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List of Publications by Year in descending order

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186265
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92
docs citations

92
times ranked

3146
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Observation of Dynamic Symmetry Breaking above Room Temperature in Methylammonium Lead Iodide Perovskite. ACS Energy Letters, 2016, 1, 880-887.	17.4	221
2	Formation of a New Dynamical Mode in \pm -Uranium Observed by Inelastic X-Ray and Neutron Scattering. Physical Review Letters, 2006, 96, 125501.	7.8	107
3	Electron-Phonon Coupling and the Soft Phonon Mode in TiSe_2 . Physical Review Letters, 2011, 107, 266401.	7.8	104
4	Intrinsic localized modes observed in the high-temperature vibrational spectrum of NaI. Physical Review B, 2009, 79, .	3.2	103
5	Six-reflection meV-monochromator for synchrotron radiation. Journal of Synchrotron Radiation, 2011, 18, 605-611.	2.4	102
6	Sound velocities of Fe and Fe-Si alloy in the Earth's core. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10239-10244.	7.1	93
7	Anharmonic lattice dynamics and superionic transition in AgCrSe_2 . Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 3930-3937.	7.1	73
8	Microscopic Dynamics of Liquid Aluminum Oxide. Science, 2003, 299, 2047-2049.	12.6	71
9	An inelastic X-ray spectrometer with 2.2 meV energy resolution. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 1545-1548.	1.6	63
10	Effect of isotopic composition on the lattice parameter of germanium measured by x-ray backscattering. Physical Review B, 2003, 67, .	3.2	62
11	Phonons in doped and undoped BaFe_2As_2 by inelastic x-ray scattering. Physical Review B, 2009, 80, .	3.2	57
12	Studies of Phononlike Low-Energy Excitations of Protein Molecules by Inelastic X-Ray Scattering. Physical Review Letters, 2008, 101, 135501.	7.8	54
13	Intrinsic anharmonic localization in thermoelectric PbSe. Nature Communications, 2019, 10, 1928.	12.8	51
14	X-Ray Bragg Diffraction in Asymmetric Backscattering Geometry. Physical Review Letters, 2006, 97, 235502.	7.8	46
15	Phonon dispersion in uranium measured using inelastic x-ray scattering. Physical Review B, 2003, 67, .	3.2	43
16	Quantized thermoelectric Hall effect induces giant power factor in a topological semimetal. Nature Communications, 2020, 11, 6167.	12.8	43
17	Phonon softening near the structural transition in BaFe_2As_2 observed by inelastic x-ray scattering. Physical Review B, 2011, 84, .	3.2	39
18	High frequency atomic tunneling yields ultralow and glass-like thermal conductivity in chalcogenide single crystals. Nature Communications, 2020, 11, 6039.	12.8	36

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19	Direct Prediction of Phonon Density of States With Euclidean Neural Networks. Advanced Science, 2021, 8, e2004214.	11.2	34
20	Intrinsic nature of thermally activated dynamical modes in CaFe_2As_2 and CaFe_2P_2 . Physical Review B, 2008, 77, .	3.2	33
21	Nonequilibrium mode creation by x-ray and neutron scattering. Physical Review B, 2008, 77, .	3.2	33
22	A cryogenically stabilized meV-monochromator for hard X-rays. Journal of Synchrotron Radiation, 2006, 13, 211-215.	2.4	31
23	Influence of magnetism on phonons in CaFe_2As_2 and CaFe_2P_2 seen via inelastic x-ray scattering. Physical Review B, 2009, 79, .	3.2	31
24	Observation of phonons with resonant inelastic x-ray scattering. Journal of Physics Condensed Matter, 2010, 22, 485601.	1.8	29
25	Boron arsenide phonon dispersion from inelastic x-ray scattering: Potential for ultrahigh thermal conductivity. Physical Review B, 2016, 94, .	3.2	29
26	Collective dynamics of liquid Hg investigated by inelastic X-ray scattering. Journal of Non-Crystalline Solids, 2002, 312-314, 163-167.	3.1	28
27	X-ray scattering study of the spin-Peierls transition and soft phonon behavior in TiOCl . Physical Review B, 2007, 76, .	3.2	28
28	Improved focusing capability for inelastic X-ray spectrometer at 3-ID of the APS: A combination of toroidal and Kirkpatrick-Baez (KB) mirrors. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2011, 649, 166-168.	1.6	28
29	Observation of a Continuous Phase Transition in a Shape-Memory Alloy. Physical Review Letters, 2008, 101, 135703.	7.8	27
30	Phonon density of states of CaFe_2As_2 and CaFe_2P_2 by inelastic x-ray scattering. Physical Review B, 2009, 79, .	3.2	27
31	Topological Singularity Induced Chiral Kohn Anomaly in a Weyl Semimetal. Physical Review Letters, 2020, 124, 236401.	7.8	27
32	Superconductivity and hybrid soft modes in TiS_2 . Physical Review B, 2016, 94, .	3.2	26
33	Remarkably Weak Anisotropy in Thermal Conductivity of Two-Dimensional Hybrid Perovskite Butylammonium Lead Iodide Crystals. Nano Letters, 2021, 21, 3708-3714.	9.1	26
34	Protein elasticity probed with two synchrotron-based techniques. Journal of Chemical Physics, 2010, 132, 085103.	3.0	25
35	Competing soft phonon modes at the charge-density-wave transitions in DyTiO_2 . Physical Review B, 2018, 98, .	3.2	25
36	Phonon Density of States of Metallic Sn at High Pressure. Physical Review Letters, 2007, 98, 245502.	7.8	23

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37	Studies of short-wavelength collective molecular motions in lipid bilayers using high resolution inelastic X-ray scattering. Biophysical Chemistry, 2003, 105, 721-741.	2.8	22
38	Collective excitations in an early molten transition metal. Physical Review B, 2006, 74, .	3.2	22
39	Sapphire analyzers for high-resolution X-ray spectroscopy. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 582, 149-151.	1.6	22
40	Persistent low-energy phonon broadening near the charge-order \mathbf{q} vector in the bilayer cuprate $\text{Bi}_{2-x}\text{Te}_x\text{O}_8$. Physical Review B, 2018, 98, .	3.2	22
41	Anomalous Suppressed Thermal Conduction by Electron-Phonon Coupling in Charge-Density-Wave Tantalum Disulfide. Advanced Science, 2020, 7, 1902071.	11.2	22
42	Inelastic X-ray Scattering Studies of the Short-Time Collective Vibrational Motions in Hydrated Lysozyme Powders and Their Possible Relation to Enzymatic Function. Journal of Physical Chemistry B, 2013, 117, 1186-1195.	2.6	21
43	Sound velocities of bcc-Fe and Fe _{0.85} Si _{0.15} alloy at high pressure and temperature. Physics of the Earth and Planetary Interiors, 2014, 233, 24-32.	1.9	21
44	Evidence for an Instability Near Twice the Fermi Wave Vector in the Low Electronic Density Liquid MetalLi(NH ₃) ₄ . Physical Review Letters, 2001, 86, 2357-2360.	7.8	20
45	Strongly Anisotropic Magnesium Silicate in Earth's Lower Mantle. Journal of Geophysical Research: Solid Earth, 2018, 123, 4740-4750.	3.4	19
46	High-energy-resolution inelastic X-ray scattering spectrometer at beamline 30-ID of the Advanced Photon Source. Journal of Synchrotron Radiation, 2020, 27, 827-835.	2.4	19
47	Atomic form-factor measurements in the low-momentum transfer region for Li, Be, and Al by inelastic x-ray scattering. Physical Review B, 2008, 77, .	3.2	18
48	Thermal acoustic excitations with atomic-scale wavelengths in amorphous silicon. Physical Review Materials, 2019, 3, .	2.4	18
49	Phonons in superconducting CaC_6 via inelastic x-ray scattering. Physical Review B, 2007, 76, .	2.4	17
50	Seismic parameters of hcp-Fe alloyed with Ni and Si in the Earth's inner core. Journal of Geophysical Research: Solid Earth, 2016, 121, 610-623.	3.4	16
51	Effects of counterion valency on the damping of phonons propagating along the axial direction of liquid-crystalline DNA. Journal of Chemical Physics, 2005, 123, 214909.	3.0	15
52	Liquid boron: X-ray measurements and <i>ab initio</i> molecular dynamics simulations. Physical Review B, 2009, 79, .	3.2	15
53	Experimental Phonon Dispersion and Lifetimes of Tetragonal CH ₃ NH ₃ PbI ₃ Perovskite Crystals. Journal of Physical Chemistry Letters, 2019, 10, 1-6.	4.6	15
54	Redox and structural controls on tin isotopic fractionations among magmas. Geochimica Et Cosmochimica Acta, 2020, 268, 42-55.	3.9	15

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55	Comparative study of the phonons in nonsuperconducting BaC_6 and superconducting CaC_6 using inelastic x-ray scattering. Physical Review B, 2008, 78, .	3.2	14
56	Inelastic x-ray scattering measurements of phonon dispersion and lifetimes in $\text{PbTe}_{1-x}\text{Se}_x$ alloys. Journal of Physics Condensed Matter, 2015, 27, 375403.	1.8	14
57	Damping Off Terahertz Sound Modes of a Liquid upon Immersion of Nanoparticles. ACS Nano, 2018, 12, 8867-8874.	14.6	14
58	Central peak and narrow component in x-ray scattering measurements near the displacive phase transition in SrTiO_3 . Physical Review B, 2008, 78, .	3.2	13
59	Pressure effect on Kohn anomaly and electronic topological transition in single-crystal tantalum. Physical Review B, 2019, 100, .	3.2	13
60	Collective excitations in metal-ammonia systems as a function of electron density. Physical Review B, 2003, 68, .	3.2	12
61	Inelastic X-ray scattering studies of phonons propagating along the axial direction of a DNA molecule having different counter-ion atmosphere. Journal of Physics and Chemistry of Solids, 2005, 66, 2235-2245.	4.0	12
62	One role of hydration water in proteins: key to the "softening" of short time intraprotein collective vibrations of a specific length scale. Soft Matter, 2014, 10, 4298-4303.	2.7	12
63	Short-Range Nematic Fluctuations in SrTiO_3 . Physical Review Letters, 2021, 126, 107001.	7.8	12
64	Elastic modulus of supercooled liquid and hot solid silicon measured by inelastic X-ray scattering. Journal of Physics and Chemistry of Solids, 2005, 66, 2230-2234.	4.0	11
65	Intrinsically localized vibrations and the mechanical properties of U -uranium. Journal of Alloys and Compounds, 2007, 444-445, 129-132.	5.5	11
66	Phonon-like excitation in secondary and tertiary structure of hydrated protein powders. Soft Matter, 2011, 7, 9848.	2.7	11
67	Nematic Correlation Length in Iron-Based Superconductors Probed by Inelastic X-Ray Scattering. Physical Review Letters, 2020, 124, 157001.	7.8	11
68	Experimental observation of electron-phonon coupling enhancement in Sn nanowires caused by phonon confinement effects. Physical Review B, 2019, 99, .	3.2	10
69	Acoustic phonons in chrysotile asbestos probed by high-resolution inelastic x-ray scattering. Solid State Communications, 2009, 149, 589-592.	1.9	9
70	Lattice dynamics of the hybrid improper ferroelectrics CaTiO_3 . Physical Review B, 2019, 100, .	3.2	9
71	Excitations of lithium ammonia complexes studied by inelastic x-ray scattering. Journal of Chemical Physics, 2006, 124, 024720.	3.0	8
72	Progress in the Development of New Optics for Very High Resolution Inelastic X-Ray Scattering Spectroscopy. AIP Conference Proceedings, 2007, .	0.4	8

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73	Bulk Modulus of a Protein Active-Site Mimic. Journal of Physical Chemistry B, 2011, 115, 4469-4473.	2.6	8
74	Shaping the terahertz sound propagation in water under highly directional confinement. Physical Review B, 2020, 101, .	3.2	8
75	Giant anisotropic in-plane thermal conduction induced by Anomalous phonons in pentagonal PdSe ₂ . Materials Today Physics, 2022, 22, 100599.	6.0	8
76	Short-wavelength collective excitations in liquid mercury investigated by inelastic X-ray scattering. Applied Physics A: Materials Science and Processing, 2002, 74, s1648-s1650.	2.3	7
77	Partial glass isosymmetry transition in multiferroic hexagonal ErMnO ₃ . Physical Review B, 2016, 93, .	3.2	7
78	The Terahertz Dynamics of an Aqueous Nanoparticle Suspension: An Inelastic X-ray Scattering Study. Nanomaterials, 2020, 10, 860.	4.1	7
79	Lattice dynamics and elasticity in thermoelectric $\text{Mg}_{1-x}\text{Sn}_x$. Physical Review Materials, 2019, 3, .	2.4	7
80	Acoustic phonon dispersion of RuCl_3 . Physical Review B, 2022, 106, .	3.2	7
81	Source and optics considerations for new generation high-resolution inelastic X-ray spectrometers. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2001, 467-468, 617-622.	1.6	6
82	Onset of interfacial waves in the terahertz spectrum of a nanoparticle suspension. Physical Review E, 2020, 102, 022601.	2.1	6
83	Experimental aspects of inelastic X-ray scattering studies on liquids under extreme conditions (P-T). High Pressure Research, 2008, 28, 175-183.	1.2	4
84	Collective Excitations in Protein as a Measure of Balance Between its Softness and Rigidity. Journal of Physical Chemistry B, 2017, 121, 923-930.	2.6	3
85	Elastic properties of type-I clathrate $\text{K}_{8-x}\text{Zn}_4\text{Sn}_{42-x}$ determined by inelastic X-ray scattering. Europhysics Letters, 2016, 113, 16001.	2.0	1
86	Signature of Many-Body Localization of Phonons in Strongly Disordered Superlattices. Nano Letters, 2021, 21, 7419-7425.	9.1	1
87	The damping of terahertz acoustic modes in aqueous nanoparticle suspensions. Scientific Reports, 2021, 11, 20110.	3.3	1
88	Anharmonicity in partially filled skutterudites $\text{Yb}_x\text{Co}_4\text{Sb}_{12}$. Journal of Applied Physics, 2021, 130, 185105.	2.5	1
89	Kohn anomaly and elastic softening in body-centered cubic molybdenum at high pressure. Physical Review B, 2022, 105, .	3.2	1
90	Microfocusing options for the inelastic X-ray scattering beamline at sector 3 of the Advanced Photon Source. Journal of Synchrotron Radiation, 2014, 21, 488-496.	2.4	0

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91	Balance between Protein Softness and Rigidity Assessed by Inelastic X-ray Scattering. Biophysical Journal, 2017, 112, 201a.	0.5	0