Kazutaka G Nakamura

List of Publications by Year
in descending order

140	1,960	257450	345221
papers	citations	24 h-index	36 g-index

146	146	146	1507
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Photoinduced Ultrafast Symmetry Switch in SnSe. Journal of Physical Chemistry Letters, 2022, 13, 442-448.	4.6	8
2	Attosecond-Resolved Coherent Control of Lattice Vibrations in Thermoelectric SnSe. Journal of Physical Chemistry Letters, 2022, 13, 2584-2590.	4.6	4
3	Interference of optical phonons in diamond studied using femtosecond pulses of polarized near-infrared light. Solid State Communications, 2022, 350, 114747.	1.9	3
4	Coherent control of optical phonons in GaAs by relative-phase-locked optical pulses under perpendicularly polarized conditions. Solid State Communications, 2021, 327, 114215.	1.9	7
5	Theory for coherent control of longitudinal optical phonons in GaAs using polarized optical pulses with relative phase locking. Physical Review B, 2021, 104, .	3.2	5
6	Coherent control of 40-THz optical phonons in diamond using femtosecond optical pulses. Physical Review B, 2020, 101, .	3.2	11
7	Platinum nanoparticles on HOPG surface modified by 380â€‰keV Ar⁺ irradiation: TEM and Raman studies. Radiation Effects and Defects in Solids, 2020, 175, 433-439.	1.2	2
8	Microstructural deformation process of shock-compressed polycrystalline aluminum. Scientific Reports, 2019, 9, 7604.	3.3	27
9	Ultrafast quantum-path interferometry revealing the generation process of coherent phonons. Physical Review B, 2019, 99, .	3.2	11
10	Coherent Phonons: Experiment. Springer Tracts in Modern Physics, 2019, , 67-79.	0.1	0
11	Raman spectroscopy of Ar+-irradiated graphite surfaces supporting platinum nanoparticles. Nuclear Instruments & Methods in Physics Research B, 2019, 444, 6-9.	1.4	9
12	Coherent Phonons: Quantum Theory. Springer Tracts in Modern Physics, 2019, , 81-114.	0.1	0
13	Coherent Control of Optical Phonons. Springer Tracts in Modern Physics, 2019, , 115-124.	0.1	0
14	Femtosecond study of A1g phonons in the strong 3D topological insulators: From pump-probe to coherent control. Applied Physics Letters, 2018, 112, .	3.3	12
15	Temperature effect on the coupling between coherent longitudinal phonons and plasmons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>n</mml:mi></mml:math> -type and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>p</mml:mi></mml:math> -type GaAs. Physical Review B, 2018, 97, .	3.2	4
16	Coherent control theory and experiment of optical phonons in diamond. Scientific Reports, 2018, 8, 9609.	3.3	22
17	Dynamic Jahn-Teller viewpoint for generation mechanism of asymmetric modes of coherent phonons. Physical Review B, 2017, 95, .	3.2	8
18	High pressure band gap modification of LiCaAlF6. Applied Physics Letters, 2017, 110, .	3.3	15

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19	Structural Dynamics of Materials under Shock Compression Investigated with Synchrotron Radiation. Metals, 2016, 6, 17.	2.3	19
20	Bandgap modulation in photoexcited topological insulator Bi2Te3 via atomic displacements. Journal of Chemical Physics, 2016, 145, 024504.	3.0	20
21	Spectrally resolved detection in transient-reflectivity measurements of coherent optical phonons in diamond. Physical Review B, 2016, 94, .	3.2	22
22	Influence of pulse width and detuning on coherent phonon generation. Physical Review B, 2015, 92, .	3.2	29
23	Measuring quantum coherence in bulk solids using dual phase-locked optical pulses. Scientific Reports, 2015, 4, 4456.	3.3	13
24	Dynamics of all the Raman-active coherent phonons in Sb2Te3 revealed via transient reflectivity. Journal of Applied Physics, 2015, 117, .	2.5	30
25	Ultrafast Phonon Dynamics in Few-quintuple layer Topological Insulator Sb2Te3. , 2014, , .		0
26	Coherent optical phonons in a Bi2Se3 single crystal measured via transient anisotropic reflectivity. Solid State Communications, 2013, 157, 58-61.	1.9	23
27	Transparent graphitic tiles synthesized from carbon nanowalls by shock compression and rapid quenching. Journal of Applied Physics, 2013, 113, .	2.5	2
28	Structural Dynamics of Polycrystals under Shock Compression Observed via Nanosecond Time-resolved X-ray Diffraction. Materials Research Society Symposia Proceedings, 2013, 1528, 1.	0.1	0
29	Complex structural dynamics of bismuth under laser-driven compression. Applied Physics Letters, 2013, 103, .	3.3	21
30	Manipulation of Squeezed Two-Phonon Bound States using Femtosecond Laser Pulses. EPJ Web of Conferences, 2013, 41, 04019.	0.3	0
31	Reversible phase transition in laser-shocked 3Y-TZP ceramics observed via nanosecond time-resolved x-ray diffraction. Journal of Applied Physics, 2012, 111, .	2.5	15
32	Delayed formation of coherent LO phonon-plasmon coupled modes in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>n</mml:mi></mml:math>-and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>p</mml:mi></mml:math>-type GaAs measured using a femtosecond coherent control technique. Physical Review B, 2012, 86, .	3.2	20
33	Observation of coherent higher frequency phonons in Bi2Se3 using femtosecond time-resolved reflection measurement. Solid State Communications, 2012, 152, 902-904.	1.9	6
34	New Method for Projectile Velocity Measurement Using Faraday-Type Electromagnetic Sensor for Hypervelocity Impact Experiments and Detection Efficiency of the Method. Japanese Journal of Applied Physics, 2012, 51, 096601.	1.5	1
35	Optical manipulation of coherent phonons in superconducting YBa2Cu3O7âˆ'Î´ thin films. Faraday Discussions, 2011, 153, 375.	3.2	13
36	Direct observation of two-phonon bound states in ZnTe. Physical Review B, 2011, 84, .	3.2	14

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37	Controlling phonon squeezing and correlation via one- and two-phonon interference. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 4141-4146.	2.1	21
38	Ultrafast zone-center coherent lattice dynamics in ferroelectric lithium tantalate. Science and Technology of Advanced Materials, 2011, 12, 034409.	6.1	2
39	Coherent Optical Phonons in the Iron Oxypnictide SmFeAsO1-xFx(x=0.075). Journal of the Physical Society of Japan, 2011, 80, 013707.	1.6	15
40	Quantum Emission and Its Application to Materials Dynamics. Springer Series in Chemical Physics, 2010, , 223-239.	0.2	0
41	Pathway for the Transformation from Highly Oriented Pyrolytic Graphite into Amorphous Diamond. Physical Review Letters, 2009, 102, 116803.	7.8	13
42	Shock-induced disproportionation of mullite (3Al2O3â‹…2SiO2). Journal of Applied Physics, 2009, 106, 023525.	2.5	6
43	Optical control and mode selective excitation of coherent phonons in. Solid State Communications, 2009, 149, 1955-1957.	1.9	19
44	Ultrahigh-pressure scales for gold and platinum at pressures up to 550 GPa. Physical Review B, 2009, 80, .	3.2	106
45	Lattice dynamics in two-photon-excited CdS studied by picosecond time-resolved X-ray diffraction. Physica B: Condensed Matter, 2008, 403, 2802-2806.	2.7	1
46	Hugoniot measurement of gold at high pressures of up to 580GPa. Applied Physics Letters, 2008, 92, .	3.3	31
47	Femtosecond time-resolved x-ray diffraction from optical coherent phonons in CdTe(111) crystal. Applied Physics Letters, 2008, 93, .	3.3	17
48	Dynamics of Phase Transition under Laser Shock Compression. The Review of Laser Engineering, 2008, 36, 362-366.	0.0	0
49	Nanosecond Time-Resolved Laser-Induced Fluorescence Spectra of Rhodamine 6G Solution in Ethanol under Shock Loading of up to 3.5 GPa. Japanese Journal of Applied Physics, 2007, 46, 6773-6775.	1.5	2
50	Phase transition ofMnF2driven by shock compression at pressure of up to33GPa. Physical Review B, 2007, 76, .	3.2	14
51	Diagnostic system to measure spatial and temporal profiles of shock front using compact two-stage light-gas gun and line reflection method. Review of Scientific Instruments, 2007, 78, 043904.	1.3	10
52	Shock-induced lattice deformation of CdS single crystal by nanosecond time-resolved Laue diffraction. Applied Physics Letters, 2007, 91, .	3.3	33
53	High-resolution electron microscopy of microstructure of MnF2 subjected to shock compression at 4.4 GPa. Solid State Communications, 2007, 143, 127-130.	1.9	8
54	Temperature measurement of carbon tetrachloride under laser shock compression by nanosecond Raman spectroscopy. Chemical Physics Letters, 2007, 445, 28-31.	2.6	8

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55	High pressure Raman spectroscopic study of structural phase transition in samarium oxide. Journal of Materials Science, 2007, 42, 2582-2585.	3.7	29
56	Ultrafast X-ray diffraction and Optical Reflection Measurements of Coherent Optical Phonons of CdTe. Springer Series in Chemical Physics, 2007, , 731-733.	0.2	0
57	Nanosecond rapid freezing of liquid benzene under shock compression studied by time-resolved coherent anti-Stokes Raman spectroscopy. Journal of Chemical Physics, 2006, 124, 054501.	3.0	19
58	Time-Resolved Coherent Anti-Stokes Raman Scattering of Cyclohexane under Shock Compression. Japanese Journal of Applied Physics, 2006, 45, 5817-5820.	1.5	1
59	Amplitude Saturation of Coherent Phonon Excited by Field Screening in CdTe. Japanese Journal of Applied Physics, 2006, 45, 9111-9114.	1.5	10
60	Micromosaic formation in laser-irradiated Si probed by picosecond time-resolved x-ray diffraction. Physical Review B, 2006, 74, .	3.2	14
61	Ultrafast X-ray diffraction and Optical Reflection Measurements of Coherent Optical Phonons of CdTe. , 2006, , .		0
62	Flyer Acceleration by Pulsed Laser and its Application to Shock-Recovery Experiment on MnF2. Japanese Journal of Applied Physics, 2005, 44, 5006-5008.	1.5	4
63	Electron imaging of charge-separated field on a copper film induced by femtosecond laser irradiation. Applied Physics Letters, 2005, 86, 141501.	3.3	16
64	High-energy protons emitted from a polymer-coated metal foil by 60-fs laser irradiation. Springer Series in Chemical Physics, 2005, , 222-224.	0.2	0
65	Laser-Shock Compression of Rhodamine 6G Dye in Ethanol Solution Studied by Time-Resolved Fluorescence Spectroscopy. Journal of Plasma and Fusion Research, 2004, 80, 472-475.	0.4	2
66	Transient Lattice Response to the Interaction between Pulse-Laser and Semiconductors Probed by Time-Resolved X-Ray Diffraction. AIP Conference Proceedings, 2004, , .	0.4	0
67	Picosecond Time-Resolved X-ray Diffraction from a Laser-Shocked Germanium Crystal above Hugoniot Elastic Limit. Japanese Journal of Applied Physics, 2004, 43, 5477-5479.	1.5	5
68	Hard X-Ray Emission from a Copper Target by Focusing a Picosecond Laser Beam at 3Ã—1013W/cm2. Japanese Journal of Applied Physics, 2004, 43, 1207-1208.	1.5	5
69	Nanosecond Time-Resolved Stimulated Raman Spectra of Benzene under Shock Compression up to 4.2 GPa: Observation of Liquid-Solid Phase Transition. Japanese Journal of Applied Physics, 2004, 43, L1614-L1616.	1.5	7
70	Time-resolved infrared radiometry of NaCl crystals under shock compression between 17 and43GPa. Physical Review B, 2004, 70, .	3.2	7
71	Relativistic laser plasma from micron-sized argon clusters as a debris-free x-ray source for pulse x-ray diffraction. Applied Physics Letters, 2004, 85, 5099-5101.	3.3	15
72	Frequency shift of the totally symmetricÎ½5mode of naphthalene under shock compression. Physical Review B, 2004, 70, .	3.2	0

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73	Energy distribution of electrons ejected from a copper target in a femtosecond laser field of 1017â€‰W/cm2. Journal of Applied Physics, 2004, 95, 2278-2282.	2.5	11
74	Enhanced generation of fast protons from a polymer-coated metal foil by a femtosecond intense laser field. Applied Physics Letters, 2004, 85, 2736-2738.	3.3	21
75	Three-stage light-gas gun with a preheating stage. Review of Scientific Instruments, 2004, 75, 537-540.	1.3	2
76	High-pressure phase transition of mullite under shock compression. Journal of Applied Physics, 2004, 96, 4126-4130.	2.5	31
77	Picosecond time-resolved X-ray diffraction from laser-shocked semiconductors. Laser and Particle Beams, 2004, 22, 285-288.	1.0	2
78	Laser-shock compression of an yttria-doped tetragonal zirconia studied by Raman spectroscopy. Journal of Materials Science, 2004, 39, 4371-4372.	3.7	5
79	Materials dynamics under nanosecond pulsed pressure loading. Science and Technology of Advanced Materials, 2004, 5, 511-516.	6.1	9
80	Giant Fullerene-Like Hollow Spheres Generated from Shock-Compressed C₆₀ Fullerene by an Impact of Metal Flyer. Materials Transactions, 2004, 45, 5-8.	1.2	3
81	Lattice deformation in laser-irradiated silicon crystal studied by picosecond X-ray diffraction. Applied Surface Science, 2003, 207, 314-317.	6.1	3
82	Time-resolved electron shadowgraphy for 300 ps laser ablation of a copper film. Applied Physics Letters, 2003, 83, 1536-1538.	3.3	28
83	Dynamic failure of steel under hypervelocity impact of polycarbonate up to 9 km/s. Journal of Applied Physics, 2003, 93, 5983-5988.	2.5	15
84	Thin tape target driver for laser ion accelerator. Review of Scientific Instruments, 2003, 74, 3293-3296.	1.3	53
85	MeV-order proton and carbon ion acceleration by irradiation of 60 fs TW laser pulses on thin copper tape. Applied Physics Letters, 2003, 83, 1524-1526.	3.3	34
86	Fast electron and ion emission from metal targets in intense femtosecond laser fields. Springer Series in Chemical Physics, 2003, , 105-107.	0.2	0
87	Time-resolved Raman spectroscopy of benzene and cyclohexane under laser-driven shock compression. Physical Review B, 2002, 65, .	3.2	27
88	Picosecond Time-Resolved X-Ray Diffraction of a Photoexcited Silicon Crystal. Japanese Journal of Applied Physics, 2002, 41, 1614-1615.	1.5	2
89	Picosecond structural dynamics in photoexcited Si probed by time-resolved x-ray diffraction. Journal of Chemical Physics, 2002, 117, 10239-10243.	3.0	24
90	Transition from Expansion to Shock Compression in Laser Irradiated Si by Multiple Shots. AIP Conference Proceedings, 2002, , .	0.4	0

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91	Dynamics of laser-shocked condensed matter probed by nanosecond Raman spectroscopy. Applied Surface Science, 2002, 197-198, 17-20.	6.1	5
92	Picosecond X-ray diffraction from laser-irradiated crystals. Applied Surface Science, 2002, 197-198, 289-293.	6.1	0
93	Transformation to highly ordered graphite from C60 fullerene powder by shock-compression to 57GPa studied by Raman spectroscopy. Solid State Communications, 2002, 122, 69-71.	1.9	5
94	X-ray and fast ion generation from metal targets by femtosecond laser irradiation. Applied Surface Science, 2002, 197-198, 281-284.	6.1	9
95	Fast electron and ion emission from metal targets in intense femtosecond laser fields. , 2002, , .		0
96	Picosecond Time-Resolved X-ray Diffraction Using Laser-Induced X-ray Pulse.. The Review of Laser Engineering, 2002, 30, 513-517.	0.0	0
97	Optimization of a compact two-stage light-gas gun aiming at a velocity of 9 km/s. Review of Scientific Instruments, 2001, 72, 4270-4272.	1.3	15
98	Shock-Induced Electromotive Force in Aqueous Solution of Potassium Fluoride. Japanese Journal of Applied Physics, 2001, 40, 2378-2380.	1.5	3
99	Production of relativistic electrons by irradiation of 43-fs-laser pulses on copper film. Applied Physics Letters, 2001, 79, 1234-1236.	3.3	34
100	Picosecond time-resolved X-ray diffraction from a silicon crystal under laser-induced breakdown. Springer Series in Chemical Physics, 2001, , 284-286.	0.2	1
101	Tight-Binding Molecular Dynamics Study of Hydrogen Molecule Inside Silicon Crystal. Japanese Journal of Applied Physics, 2000, 39, 2744-2747.	1.5	22
102	Picosecond Time-Resolved X-Ray Diffraction from Si(111) under High-Power Laser Irradiation. Japanese Journal of Applied Physics, 2000, 39, L984-L986.	1.5	4
103	Laser-Induced Shock Compression of Tantalum to 1.7 TPa. Japanese Journal of Applied Physics, 2000, 39, 1815-1816.	1.5	9
104	A simple fiber-optic pin for detecting a shock-wave front. Review of Scientific Instruments, 2000, 71, 4192.	1.3	6
105	Time-resolved two-band infrared radiometry of carbon tetrachloride under shock compression up to 10 GPa. Applied Physics Letters, 2000, 77, 960.	3.3	14
106	Angular distribution of x-ray emission from a copper target irradiated with a femtosecond laser. Applied Physics Letters, 2000, 77, 4110-4111.	3.3	17
107	Evolving shock-wave profiles measured in a silicon crystal by picosecond time-resolved x-ray diffraction. Applied Physics Letters, 2000, 77, 1967-1969.	3.3	56
108	Prepulse effects on the interaction of intense femtosecond laser pulses with high-Zsolids. Physical Review E, 2000, 62, 7232-7240.	2.1	41

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109	Picosecond Pulsed X-Ray Diffraction from a Pulsed Laser Heated Si(111). Japanese Journal of Applied Physics, 1999, 38, 4950-4951.	1.5	8
110	Effect of Ion Irradiation on Coherent Phonon Dynamics in Bismuth. Japanese Journal of Applied Physics, 1999, 38, L446-L447.	1.5	4
111	Tight-binding Molecular Dynamics Simulation of Desorbed SiO Molecule during the Oxidation of Si(111) Surface. Japanese Journal of Applied Physics, 1999, 38, 2434-2437.	1.5	24
112	Time-resolved Raman spectroscopy of polytetrafluoroethylene under laser-driven shock compression. Applied Physics Letters, 1999, 75, 947-949.	3.3	30
113	Time-Resolved X-ray Shadowgraphy Experiment of Laser Ablation of Aluminum using Laser-Induced Picosecond Pulsed X-rays. Japanese Journal of Applied Physics, 1999, 38, L242-L244.	1.5	8
114	Spectroscopy of Hard X-Rays (2â€“15 keV) Generated by Focusing Femtosecond Laser on Metal Targets. Japanese Journal of Applied Physics, 1999, 38, 6754-6756.	1.5	26
115	Enhancement of hard x-ray emission from a copper target by multiple shots of femtosecond laser pulses. Applied Physics Letters, 1999, 74, 1645-1647.	3.3	22
116	Generation of picosecond hard x rays by tera watt laser focusing on a copper target. Applied Physics Letters, 1998, 73, 2393-2395.	3.3	92
117	Translational Energy Distribution of CO Produced in Infrared-Laser-Assisted Reaction of O2 with a Graphite Surface. Japanese Journal of Applied Physics, 1998, 37, L74-L76.	1.5	4
118	Vibration and Rotation of Hydrogen Molecule in Silicon. Japanese Journal of Applied Physics, 1997, 36, 2004-2006.	1.5	15
119	Hydrogen Molecule in Group IV Element Crystal. Japanese Journal of Applied Physics, 1997, 36, L1479-L1480.	1.5	2
120	GeO Desorption in Reactive Scattering of an Oxygen Molecular Beam with a Ge(100) Surface. Japanese Journal of Applied Physics, 1997, 36, 3469-3473.	1.5	4
121	Quantum chemical study on SiO desorption from a Si(111) surface. Surface Science, 1997, 387, 59-68.	1.9	9
122	Subpicosecond carrier dynamics in GaAs studied with optical heterodyne detection. Solid State Communications, 1997, 103, 525-527.	1.9	0
123	Dynamics of SiO desorption in reactive scattering of O2 with a silicon surface. Journal of Chemical Physics, 1996, 104, 3403-3404.	3.0	7
124	Reactive scattering of O2 with the Si(111) surface: Resonance enhanced multiphoton ionization of SiO. Journal of Chemical Physics, 1995, 102, 8569-8573.	3.0	14
125	Resonance enhanced multiphoton ionization detection of SiO desorbing from a Si(111) surface in reaction with O2. Applied Physics Letters, 1994, 65, 2445-2447.	3.3	7
126	Time-resolved Raman measurements of a graphite surface under ion irradiation. Surface Science, 1993, 283, 255-259.	1.9	9

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127	Ion-irradiation effects on the phonon correlation length of graphite studied by Raman spectroscopy. Physical Review B, 1992, 45, 78-82.	3.2	89
128	Raman studies of graphite lattice-disordering kinetics under low-energy He-ion irradiation. Physical Review B, 1992, 45, 5672-5674.	3.2	21
129	Initial damage in graphite under ion irradiation studied by real-time Raman measurement. Journal of Nuclear Materials, 1992, 191-194, 356-359.	2.7	0
130	Thermal relaxation of lattice disorder in graphite induced by He+ irradiation. Solid State Communications, 1992, 82, 569-571.	1.9	4
131	Raman scattering from graphite surface irradiated by deuterium ions. Solid State Communications, 1992, 82, 475-477.	1.9	3
132	Raman study of the phase separation in ZrO2-12 mol% CeO2 ceramic. Solid State Communications, 1991, 80, 991-994.	1.9	4
133	Study of raman spectroscopy on carbon materials irradiated with a high current density electron beam. Journal of Nuclear Materials, 1991, 179-181, 180-183.	2.7	3
134	Realâ€time Raman measurements of graphite under Ar+irradiation. Applied Physics Letters, 1991, 59, 1550-1552.	3.3	51
135	Evaluation of local stress of carbon materials by Raman spectroscopy. Journal of Nuclear Materials, 1990, 175, 251-253.	2.7	6
136	Finite size effect on Raman scattering of graphite microcrystals. Chemical Physics Letters, 1990, 172, 205-208.	2.6	28
137	Improved calculations of rate constants for the H+H2 reaction and its isotopic analogs at low temperatures. Journal of Chemical Physics, 1989, 90, 1641-1643.	3.0	26
138	ESR spectra of GeH3 radicals trapped in a matrix of nonmagnetic isotopes of xenon. Chemical Physics Letters, 1989, 164, 593-595.	2.6	6
139	A modified arrhenius equation. Chemical Physics Letters, 1989, 160, 295-298.	2.6	16
140	The rate constants for the H+H2reaction and its isotopic analogs at low temperatures: Wigner threshold law behavior. Journal of Chemical Physics, 1987, 86, 6133-6139.	3.0	66