Leonid Dubrovinsky

List of Publications by Year
in descending order

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423 papers	14,563 citations	17405 63 h-index	37111 96 g-index
440 all docs	440 docs citations	440 times ranked	10525 citing authors

#	Article	IF	Citations
1	Finite-size and pressure effects on the Raman spectrum of nanocrystalline anataseTiO2. Physical Review B, 2005, 71, .	1.1	374
2	BX90: A new diamond anvil cell design for X-ray diffraction and optical measurements. Review of Scientific Instruments, 2012, 83, 125102.	0.6	251
3	Implementation of micro-ball nanodiamond anvils for high-pressure studies above 6â€‰Mbar. Nature Communications, 2012, 3, 1163.	5.8	239
4	MossA: a program for analyzing energy-domain MÃ¶ssbauer spectra from conventional and synchrotron sources. Journal of Applied Crystallography, 2012, 45, 329-331.	1.9	219
5	Superhard nanocomposite of dense polymorphs of boron nitride: Noncarbon material has reached diamond hardness. Applied Physics Letters, 2007, 90, 101912.	1.5	201
6	Lonsdaleite is faulted and twinned cubic diamond and does not exist as a discrete material. Nature Communications, 2014, 5, 5447.	5.8	201
7	Discovery of a Superhard Iron Tetraboride Superconductor. Physical Review Letters, 2013, 111, 157002.	2.9	192
8	Body-Centered Cubic Iron-Nickel Alloy in Earth's Core. Science, 2007, 316, 1880-1883.	6.0	187
9	Natural NaAlSi3O8-Hollandite in the Shocked Sixiangkou Meteorite. Science, 2000, 287, 1633-1636.	6.0	175
10	Experimental and Theoretical Identification of a New High-PressureTiO2Polymorph. Physical Review Letters, 2001, 87, 275501.	2.9	175
11	The⁵⁷Fe Synchrotron MÃ¶ssbauer Source at the ESRF. Journal of Synchrotron Radiation, 2012, 19, 559-569.	1.0	171
12	Terapascal static pressure generation with ultrahigh yield strength nanodiamond. Science Advances, 2016, 2, e1600341.	4.7	161
13	Structural complexity of simple Fe2O3 at high pressures and temperatures. Nature Communications, 2016, 7, 10661.	5.8	161
14	The most incompressible metal osmium at static pressures above 750 gigapascals. Nature, 2015, 525, 226-229.	13.7	159
15	The S ₃ ^{â€“} Ion Is Stable in Geological Fluids at Elevated Temperatures and Pressures. Science, 2011, 331, 1052-1054.	6.0	158
16	Fe-N system at high pressure reveals a compound featuring polymeric nitrogen chains. Nature Communications, 2018, 9, 2756.	5.8	153
17	Size-Dependent Pressure-Induced Amorphization in NanoscaleTiO2. Physical Review Letters, 2006, 96, 135702.	2.9	150
18	Stable intermediate-spin ferrous iron in lower-mantle perovskite. Nature Geoscience, 2008, 1, 684-687.	5.4	150

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19	Molecular dynamics of NaCl (B1 and B2) and MgO (B1) melting; two-phase simulation. American Mineralogist, 1996, 81, 303-316.	0.9	143
20	Superhard Semiconducting Optically Transparent High Pressure Phase of Boron. Physical Review Letters, 2009, 102, 185501.	2.9	139
21	Raman Spectroscopic Study of Pressure Effects on the Spin-Crossover Coordination Polymers Fe(Pyrazine)[M(CN)4]Â·2H2O (M = Ni, Pd, Pt). First Observation of a Piezo-Hysteresis Loop at Room Temperature. Journal of Physical Chemistry B, 2003, 107, 3149-3155.	1.2	129
22	Role of Disorder in the Thermodynamics and Atomic Dynamics of Glasses. Physical Review Letters, 2014, 112, 025502.	2.9	125
23	Shock compression of stishovite and melting of silica at planetary interior conditions. Science, 2015, 347, 418-420.	6.0	123
24	Whole-cell heater for the diamond anvil cell. Review of Scientific Instruments, 2003, 74, 3433-3437.	0.6	119
25	High-Pressure Polymeric Nitrogen Allotrope with the Black Phosphorus Structure. Physical Review Letters, 2020, 124, 216001.	2.9	119
26	High Poisson's ratio of Earth's inner core explained by carbon alloying. Nature Geoscience, 2015, 8, 220-223.	5.4	113
27	Ironâ€“silica interaction at extreme conditions and the electrically conducting layer at the base of Earth's mantle. Nature, 2003, 422, 58-61.	13.7	108
28	High-pressure and high-temperature synthesis of the cubicTiO2polymorph. Physical Review B, 2004, 70, .	1.1	108
29	A Monoclinic Post-Stishovite Polymorph of Silica in the Shergotty Meteorite. Science, 2000, 288, 1632-1634.	6.0	106
30	Optical Absorption and Radiative Thermal Conductivity of Silicate Perovskite to 125 Gigapascals. Science, 2008, 322, 1529-1532.	6.0	105
31	A novel gas-loading system for mechanically closing of various types of diamond anvil cells. Review of Scientific Instruments, 2008, 79, 045110.	0.6	101
32	Ambient- and low-temperature synchrotron x-ray diffraction study of BaFe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>As<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow /><mml:mrow><mml:mn>2</mml:mn></mml:mro	1.1	101
33	An Ultradense Polymorph of Rutile with Seven-Coordinated Titanium from the Ries Crater. Science, 2001, 293, 1467-1470.	6.0	98
34	Nonlinear size dependence of anatase TiO2 lattice parameters. Applied Physics Letters, 2006, 88, 243103.	1.5	98
35	High-pressure and high-temperature in situ X-ray diffraction study of iron and corundum to 68 GPa using an internally heated diamond anvil cell. Physics and Chemistry of Minerals, 1998, 25, 434-441.	0.3	96
36	Aggregated diamond nanorods, the densest and least compressible form of carbon. Applied Physics Letters, 2005, 87, 083106.	1.5	96

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37	Seifertite, a dense orthorhombic polymorph of silica from the Martian meteorites Shergotty and Zagami. European Journal of Mineralogy, 2008, 20, 523-528.	0.4	96
38	Perovskiteâ€like Mn₂O₃: A Path to New Manganites. Angewandte Chemie - International Edition, 2013, 52, 1494-1498.	7.2	96
39	High-Pressure Synthesis of Dirac Materials: Layered van der Waals Bonded <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow><mml:mi>BeN</mml:mi></mml:mrow><mml:mrow><mml:mn>4</mml:mn></mml:mrow> Polymorph. Physical Review Letters, 2021, 126, 175501.	2.9	90
40	Structures of dolomite at ultrahigh pressure and their influence on the deep carbon cycle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13509-13514.	3.3	89
41	A natural shock-induced dense polymorph of rutile with Î±-PbO2 structure in the suevite from the Ries crater in Germany. Earth and Planetary Science Letters, 2001, 192, 485-495.	1.8	87
42	Partitioning of oxygen between the Earth's mantle and core. Journal of Geophysical Research, 2010, 115, .	3.3	87
43	Comment on "Synthesis of Ultra-Incompressible Superhard Rhenium Diboride at Ambient Pressure". Science, 2007, 318, 1550-1550.	6.0	86
44	Nanocrystalline diamond synthesized from C60. Diamond and Related Materials, 2005, 14, 16-22.	1.8	85
45	Stability of iron-bearing carbonates in the deep Earthâ€™s interior. Nature Communications, 2017, 8, 15960.	5.8	84
46	Pure Iron Compressed and Heated to Extreme Conditions. Physical Review Letters, 2007, 99, 165505.	2.9	83
47	Superior Wear Resistance of Aggregated Diamond Nanorods. Nano Letters, 2006, 6, 824-826.	4.5	81
48	Experimental pressure-temperature phase diagram of boron: resolving the long-standing enigma. Scientific Reports, 2011, 1, 96.	1.6	81
49	Noblest of All Metals Is Structurally Unstable at High Pressure. Physical Review Letters, 2007, 98, 045503.	2.9	79
50	Pressure-Induced Invar Effect in Fe-Ni Alloys. Physical Review Letters, 2001, 86, 4851-4854.	2.9	78
51	Synthesis of an orthorhombic high pressure boron phase. Science and Technology of Advanced Materials, 2008, 9, 044209.	2.8	78
52	X-ray diffraction and MÃ¶ssbauer spectroscopy study of fcc iron hydride FeH at high pressures and implications for the composition of the Earth's core. Earth and Planetary Science Letters, 2011, 307, 409-414.	1.8	78
53	Synthesis of magnesium-nitrogen salts of polynitrogen anions. Nature Communications, 2019, 10, 4515.	5.8	76
54	High-pressure behavior of iron carbide (Fe₇C₃) at inner core conditions. Journal of Geophysical Research, 2011, 116, .	3.3	75

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55	Highâ€Pressure Synthesis of a Nitrogenâ€Rich Inclusion Compound ReN₈â‹…xâ€‰N₂ with Conjugated Polymeric Nitrogen Chains. Angewandte Chemie - International Edition, 2018, 57, 9048-9053.	7.2	70
56	Synthesis of bulk superhard semiconducting Bâ€“C material. Applied Physics Letters, 2004, 85, 1508-1510.	1.5	68
57	Optical absorption spectra of ferropericlase to 84 GPa. American Mineralogist, 2007, 92, 433-436.	0.9	68
58	Experimental vibrational GrÃ¼neisen ratio values for Ïµ-iron up to 330 GPa at 300 K. Geophysical Research Letters, 2001, 28, 399-402.	1.5	67
59	Compression behavior of nanocrystalline anatase TiO2. Solid State Communications, 2003, 125, 111-115.	0.9	66
60	CubicTiO2as a potential light absorber in solar-energy conversion. Physical Review B, 2004, 70, .	1.1	66
61	Temperature-induced ruby fluorescence shifts up to a pressure of 15ÂGPa in an externally heated diamond anvil cell. High Temperatures - High Pressures, 1999, 31, 299-305.	0.3	66
62	Beating the Miscibility Barrier between Iron Group Elements and Magnesium by High-Pressure Alloying. Physical Review Letters, 2005, 95, 245502.	2.9	65
63	Single-crystal X-ray diffraction at megabar pressures and temperatures of thousands of degrees. High Pressure Research, 2010, 30, 620-633.	0.4	65
64	High-pressure synthesis of ultraincompressible hard rhenium nitride pernitride Re2(N2)(N)2 stable at ambient conditions. Nature Communications, 2019, 10, 2994.	5.8	65
65	Phase transition in CaSiO3 perovskite. Earth and Planetary Science Letters, 2007, 260, 564-569.	1.8	64
66	Unusual Compression Behavior of Anatase<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mi>TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>Nanocrystals. Physical Review Letters, 2009, 103, 075505.	2.9	63
67	High-pressure phase transition in LiBH4. Journal of Solid State Chemistry, 2007, 180, 510-517.	1.4	62
68	Evidence for fractional crystallization of wadsleyite and ringwoodite from olivine melts in chondrules entrained in shock-melt veins. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8542-8547.	3.3	62
69	Portable laser-heating system for diamond anvil cells. Journal of Synchrotron Radiation, 2009, 16, 737-741.	1.0	61
70	Carbonatitic mineralogy of natural diamond-forming fluids. Earth and Planetary Science Letters, 2010, 291, 126-137.	1.8	61
71	Effect of iron oxidation state on the electrical conductivity of the Earthâ€™s lower mantle. Nature Communications, 2013, 4, 1427.	5.8	60
72	Importance of Correlation Effects in hcp Iron Revealed by a Pressure-Induced Electronic Topological Transition. Physical Review Letters, 2013, 110, 117206.	2.9	58

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73	Sound wave velocities of fcc Feâ€“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
74	An insight into what superconducts in polycrystalline boron-doped diamonds based on investigations of microstructure. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11619-11622.	3.3	57
75	High-pressure spectroscopic study of siderite (FeCO₃) with a focus on spin crossover. American Mineralogist, 2015, 100, 2670-2681.	0.9	57
76	Pressure-Induced Magnetization in FeO: Evidence from Elasticity and MÃ¶ssbauer Spectroscopy. Physical Review Letters, 2004, 93, 215502.	2.9	55
77	Experimental evidence of superionic conduction in H2O ice. Journal of Chemical Physics, 2012, 137, 194505.	1.2	55
78	Molecular dynamics of stishovite melting. Geochimica Et Cosmochimica Acta, 1995, 59, 1883-1889.	1.6	54
79	Charge-ordering transition in iron oxide Fe4O5 involving competing dimer and trimer formation. Nature Chemistry, 2016, 8, 501-508.	6.6	54
80	Peierls distortion, magnetism, and high hardness of manganese tetraboride. Physical Review B, 2014, 89, .	1.1	53
81	FCCâ€“HCP phase boundary in lead. Solid State Communications, 2002, 122, 125-127.	0.9	50
82	Titanium metal at high pressure: Synchrotron experiments andab initiocalculations. Physical Review B, 2004, 69, .	1.1	50
83	Portable double-sided laser-heating system for MÃ¶ssbauer spectroscopy and X-ray diffraction experiments at synchrotron facilities with diamond anvil cells. Review of Scientific Instruments, 2012, 83, 124501.	0.6	50
84	Discovery of Fe7O9: a new iron oxide with a complex monoclinic structure. Scientific Reports, 2016, 6, 32852.	1.6	50
85	Laser heating setup for diamond anvil cells for in situ synchrotron and in house high and ultra-high pressure studies. Review of Scientific Instruments, 2019, 90, .	0.6	50
86	Simultaneous volume measurements of post-perovskite and perovskite in MgSiO3 and their thermal equations of state. Earth and Planetary Science Letters, 2008, 265, 515-524.	1.8	49
87	Oxidized iron in garnets from the mantle transition zone. Nature Geoscience, 2018, 11, 144-147.	5.4	48
88	Equation of state of MgSiO₃with the perovskite structure based on experimental measurement. American Mineralogist, 1999, 84, 226-232.	0.9	47
89	Disorderâ€“order transitions in the perovskite metalâ€“organic frameworks [(CH₃)₂NH₂][M(HCOO)₃] at high pressure. CrystEngComm, 2018, 20, 3512-3521.	1.3	47
90	Thermodynamic data for the phases in the CaSiO3 system. Geochimica Et Cosmochimica Acta, 1997, 61, 1181-1191.	1.6	46

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91	Electron-Deficient and Polycenter Bonds in the High-Pressure<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi><mml:mtext mathvariant="normal">â^'</mml:mtext><mml:msub><mml:mi mathvariant="normal">B</mml:mi><mml:mn>28</mml:mn></mml:msub></mml:math>Phase of Boron. Physical Review Letters, 2011, 106, 215502.	2.9	46
92	Pressure-Induced Hydrogen Bond Symmetrization in Iron Oxyhydroxide. Physical Review Letters, 2013, 111, 175501.	2.9	46
93	Effect of non-hydrostatic conditions on the elastic behaviour of magnetite: an in situ single-crystal X-ray diffraction study. Physics and Chemistry of Minerals, 2007, 34, 627-635.	0.3	44
94	Short-range order and Fe clustering in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>Mg</mml:mtext></mml:mrow><mml:mrow><mml:mn>1−</mml:m high pressure. Physical Review B, 2009, 80, .	1.1	44
95	Low-spin Fe2+ in silicate perovskite and a possible layer at the base of the lower mantle. Physics of the Earth and Planetary Interiors, 2010, 180, 215-221.	0.7	44
96	Akaogiite: An ultra-dense polymorph of TiO2 with the baddeleyite-type structure, in shocked garnet gneiss from the Ries Crater, Germany. American Mineralogist, 2010, 95, 892-895.	0.9	44
97	A Hard Oxide Semiconductor with A Direct and Narrow Bandgap and Switchable pâ€“n Electrical Conduction. Advanced Materials, 2014, 26, 8185-8191.	11.1	44
98	Molecular and lattice dynamics study of the MgO-SiO2 system using a transferable interatomic potential. Geochimica Et Cosmochimica Acta, 1996, 60, 1645-1656.	1.6	43
99	A new natural, super-hard, transparent polymorph of carbon from the Popigai impact crater, Russia. Comptes Rendus - Geoscience, 2003, 335, 889-898.	0.4	43
100	Equation of state and thermal expansivity of LiF and NaF. High Pressure Research, 2007, 27, 483-489.	0.4	43
101	Highâ€Pressure NiAsâ€Type Modification of FeN. Angewandte Chemie - International Edition, 2017, 56, 7302-7306.	7.2	43
102	Observation of nuclear quantum effects and hydrogen bond symmetrisation in high pressure ice. Nature Communications, 2018, 9, 2766.	5.8	43
103	Electronic properties and magnetism of iron at the Earth's inner core conditions. Physical Review B, 2013, 87, .	1.1	42
104	Melting and decomposition of MgCO3 at pressures up to 84ÂGPa. Physics and Chemistry of Minerals, 2015, 42, 73-81.	0.3	42
105	A class of new high-pressure silica polymorphs. Physics of the Earth and Planetary Interiors, 2004, 143-144, 231-240.	0.7	41
106	Structurally hidden magnetic transitions in Fe<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub></mml:math>C at high pressures. Physical Review B, 2012, 85, .	1.1	41
107	Lower mantle electrical conductivity based on measurements of Al,â€‰Fe-bearing perovskite under lower mantle conditions. Earth and Planetary Science Letters, 2014, 393, 165-172.	1.8	41
108	Chemical interaction of Fe and Al2O3 as a source of heterogeneity at the Earth's coreâ€“mantle boundary. Nature, 2001, 412, 527-529.	13.7	40

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109	Stishovite and post-stishovite polymorphs of silica in the shergotty meteorite: their nature, petrographic settings versus theoretical predictions and relevance to Earth's mantle. Journal of Physics and Chemistry of Solids, 2004, 65, 1597-1608.	1.9	40
110	MELTING CURVE OF WATER STUDIED IN EXTERNALLY HEATED DIAMOND-ANVIL CELL. High Pressure Research, 2003, 23, 307-311.	0.4	39
111	Raman spectroscopy of glassy carbon up to 60â€‰GPa. Applied Physics Letters, 2013, 102, .	1.5	39
112	Magnesium silicate perovskite and effect of iron oxidation state on its bulk sound velocity at the conditions of the lower mantle. Earth and Planetary Science Letters, 2014, 393, 182-186.	1.8	39
113	Metastable silica high pressure polymorphs as structural proxies of deep Earth silicate melts. Nature Communications, 2018, 9, 4789.	5.8	39
114	Î±â˜PbO2-type high-pressure polymorph ofGeO2. Physical Review B, 2003, 67, .	1.1	38
115	Magnetic flux tailoring through Lenz lenses for ultrasmall samples: A new pathway to high-pressure nuclear magnetic resonance. Science Advances, 2017, 3, eaao5242.	4.7	38
116	Spin-induced multiferroicity in the binary perovskite manganite Mn2O3. Nature Communications, 2018, 9, 2996.	5.8	38
117	Structural stability of a golden semiconducting orthorhombic polymorph of Ti₂O₃under high pressures and high temperatures. Journal of Physics Condensed Matter, 2010, 22, 375402.	0.7	37
118	Raman study of MgCO3â€“FeCO3 carbonate solid solution at high pressures up to 55 GPa. Physics and Chemistry of Minerals, 2014, 41, 633-638.	0.3	37
119	The effect of Fe spin crossovers on its partitioning behavior and oxidation state in a pyrolitic Earth's lower mantle system. Earth and Planetary Science Letters, 2014, 399, 86-91.	1.8	37
120	The use of ultrasonic cavitation for near-surface structuring of robust and low-cost AlNi catalysts for hydrogen production. Green Chemistry, 2015, 17, 2745-2749.	4.6	37
121	Compressibility measurements on iridium. Journal of Alloys and Compounds, 2000, 306, 26-29.	2.8	36
122	Revised calibration of the Sm:SrB4O7 pressure sensor using the Sm-doped yttrium-aluminum garnet primary pressure scale. Journal of Applied Physics, 2015, 117, .	1.1	36
123	Highâ€Pressure Synthesis of Metalâ€“Inorganic Frameworks Hf 4 N 20 â‹…N 2 , WN 8 â‹…N 2 , and Os 5 N 28 â‹…3â€‰N 2 with Polymeric Nitrogen Linkers. Angewandte Chemie - International Edition, 2020, 59, 10321-10326.	7.2	36
124	Carbon transport in diamond anvil cells. High Temperatures - High Pressures, 2003, 35/36, 237-249.	0.3	36
125	Local Oxygen-Vacancy Ordering and Twinned Octahedral Tilting Pattern in the Bi_{0.81}Pb_{0.19}FeO_{2.905} Cubic Perovskite. Chemistry of Materials, 2012, 24, 1378-1385.	3.2	35
126	Materials synthesis at terapascal static pressures. Nature, 2022, 605, 274-278.	13.7	35

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127	Disorder and defects are not intrinsic to boron carbide. Scientific Reports, 2016, 6, 19330.	1.6	34
128	Compressional pathways of Î±-cristobalite, structure of cristobalite X-I, and towards the understanding of seifertite formation. Nature Communications, 2017, 8, 15647.	5.8	33
129	Magnetism in cold subducting slabs at mantle transition zone depths. Nature, 2019, 570, 102-106.	13.7	33
130	High pressure phase transformation of jadeite and stability of NaAlSiO4with calcium-ferrite type structure in the lower mantle conditions. Geophysical Research Letters, 2000, 27, 2025-2028.	1.5	32
131	Raman spectroscopic study of PbCO3 at high pressures and temperatures. Physics and Chemistry of Minerals, 2010, 37, 45-56.	0.3	32
132	Carbon polymorphism in shocked meteorites: Evidence for new natural ultrahard phases. Earth and Planetary Science Letters, 2010, 290, 150-154.	1.8	32
133	Pressure-Induced Site-Selective Mott Insulator-Metal Transition in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>Fe</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub><mml:msub><mml:mrow><mml:mi mathvariant="normal">O</mml:mi></mml:mrow><mml:mrow><mml:mn>3</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math>. Physical Review X, 2018, 8, .	2.8	32
134	Effect of high pressure on the crystal structure and electronic properties of magnetite below 25 GPa. American Mineralogist, 2012, 97, 128-133.	0.9	31
135	Stability of Fe,Al-bearing bridgmanite in the lower mantle and synthesis of pure Fe-bridgmanite. Science Advances, 2016, 2, e1600427.	4.7	31
136	Emissivity measurements on some metals and oxides using multiwavelength spectral radiometry. High Temperatures - High Pressures, 1999, 31, 393-399.	0.3	31
137	Size effects on the structure and phase transition behavior of baddeleyite TiO2. Solid State Communications, 2005, 134, 541-546.	0.9	30
138	Oxidation state of the lower mantle: In situ observations of the iron electronic configuration in bridgmanite at extreme conditions. Earth and Planetary Science Letters, 2015, 423, 78-86.	1.8	30
139	In situ X-ray study of perovskite (MgSiO3): Phase transition and dissociation at mantle conditions. European Journal of Mineralogy, 1998, 10, 1275-1282.	0.4	30
140	Hydrogenation of C60 at 2GPa pressure and high temperature. Chemical Physics, 2006, 325, 445-451.	0.9	29
141	Iron oxidation state of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>FeTiO</mml:mtext></mml:mrow><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math> high pressure. Physical Review B, 2009, 79, .	3.1	29
142	Structural characterization of the FeTiO3â€“MnTiO3 solid solution. Journal of Solid State Chemistry, 2010, 183, 2483-2489.	1.4	29
143	Diamond as a high pressure gauge up to 2.7 Mbar. Applied Physics Letters, 2010, 97, .	1.5	29
144	Novel high pressure monoclinic Fe₂O₃ polymorph revealed by single-crystal synchrotron X-ray diffraction studies. High Pressure Research, 2013, 33, 534-545.	0.4	29

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145	Stabilization of Polynitrogen Anions in Tantalumâ€“Nitrogen Compounds at High Pressure. Angewandte Chemie - International Edition, 2021, 60, 9003-9008.	7.2	29
146	Stability of the high-pressure monoclinic phases in Ce and Pr metals: Comparative diffraction study and phenomenological theory. Physical Review B, 2004, 70, .	1.1	28
147	High-pressure behavior of otavite (CdCO3). Journal of Alloys and Compounds, 2010, 508, 251-257.	2.8	28
148	Pressure tuning Raman spectroscopy of the spin crossover coordination polymer Fe(C5H5N)2[Ni(CN)4]. Journal of Physics Condensed Matter, 2004, 16, S1129-S1136.	0.7	27
149	The high-pressure behaviour of the 10ÂÃ... phase: A spectroscopic and diffractometric study up to 42ÂGPa. Earth and Planetary Science Letters, 2006, 246, 444-457.	1.8	27
150	High-pressure experimental and computational XANES studies of(Mg,Fe)(Si,Al)O3perovskite and (Mg,Fe)O ferropericlase as in the Earthâ€™s lower mantle. Physical Review B, 2009, 79, .	1.1	27
151	Pressure-induced isostructural phase transformation inÎ³-B28. Physical Review B, 2010, 82, .	1.1	27
152	Experimental evidence of orbital order in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î±</mml:mi></mml:math>-B<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>12</mml:mn></mml:msub></mml:math>and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î³</mml:mi></mml:math>-B	1.1	27
153	Raman spectroscopy investigation of alpha boron at elevated pressures and temperatures. Solid State Communications, 2013, 154, 34-39.	0.9	27
154	Iron spin state in silicate perovskite at conditions of the Earth's deep interior. High Pressure Research, 2013, 33, 663-672.	0.4	27
155	Hyperfine Splitting and Room-Temperature Ferromagnetism of Ni at Multimegabar Pressure. Physical Review Letters, 2013, 111, 157601.	2.9	27
156	On origin of lower-mantle diamonds and their primary inclusions. Physics of the Earth and Planetary Interiors, 2014, 228, 176-185.	0.7	27
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