Douglas Abernathy

List of Publications by Year in descending order

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Version: 2024-02-01

210 papers	7,840 citations	43973 48 h-index	62479 80 g-index
215 all docs	215 docs citations	215 times ranked	8412 citing authors

#	Article	IF	Citations
1	Role of the third dimension in searching for Majorana fermions in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Î±</mml:mi><mml:mtext>â^'</mml:mtext><mml:msub via phonons. Physical Review Research, 2022, 4, .	1.3	14
2	Lattice and magnetic dynamics in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>YVO</mml:mi><mml:mn>3</mml:mn></mml:msub></mm Mott insulator studied by neutron scattering and first-principles calculations. Physical Review B, 2022, 105, .	1.1	1
3	Strongly Anharmonic Phonons and Their Role in Superionic Diffusion and Ultralow Thermal Conductivity of Cu₇PSe₆. Advanced Energy Materials, 2022, 12, .	10.2	26
4	Low-Temperature Competing Magnetic Energy Scales in the Topological Ferrimagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>TbMn</mml:mi></mml:mrow><mml:mrow><mml:mn>6</mml:mn></ Physical Review X, 2022, 12, .	2.8	10
5	Thermal expansion and phonon anharmonicity of cuprite studied by inelastic neutron scattering and <i>ab initio</i> calculations. Physical Review B, 2022, 105, .	1.1	5
6	Spiral Spin Liquid on a Honeycomb Lattice. Physical Review Letters, 2022, 128, .	2.9	15
7	Real-Space Local Dynamics of Molten Inorganic Salts Using Van Hove Correlation Function. Journal of Physical Chemistry Letters, 2022, 13, 5956-5962.	2.1	4
8	Frustration-induced diffusive scattering anomaly and dimension change in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>FeGe</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review B, 2022, 106, .	1.1	0
9	Suppressed thermal conductivity in hyperstoichiometric uranium dioxide controlled by phonon lifetimes. Applied Physics Letters, 2022, 121, 012202.	1.5	0
10	Mutual spin-phonon driving effects and phonon eigenvector renormalization in nickel (II) oxide. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	1
11	Two-dimensional overdamped fluctuations of the soft perovskite lattice in CsPbBr3. Nature Materials, 2021, 20, 977-983.	13.3	89
12	Prediction and observation of intermodulation sidebands from anharmonic phonons in NaBr. Physical Review B, 2021, 103, .	1.1	1
13	Soft anharmonic phonons and ultralow thermal conductivity in Mg ₃ (Sb, Bi) ₂ thermoelectrics. Science Advances, 2021, 7, .	4.7	52
14	Antiferromagnetic ordering and possible lattice response to dynamic uranium valence in U3O8. Physical Review B, 2021, 103, .	1.1	3
15	Uncovering design principles for amorphous-like heat conduction using two-channel lattice dynamics. Materials Today Physics, 2021, 18, 100344.	2.9	42
16	Neutron thermalization in nuclear graphite: A modern story of a classic moderator. Annals of Nuclear Energy, 2021, 161, 108437.	0.9	4
17	Thermal neutron scattering measurements and modeling of yttrium-hydrides for high temperature moderator applications. Annals of Nuclear Energy, 2021, 157, 108224.	0.9	6
18	Magnetic Field Effect on Topological Spin Excitations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>CrI</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mm Physical Review X, 2021, 11, .	2.8	37

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19	Quasiparticle twist dynamics in non-symmorphic materials. Materials Today Physics, 2021, 21, 100548.	2.9	8
20	Matryoshka phonon twinning in Î±-GaN. Communications Physics, 2021, 4, .	2.0	1
21	Fast Na diffusion and anharmonic phonon dynamics in superionic Na₃PS₄. Energy and Environmental Science, 2021, 14, 6554-6563.	15.6	36
22	Spin waves and Dirac magnons in a honeycomb-lattice zigzag antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mtext>BaNi</mml:mtext><mml:mn>2</mml:mn> Physical Review B, 2021, 104, .	1.1	2
23	Anharmonic Origin of the Giant Thermal Expansion of NaBr. Physical Review Letters, 2020, 125, 085504.	2.9	13
24	Nonlinear propagating modes beyond the phonons in fluorite-structured crystals. Communications Physics, 2020, 3, .	2.0	17
25	Temperature-dependent phonon lifetimes and thermal conductivity of silicon by inelastic neutron scattering and ab initio calculations. Physical Review B, 2020, 102, .	1.1	18
26	Phonon spectrum of underdoped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>HgBa</mml:mi><mml:mn>2</mml:mn> investigated by neutron scattering. Physical Review B, 2020, 101, .	1.1	9
27	Observation of High-Frequency Transverse Phonons in Metallic Glasses. Physical Review Letters, 2020, 124, 225902.	2.9	20
28	Vacancy-driven variations in the phonon density of states of fast neutron irradiated nuclear graphite. Carbon, 2020, 168, 42-54.	5.4	13
29	Experimental determination of the temperature-dependent Van Hove function in a Zr80Pt20 liquid. Journal of Chemical Physics, 2020, 152, 074506.	1.2	15
30	Strong local moment antiferromagnetic spin fluctuations in V-doped LiFeAs. Npj Quantum Materials, 2020, 5, .	1.8	4
31	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.	3.3	73
32	Spin dynamics in antiferromagnetic oxypnictides and fluoropnictides: LaMnAsO, LaMnSbO, and BaMnAsF. Physical Review B, 2020, 101, .	1.1	5
33	Magnetically driven phonon instability enables the metalâ€“insulator transition in h-FeS. Nature Physics, 2020, 16, 669-675.	6.5	26
34	Magnetic order and fluctuations in the quasi-two-dimensional planar magnet Sr(Co1â^'xNix)2As2. Physical Review B, 2020, 102, .	1.1	1
35	Temporally decoherent and spatially coherent vibrations in metal halide perovskites. Physical Review B, 2020, 102, .	1.1	7
36	Controlling phonon lifetimes via sublattice disordering in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>Ag</mml:mi><mml:mi>Bi</mml:mi><mml:msub> Physical Review Materials, 2020, 4, .	3.0	8

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37	Temperature-dependent lattice dynamics in iridium. Physical Review Materials, 2020, 4, .	0.9	8
38	Giant low-temperature anharmonicity in silicon nanocrystals. Physical Review Materials, 2020, 4, .	0.9	3
39	Recent developments of MCViNE and its applications at SNS. Journal of Physics Communications, 2019, 3, 085005.	0.5	27
40	Plaquette instability competing with bicollinear ground state in detwinned FeTe. Physical Review B, 2019, 100, .	1.1	7
41	Competing magnetic phases and itinerant magnetic frustration in SrCo2As2. Physical Review B, 2019, 100, .	1.1	12
42	Vibrational properties of uranium fluorides. Physica B: Condensed Matter, 2019, 570, 194-205.	1.3	5
43	Frustrated magnetic interactions in an S=3/2 bilayer honeycomb lattice compound Bi3Mn4O12 (NO3). Physical Review B, 2019, 100, .	1.1	7
44	Response to comment on â€œGiant electromechanical coupling of relaxor ferroelectrics controlled by polar nanoregion vibrationsâ€• Science Advances, 2019, 5, eaaw4367.	4.7	1
45	Long-Range Antiferromagnetic Order in a Rocksalt High Entropy Oxide. Chemistry of Materials, 2019, 31, 3705-3711.	3.2	112
46	Coexistence of Ferromagnetic and Stripe Antiferromagnetic Spin Fluctuations in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>SrCo</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Physical Review Letters, 2019, 122, 117204.	2.9	23
47	Energy dependence of the flux and elastic resolution for the ARCS neutron spectrometer. Physica B: Condensed Matter, 2019, 562, 26-30.	1.3	13
48	Super-resolution energy spectra from neutron direct-geometry spectrometers. Review of Scientific Instruments, 2019, 90, 105109.	0.6	9
49	Lattice dynamics of the hybrid improper ferroelectrics <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mrow><mml:mo>(</mml:mo><mml:mi>Ca</ mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2019, 100, .	1.1	9
50	Dynamic magnetic response across the pressure-induced structural phase transition in CeNi. Physical Review B, 2019, 99, .	1.1	1
51	Selective breakdown of phonon quasiparticles across superionic transition in CuCrSe2. Nature Physics, 2019, 15, 73-78.	6.5	88
52	Impact of anharmonicity on the vibrational entropy and specific heat of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>UO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml Physical Review Materials, 2019, 3, .	2.4	54
53	Tuning mobility and stability of lithium ion conductors based on lattice dynamics. Energy and Environmental Science, 2018, 11, 850-859.	15.6	158
54	Nuclear quantum effect with pure anharmonicity and the anomalous thermal expansion of silicon. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 1992-1997.	3.3	68

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55	Momentum-resolved observations of the phonon instability driving geometric improper ferroelectricity in yttrium manganite. Nature Communications, 2018, 9, 15.	5.8	30
56	Stabilization of Polar Nanoregions in Pb-free Ferroelectrics. Physical Review Letters, 2018, 120, 207603.	2.9	46
57	Doping evolution of spin fluctuations and their peculiar suppression at low temperatures in Ca(Fe1â^'xCox)2As2. Physical Review B, 2018, 97, .	1.1	5
58	Discovery of coexisting Dirac and triply degenerate magnons in a three-dimensional antiferromagnet. Nature Communications, 2018, 9, 2591.	5.8	62
59	Event-based processing of neutron scattering data at the Spallation Neutron Source. Journal of Applied Crystallography, 2018, 51, 616-629.	1.9	35
60	Supersonic propagation of lattice energy by phasons in fresnoite. Nature Communications, 2018, 9, 1823.	5.8	14
61	Glassy Phonon Heralds a Strain Glass State in a Shape Memory Alloy. Physical Review Letters, 2018, 120, 245701.	2.9	24
62	Temperature dependence of phonons in FeGe2. Physical Review Materials, 2018, 2, .	0.9	9
63	Relevance of Kondo physics for the temperature dependence of the bulk modulus in plutonium. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E268.	3.3	9
64	Lattice dynamics and thermal transport in multiferroic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="bold">CuCrO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2017, 95, .	1.1	19
65	Separating the configurational and vibrational entropy contributions in metallic glasses. Nature Physics, 2017, 13, 900-905.	6.5	83
66	Higgs mode and its decay in a two-dimensional antiferromagnet. Nature Physics, 2017, 13, 633-637.	6.5	133
67	Phonon localization transition in relaxor ferroelectric PZN-5%PT. Applied Physics Letters, 2017, 110, 132901.	1.5	2
68	Design and operating characteristic of a vacuum furnace for time-of-flight inelastic neutron scattering measurements. Review of Scientific Instruments, 2017, 88, 105116.	0.6	13
69	Effective One-Dimensional Coupling in the Highly Frustrated Square-Lattice Itinerant Magnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>CaCo</mml:mi><mml:mrow><mml:mn>2</mml:mn><mml:mo>â^'</mml:mo><mml:mi>y</mml:mi> Physical Review Letters, 2017, 119, 147201.	2.9	25
70	Muon spin relaxation and inelastic neutron scattering investigations of the all-in/all-out antiferromagnet<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Nd</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>7</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2017, 95, .	1.1	19
71	Correspondence: Reply to â€˜Phantom phonon localization in relaxorsâ€™. Nature Communications, 2017, 8, 1936.	5.8	2
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73	Robust antiferromagnetic spin waves across the metal-insulator transition in hole-doped <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>BaMn</mml:mi><mml:mn>2</mml:mn></ Physical Review B, 2017, 95, .	3.7	9
74	Pseudo-Goldstone Magnons in the Frustrated <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>S</mml:mi><mml:mo>=</mml:mo><mml:mn>3</mml:mn><mml:mo>/</mml:mo><mml:mn>2< Heisenberg Helimagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>ZnCr</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Physical Review X, 2017, 7, .	2.8	18
75	Commensurate antiferromagnetic excitations as a signature of the pseudogap in the tetragonal high-Tc cuprate HgBa2CuO4+Î´. Nature Communications, 2016, 7, 10819.	5.8	55
76	Magnon spectrum of the helimagnetic insulator Cu2OSeO3. Nature Communications, 2016, 7, 10725.	5.8	38
77	First-principles studies of atomic dynamics in tetrahedrite thermoelectrics. APL Materials, 2016, 4, 104811.	2.2	13
78	Hourglass Dispersion and Resonance of Magnetic Excitations in the Superconducting State of the Single-Layer Cuprate <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mrow><mml:msub><mml:mrow><mml:mi>HgBa</mml:mi></mml:mrow><mml:mrow><mml:mn>2 Near O. Physical Review Letters, 2016, 117, 277002.	2.9	26
79	Momentum and energy dependent resolution function of the ARCS neutron chopper spectrometer at high momentum transfer: Comparing simulation and experiment. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 835, 34-41.	0.7	6
80	Three-mode coupling interference patterns in the dynamic structure factor of a relaxor ferroelectric. Physical Review B, 2016, 94, .	1.1	4
81	Phonon anharmonicity and negative thermal expansion in SnSe. Physical Review B, 2016, 94, .	1.1	90
82	Thermally Driven Electronic Topological Transition in FeTi. Physical Review Letters, 2016, 117, 076402.	2.9	3
83	Spin excitations used to probe the nature of exchange coupling in the magnetically ordered ground state of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Pr</mml:mi><mml:mrow><mml:mn>0.5< Physical Review B, 2016, 94, .	1.1	7
84	Light atom quantum oscillations in UC and US. Physical Review B, 2016, 93, .	1.1	5
85	Structural phase transition and phonon instability in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Cu</mml:mi><mml:mn>12</mml:mn></ mathvariant="normal">S</mml:mi><mml:mn>13</mml:mn></mml:msub></mml:mrow></mml:math>. Physical Review B, 2016, 93, .	1.1	48
86	Neutron scattering studies of spin-phonon hybridization and superconducting spin gaps in the high-temperature superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mtext>La</mml:mtext><mml:mrow><mml:mn> Physical Review B, 2016, 93, .	1.1	8
87	Electron doping evolution of the magnetic excitations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>NaFe</mml:mi><mml:mrow><mml:mn>1- Physical Review B, 2016, 93, .	1.1	14
88	Orbital Selective Spin Excitations and their Impact on Superconductivity of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>LiFe</mml:mi></mml:mrow><mml:mrow><mml:mn>1</mml:mn></mml:mrow><mml:mn><m Physical Review Letters, 2016, 116, 247001.	2.9	31
89	Giant electromechanical coupling of relaxor ferroelectrics controlled by polar nanoregion vibrations. Science Advances, 2016, 2, e1501814.	4.7	91
90	Weak coupling of pseudoacoustic phonons and magnon dynamics in the incommensurate spin-ladder compound <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi mathvariant="normal">S</mml:mi><mml:msub><mml:mi mathvariant="normal">r</mml:mi><mml:mn>14</mml:mn></mml:msub><mml:mi mathvariant="normal">C</mml:mi><mml:msub><mml:mi mathvariant="normal">u</mml:mi><mml:mn>24</mml:mn></mml:msub><mml:msub><mml:mi mathvaria	1.1	14

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91	MCViNE â€“ An object oriented Monte Carlo neutron ray tracing simulation package. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2016, 810, 86-99.	0.7	51
92	Heavy-impurity resonance, hybridization, and phonon spectral functions in<mml:math		

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109	Crystallography and physical properties ofBaCo2As2,Ba0.94K0.06Co2As2, andBa0.78K0.22Co2As2. Physical Review B, 2014, 90, .	1.1	25
110	Phonon spectrum ofSrFe2As2determined using multizone phonon refinement. Physical Review B, 2014, 89, .	1.1	10
111	Neutron Scattering Measurements of Spatially Anisotropic Magnetic Exchange Interactions in SemiconductingK0.85Fe1.54Se2(TN=280â€‰â€‰K). Physical Review Letters, 2014, 112, 177002.	2.9	17
112	Phonon scattering rates and atomic ordering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Ag</mml:mi><mml:mrow><mml:mn>1</mm		

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127	Phonon densities of states of face-centered-cubic Ni-Fe alloys. Journal of Applied Physics, 2013, 113, .	1.1	12
128	Glass-like phonon scattering from a spontaneous nanostructure in AgSbTe2. Nature Nanotechnology, 2013, 8, 445-451.	15.6	161
129	Effects of temperature and pressure on phonons in FeSi<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Al<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>. Physical Review B, 2013, 87, .	1.1	21
130	Doping dependence of the spin excitations in the Fe-based superconductors Fe1+yTe1â^’xSex. Physical Review B, 2013, 87, .	1.1	12
131	Stripe Antiferromagnetic Spin Fluctuations in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>SrCo</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>As</mml:mi><mml:mi></mml:mi></mml:msub></mml:math>. Physical Review Letters, 2013, 111, 157001.	2.9	47
132	Inelastic Neutron Scattering Study of a Nonmagnetic Collapsed Tetragonal Phase in Nonsuperconducting<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>CaFe</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi>As</mml:mi><mml:mi></mml:mi></mml:msub></mml:math>: Evidence of the Impact of Spin Fluctuations on Superconductivity in the Iron-Arsenide Compounds. Physical Review Letters, 2013, 111, 227002.	2.9	43
133	Design and operation of the wide angular-range chopper spectrometer ARCS at the Spallation Neutron Source. Review of Scientific Instruments, 2012, 83, 015114.	0.6	210
134	Quantum oscillations of nitrogen atoms in uranium nitride. Nature Communications, 2012, 3, 1124.	5.8	16
135	Bose-Einstein condensation in liquid<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mrow /><mml:mn>4</mml:mn></mml:msup></mml:math>He near the Neutron Scattering Studies of Spin Excitations in Superconducting Rb<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>0.82</mml:mn></mml:mrow></mml:msub></mml:math>Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1.68</mml:mn></mml:mrow></mml:msub></mml:math>Se<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>. Physical Review B, 2012, 85, .	1.1	23
136		1.1	18
137	Inelastic neutron scattering study of phonon density of states in nanostructured Si<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>1</mml:mn><mml:mo>â^’</mml:mo><mml:mi>x</mml:mi></mml:mrow></mml:msub></mml:math>Ge<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mi>x</mml:mi></mml:msub></mml:math>thermoelectrics. Physical Review B, 2012, 86, .	1.1	29
138		1.1	6
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140	Effect of Li-deficiency impurities on the electron-overdoped LiFeAs superconductor. Physical Review B, 2012, 86, .	1.1	27
141	Electron-Phonon Coupling in the Conventional Superconductor<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>YNi</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mi mathvariant="bold">B</mml:mi><mml:mn>2</mml:mn></mml:msub><mml:mi mathvariant="bold">C</mml:mi></mml:math>at High Phonon Energies Studied by Time-of-Flight Neutron Spectroscopy. Physical Review Letters, 2012, 109, 057001.	2.9	25
142	Phonon softening and metallization of a narrow-gap semiconductor by thermal disorder. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 4725-4730.	3.3	96
143	Role of magnetic exchange energy on charge ordering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>R</mml:mi><mml:mrow><mml:mn>1</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math><mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn><mml:mo>/</mml:mo><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:math>FeO<mml:math	1.1	18
144	Structural Relationship between Negative Thermal Expansion and Quartic Anharmonicity of Cubic<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>ScF</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review Letters, 2011, 107, 195504.	2.9	201

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145	Spin waves and magnetic exchange interactions in insulating Rb0.89Fe1.58Se2. Nature Communications, 2011, 2, 580.	5.8	85
146	Nonharmonic phonons in MgB2at elevated temperatures. Physical Review B, 2011, 83, .	1.1	4
147	Symmetry-breaking dynamical pattern and localization observed in the equilibrium vibrational spectrum of NaI. Scientific Reports, 2011, 1, 4.	1.6	43
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