

Kazutaka G Nakamura

List of Publications by Year in descending order

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140
papers

1,960
citations

257101

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344852

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146
docs citations

146
times ranked

1507
citing authors

#	ARTICLE	IF	CITATIONS
1	Photoinduced Ultrafast Symmetry Switch in SnSe. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 442-448.	2.1	8
2	Attosecond-Resolved Coherent Control of Lattice Vibrations in Thermoelectric SnSe. <i>Journal of Physical Chemistry Letters</i> , 2022, 13, 2584-2590.	2.1	4
3	Interference of optical phonons in diamond studied using femtosecond pulses of polarized near-infrared light. <i>Solid State Communications</i> , 2022, 350, 114747.	0.9	3
4	Coherent control of optical phonons in GaAs by relative-phase-locked optical pulses under perpendicularly polarized conditions. <i>Solid State Communications</i> , 2021, 327, 114215.	0.9	7
5	Theory for coherent control of longitudinal optical phonons in GaAs using polarized optical pulses with relative phase locking. <i>Physical Review B</i> , 2021, 104, .	1.1	5
6	Coherent control of 40-THz optical phonons in diamond using femtosecond optical pulses. <i>Physical Review B</i> , 2020, 101, .	1.1	11
7	Platinum nanoparticles on HOPG surface modified by 380 keV Ar ⁺ irradiation: TEM and Raman studies. <i>Radiation Effects and Defects in Solids</i> , 2020, 175, 433-439.	0.4	2
8	Microstructural deformation process of shock-compressed polycrystalline aluminum. <i>Scientific Reports</i> , 2019, 9, 7604.	1.6	27
9	Ultrafast quantum-path interferometry revealing the generation process of coherent phonons. <i>Physical Review B</i> , 2019, 99, .	1.1	11
10	Coherent Phonons: Experiment. <i>Springer Tracts in Modern Physics</i> , 2019, , 67-79.	0.1	0
11	Raman spectroscopy of Ar ⁺ -irradiated graphite surfaces supporting platinum nanoparticles. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019, 444, 6-9.	0.6	9
12	Coherent Phonons: Quantum Theory. <i>Springer Tracts in Modern Physics</i> , 2019, , 81-114.	0.1	0
13	Coherent Control of Optical Phonons. <i>Springer Tracts in Modern Physics</i> , 2019, , 115-124.	0.1	0
14	Femtosecond study of A _{1g} phonons in the strong 3D topological insulators: From pump-probe to coherent control. <i>Applied Physics Letters</i> , 2018, 112, .	1.5	12
15	Temperature effect on the coupling between coherent longitudinal phonons and plasmons in n-type GaAs. <i>Physical Review B</i> , 2018, 97, .	1.1	4
16	Coherent control theory and experiment of optical phonons in diamond. <i>Scientific Reports</i> , 2018, 8, 9609.	1.6	22
17	Dynamic Jahn-Teller viewpoint for generation mechanism of asymmetric modes of coherent phonons. <i>Physical Review B</i> , 2017, 95, .	1.1	8
18	High pressure band gap modification of LiCaAlF ₆ . <i>Applied Physics Letters</i> , 2017, 110, .	1.5	15

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19	Structural Dynamics of Materials under Shock Compression Investigated with Synchrotron Radiation. <i>Metals</i> , 2016, 6, 17.	1.0	19
20	Bandgap modulation in photoexcited topological insulator Bi ₂ Te ₃ via atomic displacements. <i>Journal of Chemical Physics</i> , 2016, 145, 024504.	1.2	20
21	Spectrally resolved detection in transient-reflectivity measurements of coherent optical phonons in diamond. <i>Physical Review B</i> , 2016, 94, .	1.1	22
22	Influence of pulse width and detuning on coherent phonon generation. <i>Physical Review B</i> , 2015, 92, .	1.1	29
23	Measuring quantum coherence in bulk solids using dual phase-locked optical pulses. <i>Scientific Reports</i> , 2015, 4, 4456.	1.6	13
24	Dynamics of all the Raman-active coherent phonons in Sb ₂ Te ₃ revealed via transient reflectivity. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	30
25	Ultrafast Phonon Dynamics in Few-quintuple layer Topological Insulator Sb ₂ Te ₃ . , 2014, , .		0
26	Coherent optical phonons in a Bi ₂ Se ₃ single crystal measured via transient anisotropic reflectivity. <i>Solid State Communications</i> , 2013, 157, 58-61.	0.9	23
27	Transparent graphitic tiles synthesized from carbon nanowalls by shock compression and rapid quenching. <i>Journal of Applied Physics</i> , 2013, 113, .	1.1	2
28	Structural Dynamics of Polycrystals under Shock Compression Observed via Nanosecond Time-resolved X-ray Diffraction. <i>Materials Research Society Symposia Proceedings</i> , 2013, 1528, 1.	0.1	0
29	Complex structural dynamics of bismuth under laser-driven compression. <i>Applied Physics Letters</i> , 2013, 103, .	1.5	21
30	Manipulation of Squeezed Two-Phonon Bound States using Femtosecond Laser Pulses. <i>EPJ Web of Conferences</i> , 2013, 41, 04019.	0.1	0
31	Reversible phase transition in laser-shocked 3Y-TZP ceramics observed via nanosecond time-resolved x-ray diffraction. <i>Journal of Applied Physics</i> , 2012, 111, .	1.1	15
32	Delayed formation of coherent LO phonon-plasmon coupled modes in n -type GaAs measured using a femtosecond coherent control technique. <i>Physical Review B</i> , 2012, 86, .	1.1	20
33	Observation of coherent higher frequency phonons in Bi ₂ Se ₃ using femtosecond time-resolved reflection measurement. <i>Solid State Communications</i> , 2012, 152, 902-904.	0.9	6
34	New Method for Projectile Velocity Measurement Using Faraday-Type Electromagnetic Sensor for Hypervelocity Impact Experiments and Detection Efficiency of the Method. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 096601.	0.8	1
35	Optical manipulation of coherent phonons in superconducting YBa ₂ Cu ₃ O _{7-δ} thin films. <i>Faraday Discussions</i> , 2011, 153, 375.	1.6	13
36	Direct observation of two-phonon bound states in ZnTe. <i>Physical Review B</i> , 2011, 84, .	1.1	14

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37	Controlling phonon squeezing and correlation via one- and two-phonon interference. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2011, 375, 4141-4146.	0.9	21
38	Ultrafast zone-center coherent lattice dynamics in ferroelectric lithium tantalate. <i>Science and Technology of Advanced Materials</i> , 2011, 12, 034409.	2.8	2
39	Coherent Optical Phonons in the Iron Oxynictide $\text{SmFeAsO}_{1-x}\text{F}_x$ ($x=0.075$). <i>Journal of the Physical Society of Japan</i> , 2011, 80, 013707.	0.7	15
40	Quantum Emission and Its Application to Materials Dynamics. <i>Springer Series in Chemical Physics</i> , 2010, , 223-239.	0.2	0
41	Pathway for the Transformation from Highly Oriented Pyrolytic Graphite into Amorphous Diamond. <i>Physical Review Letters</i> , 2009, 102, 116803.	2.9	13
42	Shock-induced disproportionation of mullite ($3\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$). <i>Journal of Applied Physics</i> , 2009, 106, 023525.	1.1	6
43	Optical control and mode selective excitation of coherent phonons in. <i>Solid State Communications</i> , 2009, 149, 1955-1957.	0.9	19
44	Ultrahigh-pressure scales for gold and platinum at pressures up to 550 GPa. <i>Physical Review B</i> , 2009, 80, .	1.1	106
45	Lattice dynamics in two-photon-excited CdS studied by picosecond time-resolved X-ray diffraction. <i>Physica B: Condensed Matter</i> , 2008, 403, 2802-2806.	1.3	1
46	Hugoniot measurement of gold at high pressures of up to 580GPa. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	31
47	Femtosecond time-resolved x-ray diffraction from optical coherent phonons in CdTe(111) crystal. <i>Applied Physics Letters</i> , 2008, 93, .	1.5	17
48	Dynamics of Phase Transition under Laser Shock Compression. <i>The Review of Laser Engineering</i> , 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. <i>Japanese Journal of Applied Physics</i> , 2007, 46, 6773-6775.	0.8	2
50	Phase transition of MnF_2 driven by shock compression at pressure of up to 33GPa. <i>Physical Review B</i> , 2007, 76, .	1.1	14
51	Diagnostic system to measure spatial and temporal profiles of shock front using compact two-stage light-gas gun and line reflection method. <i>Review of Scientific Instruments</i> , 2007, 78, 043904.	0.6	10
52	Shock-induced lattice deformation of CdS single crystal by nanosecond time-resolved Laue diffraction. <i>Applied Physics Letters</i> , 2007, 91, .	1.5	33
53	High-resolution electron microscopy of microstructure of MnF_2 subjected to shock compression at 4.4 GPa. <i>Solid State Communications</i> , 2007, 143, 127-130.	0.9	8
54	Temperature measurement of carbon tetrachloride under laser shock compression by nanosecond Raman spectroscopy. <i>Chemical Physics Letters</i> , 2007, 445, 28-31.	1.2	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.	1.7	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.	1.2	19
58	Time-Resolved Coherent Anti-Stokes Raman Scattering of Cyclohexane under Shock Compression. Japanese Journal of Applied Physics, 2006, 45, 5817-5820.	0.8	1
59	Amplitude Saturation of Coherent Phonon Excited by Field Screening in CdTe. Japanese Journal of Applied Physics, 2006, 45, 9111-9114.	0.8	10
60	Micromosaic formation in laser-irradiated Si probed by picosecond time-resolved x-ray diffraction. Physical Review B, 2006, 74, .	1.1	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 MnF ₂ . Japanese Journal of Applied Physics, 2005, 44, 5006-5008.	0.8	4
63	Electron imaging of charge-separated field on a copper film induced by femtosecond laser irradiation. Applied Physics Letters, 2005, 86, 141501.	1.5	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, , .	0.3	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.	0.8	5
68	Hard X-Ray Emission from a Copper Target by Focusing a Picosecond Laser Beam at 3Å—1013W/cm ² . Japanese Journal of Applied Physics, 2004, 43, 1207-1208.	0.8	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.	0.8	7
70	Time-resolved infrared radiometry of NaCl crystals under shock compression between 17 and 43 GPa. Physical Review B, 2004, 70, .	1.1	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.	1.5	15
72	Frequency shift of the totally symmetric $\tilde{\nu}_{25}$ mode of naphthalene under shock compression. Physical Review B, 2004, 70, .	1.1	0

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73	Energy distribution of electrons ejected from a copper target in a femtosecond laser field of 1017 W/cm^2 . Journal of Applied Physics, 2004, 95, 2278-2282.	1.1	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.	1.5	21
75	Three-stage light-gas gun with a preheating stage. Review of Scientific Instruments, 2004, 75, 537-540.	0.6	2
76	High-pressure phase transition of mullite under shock compression. Journal of Applied Physics, 2004, 96, 4126-4130.	1.1	31
77	Picosecond time-resolved X-ray diffraction from laser-shocked semiconductors. Laser and Particle Beams, 2004, 22, 285-288.	0.4	2
78	Laser-shock compression of an yttria-doped tetragonal zirconia studied by Raman spectroscopy. Journal of Materials Science, 2004, 39, 4371-4372.	1.7	5
79	Materials dynamics under nanosecond pulsed pressure loading. Science and Technology of Advanced Materials, 2004, 5, 511-516.	2.8	9
80	Giant Fullerene-Like Hollow Spheres Generated from Shock-Compressed C ₆₀ Fullerene by an Impact of Metal Flyer. Materials Transactions, 2004, 45, 5-8.	0.4	3
81	Lattice deformation in laser-irradiated silicon crystal studied by picosecond X-ray diffraction. Applied Surface Science, 2003, 207, 314-317.	3.1	3
82	Time-resolved electron shadowgraphy for 300 ps laser ablation of a copper film. Applied Physics Letters, 2003, 83, 1536-1538.	1.5	28
83	Dynamic failure of steel under hypervelocity impact of polycarbonate up to 9 km/s. Journal of Applied Physics, 2003, 93, 5983-5988.	1.1	15
84	Thin tape target driver for laser ion accelerator. Review of Scientific Instruments, 2003, 74, 3293-3296.	0.6	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.	1.5	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, .	1.1	27
88	Picosecond Time-Resolved X-Ray Diffraction of a Photoexcited Silicon Crystal. Japanese Journal of Applied Physics, 2002, 41, 1614-1615.	0.8	2
89	Picosecond structural dynamics in photoexcited Si probed by time-resolved x-ray diffraction. Journal of Chemical Physics, 2002, 117, 10239-10243.	1.2	24
90	Transition from Expansion to Shock Compression in Laser Irradiated Si by Multiple Shots. AIP Conference Proceedings, 2002, , .	0.3	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.	3.1	5
92	Picosecond X-ray diffraction from laser-irradiated crystals. Applied Surface Science, 2002, 197-198, 289-293.	3.1	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.	0.9	5
94	X-ray and fast ion generation from metal targets by femtosecond laser irradiation. Applied Surface Science, 2002, 197-198, 281-284.	3.1	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.	0.6	15
98	Shock-Induced Electromotive Force in Aqueous Solution of Potassium Fluoride. Japanese Journal of Applied Physics, 2001, 40, 2378-2380.	0.8	3
99	Production of relativistic electrons by irradiation of 43-fs-laser pulses on copper film. Applied Physics Letters, 2001, 79, 1234-1236.	1.5	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.	0.8	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.	0.8	4
103	Laser-Induced Shock Compression of Tantalum to 1.7 TPa. Japanese Journal of Applied Physics, 2000, 39, 1815-1816.	0.8	9
104	A simple fiber-optic pin for detecting a shock-wave front. Review of Scientific Instruments, 2000, 71, 4192.	0.6	6
105	Time-resolved two-band infrared radiometry of carbon tetrachloride under shock compression up to 10 GPa. Applied Physics Letters, 2000, 77, 960.	1.5	14
106	Angular distribution of x-ray emission from a copper target irradiated with a femtosecond laser. Applied Physics Letters, 2000, 77, 4110-4111.	1.5	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.	1.5	56
108	Prepulse effects on the interaction of intense femtosecond laser pulses with high-Zsolids. Physical Review E, 2000, 62, 7232-7240.	0.8	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.	0.8	8
110	Effect of Ion Irradiation on Coherent Phonon Dynamics in Bismuth. Japanese Journal of Applied Physics, 1999, 38, L446-L447.	0.8	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.	0.8	24
112	Time-resolved Raman spectroscopy of polytetrafluoroethylene under laser-driven shock compression. Applied Physics Letters, 1999, 75, 947-949.	1.5	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.	0.8	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.	0.8	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.	1.5	22
116	Generation of picosecond hard x rays by tera watt laser focusing on a copper target. Applied Physics Letters, 1998, 73, 2393-2395.	1.5	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.	0.8	4
118	Vibration and Rotation of Hydrogen Molecule in Silicon. Japanese Journal of Applied Physics, 1997, 36, 2004-2006.	0.8	15
119	Hydrogen Molecule in Group IV Element Crystal. Japanese Journal of Applied Physics, 1997, 36, L1479-L1480.	0.8	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.	0.8	4
121	Quantum chemical study on SiO desorption from a Si(111) surface. Surface Science, 1997, 387, 59-68.	0.8	9
122	Subpicosecond carrier dynamics in GaAs studied with optical heterodyne detection. Solid State Communications, 1997, 103, 525-527.	0.9	0
123	Dynamics of SiO desorption in reactive scattering of O2 with a silicon surface. Journal of Chemical Physics, 1996, 104, 3403-3404.	1.2	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.	1.2	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.	1.5	7
126	Time-resolved Raman measurements of a graphite surface under ion irradiation. Surface Science, 1993, 283, 255-259.	0.8	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.	1.1	89
128	Raman studies of graphite lattice-disordering kinetics under low-energy He-ion irradiation. Physical Review B, 1992, 45, 5672-5674.	1.1	21
129	Initial damage in graphite under ion irradiation studied by real-time Raman measurement. Journal of Nuclear Materials, 1992, 191-194, 356-359.	1.3	0
130	Thermal relaxation of lattice disorder in graphite induced by He+ irradiation. Solid State Communications, 1992, 82, 569-571.	0.9	4
131	Raman scattering from graphite surface irradiated by deuterium ions. Solid State Communications, 1992, 82, 475-477.	0.9	3
132	Raman study of the phase separation in ZrO ₂ -12 mol% CeO ₂ ceramic. Solid State Communications, 1991, 80, 991-994.	0.9	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.	1.3	3
134	Real-time Raman measurements of graphite under Ar-irradiation. Applied Physics Letters, 1991, 59, 1550-1552.	1.5	51
135	Evaluation of local stress of carbon materials by Raman spectroscopy. Journal of Nuclear Materials, 1990, 175, 251-253.	1.3	6
136	Finite size effect on Raman scattering of graphite microcrystals. Chemical Physics Letters, 1990, 172, 205-208.	1.2	28
137	Improved calculations of rate constants for the H+H ₂ reaction and its isotopic analogs at low temperatures. Journal of Chemical Physics, 1989, 90, 1641-1643.	1.2	26
138	ESR spectra of GeH ₃ radicals trapped in a matrix of nonmagnetic isotopes of xenon. Chemical Physics Letters, 1989, 164, 593-595.	1.2	6
139	A modified arrhenius equation. Chemical Physics Letters, 1989, 160, 295-298.	1.2	16
140	The rate constants for the H+H ₂ reaction and its isotopic analogs at low temperatures: Wigner threshold law behavior. Journal of Chemical Physics, 1987, 86, 6133-6139.	1.2	66