

# Michael Krisch

## List of Publications by Year in descending order

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253  
papers

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22099

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256  
all docs

256  
docs citations

256  
times ranked

10221  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Widom line as the crossover between liquid-like and gas-like behaviour in supercritical fluids. Nature Physics, 2010, 6, 503-507.	6.5	418
2	Phonon dispersion of graphite by inelastic x-ray scattering. Physical Review B, 2007, 76, .	1.1	381
3	Direct evidence for dominant bond-directional interactions in a honeycomb lattice iridate Na <sub>2</sub> IrO <sub>3</sub> . Nature Physics, 2015, 11, 462-466.	6.5	321
4	Dynamics of Glasses and Glass-Forming Liquids Studied by Inelastic X-ray Scattering. Science, 1998, 280, 1550-1555.	6.0	315
5	Elasticity of single-crystalline graphite: Inelastic x-ray scattering study. Physical Review B, 2007, 75, .	1.1	264
6	Collective Dynamics in Water by High Energy Resolution Inelastic X-Ray Scattering. Physical Review Letters, 1995, 75, 850-853.	2.9	241
7	Inelastic X-ray scattering in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.6</sub> reveals giant phonon anomalies and elastic central peak due to charge-density-wave formation. Nature Physics, 2014, 10, 52-58.	6.5	237
8	Elasticity of hexagonal boron nitride: Inelastic x-ray scattering measurements. Physical Review B, 2006, 73, .	1.1	230
9	Anisotropic Elastic Properties of Cellulose Measured Using Inelastic X-ray Scattering. Macromolecules, 2008, 41, 9755-9759.	2.2	207
10	Evidence of High Frequency Propagating Modes in Vitreous Silica. Physical Review Letters, 1996, 77, 3835-3838.	2.9	191
11	Vibrational Properties of Hexagonal Boron Nitride: Inelastic X-Ray Scattering and Ab Initio Calculations. Physical Review Letters, 2007, 98, 095503.	2.9	190
12	Phonon Dispersion Curves in Wurtzite-Structure GaN Determined by Inelastic X-Ray Scattering. Physical Review Letters, 2001, 86, 906-909.	2.9	176
13	Transition from Normal to Fast Sound in Liquid Water. Physical Review Letters, 1996, 77, 83-86.	2.9	175
14	Phonon Dispersions of fcc $\alpha$ -Plutonium-Gallium by Inelastic X-ray Scattering. Science, 2003, 301, 1078-1080.	6.0	164
15	Suppression of thermal conductivity by rattling modes in thermoelectric sodium cobaltate. Nature Materials, 2013, 12, 1028-1032.	13.3	163
16	Sound Velocities in Iron to 110 Gigapascals. Science, 2001, 291, 468-471.	6.0	151
17	A perfect crystal X-ray analyser with meV energy resolution. Nuclear Instruments & Methods in Physics Research B, 1996, 111, 181-186.	0.6	141
18	Phonon Dispersion and Lifetimes in MgB <sub>2</sub> . Physical Review Letters, 2003, 90, 095506.	2.9	139

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19	X-ray Monochromator with 2 Å— 108 Energy Resolution. Journal of Synchrotron Radiation, 1996, 3, 62-64.	1.0	126
20	Role of Disorder in the Thermodynamics and Atomic Dynamics of Glasses. Physical Review Letters, 2014, 112, 025502.	2.9	125
21	Equivalence of the sound velocity in water and ice at mesoscopic wavelengths. Nature, 1996, 379, 521-523.	13.7	120
22	Elastic anisotropy in textured hcp-iron to 112 GPa from sound wave propagation measurements. Earth and Planetary Science Letters, 2004, 225, 243-251.	1.8	120
23	Spin Crossover in Ferropiclasite at High Pressure: A Seismologically Transparent Transition?. Science, 2011, 331, 64-67.	6.0	118
24	Evidence for a Quadrupolar Excitation Channel at the LIII Edge of Gadolinium by Resonant Inelastic X-Ray Scattering. Physical Review Letters, 1995, 74, 4931-4934.	2.9	114
25	High-frequency longitudinal and transverse dynamics in water. Physical Review E, 2005, 71, 011501.	0.8	106
26	Spectral sharpening of the Pt Ledges by high-resolution x-ray emission. Physical Review B, 2002, 66, .	1.1	104
27	Observation of Large Momentum Phononlike Modes in Glasses. Physical Review Letters, 1996, 76, 3356-3359.	2.9	102
28	Schottky type photodiodes as detectors in the VUV and soft x-ray range. Applied Optics, 1988, 27, 4336.	2.1	100
29	Liquidlike Behavior of Supercritical Fluids. Physical Review Letters, 2006, 97, 245702.	2.9	98
30	Coherent Dynamic Structure Factor of Liquid Lithium by Inelastic X-Ray Scattering. Physical Review Letters, 1997, 78, 1715-1718.	2.9	96
31	Anomalous Dispersion of Longitudinal Optical Phonons in Nd <sub>1.86</sub> Ce <sub>0.14</sub> CuO <sub>4</sub> + $\delta$ Determined by Inelastic X-Ray Scattering. Physical Review Letters, 2002, 88, 167002.	2.9	92
32	A perfect crystal X-ray analyser with 1.5 meV energy resolution. Nuclear Instruments & Methods in Physics Research B, 1996, 117, 339-340.	0.6	86
33	Nondynamic Origin of the High-Frequency Acoustic Attenuation in Glasses. Physical Review Letters, 1999, 83, 5583-5586.	2.9	86
34	X-Ray Raman Spectroscopic Study of Water in the Condensed Phases. Physical Review Letters, 2008, 100, 095502.	2.9	86
35	Phonon dispersion relations of zinc oxide: Inelastic neutron scattering and <i>ab initio</i> calculations. Physical Review B, 2010, 81, .	1.1	85
36	Phonon surface mapping of graphite: Disentangling quasi-degenerate phonon dispersions. Physical Review B, 2009, 80, .	1.1	83

#	ARTICLE	IF	CITATIONS
37	Planning, performing and analyzing X-ray Raman scattering experiments. Journal of Synchrotron Radiation, 2015, 22, 400-409.	1.0	82
38	Design-based stereology: Planning, volumetry and sampling are crucial steps for a successful study. Annals of Anatomy, 2014, 196, 3-11.	1.0	81
39	Studies of coherent and diffuse x-ray scattering by porous silicon. Journal of Applied Physics, 1992, 71, 145-149.	1.1	79
40	Magnetic and structural phase transition in Fe monitored by x-ray emission spectroscopy. Physical Review B, 1999, 60, 14510-14512.	1.1	79
41	Phonon density of states probed by inelastic x-ray scattering. Physical Review B, 2005, 72, .	1.1	79
42	All-in-Out Magnetic Order and Propagating Spin Waves in $\text{SmO}_2$ . Physical Review Letters, 2016, 117, 037201.	2.9	79
43	A large-solid-angle X-ray Raman scattering spectrometer at ID20 of the European Synchrotron Radiation Facility. Journal of Synchrotron Radiation, 2017, 24, 521-530.	1.0	76
44	X-ray-Raman scattering from the oxygen K-edge in liquid and solid H <sub>2</sub> O. Physical Review B, 2000, 62, R9223-R9227.	1.1	74
45	Lattice dynamics of methane and xenon hydrate: Observation of symmetry-avoided crossing by experiment and theory. Physical Review B, 2003, 68, .	1.1	74
46	Diffuse scattering in relaxor ferroelectrics: true three-dimensional mapping, experimental artefacts and modelling. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, 117-123.	0.3	74
47	Bond Stretching Phonon Softening and Kinks in the Angle-Resolved Photoemission Spectra of Optimally Doped $\text{Sr}_2\text{Bi}_2\text{O}_7$ . Physical Review Letters, 2009, 102, 037002.	2.9	73
48	Giant Kohn Anomaly and the Phase Transition in Charge Density Wave $\text{ZrTe}_3$ . Physical Review Letters, 2009, 102, 086402.	2.9	71
49	Identification of Quadrupolar Excitation Channels at the L <sub>3</sub> Edge of Rare-Earth Compounds. Physical Review Letters, 1997, 79, 3775-3778.	2.9	70
50	A Spin-Orbit Mott Insulator Beyond the $\text{CaIrO}_3$ . Physical Review Letters, 2014, 112, 176402.	2.9	70
51	Dynamics and Thermodynamics beyond the critical point. Scientific Reports, 2013, 3, 1203.	1.6	69
52	Persistent Paramagnons Deep in the Metallic Phase of $\text{Sr}_2\text{IrO}_7$ . Physical Review Letters, 2016, 117, 107001.	2.9	68
53	Counterions between charged polymers exhibit liquid-like organization and dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 7962-7967.	3.3	66
54	Momentum Transfer Dependence of Inelastic X-Ray Scattering from the Li K-edge. Physical Review Letters, 1997, 78, 2843-2846.	2.9	65

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55	Magnetism of Invar alloys under pressure examined by inelastic x-ray scattering. Physical Review B, 2001, 63, .	1.1	64
56	High Frequency Dynamics of Glass Forming Liquids at the Glass Transition. Physical Review Letters, 1998, 80, 544-547.	2.9	62
57	Toward a mineral physics reference model for the Moon's core. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3916-3919.	3.3	62
58	A high-energy-resolution resonant inelastic X-ray scattering spectrometer at ID20 of the European Synchrotron Radiation Facility. Journal of Synchrotron Radiation, 2018, 25, 580-591.	1.0	61
59	Pressure Evolution of the High-Frequency Sound Velocity in Liquid Water. Physical Review Letters, 2002, 89, 125502.	2.9	60
60	Aggregate and single-crystalline elasticity of hcp cobalt at high pressure. Physical Review B, 2005, 72, .	1.1	59
61	High-frequency propagating modes in vitreous silica at 295 K. Physical Review B, 1997, 55, 8049-8051.	1.1	58
62	Advances in crystal analyzers for inelastic X-ray scattering. Journal of Physics and Chemistry of Solids, 2005, 66, 2299-2305.	1.9	57
63	Sound wave velocities of fcc Fe-Ni alloy at high pressure and temperature by mean of inelastic X-ray scattering. Physics of the Earth and Planetary Interiors, 2007, 164, 83-89.	0.7	57
64	Elasticity of Cobalt at High Pressure Studied by Inelastic X-Ray Scattering. Physical Review Letters, 2004, 93, 215505.	2.9	56
65	Phonon dispersion curves in an argon single crystal at high pressure by inelastic x-ray scattering. Physical Review B, 2001, 63, .	1.1	50
66	Observation of magnetic circular dichroism in resonant inelastic x-ray scattering at the L <sub>3</sub> edge of gadolinium metal. Physical Review B, 1996, 54, R12673-R12676.	1.1	49
67	Optical design and performance of the inelastic scattering beamline at the National Synchrotron Light Source. Review of Scientific Instruments, 1995, 66, 1699-1702.	0.6	47
68	High-Frequency Acoustic Modes in Liquid Gallium at the Melting Point. Physical Review Letters, 2002, 89, 255506.	2.9	47
69	Phonons of the anomalous element cerium. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9342-9345.	3.3	47
70	Understanding the Complex Phase Diagram of Uranium: The Role of Electron-Phonon Coupling. Physical Review Letters, 2011, 107, 136401.	2.9	47
71	Evidence of quantum dimer excitations in $\text{Sr}_3\text{O}_7$ . Physical Review B, 2015, 92, .	1.1	44
72	Application of inelastic X-ray scattering to the measurements of acoustic wave velocities in geophysical materials at very high pressure. Physics of the Earth and Planetary Interiors, 2004, 143-144, 5-18.	0.7	43

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73	Critical scattering and incommensurate phase transition in antiferroelectric PbZrO <sub>3</sub> under pressure. Scientific Reports, 2017, 7, 41512.	1.6	43
74	Comment on "Evidence of High Frequency Propagating Modes in Vitreous Silica". Physical Review Letters, 1997, 78, 4669-4669.	2.9	42
75	Overbending of the longitudinal optical phonon branch in diamond as evidenced by inelastic neutron and x-ray scattering. Physical Review B, 2002, 66, .	1.1	42
76	Anharmonicity due to Electron-Phonon Coupling in Magnetite. Physical Review Letters, 2013, 110, 207204.	2.9	42
77	Weak anharmonic effects in MgB <sub>2</sub> : A comparative inelastic x-ray scattering and Raman study. Physical Review B, 2007, 75, .	1.1	41
78	Phonon density of states in NdFeAsO <sub>1-x</sub> F <sub>x</sub> . Physical Review B, 2008, 78, .	1.1	41
79	Lattice dynamics of skutterudites: inelastic x-ray scattering on $\text{CoSb}_3$ . Physical Review B, 2008, 77, .	1.1	41
80	InN Thin Film Lattice Dynamics by Grazing Incidence Inelastic X-Ray Scattering. Physical Review Letters, 2011, 106, 205501.	2.9	41
81	Crystal dynamics of fcc Pu-Ga alloy by high-resolution inelastic x-ray scattering. Physical Review B, 2005, 72, .	1.1	40
82	Signatures of Short-Range Many-Body Effects in the Dielectric Function of Silicon for Finite Momentum Transfer. Physical Review Letters, 2006, 97, 237602.	2.9	40
83	Lattice dynamics of beryllium oxide: Inelastic x-ray scattering and <i>ab initio</i> calculations. Physical Review B, 2008, 77, .	1.1	40
84	Phonon dispersion of oriented DNA by inelastic x-ray scattering. Physical Review E, 2006, 73, 061909.	0.8	39
85	Dynamics in the charge-density-wave system NbSe <sub>3</sub> using inelastic x-ray scattering with meV energy resolution. Physical Review B, 2002, 66, .	1.1	38
86	Phonon Modes at the 2H-NbSe <sub>2</sub> Surface Observed by Grazing Incidence Inelastic X-Ray Scattering. Physical Review Letters, 2005, 95, 256104.	2.9	38
87	Lattice Dynamics of Molybdenum at High Pressure. Physical Review Letters, 2006, 96, 115502.	2.9	38
88	Technical advances in x-ray microbeam radiation therapy. Physics in Medicine and Biology, 2020, 65, 02TR01.	1.6	38
89	Storage of X-ray photons in a crystal resonator. Nature, 2000, 404, 371-373.	13.7	36
90	Short-Range Correlations in Magnetite above the Verwey Temperature. Physical Review X, 2014, 4, .	2.8	36

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91	Nonadiabatic Kohn Anomaly in Heavily Boron-Doped Diamond. <i>Physical Review Letters</i> , 2017, 119, 017001.	2.9	36
92	Synchrotron Microbeam Radiation Therapy as a New Approach for the Treatment of Radioresistant Melanoma: Potential Underlying Mechanisms. <i>International Journal of Radiation Oncology Biology Physics</i> , 2019, 105, 1126-1136.	0.4	36
93	Liquid nitrogen cooling of monochromator crystals exposed to intense synchrotron radiation. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1991, 306, 386-390.	0.7	35
94	Status of phonon studies at high pressure by inelastic x-ray scattering. <i>Journal of Raman Spectroscopy</i> , 2003, 34, 628-632.	1.2	35
95	Nondispersive Bragg diffraction in the general case of two cylindrically bent crystals. <i>Review of Scientific Instruments</i> , 1992, 63, 920-923.	0.6	34
96	Adiabatic and isothermal sound waves: The case of supercritical nitrogen. <i>Europhysics Letters</i> , 2006, 75, 70-76.	0.7	34
97	Charge transfer multiplet calculations of the K beta X-ray emission spectra of divalent nickel compounds. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 6875-6884.	0.7	33
98	Elasticity of Hexagonal-Closed-Packed Cobalt at High Pressure and Temperature: A Quasiharmonic Case. <i>Physical Review Letters</i> , 2008, 100, 085501.	2.9	33
99	$M^{1-x}Sb_4$	1.1	33
100	Lattice Dynamics and Superconductivity in Cerium at High Pressure. <i>Physical Review Letters</i> , 2012, 108, 045502.	2.9	33
101	Collective dynamics in water by inelastic x-rays scattering. <i>Physica Scripta</i> , 1996, T66, 48-56.	1.2	33
102	Acoustic nature of the boson peak in vitreous silica. <i>The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties</i> , 1999, 79, 2013-2020.	0.6	32
103	Lattice Dynamics of MgO at High Pressure: Theory and Experiment. <i>Physical Review Letters</i> , 2006, 96, 035507.	2.9	32
104	High-frequency dynamics of liquid and supercritical water. <i>Physical Review E</i> , 2007, 75, 051202.	0.8	32
105	Vibrational dynamics and surface structure of amorphous selenium. <i>Nature Communications</i> , 2011, 2, 195.	5.8	32
106	Soft antiferroelectric fluctuations in morphotropic $PbZr_{1-x}Ti_xO_3$ single crystals as evidenced by inelastic x-ray scattering. <i>Physical Review B</i> , 2011, 83, .	1.1	32
107	X-RAY RAMAN SCATTERING FROM LOW Z MATERIALS. <i>Surface Review and Letters</i> , 2002, 09, 969-976.	0.5	31
108	Anomalous pressure evolution of the axial ratio $c/a$ in hcp cobalt: Interplay between structure, magnetism, and lattice dynamics. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	31

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109	High frequency dynamics in liquids and supercritical fluids: A comparative inelastic x-ray scattering study. <i>Journal of Chemical Physics</i> , 2009, 130, 064501.	1.2	31
110	Theoretical analysis of the magnetic circular dichroism in the 2p <sub>3/2</sub> and 2p <sub>1/2</sub> x-ray emission of Gd. <i>Physical Review B</i> , 1997, 56, 7285-7292.	1.1	30
111	Probing the Coulomb Interaction of the Unconventional Superconductor PuCoGa <sub>5</sub> by Phonon Spectroscopy. <i>Physical Review Letters</i> , 2006, 96, 237003.	2.9	30
112	Inelastic x-ray scattering study of superconducting $\text{SmFeAsO}_{1-x}$ crystals: Evidence for strong momentum-dependent doping-induced renormalizations of optical phonons. <i>Physical Review B</i> , 2009, 80, .	1.1	29
113	Structural and Collisional Relaxations in Liquids and Supercritical Fluids. <i>Physical Review Letters</i> , 2007, 98, 085501.	2.9	29
114	Observation of heavy spin-orbit excitons propagating in a nonmagnetic background: The case of $\text{BaCu}_2\text{Si}_2$ . <i>Physical Review B</i> , 2018, 97, .	1.1	29
115	High-frequency transverse dynamics in glasses. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S1269-S1278.	0.7	28
116	Inelastic x-ray scattering from polycrystalline materials at low momentum transfer. <i>Physical Review B</i> , 2007, 75, .	1.1	28
117	Dynamical Crossover at the Liquid-Liquid Transformation of a Compressed Molten Alkali Metal. <i>Physical Review Letters</i> , 2013, 111, 077801.	2.9	28
118	Improving the energy resolution of bent crystal X-ray spectrometers with position-sensitive detectors. <i>Journal of Synchrotron Radiation</i> , 2014, 21, 762-767.	1.0	28
119	Pressure-Induced In-Glass Structural Transformation in the Amorphous Polymer Poly(methylmethacrylate). <i>Physical Review Letters</i> , 1998, 80, 4205-4208.	2.9	27
120	Quadrupolar excitation channels at the L <sub>3</sub> edge of rare-earth ions probed by resonant inelastic x-ray scattering. <i>Physical Review B</i> , 1999, 60, 13497-13506.	1.1	27
121	Evolution of the germanium $K\beta_2$ x-ray satellites from threshold to saturation. <i>Physical Review A</i> , 2000, 61, .	1.0	26
122	Sharp optical-phonon softening near optimal doping in $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ observed via inelastic x-ray scattering. <i>Physical Review B</i> , 2008, 78, .	1.1	26
123	Lattice Dynamics of EuO: Evidence for Giant Spin-Phonon Coupling. <i>Physical Review Letters</i> , 2016, 116, 185501.	2.9	26
124	Acoustic-phonon dispersion in CdTe at 7.5 GPa. <i>Physical Review B</i> , 1997, 56, 8691-8694.	1.1	25
125	Measurement of strong phonon softening in Cr with and without Fermi-surface nesting by inelastic x-ray scattering. <i>Physical Review B</i> , 2010, 82, .	1.1	25
126	Mössbauer spectroscopy using synchrotron radiation: overcoming detector limitations. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 1995, 103, 371-375.	0.6	24



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127	Line broadening in the collective dynamics of liquid and solid water. <i>Physical Review B</i> , 1996, 54, 14892-14895.	1.1	24
128	Dynamics of Dense Supercritical Neon at the Transition from Hydrodynamical to Single-Particle Regimes. <i>Physical Review Letters</i> , 1998, 80, 3515-3518.	2.9	24
129	Phonons in the icosahedral quasicrystal-AlPdMn studied by inelastic x-ray scattering. <i>Physical Review B</i> , 2002, 65, .	1.1	24
130	Inelastic x-ray scattering study of charge-density-wave dynamics in the Rb <sub>0.3</sub> MoO <sub>3</sub> blue bronze. <i>Physical Review B</i> , 2004, 69, .	1.1	24
131	Lattice dynamics of vanadium: Inelastic x-ray scattering measurements. <i>Physical Review B</i> , 2008, 78, .	1.1	24
132	High-frequency dynamics in the near-surface region studied by inelastic x-ray scattering: the case of liquid indium. <i>New Journal of Physics</i> , 2011, 13, 023021.	1.2	24
133	Lattice dynamics of multiferroic BiFeO <sub>3</sub> studied by inelastic x-ray scattering. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 102201.	0.7	23
134	Phonon anomalies at the valence transition of SmS: An inelastic x-ray-scattering study under pressure. <i>Physical Review B</i> , 2002, 66, .	1.1	22
135	Inelastic X-Ray Scattering from Phonons. , 2006, , 317-370.		22
136	In situ characterization of the decomposition behavior of Mg(BH <sub>4</sub> ) <sub>2</sub> by X-ray Raman scattering spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5397-5403.	1.3	22
137	Benassiet al.Reply. <i>Physical Review Letters</i> , 1997, 78, 4670-4670.	2.9	21
138	Plasmons in Sodium under Pressure: Increasing Departure from Nearly Free-Electron Behavior. <i>Physical Review Letters</i> , 2011, 107, 086402.	2.9	21
139	Crystal field splitting in Sr <sub>n+1</sub> Ir <sub>n</sub> O <sub>3n+1</sub> (n=1,2) iridates probed by x-ray Raman spectroscopy. <i>Physical Review B</i> , 2014, 90, .	1.1	21
140	Unexpected Benefits of Multiport Synchrotron Microbeam Radiation Therapy for Brain Tumors. <i>Cancers</i> , 2021, 13, 936.	1.7	21
141	New insights into the lattice dynamics of $\alpha$ -quartz. <i>Zeitschrift für Kristallographie</i> , 2012, 227, 84-91.	1.1	20
142	Complete Remission of Mouse Melanoma after Temporally Fractionated Microbeam Radiotherapy. <i>Cancers</i> , 2020, 12, 2656.	1.7	20
143	Study of dynamically bent crystals for X-ray focusing optics. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 1991, 305, 208-213.	0.7	19
144	High-resolution x-ray spectrometer based on a cylindrically bent crystal in nondispersive geometry. <i>Review of Scientific Instruments</i> , 1995, 66, 1525-1527.	0.6	19

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145	Phonon softening in $\text{Na}_x\text{CoO}_2 \cdot y\text{H}_2\text{O}$ : Implications for the Fermi surface topology and the superconducting state. <i>Physical Review B</i> , 2006, 74, .	1.1	19
146	Lattice Dynamics of Incommensurate Composite Rb-IV and a Realization of the Monatomic Linear Chain Model. <i>Physical Review Letters</i> , 2007, 99, 035501.	2.9	19
147	Dispersion Relation of an OH-Stretching Vibration from Inelastic X-Ray Scattering. <i>Physical Review Letters</i> , 2008, 101, 065501.	2.9	19
148	Large carbon-isotope shift of TC in boron-doped diamond. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	18
149	Lattice dynamics of stishovite from powder inelastic X-ray scattering. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	18
150	Lattice dynamics of $\alpha$ -cristobalite and the Boson peak in silica glass. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 305401.	0.7	18
151	Inelastic X-ray scattering with very high resolution at the ESRF. <i>Crystallography Reports</i> , 2017, 62, 1-12.	0.1	18
152	Phonon dispersion in the one-layer cuprate $\text{HgBa}_2\text{CuO}_4$ . <i>Journal of Physics Condensed Matter</i> , 2003, 15, 8827-8836.	0.7	17
153	Elastic properties of methane hydrate at high pressures. <i>Physical Review B</i> , 2005, 72, .	1.1	17
154	High-Frequency Subsurface and Bulk Dynamics of Liquid Indium. <i>Physical Review Letters</i> , 2007, 98, 096104.	2.9	17
155	The phonon dispersion of wurtzite-ZnO revisited. <i>Physica Status Solidi (B): Basic Research</i> , 2007, 244, 1478-1482.	0.7	17
156	High resolution radiochromic film dosimetry: Comparison of a microdensitometer and an optical microscope. <i>Physica Medica</i> , 2019, 65, 106-113.	0.4	17
157	Observation of Umklapp processes in noncrystalline materials. <i>Physical Review B</i> , 2001, 64, .	1.1	16
158	Microscopic Structure in Liquid Hydrogen and Deuterium: An X-Ray Scattering Study. <i>Journal of Low Temperature Physics</i> , 2002, 129, 117-131.	0.6	16
159	Hydration Dynamics at Femtosecond Time Scales and Angstrom Length Scales from Inelastic X-Ray Scattering. <i>Physical Review Letters</i> , 2009, 103, 237402.	2.9	16
160	In-between Bragg reflections: thermal diffuse scattering and vibrational spectroscopy with x-rays. <i>Journal Physics D: Applied Physics</i> , 2015, 48, 504003.	1.3	16
161	A compact and versatile dynamic flow cryostat for photon science. <i>Review of Scientific Instruments</i> , 2016, 87, 115103.	0.6	16
162	Full Elasticity Tensor from Thermal Diffuse Scattering. <i>Physical Review Letters</i> , 2017, 118, 035502.	2.9	16

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163	Synchrotron X-Ray Boost Delivered by Microbeam Radiation Therapy After Conventional X-Ray Therapy Fractionated in Time Improves F98 Glioma Control. International Journal of Radiation Oncology Biology Physics, 2020, 107, 360-369.	0.4	16
164	Characteristics And Applications Of Semiconductor Photodiodes From The Visible To The X-Ray Region. Proceedings of SPIE, 1986, , .	0.8	15
165	Diffuse scattering in Ih ice. Journal of Physics Condensed Matter, 2014, 26, 265401.	0.7	15
166	Lattice dynamics in the paraelectric phase of $\text{PbHfO}_3$ studied by inelastic x-ray scattering. Journal of Physics Condensed Matter, 2015, 27, 335901.	0.7	15
167	Dynamical and elastic properties of $\text{MgSiO}_3$ perovskite (bridgmanite). Geophysical Research Letters, 2016, 43, 2568-2575.	1.5	15
168	Film dosimetry studies for patient specific quality assurance in microbeam radiation therapy. Physica Medica, 2019, 65, 227-237.	0.4	15
169	X-ray Raman scattering from the carbon K edge in polymerized C60: experiment and theory. Journal of Physics Condensed Matter, 2002, 14, 11635-11641.	0.7	14
170	In-plane copper-oxygen bond-stretching mode anomaly in underdoped $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ measured with high-resolution inelastic x-ray scattering. Physical Review B, 2007, 76, .	1.1	14
171	Inelastic x-ray scattering from high pressure fluids in a diamond anvil cell. Applied Physics Letters, 2009, 94, .	1.5	14
172	3D Imaging of the Fermi Surface by Thermal Diffuse Scattering. Physical Review Letters, 2009, 103, 076403.	2.9	14
173	Single-crystal lattice dynamics derived from polycrystalline inelastic x-ray scattering spectra. Physical Review B, 2009, 79, .	1.1	14
174	Pressure dependence of phonon modes across the tetragonal to collapsed-tetragonal phase transition in $\text{CaFe}_2\text{As}_2$ . Physical Review B, 2010, 81, .	1.1	14
175	Formation of $\text{CaB}_6$ in the thermal decomposition of the hydrogen storage material $\text{Ca}(\text{BH}_4)_2$ . Physical Chemistry Chemical Physics, 2016, 18, 19866-19872.	1.3	14
176	Nonadiabatic effects in the phonon dispersion of $\text{MgB}_2$ . Physical Review B, 2016, 93, .	1.1	14
177	Resonant inelastic x-ray scattering at the $L_2$ and $L_3$ edge of terbium in $\text{TbCo}_2$ and $\text{TbF}_3$ . Physical Review B, 2000, 62, 7093-7097.	1.1	13
178	Energy calibration of a high-resolution inelastic x-ray scattering spectrometer. Review of Scientific Instruments, 2008, 79, 083902.	0.6	13
179	Phonon anomalies and lattice dynamics in the superconducting oxchlorides $\text{Ca}_{2-x}\text{CuO}_2\text{Cl}_2$ . Physical Review B, 2013, 88, .	1.1	13
180	Phonon triggered rhombohedral lattice distortion in vanadium at high pressure. Scientific Reports, 2016, 6, 31887.	1.6	13

#	ARTICLE	IF	CITATIONS
181	The lens equation for Bragg diffraction optics. The general case of asymmetrical reflection. Journal of Applied Crystallography, 1992, 25, 211-213.	1.9	12
182	ELECTRON-PHONON INTERACTION IN N-DOPED CUPRATES: AN INELASTIC X-RAY SCATTERING STUDY. International Journal of Modern Physics B, 2003, 17, 484-492.	1.0	12
183	Acoustic-like dynamics of amorphous drugs in the THz regime. Scientific Reports, 2013, 3, 2518.	1.6	12
184	A miniature closed-circle flow cell for high photon flux X-ray scattering experiments. Journal of Synchrotron Radiation, 2015, 22, 1555-1558.	1.0	12
185	Study of dynamically bent crystals for X-ray focusing optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1991, 308, 378-381.	0.7	11
186	A comparative dosimetry study of an alanine dosimeter with a PTW PinPoint chamber at ultra-high dose rates of synchrotron radiation. Physica Medica, 2020, 71, 161-167.	0.4	11
187	Diffuse scattering in metallic tin polymorphs. Journal of Physics Condensed Matter, 2014, 26, 115401.	0.7	10
188	Lattice dynamics of neodymium: Influence of correlations. Physical Review B, 2016, 94, .	1.0	10
189	Evaluation of the anticlastic curvature of elastically bent crystals for X-ray focusing optics. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1992, 311, 444-447.	0.7	9
190	Phonons in the icosahedral quasicrystal i-AlPdMn studied by coherent inelastic scattering of synchrotron radiation. Ferroelectrics, 2001, 250, 233-236.	0.3	9
191	High-frequency dynamics of the glass former dibutylphthalate under pressure. Physical Review E, 2002, 66, 031510.	0.8	9
192	Probing vibrational excitations in molecular crystals by inelastic scattering: From neutrons to X-rays. Chemical Physics, 2005, 317, 153-158.	0.9	9
193	Phonons in SiC from INS, IXS, and Ab-Initio Calculations. Materials Science Forum, 2006, 527-529, 689-694.	0.3	9
194	Investigating surface dynamics with inelastic x-ray scattering. Journal of Physics Condensed Matter, 2008, 20, 224001.	0.7	9
195	Single-crystal elastic constants of the zeolite analcime measured by inelastic X-ray scattering. Chemical Physics Letters, 2009, 471, 286-289.	1.2	9
196	Transient and Efficient Vascular Permeability Window for Adjuvant Drug Delivery Triggered by Microbeam Radiation. Cancers, 2021, 13, 2103.	1.7	9
197	Spin resolved resonant Raman scattering. Journal of Applied Physics, 1996, 79, 6509.	1.1	8
198	Magnetic x-ray investigation at the L2,3 edges of Nd in Nd2Fe14B. Journal of Applied Physics, 1998, 83, 7091-7093.	1.1	8

#	ARTICLE	IF	CITATIONS
199	Bloch k-selective resonant inelastic scattering of hard x rays at valence electrons of Ni in NiAl. <i>Physical Review B</i> , 1999, 60, 8624-8627.	1.1	8
200	Resonant inelastic X-ray scattering of magnetic excitations under pressure. <i>Journal of Synchrotron Radiation</i> , 2019, 26, 1725-1732.	1.0	8
201	Anelasticity of FeO at high pressure. <i>Applied Physics Letters</i> , 2008, 93, 034106.	1.5	7
202	Absence of superconductivity in fluorine-doped neptunium pnictide NpFeAsO. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 325702.	0.7	7
203	Probing the thermal stability and the decomposition mechanism of a magnesium–fullerene polymer via X-ray Raman spectroscopy, X-ray diffraction and molecular dynamics simulations. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 5366-5371.	1.3	7
204	Inelastic x-ray scattering at the National Synchrotron Light Source (invited). <i>Review of Scientific Instruments</i> , 1996, 67, 3363-3363.	0.6	6
205	Magnetic Transitions in Fe <sub>3</sub> Pt Invar Alloy Under High Pressure and Temperature Studied by Inelastic X-ray Scattering. <i>High Pressure Research</i> , 2002, 22, 53-56.	0.4	6
206	Phonon dispersion curve of icosahedral Mg–Zn–Y quasicrystals. <i>Journal of Non-Crystalline Solids</i> , 2004, 334-335, 207-209.	1.5	6
207	Phonon spectroscopy at high pressure by inelastic X-ray scattering. <i>Journal of Synchrotron Radiation</i> , 2009, 16, 707-713.	1.0	6
208	Pressure behavior of the sound velocity of liquid water at room temperature in the terahertz regime. <i>Physical Review B</i> , 2011, 84, .	1.1	6
209	Possible artifacts in inferring seismic properties from X-ray data. <i>Physics of the Earth and Planetary Interiors</i> , 2016, 260, 14-19.	0.7	6
210	Study of spherical aberrations for the design of ESRF beam lines. <i>Review of Scientific Instruments</i> , 1992, 63, 486-488.	0.6	5
211	X-ray resonant Raman scattering from Gd <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> . <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 1997, 86, 159-164.	0.8	5
212	Is there any evidence of a positive sound dispersion in the high frequency dynamics of noble gases?. <i>Journal of Physics and Chemistry of Solids</i> , 2000, 61, 477-483.	1.9	5
213	Determination of Phonon Dispersion Curves at Gigapascal Pressures by Inelastic X-ray Scattering. <i>High Pressure Research</i> , 2002, 22, 73-77.	0.4	5
214	Phonon dispersion studies of crystalline materials using high-energy resolution inelastic X-ray scattering (IXS). <i>Physica B: Condensed Matter</i> , 2002, 316-317, 150-153.	1.3	5
215	High-frequency transverse-like excitations in glassy glycerol. <i>Philosophical Magazine</i> , 2004, 84, 1453-1461.	0.7	5
216	Inelastic x-ray scattering from phonons under multibeam conditions. <i>Physical Review B</i> , 2007, 75, .	1.1	5

#	ARTICLE	IF	CITATIONS
217	Science under Extreme Conditions of Pressures and Temperatures at the ESRF. Synchrotron Radiation News, 2013, 26, 39-44.	0.2	5
218	<title>X-ray photon storage in a crystal cavity</title>. , 2001, , .		5
219	Intensity distribution of the eight-beam case of the Si-888 reflection in backscattering geometry. Zeitschrift Fur Kristallographie - Crystalline Materials, 2004, 219, .	0.4	4
220	Lattice dynamics of tetrahedrally bonded boron nitride probed by inelastic X-ray scattering. Radiation Physics and Chemistry, 2006, 75, 1661-1665.	1.4	4
221	High frequency dynamics of BMG determined by synchrotron radiation: A microscopic picture. Journal of Alloys and Compounds, 2010, 495, 319-322.	2.8	4
222	Setteet al.Reply:. Physical Review Letters, 1996, 76, 3657-3657.	2.9	3
223	Setteet al.Reply:. Physical Review Letters, 1997, 78, 976-976.	2.9	3
224	Comment on "Transition from Normal to Fast Sound in Liquid Water". Physical Review Letters, 1997, 78, 975-975.	2.9	3
225	Magnetic linear dichroism in x-ray emission spectroscopy: Yb in Yb <sub>3</sub> Fe <sub>5</sub> O <sub>12</sub> . Physical Review B, 2000, 62, 379-384.	1.1	3
226	Probing the Coulomb interaction of PuCoGa <sub>5</sub> by phonon spectroscopy. Journal of Alloys and Compounds, 2007, 444-445, 104-108.	2.8	3
227	Inelastic X-ray scattering investigations of lattice dynamics in SmFeAsO <sub>1-x</sub> F superconductors. Journal of Physics and Chemistry of Solids, 2011, 72, 523-526.	1.9	3
228	Influence of deuteration on lithium acetate dihydrate studied by inelastic X-ray scattering, density functional theory, thermal expansion, elastic and thermodynamic measurements. Dalton Transactions, 2011, 40, 1737.	1.6	3
229	Lattice dynamics of coesite. Journal of Physics Condensed Matter, 2013, 25, 275401.	0.7	3
230	Effect of Lateral Sliding Calcaneus Osteotomy on Tarsal Tunnel Pressure. Foot & Ankle Orthopaedics, 2020, 5, 247301142093101.	0.1	3
231	Resonant inelastic X-ray scattering at the L <sub>3</sub> edge of Eu <sup>2+</sup> , Gd <sup>3+</sup> , and Tb <sup>4+</sup> compounds. Physica B: Condensed Matter, 2002, 312-313, 850-852.	1.3	2
232	Inelastic x-ray scattering from stretch-oriented polyethylene. Journal of Chemical Physics, 2003, 119, 1879-1884.	1.2	2
233	Long-wavelength dispersion of transverse acoustic phonons in untwinned YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-<math>\delta</math></sub> single crystals. Physical Review B, 2007, 75, .	1.1	2
234	High-frequency dynamics of liquid and supercritical nitrogen. Philosophical Magazine, 2007, 87, 665-671.	0.7	2

#	ARTICLE	IF	CITATIONS
235	Symmetry of platelet defects in diamond: new insights with synchrotron light. Acta Crystallographica Section B: Structural Science, 2010, 66, 493-496.	1.8	2
236	Resonant X-ray emission with a standing wave excitation. Scientific Reports, 2016, 6, 22648.	1.6	2
237	A $\hbar\omega_{\text{eff}} = 1/2$ pseudospin continuum in $\text{CaIrO}_3$ . European Physical Journal Plus, 2020, 135, 1.	1.2	2
238	A new model of correlated disorder in relaxor ferroelectrics. Acta Crystallographica Section A: Foundations and Advances, 2011, 67, C78-C78.	0.3	2
239	<title>Experimental study of Fe/C multilayer performance: effects of substrate quality and of x-ray irradiation</title>. , 1992, , .		1
240	Resonant inelastic scattering of X-rays from NiAl: Bloch -vector selectivity. Journal of Physics and Chemistry of Solids, 2000, 61, 449-451.	1.9	1
241	Probing Phonons in Plutonium. Materials Research Society Symposia Proceedings, 2003, 802, 39.	0.1	1
242	Inelastic X-Ray scattering in cs under pressure. High Pressure Research, 2003, 23, 1-5.	0.4	1
243	DuMond analysis of bending in single crystals by Laue diffraction using $\sigma$ polarization geometry. Journal of Applied Crystallography, 2008, 41, 1053-1056.	1.9	1
244	EVALUATION OF THE IMPORTANCE OF GERMINATIVE CYCLES FOR DESTRUCTION OF BACILLUS CEREBUS SPORES IN MINIATURE CHEESES. High Pressure Research, 2003, 23, 1-1.	0.4	1
245	Resonant inelastic X-ray scattering study of rare-earth electronic excitation on R2Fe14B. Journal of Magnetism and Magnetic Materials, 1999, 196-197, 779-781.	1.0	0
246	Measuring the speed of sound in an iron-nickel alloy at high pressure by inelastic X-ray scattering. Doklady Physics, 2006, 51, 584-587.	0.2	0
247	Collective dynamics in liquid Ge obtained by an inelastic x-ray scattering experiment. Springer Proceedings in Physics, 2001, , 75-76.	0.1	0
248	Sound wave velocities of Fe-Ni alloy at high pressure and temperature. Acta Crystallographica Section A: Foundations and Advances, 2006, 62, s259-s259.	0.3	0
249	High-pressure anelastic behaviour of Fe <sub>x</sub> O. Acta Crystallographica Section A: Foundations and Advances, 2009, 65, s126-s126.	0.3	0
250	Lattice dynamics of multiferroic BiFeO <sub>3</sub> . Acta Crystallographica Section A: Foundations and Advances, 2010, 66, s167-s167.	0.3	0
251	Inelastic X-ray scattering: phonon spectroscopy under the extreme conditions. Acta Crystallographica Section A: Foundations and Advances, 2012, 68, s97-s97.	0.3	0
252	High-frequency collective excitations in liquid and solid water by inelastic X-ray scattering. Acta Crystallographica Section A: Foundations and Advances, 1996, 52, C366-C366.	0.3	0

#	ARTICLE	IF	CITATIONS
253	Lattice dynamics and elastic properties from thermal diffuse scattering. Acta Crystallographica Section A: Foundations and Advances, 2016, 72, s80-s81.	0.0	0