Ronald Cohen

List of Publications by Year
in descending order

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231	19,373	19636 61	11303 136
papers	citations	h-index	g-index

237	237	237	11722
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Measuring the melting curve of iron at super-Earth core conditions. Science, 2022, 375, 202-205.	6.0	39
2	Ultrahigh-pressure disordered eight-coordinated phase of Mg ₂ GeO ₄ : Analogue for super-Earth mantles. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	4
3	Thermal conductivity of Fe-Si alloys and thermal stratification in Earthâ€™s core. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	11
4	Stability of mixed carbonâ€“silicon clathrates. Applied Physics A: Materials Science and Processing, 2022, 128, .	1.1	0
5	First-principles calculations of Raman and infrared spectroscopy for phase identification and strain calibration of hafnia. Applied Physics Letters, 2022, 120, 242903.	1.5	6
6	Hydrous SiO2 in subducted oceanic crust and H2O transport to the core-mantle boundary. Earth and Planetary Science Letters, 2022, 594, 117708.	1.8	10
7	Stable polar oxynitrides through epitaxial strain. Physical Review Materials, 2021, 5, .	0.9	2
8	Carbon-boron clathrates as a new class of sp ³ -bonded framework materials. Science Advances, 2020, 6, eaay8361.	4.7	61
9	Reconciliation of Experiments and Theory on Transport Properties of Iron and the Geodynamo. Physical Review Letters, 2020, 125, 078501.	2.9	47
10	Prediction of an Extended Ferroelectric Clathrate. Physical Review Letters, 2020, 125, 127601.	2.9	12
11	Starting-point-independent quantum Monte Carlo calculations of iron oxide. Physical Review B, 2020, 102, .	1.1	4
12	Giant electrocaloric effect at the antiferroelectric-to-ferroelectric phase boundary in Pb(ZrxTi1â€“x)O3. Applied Physics Letters, 2019, 115, .	1.5	16
13	The Equation of State of MH-III: A Possible Deep CH₄ Reservoir in Titan, Super-Titan Exoplanets, and Moons. Astrophysical Journal, 2019, 882, 71.	1.6	6
14	Polar Metallocenes. Molecules, 2019, 24, 486.	1.7	1
15	Pressure-induced polymorphism in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>SrB</mml:mi><mml:mn>6</mml:mn></mml:msub></m and deformation mechanisms of covalent networks. Physical Review B, 2019, 100, .	1.1	31
16	Pressure-induced transitions in ferroelectric single-crystal PbZr_{0.54}Ti_{0.46}O₃. Ferroelectrics, 2018, 535, 106-113.	0.3	0
17	Effect of aging and Mn substitution on anisotropy of third generation piezoelectrics. Ferroelectrics, 2018, 535, 120-127.	0.3	1
18	Ferroelectric polymers morph into action. Nature, 2018, 562, 48-49.	13.7	8

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19	Valence and spin fluctuations in the Mn-doped ferroelectric <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaTiO</mml:mi><mml:mn>3</mml:mn></mml:msub><m Physical Review B, 2018, 98, .	1.1	8
20	Thermal Conductivity and Electrical Resistivity of Solid Iron at Earthâ€™s Core Conditions from First Principles. Physical Review Letters, 2018, 121, 096601.	2.9	60
21	Effect of substrate temperature on structural and magnetic properties of c-axis oriented spinel ferrite Ni0.65Zn0.35Fe2O4 (NZFO) thin films. Journal of Alloys and Compounds, 2018, 766, 1074-1079.	2.8	9
22	Origin of stationary domain wall enhanced ferroelectric susceptibility. Physical Review B, 2017, 95, .	1.1	15
23	Polarization rotation and the electrocaloric effect in barium titanate. Journal of Physics Condensed Matter, 2017, 29, 485704.	0.7	21
24	Improving the Functional Control of Aged Ferroelectrics Using Insights from Atomistic Modeling. Physical Review Letters, 2017, 119, 177602.	2.9	7
25	Electric-field-induced phase transition and electrocaloric effect in PMN-PT. Physical Review B, 2017, 96, .	1.1	54
26	Multiscale simulations of defect dipoleâ€“enhanced electromechanical coupling at dilute defect concentrations. Applied Physics Letters, 2017, 111, .	1.5	17
27	Origin of Negative Longitudinal Piezoelectric Effect. Physical Review Letters, 2017, 119, 207601.	2.9	63
28	Stable charged antiparallel domain walls in hyperferroelectrics. Journal of Physics Condensed Matter, 2017, 29, 244003.	0.7	10
29	Synthesis of a polar ordered oxynitride perovskite. Physical Review B, 2017, 95, .	1.1	11
30	Magnetic phase diagram of FeO at high pressure. Journal of Physics: Conference Series, 2017, 827, 012006.	0.3	4
31	Pressure on Correlated Materials: Transport in iron and implications for the geodynamo, and electronic transitions in iron compounds. Journal of Physics: Conference Series, 2017, 950, 032018.	0.3	0
32	Response of Methylammonium Lead Iodide to External Stimuli and Caloric Effects from Molecular Dynamics Simulations. Journal of Physical Chemistry C, 2016, 120, 17274-17281.	1.5	33
33	Interpenetrating graphene networks: Three-dimensional node-line semimetals with massive negative linear compressibilities. Physical Review B, 2016, 94, .	1.1	16
34	Low-pressure phase diagram of crystalline benzene from quantum Monte Carlo. Journal of Chemical Physics, 2016, 145, .	1.2	11
35	Structural diversity in lithium carbides. Physical Review B, 2015, 92, .	1.1	26
36	Effects of electron correlations on transport properties of iron at Earthâ€™s core conditions. Nature, 2015, 517, 605-607.	13.7	53

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37	Effects of manganese addition on the electronic structure of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>BaTiO</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:m Physical Review B, 2015, 91, .	1.1	12
38	Measuring High-Pressure Electronic and Magnetic Properties. , 2015, , 313-349.		2
39	Chemical accuracy from quantum Monte Carlo for the benzene dimer. Journal of Chemical Physics, 2015, 143, 104301.	1.2	19
40	Prediction of a potential high-pressure structure of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">FeSiO</mml:mi></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:math>. Physical Review B, 2014, 90, .	1.1	8
41	Equations of state and stability of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">MgSiO</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:math>perovskite and post-perovskite phases from quantum Monte Carlo simulations. Physical Review B, 2014, 90, .	1.1	11
42	Raman measurements of phase transitions in dense solid hydrogen and deuterium to 325 GPa. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 4792-4797.	3.3	35
43	Pressure suppression of electron correlation in the collapsed tetragonal phase of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mrow><mml:mi mathvariant="normal">CaFe</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mrow><mml:mi mathvariant="normal">As</mml:mi></mml:mrow><mml:mn>2</mml:mn></mml:msub></mml:math>: A DFT-DMFT investigation. Physical Review B, 2014, 90, .	1.1	26
44	Strong pressure-dependent electron-phonon coupling in FeSe. Physical Review B, 2014, 89, .	1.1	66
45	Electronic excitations and metallization of dense solid hydrogen. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13757-13762.	3.3	20
46	Graphene physics and insulator-metal transition in compressed hydrogen. Physical Review B, 2013, 88, .	1.1	19
47	Experimental and Theoretical Evidence for Pressure-Induced Metallization in FeO with Rocksalt-Type Structure. Physical Review Letters, 2012, 108, 026403.	2.9	111
48	Pressure dependence of the monoclinic phase in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"		

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55	First-principles based atomistic modeling of phase stability in PMNâ€“xPT. Journal of Physics Condensed Matter, 2011, 23, 435902.	0.7	55
56	Relative importance of crystal field versus bandwidth to the high pressure spin transition in transition metal monoxides. Journal of Physics: Conference Series, 2010, 215, 012122.	0.3	5
57	Origin of diffuse scattering in relaxor ferroelectrics. Physical Review B, 2010, 81, .	1.1	53
58	Quantum Monte Carlo computations of phase stability, equations of state, and elasticity of high-pressure silica. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9519-9524.	3.3	43
59	Finite-temperature magnetism in bcc Fe under compression. Journal of Physics Condensed Matter, 2010, 22, 372201.	0.7	3
60	Acceptance of the Dana Medal of the Mineralogical Society of America for 2009. American Mineralogist, 2010, 95, 669-670.	0.9	0
61	Fundamental High-Pressure Calibration from All-Electron Quantum MonteÂCarlo Calculations. Physical Review Letters, 2010, 104, 185702.	2.9	36
62	Pressure effects on relaxor ferroelectricity in disordered Pb(Sc1/2Nb1/2)O3. Journal of Applied Physics, 2010, 107, 074110.	1.1	14
63	Elastic isotropy of É›â€Fe under Earth's core conditions. Geophysical Research Letters, 2010, 37, .	1.5	42
64	First-principles thermal equation of state and thermoelasticity of hcp Fe at high pressures. Physical Review B, 2010, 81, .	1.1	82
65	High-pressure Brillouin scattering of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mtext>Pb</mml:mtext><mml:mrow><mml:mo>(</mml:mo><mml:mrow><mml:msub><mml:mro Physical Review B, 2009, 79, .	1.1	15
66	Finite-Electric Field Study of Pressure Effects on Polarization Rotation in PbTiO3. Materials Research Society Symposia Proceedings, 2009, 1199, 159.	0.1	2
67	Anomalous optical and electronic properties of dense sodium. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 6525-6528.	3.3	53
68	Undead layers breathe new life. Nature Materials, 2009, 8, 366-368.	13.3	7
69	Pressure induced phase transitions in PbTiO3. Journal of Physics Condensed Matter, 2009, 21, 064225.	0.7	32
70	Origin of morphotropic phase boundaries in ferroelectrics. Nature, 2008, 451, 545-548.	13.7	759
71	Reply to â€œComment on â€˜More accurate generalized gradient approximation for solidsâ€™â€• Physical Review B, 2008, 78, .	1.1	27
72	Ferrous iron in post-perovskite from first-principles calculations. Physics of the Earth and Planetary Interiors, 2008, 168, 147-152.	0.7	40

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73	Search For New Piezoelectrics. Materials Research Society Symposia Proceedings, 2008, 1110, 10701.	0.1	0
74	First-Principles Theories of Piezoelectric Materials. Springer Series in Materials Science, 2008, , 471-492.	0.4	7
75	Theory and Practice â€“ Measuring High-Pressure Electronic and Magnetic Properties. , 2007, , 293-337.		1
76	Post-perovskite phase in selected sesquioxides from density-functional calculations. Physical Review B, 2007, 76, .	1.1	27
77	Prediction of polar ordered oxynitride perovskites. Applied Physics Letters, 2007, 91, .	1.5	18
78	Brillouin scattering and molecular dynamics study of the elastic properties ofPb(Mg1âˆ•3Nb2âˆ•3)O3. Physical Review B, 2007, 75, .	1.1	24
79	Effect of chemistry on the physical properties of perovskite and post-perovskite. Geophysical Monograph Series, 2007, , 115-128.	0.1	12
80	Lattice dynamics and thermodynamics of bcc iron under pressure: First-principles linear response study. Physical Review B, 2006, 73, .	1.1	68
81	Theoretical determination of the Raman spectra of MgSiO3perovskite and post-perovskite at high pressure. Geophysical Research Letters, 2006, 33, .	1.5	39
82	More accurate generalized gradient approximation for solids. Physical Review B, 2006, 73, .	1.1	1,785
83	Advances in First-Principles Studies of Transducer Materials. Ferroelectrics, 2006, 333, 69-78.	0.3	22
84	Thermal effects on lattice strain inÎµâˆ’Feunder pressure. Physical Review B, 2006, 74, .	1.1	28
85	First principles studies of the born effective charges and electronic dielectric tensors for the relaxor PMN (PbMg1/3Nb2/3O3). Computational Materials Science, 2006, 37, 152-158.	1.4	11
86	Relaxors go critical. Nature, 2006, 441, 941-942.	13.7	79
87	Brillouin spectroscopy of relaxor ferroelectrics and metal hydrides. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 442, 519-522.	2.6	1
88	Lattice Dynamics and Thermodynamics of Bcc Vanadium at High Pressures. Materials Research Society Symposia Proceedings, 2006, 987, 1.	0.1	1
89	Single-domain electromechanical constants for Pb(Zn1âˆ•3Nb2âˆ•3)O3â€“4.5%PbTiO3 from micro-Brillouin scattering. Applied Physics Letters, 2006, 88, 042908.	1.5	12
90	First-principles thermoelasticity of bcc iron under pressure. Physical Review B, 2006, 74, .	1.1	55

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91	Absence of Magnetism in Hcp Iron-Nickel at 11 K. Physical Review Letters, 2006, 97, 087202.	2.9	27
92	Trends in elasticity and electronic structure of transition-metal nitrides and carbides from first principles. Physical Review B, 2005, 71, .	1.1	186
93	Publisher's Note:Ab initiolinear response and frozen phonons for the relaxorPbMg1âˆ•3Nb2âˆ•3O3[Phys. Rev. B71, 125134 (2005)]. Physical Review B, 2005, 71, .	1.1	2
94	Ab initiolinear response and frozen phonons for the relaxorPbMg1âˆ•3Nb2âˆ•3O3. Physical Review B, 2005, 71, .	1.1	44
95	High-pressure Raman scattering and x-ray diffraction of the relaxor ferroelectric0.96Pb(Zn1âˆ•3Nb2âˆ•3)O3â€“0.04PbTiO3. Physical Review B, 2005, 71, .	1.1	41
96	Electronic stiffness of a superconducting niobium nitride single crystal under pressure. Physical Review B, 2005, 72, .	1.1	29
97	Hard superconducting nitrides. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 3198-3201.	3.3	256
98	Iron-rich silicates in the Earth's D'' layer. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 9751-9753.	3.3	100
99	Prediction of a new phase transition in Al2O3at high pressures. Geophysical Research Letters, 2005, 32, .	1.5	50
100	Effect of chemistry on the stability and elasticity of the perovskite and post-perovskite phases in the MgSiO3-FeSiO3-Al2O3system and implications for the lowermost mantle. Geophysical Research Letters, 2005, 32, .	1.5	100
101	Pressure-Induced Anomalous Phase Transitions and Colossal Enhancement of Piezoelectricity inPbTiO3. Physical Review Letters, 2005, 95, 037601.	2.9	284
102	First principles force field for metallic tantalum. Modelling and Simulation in Materials Science and Engineering, 2004, 12, S445-S459.	0.8	34
103	Weighted-density-approximation description of rare-earth trihydrides. Physical Review B, 2004, 69, .	1.1	25
104	Electronic structure of calcium hexaboride within the weighted density approximation. Physical Review B, 2004, 69, .	1.1	31
105	Magnetism in dense hexagonal iron. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 33-36.	3.3	87
106	Atomistic Model Potential for PbTiO3and PMN by Fitting First Principles Results. Ferroelectrics, 2004, 301, 55-59.	0.3	42
107	Magnetism in iron as a function of pressure. Journal of Physics Condensed Matter, 2004, 16, S1109-S1119.	0.7	53
108	Comparing the weighted density approximation with the LDA and GGA for ground-state properties of ferroelectric perovskites. Physical Review B, 2004, 70, .	1.1	139

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109	Comment on ÂOn the importance of the free energy for elasticity under pressureÂ. Journal of Physics Condensed Matter, 2004, 16, 8783-8786.	0.7	33
110	Non-collinear magnetism in iron at high pressures. Physics of the Earth and Planetary Interiors, 2004, 143-144, 445-453.	0.7	31
111	Physical properties of iron in the inner core. Geodynamic Series, 2003, , 137-161.	0.1	7
112	Gregoryanzet al.Reply:. Physical Review Letters, 2003, 90, .	2.9	14
113	Vacancy formation enthalpy at high pressures in tantalum. Journal of Physics Condensed Matter, 2003, 15, 855-861.	0.7	24
114	Structure, metal-insulator transitions, and magnetic properties of FeO at high pressures. American Mineralogist, 2003, 88, 257-261.	0.9	68
115	First-principles calculation of the formation energy in MgO-CaO solid solutions. Physical Review B, 2002, 65, .	1.1	14
116	Development of a Shell Model Potential for Molecular Dynamics for PbTiO3 by Fitting First Principles Results. AIP Conference Proceedings, 2002, , .	0.3	10
117	High-pressure thermoelasticity of body-centered-cubic tantalum. Physical Review B, 2002, 65, .	1.1	122
118	Ab initio Study of Elastic Properties of Pb(Ti,Zr)O3. AIP Conference Proceedings, 2002, , .	0.3	10
119	Constraints on lower mantle composition from molecular dynamics simulations of MgSiO3 perovskite. Physics of the Earth and Planetary Interiors, 2002, 134, 239-252.	0.7	32
120	Pressure-volume-temperature equation of state of MgSiO3 perovskite from molecular dynamics and constraints on lower mantle composition. Journal of Geophysical Research, 2001, 106, 8615-8627.	3.3	16
121	Calculation of the electric field gradients at `tricluster'-like O atoms in the polymorphs of Al2SiO5 and in aluminosilicate molecules: models for tricluster O atoms in glasses. Journal of Non-Crystalline Solids, 2001, 286, 187-199.	1.5	29
122	Thermal equation of state of tantalum. Physical Review B, 2001, 63, .	1.1	87
123	Tight-binding based non-collinear spin model and magnetic correlations in iron. Journal of Computer-Aided Materials Design, 2001, 8, 107-115.	0.7	9
124	Elasticity of iron at the temperature of the Earth's inner core. Nature, 2001, 413, 57-60.	13.7	240
125	Absence of lattice strain anomalies at the electronic topological transition in zinc at high pressure. Physical Review B, 2001, 63, .	1.1	52
126	Comparison of electromechanical properties of BaTiO[sub 3] between LAPW and a model Hamiltonian. AIP Conference Proceedings, 2000, , .	0.3	1

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127	Calculations of Perovskite Surface Relaxation. Materials Research Society Symposia Proceedings, 2000, 654, 531.	0.1	0
128	Polarization rotation mechanism for ultrahigh electromechanical response in single-crystal piezoelectrics. Nature, 2000, 403, 281-283.	13.7	1,931
129	Theory of ferroelectrics: a vision for the next decade and beyond. Journal of Physics and Chemistry of Solids, 2000, 61, 139-146.	1.9	129
130	Accuracy of equation-of-state formulations. American Mineralogist, 2000, 85, 338-344.	0.9	160
131	First-principles elastic constants for the hcp transition metals Fe, Co, and Re at high pressure. Physical Review B, 1999, 60, 791-799.	1.1	355
132	First-principles study of piezoelectricity in tetragonalPbTiO3andPbZr1/2Ti1/2O3. Physical Review B, 1999, 59, 12771-12776.	1.1	99
133	Bonding and Electronic Structure of Minerals. , 1999, , 201-264.		3
134	First-Principles Study of Piezoelectricity inPbTiO3. Physical Review Letters, 1998, 80, 4321-4324.	2.9	226
135	First-principles study of piezoelectricity in tetragonal PbTiO3. Ferroelectrics, 1998, 206, 1-10.	0.3	2
136	Diffusion in MgO at high pressure: Implications for lower mantle rheology. Geophysical Research Letters, 1998, 25, 1095-1098.	1.5	27
137	First-principles investigations of solid iron at high pressure and implications for the Earth's inner core. Geophysical Monograph Series, 1998, , 159-171.	0.1	3
138	The melting curve and premelting of MgO. Geophysical Monograph Series, 1998, , 185-196.	0.1	12
139	Possible polytypism in FeO at high pressures. American Mineralogist, 1998, 83, 451-457.	0.9	61
140	Chapter 18. HIGH-PRESSURE ELECTRONIC AND MAGNETIC PROPERTIES. , 1998, , 591-638.		2
141	Chapter 19. THEORY OF MINERALS AT HIGH PRESSURE. , 1998, , 639-672.		14
142	Tight-binding computations of elastic anisotropy of Fe, Xe, and Si under compression. Physical Review B, 1997, 56, 8575-8589.	1.1	99
143	Effects of Pressure on Diffusion and Vacancy Formation in MgO from Nonempirical Free-Energy Integrations. Physical Review Letters, 1997, 79, 3198-3201.	2.9	62
144	Surface effects in ferroelectrics: Periodic slab computations for BaTiO3. Ferroelectrics, 1997, 194, 323-342.	0.3	83

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145	Magnetic Collapse and the Behavior of Transition Metal Oxides: FeO at High Pressures. Materials Research Society Symposia Proceedings, 1997, 499, 27.	0.1	5
146	Elasticity, Thermal Properties, and Molecular Dynamics Using Non-Empirical Tight-Binding. Materials Research Society Symposia Proceedings, 1997, 491, 501.	0.1	0
147	Notes on the static dielectric response function in the density functional theory. Ferroelectrics, 1997, 194, 263-270.	0.3	17
148	Long-range order effects in Pb(Zr1/2Ti1/2)O3. Ferroelectrics, 1997, 194, 287-298.	0.3	20
149	Origin of ferroelectricity in LiNbO3and LiTaO3. Ferroelectrics, 1997, 194, 83-95.	0.3	28
150	Magnetic Collapse in Transition Metal Oxides at High Pressure: Implications for the Earth. Science, 1997, 275, 654-657.	6.0	305
151	Composition and temperature of Earth's inner core. Journal of Geophysical Research, 1997, 102, 24729-24739.	3.3	129
152	Comparison of the electronic structures and energetics of ferroelectricLiNbO3andLiTaO3. Physical Review B, 1996, 53, 1193-1204.	1.1	146
153	Thermal properties of iron at high pressures and temperatures. Physical Review B, 1996, 53, 8296-8309.	1.1	163
154	Long-Range Order Effects in Ferroelectric Pb(Zr1/2Ti1/2)O3. Materials Research Society Symposia Proceedings, 1996, 453, 191.	0.1	1
155	Periodic slab LAPW computations for ferroelectric BaTiO3. Journal of Physics and Chemistry of Solids, 1996, 57, 1393-1396.	1.9	60
156	A tight-binding method for the evaluation of the total energy of large systems. International Journal of Thermophysics, 1995, 16, 503-510.	1.0	5
157	Transformation of stishovite to a denser phase at lower-mantle pressures. Nature, 1995, 374, 243-245.	13.7	311
158	Nonempirical calculation of the Pb(Sc0.5Ta0.5)O3-PbTiO3quasibinary phase diagram. Physical Review B, 1995, 52, 792-797.	1.1	22
159	Insulator-metal transition in solid hydrogen: Implication of electronic-structure calculations for recent experiments. Physical Review B, 1995, 52, R8597-R8600.	1.1	33
160	First principles study of cation ordering in the system Pb(Sc1/2Ta1/2)O3 and (1 - X) Â· Pb(Sc1/2Ta1/2)O3 - X Â· PbTiO3. Ferroelectrics, 1995, 164, 201-212.	0.3	2
161	Constraints on the crystalline structure of the inner core: Mechanical instability of BCC iron at high pressure. Geophysical Research Letters, 1995, 22, 125-128.	1.5	66
162	High pressure effects on thermal properties of MgO. Geophysical Research Letters, 1995, 22, 1533-1536.	1.5	66

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163	High-Pressure Elasticity of Iron and Anisotropy of Earth's Inner Core. Science, 1995, 267, 1972-1975.	6.0	254
164	Origin of ferroelectricity in LiTaO3 and LiNbO3; LAPW total energy calculations. Ferroelectrics, 1995, 164, 45-55.	0.3	15
165	An accurate tight-binding model for iron at high pressures: Towards high temperature simulations of the Earthâ€™s core. AIP Conference Proceedings, 1994, , .	0.3	1
166	Chapter 11. FIRST-PRINCIPLES THEORY OF CRYSTALLINE Si02. , 1994, , 369-402.		7
167	Electrons, Phonons, and Electron-Phonon Interactions in High-Temperature Superconductors. Computers in Physics, 1994, 8, 34.	0.6	7
168	First-principles phonon calculations for LiTaO3. Ferroelectrics, 1994, 153, 37-42.	0.3	3
169	Exciton energy and its pressure dependence in alkali halides. Physical Review B, 1994, 50, 70-74.	1.1	11
170	Melting and melt structure of MgO at high pressures. Physical Review B, 1994, 50, 12301-12311.	1.1	56
171	Tight-binding total-energy method for transition and noble metals. Physical Review B, 1994, 50, 14694-14697.	1.1	258
172	Iron at high pressure: Linearized-augmented-plane-wave computations in the generalized-gradient approximation. Physical Review B, 1994, 50, 6442-6445.	1.1	225
173	Theoretical study of cation ordering in the system Pb(Sc_{Â½}Ta_{Â½})O₃. Ferroelectrics, 1994, 151, 331-336.	0.3	20
174	Electron-phonon coupling in high temperature superconductors: The connection to superconducting behavior. Applied Superconductivity, 1993, 1, 251-262.	0.5	6
175	Stability of orthorhombic MgSiO3 perovskite in the Earth's lower mantle. Nature, 1993, 364, 613-616.	13.7	127
176	Ferroelectricity origins. Nature, 1993, 362, 213-213.	13.7	13
177	Origin of ferroelectricity in perovskites: The principal problems from a theoretical perspective. Ferroelectrics, 1993, 150, 1-12.	0.3	16
178	Large calculated electron-phonon interactions inLa2â^'xMxCuO4. Physical Review B, 1993, 47, 1002-1015.	1.1	137
179	Phase stability of wÃ¼stite at high pressure from first-principles linearized augmented plane-wave calculations. Physical Review B, 1993, 47, 7720-7731.	1.1	56
180	Molecular dynamics study of pbtio3using non-empirical potentials. Ferroelectrics, 1992, 136, 113-124.	0.3	17

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181	Anharmonicity and the inverse isotope effect in the palladium-hydrogen system. Physical Review B, 1992, 45, 12405-12414.	1.1	50
182	Fermi Surfaces, Fermi Liquids, and High-Temperature Superconductors. Science, 1992, 255, 46-54.	6.0	191
183	Electronic structure studies of the differences in ferroelectric behavior of batio₃and PbTiO₃. Ferroelectrics, 1992, 136, 65-83.	0.3	367
184	The relationship between shear and compressional velocities at high pressures: Reconciliation of seismic tomography and mineral physics. Geophysical Research Letters, 1992, 19, 741-744.	1.5	50
185	Origin of ferroelectricity in perovskite oxides. Nature, 1992, 358, 136-138.	13.7	2,629
186	Silicate Perovskite. Annual Review of Earth and Planetary Sciences, 1992, 20, 553-600.	4.6	84
187	Electronic structure and electron-phonon coupling in layered copper oxide superconductors. Physica B: Condensed Matter, 1991, 169, 45-50.	1.3	12
188	Comment on â€˜â€˜Thermodynamic and elastic properties of a many-body model for simple oxidesâ€™â€™. Physical Review B, 1991, 44, 7106-7107.	1.1	3
189	Lattice instabilities, isotope effect, and high-Tcsuperconductivity inLa2â^'xBaxCuO4. Physical Review Letters, 1991, 67, 228-231.	2.9	165
190	First principles calculations for polarized crystals. Ferroelectrics, 1991, 117, 233-243.	0.3	1
191	Electronic Structure, Lattice Dynamics, and Electron-Phonon Interaction in High Tc Superconductors. , 1991, , 7-18.		0
192	Evidence of strong electron-phonon coupling in the highTc copper oxide superconductors. International Journal of Quantum Chemistry, 1990, 38, 693-699.	1.0	2
193	Quasiparticle scattering across the Fermi surface in La2-xMxCuO4. Physica B: Condensed Matter, 1990, 165-166, 1055-1056.	1.3	16
194	Theoretical determination of strong electron-phonon coupling in YBa2Cu3O7. Physica B: Condensed Matter, 1990, 165-166, 1057-1058.	1.3	3
195	Magnetism in layered oxides: Results from spin density functional calculations. Physica B: Condensed Matter, 1990, 163, 470-472.	1.3	21
196	Theoretical determination of strong electron-phonon coupling inYBa2Cu3O7. Physical Review Letters, 1990, 64, 2575-2578.	2.9	279
197	Possiblity ofLiPdHxas a new ionic superconductor. Physical Review B, 1990, 41, 861-864.	1.1	9
198	HighT_csuperconductors as ionic metals and the role of phonons in highT_csuperconductivity. Phase Transitions, 1990, 22, 167-183.	0.6	14

#	Article	IF	Citations
199	Linearized augmented plane wave total energy calculations for ferroelectric BaTiO₃. Ferroelectrics, 1990, 111, 57-61.	0.3	15
200	Precise band structure and Fermi-surface calculation forYBa2Cu3O7: Importance of three-dimensional dispersion. Physical Review B, 1990, 42, 8764-8767.	1.1	194
201	Lattice dynamics and origin of ferroelectricity inBaTiO3: Linearized-augmented-plane-wave total-energy calculations. Physical Review B, 1990, 42, 6416-6423.	1.1	567
202	First principles calculations for ferroelectrics â€" a vision. Ferroelectrics, 1990, 111, 1-7.	0.3	8
203	Calculated elastic and thermal properties of MGO at high pressures and temperatures. Journal of Geophysical Research, 1990, 95, 7055-7067.	3.3	154
204	Correlation in Metallic Copper Oxide Superconductors: How Large is it?. , 1990, , 463-473.		0
205	Positron annihilation in high-Tcsuperconductors. Physical Review B, 1989, 39, 9667-9670.	1.1	58
206	First-Principles Phonon Calculations forLa2CuO4. Physical Review Letters, 1989, 62, 831-834.	2.9	153
207	Electronic structure of the copper oxides: Band picture versus correlated behavior. Physica C: Superconductivity and Its Applications, 1989, 162-164, 1419-1424.	0.6	3
208	Analysis of electronic structure and charge density of the high-temperature superconductor YBa2Cu3O7. Journal of Superconductivity and Novel Magnetism, 1988, 1, 111-141.	0.5	220
209	First principles calculations of lattice dynamics and ionicity in La2CuO4 and YBa2Cu3O7. Physica C: Superconductivity and Its Applications, 1988, 153-155, 202-203.	0.6	4
210	Phase transitions and elasticity in zirconia. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1988, 150, 1-9.	0.9	50
211	Applications of ionic models to the high-temperature superconductor La2CuO4. Physica B: Physics of Condensed Matter & C: Atomic, Molecular and Plasma Physics, Optics, 1988, 150, 61-73.	0.9	33
212	Raman spectroscopy and theoretical modeling of BeO at high pressure. Physical Review B, 1988, 37, 4727-4734.	1.1	72
213	Linearized augmented plane wave electronic structure calculations for MgO and CaO. Journal of Geophysical Research, 1988, 93, 8009-8022.	3.3	156
214	Ionic contributions to lattice instabilities and phonon dispersion inLa2CuO4. Physical Review Letters, 1988, 60, 817-820.	2.9	99
215	High Sensitivity of Positrons to Oxygen Vacancies and to Copper-Oxygen Chain Disorder inYBa2Cu3O7â^'x. Physical Review Letters, 1988, 60, 2198-2201.	2.9	112
216	Electronic Structure and High Critical Temperature in Oxide Superconductors. ACS Symposium Series, 1988, , 26-43.	0.5	0

#	Article	IF	Citations
217	Electron-Phonon Coupling Strength of Specific Phonons from First Principles Lapw Calculations. Materials Research Society Symposia Proceedings, 1988, 141, 165.	0.1	4
218	First-Principles Phonon Calculations for LA₂CUO₄. Materials Research Society Symposia Proceedings, 1988, 141, 171.	0.1	0
219	Lattice dynamics of the potential-induced breathing model: Phonon dispersion in the alkaline-earth oxides. Physical Review B, 1987, 35, 5749-5760.	1.1	116
220	Lattice Dynamics and Ionicity in the High-Temperature Superconductors. Materials Research Society Symposia Proceedings, 1987, 99, 825.	0.1	2
221	Calculation of elasticity and high pressure instabilities in corundum and stishovite with the Potential Induced Breathing Model. Geophysical Research Letters, 1987, 14, 37-40.	1.5	120
222	Elasticity and equation of state of MgSiO₃ perovskite. Geophysical Research Letters, 1987, 14, 1053-1056.	1.5	115
223	Theoretical studies of charge relaxation effects on the statics and dynamics of oxides. Physics and Chemistry of Minerals, 1987, 14, 294-302.	0.3	71
224	Thermodynamic solution properties of aluminous clinopyroxenes: Nonlinear least squares refinements. Geochimica Et Cosmochimica Acta, 1986, 50, 563-575.	1.6	34
225	Statistical mechanics of coupled solid solutions in the dilute limit. Physics and Chemistry of Minerals, 1986, 13, 174-182.	0.3	11
226	Configurational thermodynamics of aluminous pyroxenes: A generalized pair approximation. Physics and Chemistry of Minerals, 1986, 13, 183-197.	0.3	13
227	Mineralogy and petrology of chondrules and inclusions in the Mokoia CV3 chondrite. Geochimica Et Cosmochimica Acta, 1983, 47, 1739-1757.	1.6	98
228	Theory of Ferroelectrics: A vision for the next decade and beyond. , 0, , 139-154.		0
229	Raman spectroscopy and lattice dynamics of MgSiO₃-perovskite at high pressure. Geophysical Monograph Series, 0, , 35-44.	0.1	26
230	Electronic Structure and Total Energy Calculations for Oxide Perovskites and Superconductors. Geophysical Monograph Series, 0, , 55-66.	0.1	11
231	First-Principles Predictions of Elasticity and Phase Transitions in High Pressure SiO₂and Geophysical Implications. Geophysical Monograph Series, 0, , 425-431.	0.1	29