elastomers. Applied Physics Letters, 2019, 115, .	1.5	27
43	THz-frequency magnon-phonon-polaritons in the collective strong-coupling regime. Journal of Applied Physics, 2019, 125, .	1.1	35
44	Terahertz field–induced ferroelectricity in quantum paraelectric SrTiO <sub>3</sub> . Science, 2019, 364, 1079-1082.	6.0	282
45	Single-Shot Multi-Frame Imaging of Cylindrical Shock Waves in a Multi-Layered Assembly. Scientific Reports, 2019, 9, 3689.	1.6	7
46	Observation of second sound in graphite at temperatures above 100 K. Science, 2019, 364, 375-379.	6.0	160
47	Dynamics of a Persistent Insulator-to-Metal Transition in Strained Manganite Films. Physical Review Letters, 2019, 123, 267201.	2.9	16
48	Response to Comment on "Adiabatic shear instability is not necessary for adhesion in cold spray― Scripta Materialia, 2019, 162, 515-519.	2.6	54
49	Impact-bonding with aluminum, silver, and gold microparticles: Toward understanding the role of native oxide layer. Applied Surface Science, 2019, 476, 528-532.	3.1	60
50	Two-Dimensional Spectroscopy at Terahertz Frequencies. Topics in Current Chemistry Collections, 2019, , 275-320.	0.2	5
51	Propagation of THz acoustic wave packets in GaN at room temperature. Applied Physics Letters, 2018, 112, .	1.5	10
52	Two-Dimensional Spectroscopy at Terahertz Frequencies. Topics in Current Chemistry, 2018, 376, 6.	3.0	22
53	Stable switching among high-order modes in polariton condensates. Physical Review B, 2018, 97, .	1.1	32
54	Observation of bulk Fermi arc and polarization half charge from paired exceptional points. Science, 2018, 359, 1009-1012.	6.0	438

#	Article	IF	CITATIONS
55	Efficient two-stage dual-beam noncollinear optical parametric amplifier. Applied Physics B: Lasers and Optics, 2018, 124, 1.	1.1	3
56	In-situ observations of single micro-particle impact bonding. Scripta Materialia, 2018, 145, 9-13.	2.6	162
57	Generation of coherent phonons by coherent extreme ultraviolet radiation in a transient grating experiment. Applied Physics Letters, $2018,113,.$	1.5	28
58	Melt-driven erosion in microparticle impact. Nature Communications, 2018, 9, 5077.	5 <b>.</b> 8	71
59	Thermal conductivity in self-assembled CoFe2O4/BiFeO3 vertical nanocomposite films. Applied Physics Letters, 2018, 113, .	1.5	5
60	Real-Time Observation of a Coherent Lattice Transformation into a High-Symmetry Phase. Physical Review X, 2018, 8, .	2.8	19
61	Single-bubble and multibubble cavitation in water triggered by laser-driven focusing shock waves. Physical Review E, 2018, 97, 053112.	0.8	19
62	Ultrafast terahertz field control of electronic and structural interactions in vanadium dioxide. Physical Review B, 2018, 98, .	1.1	49
63	Adiabatic shear instability is not necessary for adhesion in cold spray. Acta Materialia, 2018, 158, 430-439.	3.8	213
64	Long-lived photoinduced response observed under extreme photoexcitation densities in a one-dimensional Peierls insulator. Physical Review B, 2018, 98, .	1.1	2
65	High-velocity micro-particle impact on gelatin and synthetic hydrogel. Journal of the Mechanical Behavior of Biomedical Materials, 2018, 86, 71-76.	1.5	31
66	Gas-pressure chemical vapor transport growth of millimeter-sized c-BAs single crystals with moderate thermal conductivity. Applied Physics Letters, 2018, 112, .	1.5	14
67	Bose-Einstein Condensation of Long-Lifetime Polaritons in Thermal Equilibrium. Physical Review Letters, 2017, 118, 016602.	2.9	162
68	Rapid and precise determination of zero-field splittings by terahertz time-domain electron paramagnetic resonance spectroscopy. Chemical Science, 2017, 8, 7312-7323.	3.7	20
69	Benzothiazolium Single Crystals: A New Class of Nonlinear Optical Crystals with Efficient THz Wave Generation. Advanced Materials, 2017, 29, 1701748.	11.1	64
70	Melting Can Hinder Impact-Induced Adhesion. Physical Review Letters, 2017, 119, 175701.	2.9	64
71	Machine learning to analyze images of shocked materials for precise and accurate measurements. Journal of Applied Physics, 2017, 122, 104902.	1.1	4
72	Acoustical breakdown of materials by focusing of laser-generated Rayleigh surface waves. Applied Physics Letters, 2017, 111, .	1.5	12

#	Article	IF	Citations
73	Vibrational dynamics of a two-dimensional microgranular crystal. Physical Review B, 2017, 96, .	1.1	17
74	Time-domain Brillouin scattering for the determination of laser-induced temperature gradients in liquids. Review of Scientific Instruments, 2017, 88, 074904.	0.6	15
75	Toward broadband mechanical spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8710-8715.	3.3	26
76	Optical Crystals: Benzothiazolium Single Crystals: A New Class of Nonlinear Optical Crystals with Efficient THz Wave Generation (Adv. Mater. 30/2017). Advanced Materials, 2017, 29, .	11.1	1
77	Terahertz-Driven Luminescence and Colossal Stark Effect in CdSe–CdS Colloidal Quantum Dots. Nano Letters, 2017, 17, 5375-5380.	4.5	53
78	Direct measurement of polariton–polariton interaction strength. Nature Physics, 2017, 13, 870-875.	6.5	77
79	Molecular influence in high-strain-rate microparticle impact response of poly(urethane urea) elastomers. Polymer, 2017, 123, 30-38.	1.8	37
80	Coherent Two-Dimensional Terahertz Magnetic Resonance Spectroscopy of Collective Spin Waves. Physical Review Letters, 2017, 118, 207204.	2.9	106
81	Notice of Removal: Generation of acoustic waves by an extreme ultra violet free electron laser in a transient grating experiment., 2017,,.		0
82	Unifying first-principles theoretical predictions and experimental measurements of size effects in thermal transport in SiGe alloys. Physical Review Materials, $2017, 1, \ldots$	0.9	15
83	Cooperative photoinduced metastable phase control in strained manganite films. Nature Materials, 2016, 15, 956-960.	13.3	118
84	Dynamics of supersonic microparticle impact on elastomers revealed by real–time multi–frame imaging. Scientific Reports, 2016, 6, 25577.	1.6	68
85	Thermal transport in suspended silicon membranes measured by laser-induced transient gratings. AIP Advances, 2016, 6, .	0.6	40
86	Bridging the gap to mesoscale radiation materials science with transient grating spectroscopy. Physical Review B, 2016, 94, .	1.1	26
87	Variational approach to extracting the phonon mean free path distribution from the spectral Boltzmann transport equation. Physical Review B, 2016, 93, .	1.1	22
88	Nonlinear two-dimensional terahertz photon echo and rotational spectroscopy in the gas phase. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11800-11805.	3.3	81
89	Photo-excited charge carriers suppress sub-terahertz phonon mode in silicon at room temperature. Nature Communications, 2016, 7, 13174.	5.8	47
90	Interferometric analysis of laser-driven cylindrically focusing shock waves in a thin liquid layer. Scientific Reports, 2016, 6, 24.	1.6	30

#	Article	IF	Citations
91	How two-dimensional brick layer J-aggregates differ from linear ones: Excitonic properties and line broadening mechanisms. Journal of Chemical Physics, 2016, 144, 134310.	1.2	12
92	Non-Contact Measurement of Thermal Diffusivity in Ion-Implanted Nuclear Materials. Scientific Reports, 2015, 5, 16042.	1.6	78
93	Measuring Phonon Mean Free Path Distributions by Probing Quasiballistic Phonon Transport in Grating Nanostructures. Scientific Reports, 2015, 5, 17131.	1.6	107
94	Laser-induced transient grating setup with continuously tunable period. Review of Scientific Instruments, 2015, 86, 123101.	0.6	23
95	Extended two-temperature model for ultrafast thermal response of band gap materials upon impulsive optical excitation. Journal of Chemical Physics, 2015, 143, 194705.	1.2	30
96	Nonlinear Acoustics at GHz Frequencies in a Viscoelastic Fragile Glass Former. Physical Review Letters, 2015, 114, 065701.	2.9	20
97	Reconstructing phonon mean-free-path contributions to thermal conductivity using nanoscale membranes. Physical Review B, 2015, 91, .	1.1	111
98	The homogenization limit and waveguide gradient index devices demonstrated through direct visualization of THz fields. New Journal of Physics, 2015, 17, 013013.	1.2	3
99	Invited Article: Single-shot THz detection techniques optimized for multidimensional THz spectroscopy. Review of Scientific Instruments, 2015, 86, 051301.	0.6	82
100	Applications of Transient Grating Spectroscopy to Radiation Materials Science. Jom, 2015, 67, 1840-1848.	0.9	18
101	Laser-induced versus shock wave induced transformation of highly ordered pyrolytic graphite. Applied Physics Letters, 2015, 106, .	1.5	20
102	Lifetime of high-order thickness resonances of thin silicon membranes. Ultrasonics, 2015, 56, 116-121.	2.1	13
103	A review of non-linear terahertz spectroscopy with ultrashort tabletop-laser pulses. Journal of Modern Optics, 2015, 62, 1447-1479.	0.6	119
104	Examining thermal transport through a frequency-domain representation of time-domain thermoreflectance data. Review of Scientific Instruments, 2014, 85, 124903.	0.6	31
105	Dual echelon femtosecond single-shot spectroscopy. Review of Scientific Instruments, 2014, 85, 083115.	0.6	40
106	Chemically assisted femtosecond laser machining for applications in LiNbO3 and LiTaO3. Applied Physics A: Materials Science and Processing, 2013, 112, 615-622.	1.1	25
107	Resonant and nonresonant control over matter and light by intense terahertz transients. Nature Photonics, 2013, 7, 680-690.	15.6	803
108	High-Resolution, Low-Noise Imaging in THz Polaritonics. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 239-247.	2.0	11

#	Article	IF	Citations
109	Interaction of a Contact Resonance of Microspheres with Surface Acoustic Waves. Physical Review Letters, 2013, 111, 036103.	2.9	116
110	Direct Measurement of Room-Temperature Nondiffusive Thermal Transport Over Micron Distances in a Silicon Membrane. Physical Review Letters, 2013, 110, 025901.	2.9	330
111	Mechanical spectra of glass-forming liquids. II. Gigahertz-frequency longitudinal and shear acoustic dynamics in glycerol and DC704 studied by time-domain Brillouin scattering. Journal of Chemical Physics, 2013, 138, 12A544.	1.2	54
112	Nonlinear Terahertz Metamaterials via Field-Enhanced Carrier Dynamics in GaAs. Physical Review Letters, 2013, 110, 217404.	2.9	105
113	Lifetime of sub-THz coherent acoustic phonons in a GaAs-AlAs superlattice. Applied Physics Letters, 2013, 102, .	1.5	41
114	Mechanical spectra of glass-forming liquids. I. Low-frequency bulk and shear moduli of DC704 and 5-PPE measured by piezoceramic transducers. Journal of Chemical Physics, 2013, 138, 12A543.	1.2	39
115	Non-diffusive relaxation of a transient thermal grating analyzed with the Boltzmann transport equation. Journal of Applied Physics, 2013, 114, 104302.	1.1	58
116	Measurement of shorter-than-skin-depth acoustic pulses in a metal film via transient reflectivity. Applied Physics Letters, 2013, 103, .	1.5	15
117	α-Scale decoupling of the mechanical relaxation and diverging shear wave propagation length scale in triphenylphosphite. Journal of Chemical Physics, 2012, 136, 174509.	1.2	9
118	Time-resolved imaging of near-fields in THz antennas and direct quantitative measurement of field enhancements. Optics Express, 2012, 20, 8551.	1.7	55
119	Optical generation and detection of gigahertz-frequency longitudinal and shear acoustic waves in liquids: Theory and experiment. Journal of Applied Physics, 2012, 112, .	1.1	25
120	Commensurate Two-Quantum Coherences Induced by Time-Delayed THz Fields. Physical Review Letters, 2012, 109, 123603.	2.9	69
121	Phase-controlled, heterodyne laser-induced transient grating measurements of thermal transport properties in opaque material. Journal of Applied Physics, 2012, 111, .	1.1	82
122	High strain rate deformation of layered nanocomposites. Nature Communications, 2012, 3, 1164.	5.8	153
123	Persistent exciton-type many-body interactions in GaAs quantum wells measured using two-dimensional optical spectroscopy. Physical Review B, 2012, 85, .	1.1	44
124	Terahertz-field-induced insulator-to-metal transition in vanadium dioxide metamaterial. Nature, 2012, 487, 345-348.	13.7	1,046
125	Thermal Conductivity Spectroscopy Technique to Measure Phonon Mean Free Paths. Physical Review Letters, 2011, 107, 095901.	2.9	438
126	Molecular Orientation and Alignment by Intense Single-Cycle THz Pulses. Physical Review Letters, 2011, 107, 163603.	2.9	261

#	Article	IF	CITATIONS
127	Onset of nondiffusive phonon transport in transient thermal grating decay. Physical Review B, 2011, 84, .	1.1	85
128	Generation of high power tunable multicycle teraherz pulses. Applied Physics Letters, 2011, 99, .	1.5	86
129	Non-equilibrium transient thermal grating relaxation in metal. Journal of Applied Physics, 2011, 109, 073517.	1.1	9
130	Direct Visualization of Laser-Driven Focusing Shock Waves. Physical Review Letters, 2011, 106, 214503.	2.9	52
131	Narrow-band acoustic attenuation measurements in vitreous silica at frequencies between 20 and 400 GHz. Applied Physics Letters, 2011, 98, .	1.5	42
132	Photoacoustic determination of the speed of sound in single crystal cyclotrimethylene trinitramine at acoustic frequencies from 0.5 to 15 GHz. Journal of Applied Physics, 2011, 110, 113513.	1.1	10
133	Experimental Evidence of Non-Diffusive Thermal Transport in Si and GaAs. Materials Research Society Symposia Proceedings, 2011, 1347, 1.	0.1	11
134	Coherent phase contrast imaging of THz phonon–polariton tunneling. Applied Physics B: Lasers and Optics, 2010, 99, 433-439.	1.1	3
135	Coherent measurements of high-order electronic correlations in quantum wells. Nature, 2010, 466, 1089-1092.	13.7	161
136	Quasi-ballistic thermal transport from nanoscale interfaces observed using ultrafast coherent soft X-ray beams. Nature Materials, 2010, 9, 26-30.	13.3	378
137	Studies of Perovskite Materials for High-Performance Storage Media, Piezoelectric, and Solar Energy Conversion Devices. , 2010, , .		3
138	Experimental and theoretical analysis of THz-frequency, direction-dependent, phonon polariton modes in a subwavelength, anisotropic slab waveguide. Optics Express, 2010, 18, 26351.	1.7	34
139	Terahertz Kerr effect. Applied Physics Letters, 2009, 95, .	1.5	132
140	Collective Coherent Control: Synchronization of Polarization in Ferroelectric <mml:math display="inline" xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>PbTiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math> by Shaped THz Fields. Physical Review Letters, 2009, 102, 247603.	2.9	124
141	High-frequency surface acoustic wave propagation in nanostructures characterized by coherent extreme ultraviolet beams. Applied Physics Letters, 2009, 94, .	1.5	56
142	Generation of multicycle terahertz phonon-polariton waves in a planar waveguide by tilted optical pulse fronts. Applied Physics Letters, 2009, 95, 103304.	1.5	43
143	Optical Generation of Gigahertz-Frequency Shear Acoustic Waves in Liquid Glycerol. Physical Review Letters, 2009, 102, 107402.	2.9	86
144	Two-Quantum 2D FT Electronic Spectroscopy of Biexcitons in GaAs Quantum Wells. Science, 2009, 324, 1169-1173.	6.0	262

#	Article	IF	Citations
145	Three-dimensional electronic spectroscopy of excitons in GaAs quantum wells. Journal of Chemical Physics, 2009, 131, 144510.	1.2	73
146	Impact ionization in InSb probed by terahertz pumpâ€"terahertz probe spectroscopy. Physical Review B, 2009, 79, .	1.1	194
147	Terahertz reflection response measurement using a phonon polariton wave. Journal of Applied Physics, 2009, 105, 054902.	1.1	11
148	Fiber laser pumped high average power single-cycle terahertz pulse source. Applied Physics Letters, 2008, 93, .	1.5	41
149	Generation of high-power terahertz pulses by tilted-pulse-front excitation and their application possibilities. Journal of the Optical Society of America B: Optical Physics, 2008, 25, B6.	0.9	486
150	Photoacoustic measurements to determine acoustic velocities in shocked condensed materials: Application to liquid benzene. Applied Physics Letters, 2008, 92, 101926.	1.5	3
151	Generation and detection of tunable phonon polaritons using a single transmission grating. Applied Physics Letters, 2008, 92, .	1.5	7
152	Second-order elastic constants of pentaerythritol tetranitrate and cyclotrimethylene trinitramine using impulsive stimulated thermal scattering. Journal of Applied Physics, 2008, 104, .	1.1	50
153	Impact ionization in InSb studied by THz-pump-THz probe spectroscopy. , 2008, , .		1
154	Picosecond photoexcitation of acoustic waves in locally canted gold films. Applied Physics Letters, 2008, 92, .	1.5	18
155	Thermal conductivity of nanoparticle suspensions in insulating media measured with a transient optical grating and a hotwire. Journal of Applied Physics, 2008, 103, 083529.	1.1	23
156	Phonon polariton generation and detection using near-field heterodyne transient grating method. Applied Physics Letters, 2007, 90, 171117.	1.5	5
157	TERAHERTZ POLARITONICS: HIGH POWER THZ SIGNAL GENERATION IN FERROELECTRIC CRYSTALS. Integrated Ferroelectrics, 2007, 92, 87-94.	0.3	0
158	Femtosecond Coherent Spectroscopy. Advances in Chemical Physics, 2007, , 1-35.	0.3	31
159	Ultrafast extreme ultraviolet holography: dynamic monitoring of surface deformation. Optics Letters, 2007, 32, 286.	1.7	80
160	Terahertz Polaritonics. Annual Review of Materials Research, 2007, 37, 317-350.	4.3	147
161	Generation of $10\hat{1}/4$ J ultrashort terahertz pulses by optical rectification. Applied Physics Letters, 2007, 90, 171121.	1.5	525
162	Transient grating measurement of surface acoustic waves in thin metal films with extreme ultraviolet radiation. Applied Physics Letters, 2006, 89, 091108.	1.5	36

#	Article	IF	CITATIONS
163	Shear properties of glycerol by interface wave laser ultrasonics. Journal of Applied Physics, 2006, 99, 013511.	1.1	24
164	Terahertz polaritonics: High-field THz coherent control and spectroscopy. , 2006, , .		0
165	Finite-difference time-domain (FDTD) simulations of electromagnetic wave propagation using a spreadsheet. Computer Applications in Engineering Education, 2005, 13, 213-221.	2.2	6
166	Generation of ultrahigh-frequency tunable acoustic waves. Applied Physics Letters, 2005, 87, 081907.	1.5	25
167	On the physical origins of the negative index of refraction. New Journal of Physics, 2005, 7, 213-213.	1.2	21
168	Phase mask based interferometer: Operation principle, performance, and application to thermoelastic phenomena. Review of Scientific Instruments, 2004, 75, 2906-2920.	0.6	15
169	Nanoscale photothermal and photoacoustic transients probedwith extreme ultraviolet radiation. Applied Physics Letters, 2004, 85, 564-566.	1.5	27
170	Spatiotemporal Coherent Control of Lattice Vibrational Waves. Science, 2003, 299, 374-377.	6.0	236
171	Integrated diffractive terahertz elements. Applied Physics Letters, 2003, 82, 674-676.	1.5	37
172	Phase Transition Dynamics Studied by Coherent Phonon Excitation with Ultrashort Laser Pulses. Ferroelectrics, 2003, 284, 3-13.	0.3	0
173	Heterodyned impulsive stimulated Raman scattering of phonon–polaritons in LiTaO3 and LiNbO3. Journal of Chemical Physics, 2002, 117, 2882-2896.	1.2	65
174	Initial Process of the Ferroelectric B 2 Soft Mode of KDP Studied by the Impulsive Stimulated Raman Scattering with Heterodyne Detection. Ferroelectrics, 2002, 272, 57-62.	0.3	1
175	Thermal, structural, and orientational relaxation of supercooled salol studied by polarization-dependent impulsive stimulated scattering. Journal of Chemical Physics, 2002, 116, 3384-3395.	1.2	45
176	Direct visualization of phonon-polariton focusing and amplitude enhancement. Journal of Chemical Physics, 2002, 117, 2897-2901.	1.2	14
177	PHONON-POLARITONS: CONTROLLED PROPAGATION AND AMPLIFICATION., 2002,,.		0
178	Coherent optical control over collective vibrations traveling at lightlike speeds. Journal of Chemical Physics, 2001, 114, 1443-1446.	1.2	43
179	Impulsive stimulated thermal scattering study of structural relaxation in supercooled glycerol. Journal of Chemical Physics, 2000, 112, 6725-6732.	1.2	44
180	Optical Generation and Characterization of Acoustic Waves in Thin Films: Fundamentals and Applications. Annual Review of Materials Research, 2000, 30, 117-157.	5 <b>.</b> 5	241

#	Article	IF	CITATIONS
181	Transient grating measurements of picosecond acoustic pulses in metal films. Applied Physics Letters, 1999, 74, 1344-1346.	1.5	52
182	Anharmonic phonon-polariton excitation through impulsive stimulated Raman scattering and detection through wave vector overtone spectroscopy: Theory and comparison to experiments on lithium tantalate. Journal of Chemical Physics, 1999, 111, 3559-3571.	1.2	25
183	Surface acoustic modes in thin films on anisotropic substrates. Journal of Applied Physics, 1999, 86, 2818-2824.	1.1	39
184	ULTRAFAST X-RAY DIFFRACTION: Watching Matter Rearrange. Science, 1999, 286, 1310-1311.	6.0	8
185	Real-space polariton wave packet imaging. Journal of Chemical Physics, 1999, 110, 1317-1320.	1.2	48
186	Direct Visualization of Collective Wavepacket Dynamics. Journal of Physical Chemistry A, 1999, 103, 10260-10267.	1.1	60
187	Optical control over two-dimensional lattice vibrational trajectories in crystalline quartz. Journal of Chemical Physics, 1998, 108, 10248-10255.	1.2	41
188	Optical heterodyne detection of laser-induced gratings. Optics Letters, 1998, 23, 1319.	1.7	264
189	High-precision film thickness determination using a laser-based ultrasonic technique. Applied Physics Letters, 1998, 73, 169-171.	1.5	41
190	Optical system for rapid materials characterization with the transient grating technique: Application to nondestructive evaluation of thin films used in microelectronics. Applied Physics Letters, 1997, 71, 225-227.	1.5	73
191	Simulation of time-resolved wavevector overtone spectroscopy of anharmonic phonon-polaritons in ferroelectrics. Ferroelectrics, 1997, 194, 55-67.	0.3	2
192	Direct time-resolved measurement of anharmonic lattice vibrations in ferroelectric crystals. Journal of Chemical Physics, 1997, 107, 9691-9694.	1.2	42
193	Structural Relaxation of Supercooled Liquids from Impulsive Stimulated Light Scattering. ACS Symposium Series, 1997, , 181-198.	0.5	1
194	A Brief Introduction to Supercooled Liquids. ACS Symposium Series, 1997, , 2-12.	0.5	1
195	Nondestructive Optical Characterization of Radiationhardened Polyimide Films. Materials Research Society Symposia Proceedings, 1996, 439, 659.	0.1	0
196	Microelectronic Film Thickness Determination Using a Laserbased Ultrasonic Technique. Materials Research Society Symposia Proceedings, 1996, 440, 347.	0.1	1
197	Impulsive stimulated thermal scattering studies of thermally induced cure in thin films of PMDA/ODA. Journal of Polymer Science, Part B: Polymer Physics, 1996, 34, 861-872.	2.4	9
198	Impulsive stimulated thermal scattering study of α relaxation dynamics and the Debye–Waller factor anomaly in Ca0.4K0.6(NO3)1.4. Journal of Chemical Physics, 1996, 104, 5429-5436.	1.2	27

#	Article	IF	Citations
199	Relaxational Dynamics and Strength in Supercooled Liquids from Impulsive Stimulated Thermal Scattering. Materials Research Society Symposia Proceedings, 1995, 407, 145.	0.1	1
200	Impulsive stimulated light scattered from glassâ€forming liquids. II. Salol relaxation dynamics, nonergodicity parameter, and testing of mode coupling theory. Journal of Chemical Physics, 1995, 103, 7732-7739.	1.2	57
201	Automated multidimensional coherent optical spectroscopy with multiple phaseâ€related femtosecond pulses. Journal of Chemical Physics, 1995, 102, 9133-9136.	1.2	33
202	Theory of nonlinear optical experiments with harmonic oscillators. Journal of Chemical Physics, 1995, 103, 4393-4407.	1.2	65
203	Moduli determination in polyimide film bilayer systems: Prospects for depth profiling using impulsive stimulated thermal scattering. Journal of Applied Physics, 1995, 77, 4431-4444.	1.1	16
204	Single-Pulse and multiple-pulse femtosecond spectroscopy of ferroelectric materials. Ferroelectrics, 1995, 164, 1-13.	0.3	7
205	Examination of order-disorder and soft modes in perovskite ferroelectrics by impulsive stimulated Raman scattering. Ferroelectrics, 1995, 164, 253-264.	0.3	7
206	Optical measurement of the elastic moduli and thermal diffusivity of a C–N film. Journal of Materials Research, 1995, 10, 41-48.	1.2	34
207	Dis-Bond Detection and the Possibility of Interfacial Stiffness Measurement with Real-Time Impulsive Stimulated Thermal Scattering. Journal of Adhesion, 1995, 50, 1-24.	1.8	14
208	Impulsive stimulated light scattering from glassâ€forming liquids. I. Generalized hydrodynamics approach. Journal of Chemical Physics, 1995, 103, 7722-7731.	1.2	59
209	Testing of mode-coupling theory through impulsive stimulated thermal scattering. Transport Theory and Statistical Physics, 1995, 24, 1053-1073.	0.4	8
210	Study of Lamb acoustic waveguide modes in unsupported polyimide thin films using realâ€time impulsive stimulated thermal scattering. Journal of Applied Physics, 1994, 75, 1534-1556.	1.1	73
211	Realâ€time probing of twoâ€photon absorption with phase related pulses. Journal of Chemical Physics, 1994, 100, 6160-6165.	1.2	11
212	Noncontact determination of transverse isotropic elastic moduli in polyimide thin films using a laser based ultrasonic method. Applied Physics Letters, 1994, 65, 312-314.	1.5	53
213	Time-resolved vibrational spectroscopy in the impulsive limit. Chemical Reviews, 1994, 94, 157-193.	23.0	455
214	Real-Time Thermo-Mechanical and Adhesive Property Evaluation of Thin Films and Multi-Layers. Materials Research Society Symposia Proceedings, 1994, 338, 553.	0.1	1
215	Impulsive stimulated scattering spectroscopy of surface acoustic waves. Ferroelectrics, 1994, 151, 275-280.	0.3	4
216	Anomalous polariton dynamics in LiTaO3 polariton dynamics in LiTaO3. Ferroelectrics, 1993, 150, 103-118.	0.3	10

#	Article	IF	CITATIONS
217	Femtosecond impulsive stimulated Raman scattering studies of LiTaO <sub>3</sub> . Ferroelectrics, 1993, 144, 1-16.	0.3	8
218	Noninvasive Real-Time Evaluation of the Anisotropic Thermal Diffusivity in Thin Polymer Films for Electronics Packaging. Materials Research Society Symposia Proceedings, 1993, 323, 441.	0.1	7
219	Real-Time Thermo-Mechanical Property Evaluation of Thin Films. Materials Research Society Symposia Proceedings, 1993, 324, 317.	0.1	3
220	The liquid–glass transition in LiCl/H2O: Impulsive stimulated light scattering experiments and modeâ€coupling analysis. Journal of Chemical Physics, 1992, 97, 3557-3572.	1.2	28
221	Structural and orientational relaxation in supercooled liquid triphenylphosphite. Journal of Chemical Physics, 1992, 96, 5448-5459.	1.2	27
222	Impulsive stimulated scattering study of the coupled acoustic and soft modes in KD2PO4. Ferroelectrics, 1992, 135, 197-218.	0.3	4
223	Femtosecond Spectroscopy of Ferroelectric Perovskites: Explanation of Anomalous Polariton Dynamics in Lithium Tantalate. Materials Research Society Symposia Proceedings, 1992, 293, 431.	0.1	0
224	Femtosecond Spectroscopy of Chemically Reactive Solids: a Methodology. Materials Research Society Symposia Proceedings, 1992, 296, 129.	0.1	0
225	Non-Contact Real-Time Evaluation of Polyimide Thin Film Thermoelastic Properties Through Impulsive Stimulated Thermal Scattering. Materials Research Society Symposia Proceedings, 1992, 284, 547.	0.1	0
226	Femtosecond Electronic and Nuclear Dynamics in Nonlinear Optical Glasses. Materials Research Society Symposia Proceedings, 1992, 293, 437.	0.1	3
227	Realâ€ŧime optical characterization of surface acoustic modes of polyimide thinâ€film coatings. Journal of Applied Physics, 1992, 72, 2823-2839.	1.1	97
228	Impulsive stimulated Raman scattering experiments in the polariton regime. Journal of the Optical Society of America B: Optical Physics, 1992, 9, 2179.	0.9	96
229	Temperatureâ€dependent molecular dynamics of liquid carbon disulphide: Polarizationâ€selected impulsive stimulated lightâ€scattering data and Kubo line shape analysis. Journal of Chemical Physics, 1991, 94, 859-867.	1.2	70
230	Time-domain soft mode spectroscopy. Ferroelectrics, 1991, 117, 1-9.	0.3	4
231	Picosecond–microsecond structural relaxation dynamics in polypropylene glycol: Impulsive stimulated lightâ€scattering experiments. Journal of Chemical Physics, 1991, 94, 7677-7688.	1.2	64
232	Femtosecond time-resolved spectroscopy of polarization dynamics in KNbO3. Ferroelectrics, 1991, 120, 79-87.	0.3	34
233	Fundamental experiments and new horizons in ferroelectricity. Ferroelectrics, 1991, 120, 1-5.	0.3	2
234	Study of Polymer Electrolyte Dynamics by Impulsive Stimulated Light Scattering. Materials Research Society Symposia Proceedings, 1990, 210, 255.	0.1	0

#	Article	IF	CITATIONS
235	Improved sample cell design for optical studies of glassâ€forming liquids in the 0–530 K range. Review of Scientific Instruments, 1990, 61, 3623-3624.	0.6	14
236	Intermolecular vibration observed in liquid CS2 at high pressure. AIP Conference Proceedings, 1989, , .	0.3	0
237	Ultrasonic and hypersonic properties of molten KNO3–Ca(NO3)2 mixture. Journal of Chemical Physics, 1989, 91, 6052-6061.	1.2	43
238	The temperatureâ€dependent distribution of relaxation times in glycerol: Timeâ€domain light scattering study of acoustic and Mountainâ€mode behavior in the 20 MHz–3 GHz frequency range. Journal of Chemical Physics, 1988, 88, 6477-6486.	1,2	100
239	Molecular dynamics in pure and mixed liquids probed by femtosecond time-resolved impulsive stimulated scattering. AIP Conference Proceedings, 1988, , .	0.3	0
240	Subpicosecond excimer-formation dynamics in organic molecular crystals. AIP Conference Proceedings, 1988, , .	0.3	2
241	Timeâ€resolved observations of coherent molecular vibrational motion and the general occurrence of impulsive stimulated scattering. Journal of Chemical Physics, 1987, 86, 6563-6565.	1.2	161
242	Nonrelaxational inertial motion in carbon disulfide liquid observed by femtosecond time-resolved impulsive stimulated scattering. The Journal of Physical Chemistry, 1987, 91, 2237-2240.	2.9	144
243	Excimer formation in pyrene molecular crystal: Femtosecond dynamics of an oriented bimolecular reaction. Journal of Chemical Physics, 1987, 87, 7346-7347.	1.2	37
244	Impulsive stimulated light scattering. II. Comparison to frequencyâ€domain lightâ€scattering spectroscopy. Journal of Chemical Physics, 1987, 87, 6257-6265.	1,2	173
245	Impulsive stimulated light scattering. I. General theory. Journal of Chemical Physics, 1987, 87, 6240-6256.	1.2	332
246	Preliminary observation of nonrelaxational inertial motion in CS2 liquid by femtosecond time-resolved impulsive stimulated scattering. AIP Conference Proceedings, 1987, , .	0.3	3
247	Impulsive stimulated scattering: General importance in femtosecond laser pulse interactions with matter, and spectroscopic applications. Journal of Chemical Physics, 1985, 83, 5391-5399.	1.2	533
248	Optical generation of tunable ultrasonic waves. Journal of Applied Physics, 1982, 53, 1144-1149.	1,1	221
249	Laserâ€induced excited state and ultrasonic wave gratings: Amplitude and phase grating contributions to diffraction. Journal of Chemical Physics, 1982, 77, 1144-1152.	1.2	191
250	Laser-induced ultrasonics: A daynamic holographic approach to the measurement of weak absorptions, optoelastic constants acoustic attenuation. Chemical Physics, 1982, 72, 371-379.	0.9	88
251	Laser induced phonons: A probe of intermolecular interactions in molecular solids. Journal of Chemical Physics, 1980, 72, 5202-5218.	1.2	147
252	Spin–lattice relaxation in triplet states of isolated molecules and pure crystals in zero field. Journal of Chemical Physics, 1978, 69, 4319-4321.	1.2	12