

Leonid Dubrovinsky

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/4175684/publications.pdf>

Version: 2024-02-01

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	Synthesis of calcium orthocarbonate, Ca ₂ CO ₄ <i>Pnma</i> at <i>P-T</i> conditions of Earth's transition zone and lower mantle. <i>American Mineralogist</i> , 2022, 107, 336-342.	0.9	23
2	A Reentrant Phase Transition and a Novel Polymorph Revealed in High-Pressure Investigations of CF ₄ up to 46.5 GPa. <i>Journal of Chemical Physics</i> , 2022, 156, 044503.	1.2	2
3	Edge-sharing BO ₄ tetrahedra and penta-coordinated silicon in the high-pressure modification of NaBSi ₃ O ₈ . <i>Inorganic Chemistry Frontiers</i> , 2022, 9, 1735-1742. High-pressure	3.0	6
4			

#	ARTICLE	IF	CITATIONS
19	Isothermal equation of state of crystalline and glassy materials from optical measurements in diamond anvil cells. <i>Review of Scientific Instruments</i> , 2021, 92, 063907.	0.6	3
20	Crystal Structure Evolution of Slawsonite $\text{SrAl}_2\text{Si}_2\text{O}_8$ and Paracelsian $\text{BaAl}_2\text{Si}_2\text{O}_8$ upon Compression and Decompression. <i>Journal of Physical Chemistry C</i> , 2021, 125, 13014-13023.	1.5	13
21	Chemical Stability of FeOOH at High Pressure and Temperature, and Oxygen Recycling in Early Earth History**. <i>European Journal of Inorganic Chemistry</i> , 2021, 2021, 3048-3053.	1.0	16
22	Discovery of Elgoresyite, $(\text{Mg,Fe})_5\text{Si}_2\text{O}_9$: Implications for Novel Iron-Magnesium Silicates in Rocky Planetary Interiors. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 2124-2130.	1.2	6
23	High-pressure syntheses and crystal structure analyses of a new low-density CaFe_2O_4 -related and CaTi_2O_4 -type MgAl_2O_4 phases. <i>American Mineralogist</i> , 2021, 106, 1105-1112.	0.9	3
24	Structural Stability and Properties of Marokite-Type $\hat{\Gamma}^3\text{-Mn}_3\text{O}_4$. <i>Inorganic Chemistry</i> , 2021, 60, 13440-13452.	1.9	4
25	Synthesis of Ilmenite-type $\hat{\Gamma}^\mu\text{-Mn}_2\text{O}_3$ and Its Properties. <i>Inorganic Chemistry</i> , 2021, 60, 13348-13358.	1.9	4
26	High-Pressure Yttrium Nitride, Y_5N_{14} , Featuring Three Distinct Types of Nitrogen Dimers. <i>Journal of Physical Chemistry C</i> , 2021, 125, 18077-18084.	1.5	11
27	High-Pressure Synthesis of the $\hat{\Gamma}^2\text{-Zn}_3\text{N}_2$ Nitride and the $\hat{\Gamma}^\pm\text{-Zn}_4$ and $\hat{\Gamma}^2\text{-Zn}_4$ Polynitrogen Compounds. <i>Inorganic Chemistry</i> , 2021, 60, 14594-14601.	1.9	15
28	Novel High-Pressure Yttrium Carbide $\hat{\Gamma}^3\text{-Y}_4\text{C}_5$ Containing [C2] and Nonlinear [C3] Units with Unusually Large Formal Charges. <i>Physical Review Letters</i> , 2021, 127, 135501.	2.9	6
29	Synthesis, crystal structure and structure-property relations of strontium orthocarbonate, Sr_2CO_4 . <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2021, 77, 131-137.	0.5	16
30	<i>In situ</i> high-pressure nuclear magnetic resonance crystallography in one and two dimensions. <i>Matter and Radiation at Extremes</i> , 2021, 6, .	1.5	9
31	Thermodynamic and electronic properties of ReN_2 polymorphs at high pressure. <i>Physical Review B</i> , 2021, 104, .	1.1	1
32	Nitride Spinel: An Ultraincompressible High-Pressure Form of BeP_2N_4 . <i>Angewandte Chemie</i> , 2020, 132, 2752-2756.	1.6	5
33	Nitride Spinel: An Ultraincompressible High-Pressure Form of BeP_2N_4 . <i>Angewandte Chemie - International Edition</i> , 2020, 59, 2730-2734.	7.2	13
34	Decomposition of single-source precursors under high-temperature high-pressure to access osmium-platinum refractory alloys. <i>Journal of Alloys and Compounds</i> , 2020, 813, 152121.	2.8	7
35	A Room-Temperature Verwey-type Transition in Iron Oxide, Fe_5O_6 . <i>Angewandte Chemie</i> , 2020, 132, 5681-5685.	1.6	2
36	High-pressure, high-temperature phase stability of iron-poor dolomite and the structures of dolomite-IIIc and dolomite-V. <i>Physics of the Earth and Planetary Interiors</i> , 2020, 299, 106403.	0.7	16

#	ARTICLE	IF	CITATIONS
37	A Room-Temperature Verwey-Type Transition in Iron Oxide, Fe ₅ O ₆ . <i>Angewandte Chemie - International Edition</i> , 2020, 59, 5632-5636.	7.2	17
38	Novel sulfur hydrides synthesized at extreme conditions. <i>Physical Review B</i> , 2020, 102, .	1.1	26
39	Pressure-Induced Phase Transitions in Danburite-Type Borosilicates. <i>Journal of Physical Chemistry C</i> , 2020, 124, 26048-26061.	1.5	6
40	High compressibility of synthetic analogs of binary iridium-ruthenium and ternary iridium-osmium-ruthenium minerals. <i>Materialia</i> , 2020, 14, 100920.	1.3	4
41	Nuclear spin coupling crossover in dense molecular hydrogen. <i>Nature Communications</i> , 2020, 11, 6334.	5.8	7
42	Structural Study of γ -AlOOH Up to 29 GPa. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1055.	0.8	8
43	Proton mobility in metallic copper hydride from high-pressure nuclear magnetic resonance. <i>Physical Review B</i> , 2020, 102, .	1.1	14
44	Polymorphism of feldspars above 10 GPa. <i>Nature Communications</i> , 2020, 11, 2721.	5.8	16
45	Revisiting spin-state crossover in (MgFe)O by means of high-resolution x-ray diffraction from a single crystal. <i>Physical Review B</i> , 2020, 101, .	1.1	1
46	High-Pressure Polymeric Nitrogen Allotrope with the Black Phosphorus Structure. <i>Physical Review Letters</i> , 2020, 124, 216001.	2.9	119
47	Seismic detectability of carbonates in the deep Earth: A nuclear inelastic scattering study. <i>American Mineralogist</i> , 2020, 105, 325-332.	0.9	9
48	High-Pressure Synthesis of Metal-Inorganic Frameworks Hf ₄ N ₂₀ , WN ₈ , and Os ₅ N ₂₈ with Polymeric Nitrogen Linkers. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 10321-10326.	7.2	36
49	Face-Centered Cubic Refractory Alloys Prepared from Single-Source Precursors. <i>Materials</i> , 2020, 13, 1418.	1.3	4
50	High-Pressure Synthesis of Metal-Inorganic Frameworks Hf ₄ N ₂₀ , WN ₈ , and Os ₅ N ₂₈ with Polymeric Nitrogen Linkers. <i>Angewandte Chemie</i> , 2020, 132, 10407-10412.	1.6	8
51	Innen-Aufbau: High-Pressure Synthesis of Metal-Inorganic Frameworks Hf ₄ N ₂₀ , WN ₈ , and Os ₅ N ₂₈ with Polymeric Nitrogen Linkers (<i>Angew. Chem.</i>)	1.6	8
52	The Effect of Pulsed Laser Heating on the Stability of Ferropicriase at High Pressures. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 542.	0.8	2
53	Elastic properties of majoritic garnet inclusions in diamonds and the seismic signature of pyroxenites in the Earth's upper mantle. <i>American Mineralogist</i> , 2020, 105, 984-991.	0.9	2
54	Synthesis of palladium carbides and palladium hydride in laser heated diamond anvil cells. <i>Journal of Alloys and Compounds</i> , 2020, 844, 156179.	2.8	12

#	ARTICLE	IF	CITATIONS
55	Raman Spectroscopy Study on Chemical Transformations of Propane at High Temperatures and High Pressures. <i>Scientific Reports</i> , 2020, 10, 1483.	1.6	7
56	Interaction Between FeOOH and NaCl at Extreme Conditions: Synthesis of Novel Na ₂ FeCl ₄ OH _x Compound. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 51.	0.8	5
57	Stability and Solubility of the FeAlO ₃ Component in Bridgmanite at Uppermost Lower Mantle Conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018447.	1.4	15
58	Innentitelbild: A Room-Temperature Verwey-Type Transition in Iron Oxide, Fe ₅ O ₆ (Angew. Chem. 14/2020). <i>Angewandte Chemie</i> , 2020, 132, 5450-5450.	1.6	0
59	Recreating Giants Impacts in the Laboratory: Shock Compression of Bridgmanite to 14 Mbar. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL085476.	1.5	19
60	Stability of a Petroleum-Like Hydrocarbon Mixture at Thermobaric Conditions That Correspond to Depths of 50 km. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 355.	0.8	4
61	Compressibility of hingganiite-(Y): high-pressure single crystal X-ray diffraction study. <i>Physics and Chemistry of Minerals</i> , 2020, 47, 1.	0.3	4
62	Novel Rhenium Carbides at 200 GPa. <i>European Journal of Inorganic Chemistry</i> , 2020, 2020, 2186-2190.	1.0	10
63	A portable on-axis laser-heating system for near-90° X-ray spectroscopy: application to ferropericlase and iron silicide. <i>Journal of Synchrotron Radiation</i> , 2020, 27, 414-424.	1.0	14
64	The crystal structures of Fe-bearing MgCO ₃ ²⁺ - and ³⁺ -carbonates at 98 GPa from single-crystal X-ray diffraction using synchrotron radiation. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2020, 76, 715-719.	0.2	7
65	Single-crystal diffractometer coupled with double-sided laser heating system at the Extreme Conditions Beamline PO2.2 at PETRAIII. <i>Review of Scientific Instruments</i> , 2019, 90, 073907.	0.6	7
66	Experimental investigation of FeCO ₃ (siderite) stability in Earth's lower mantle using XANES spectroscopy. <i>American Mineralogist</i> , 2019, 104, 1083-1091.	0.9	11
67	Synthesis of Arsenopyrite-Type Rhodium Pernitride RhN ₂ from a Single-Source Azide Precursor. <i>European Journal of Inorganic Chemistry</i> , 2019, 2019, 3667-3671.	1.0	17
68	Pressure-Induced Hydrogen-Hydrogen Interaction in Metallic FeH Revealed by NMR. <i>Physical Review X</i> , 2019, 9, .	2.8	16
69	High-pressure synthesis of ultraincompressible hard rhenium nitride pernitride Re ₂ (N ₂)(N) ₂ stable at ambient conditions. <i>Nature Communications</i> , 2019, 10, 2994.	5.8	65
70	Effect of Fe ³⁺ on Phase Relations in the Lower Mantle: Implications for Redox Melting in Stagnant Slabs. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 12484-12497.	1.4	8
71	Improving resolution of solid state NMR in dense molecular hydrogen. <i>Applied Physics Letters</i> , 2019, 115, .	1.5	7
72	Fate of Hydrocarbons in Iron-Bearing Mineral Environments during Subduction. <i>Minerals (Basel)</i> , 2020, 10, 355.	0.8	6

#	ARTICLE	IF	CITATIONS
73	Local Structure of Ferriic Iron Formates at Low Temperature and High Pressure Studied by Mössbauer Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 21676-21684.	1.5	4
74	High pressure phase transitions of paracelsian BaAl ₂ Si ₂ O ₈ . Scientific Reports, 2019, 9, 12652.	1.6	16
75	A versatile diamond anvil cell for X-ray inelastic, diffraction and imaging studies at synchrotron facilities. Review of Scientific Instruments, 2019, 90, 095107.	0.6	3
76	Laser heating setup for diamond anvil cells for <i>in situ</i> synchrotron and in house high and ultra-high pressure studies. Review of Scientific Instruments, 2019, 90, .	0.6	50
77	Synthesis of magnesium-nitrogen salts of polynitrogen anions. Nature Communications, 2019, 10, 4515.	5.8	76
78	Inverse pressure-induced Mott transition in TiPO ₄ . Physical Review B, 2019, 99, .	1.1	2
79	High Pressure Investigation of the N ₂ System up to the Megabar Range: Synthesis and Characterization of the SN ₂ Solid. Inorganic Chemistry, 2019, 58, 9195-9204.	1.9	17
80	Penta- and hexa-coordinated beryllium and phosphorus in high-pressure modifications of CaBe ₂ P ₂ O ₈ . Nature Communications, 2019, 10, 2800.	5.8	20
81	Magnetism in cold subducting slabs at mantle transition zone depths. Nature, 2019, 570, 102-106.	13.7	33
82	Boron Phosphorus Nitride at Extremes: PN ₆ Octahedra in the High-Pressure Polymorph β -PN ₃ N ₆ . Angewandte Chemie - International Edition, 2019, 58, 9060-9063.	7.2	13
83	Boron Phosphorus Nitride at Extremes: PN ₆ Octahedra in the High-Pressure Polymorph β -PN ₃ N ₆ . Angewandte Chemie, 2019, 131, 9158-9161.	1.6	8
84	Comparative study of the influence of pulsed and continuous wave laser heating on the mobilization of carbon and its chemical reaction with iron in a diamond anvil cell. Journal of Applied Physics, 2019, 125, .	1.1	17
85	Equations of state of rhodium, iridium and their alloys up to 70 GPa. Journal of Alloys and Compounds, 2019, 788, 212-218.	2.8	17
86	Table-top nuclear magnetic resonance system for high-pressure studies with in situ laser heating. Review of Scientific Instruments, 2019, 90, 123901.	0.6	7
87	A waveguide-based flexible CO ₂ -laser heating system for diamond-anvil cell applications. Comptes Rendus - Geoscience, 2019, 351, 280-285.	0.4	11
88	Stishovite's Relative: A Post-Coesite Form of Phosphorus Oxonitride. Angewandte Chemie, 2018, 130, 6801-6805.	1.6	5
89	Stishovite's Relative: A Post-Coesite Form of Phosphorus Oxonitride. Angewandte Chemie - International Edition, 2018, 57, 6691-6695.	7.2	11
90	Oxidized iron in garnets from the mantle transition zone. Nature Geoscience, 2018, 11, 144-147.	5.4	48

#	ARTICLE	IF	CITATIONS
91	The high-pressure behavior of spherocobaltite (CoCO ₃): a single crystal Raman spectroscopy and XRD study. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 59-68.	0.3	9
92	Sound velocities of skiaegite-iron-majorite solid solution to 56 GPa probed by nuclear inelastic scattering. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 397-404.	0.3	8
93	Microporous crystal structure of labuntsovite-Fe and high-pressure behavior up to 23 GPa. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2018, 74, 1-11.	0.5	7
94	Metastable silica high pressure polymorphs as structural proxies of deep Earth silicate melts. <i>Nature Communications</i> , 2018, 9, 4789.	5.8	39
95	Raman high-pressure study of butane isomers up to 40 GPa. <i>AIP Advances</i> , 2018, 8, .	0.6	4
96	Pressure tuning of charge ordering in iron oxide. <i>Nature Communications</i> , 2018, 9, 4142.	5.8	22
97	Single-standard method for simultaneous pressure and temperature estimation using Sm ²⁺ :SrB ₄ O ₇ fluorescence. <i>Journal of Applied Physics</i> , 2018, 124, .	1.1	16
98	Pressure-Induced Site-Selective Mott Insulator-Metal Transition in FeO . <i>Physical Review X</i> , 2018, 8, .	1.3	12
99	Synthesis of FeN ₄ at 180 GPa and its crystal structure from a submicron-sized grain. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2018, 74, 1392-1395.	0.2	25
100	Disorder-order transitions in the perovskite metal-organic frameworks [(CH ₃) ₂ NH ₂][M(HCOO) ₃] at high pressure. <i>CrystEngComm</i> , 2018, 20, 3512-3521.	1.3	47
101	High-Pressure Synthesis of a Nitrogen-Rich Inclusion Compound ReN ₈ with Conjugated Polymeric Nitrogen Chains. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 9048-9053.	7.2	70
102	High-Pressure Synthesis of a Nitrogen-Rich Inclusion Compound ReN ₈ with Conjugated Polymeric Nitrogen Chains. <i>Angewandte Chemie</i> , 2018, 130, 9186-9191.	1.6	16
103	NMR at pressures up to 90 GPa. <i>Journal of Magnetic Resonance</i> , 2018, 292, 44-47.	1.2	21
104	Crystallography taken to the extreme. <i>Physica Scripta</i> , 2018, 93, 062501.	1.2	7
105	Spin-induced multiferroicity in the binary perovskite manganite Mn ₂ O ₃ . <i>Nature Communications</i> , 2018, 9, 2996.	5.8	38
106	Magneto-orbital texture in the perovskite modification of Mn ₂ O ₃ . <i>Physical Review B</i> , 2018, 98, .	1.1	7
107	Fe-N system at high pressure reveals a compound featuring polymeric nitrogen chains. <i>Nature Communications</i> , 2018, 9, 2756.	5.8	153
108	Observation of nuclear quantum effects and hydrogen bond symmetrisation in high pressure ice. <i>Nature Communications</i> , 2018, 9, 2766.	5.8	43

#	ARTICLE	IF	CITATIONS
109	Pentacoordinated silicon in the high-pressure modification of datolite, $\text{CaBSiO}_4(\text{OH})$. <i>Inorganic Chemistry Frontiers</i> , 2018, 5, 1653-1660.	3.0	14
110	X-ray Microscopy Opportunities at ID 15B Beamline at the ESRF.. <i>Microscopy and Microanalysis</i> , 2018, 24, 238-239.	0.2	4
111	Pressure dependence of spin canting in ammonium metal formate antiferromagnets. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 24465-24476.	1.3	7
112	High-pressure high-temperature stability of hcp-Ir $\text{Os}_{1-x}\text{Ir}_x$ ($x=0.50$ and 0.55) alloys. <i>Journal of Alloys and Compounds</i> , 2017, 700, 198-207.	2.8	11
113	Effect of composition on compressibility of skiaigite-Fe-majorite garnet. <i>American Mineralogist</i> , 2017, 102, 184-191.	0.9	4
114	High-pressure single-crystal synchrotron diffraction study of MnGe and related compounds. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 085401.	0.7	2
115	High-Pressure NiAs-type Modification of FeN. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7302-7306.	7.2	43
116	Structural and Magnetic Transitions in $\text{CaCo}_3\text{V}_4\text{O}_{12}$ Perovskite at Extreme Conditions. <i>Inorganic Chemistry</i> , 2017, 56, 6251-6263.	1.9	12
117	Compressional pathways of β -cristobalite, structure of cristobalite X-I, and towards the understanding of seifertite formation. <i>Nature Communications</i> , 2017, 8, 15647.	5.8	33
118	The spin state of Fe^{3+} in lower mantle bridgmanite. <i>American Mineralogist</i> , 2017, 102, 1263-1269.	0.9	21
119	A new high-pressure phase transition in clinoferrosilite: In situ single-crystal X-ray diffraction study. <i>American Mineralogist</i> , 2017, 102, 666-673.	0.9	9
120	Structural Stability of Boron Carbide under Pressure Proven by Spectroscopic Studies up to 73 GPa. <i>Zeitschrift Fur Anorganische Und Allgemeine Chemie</i> , 2017, 643, 1357-1363.	0.6	6
121	Diamond anvils with a round table designed for high pressure experiments in DAC. <i>High Pressure Research</i> , 2017, 37, 475-485.	0.4	1
122	Portable double-sided pulsed laser heating system for time-resolved geoscience and materials science applications. <i>Review of Scientific Instruments</i> , 2017, 88, 084501.	0.6	24
123	Structural stability and mechanism of compression of stoichiometric B_{13}C_2 up to 68GPa. <i>Scientific Reports</i> , 2017, 7, 8969.	1.6	8
124	Stability of iron-bearing carbonates in the deep Earth's interior. <i>Nature Communications</i> , 2017, 8, 15960.	5.8	84
125	Raman and IR Spectroscopy Studies on Propane at Pressures of Up to 40 GPa. <i>Journal of Physical Chemistry A</i> , 2017, 121, 6004-6011.	1.1	11
126	Nonicosahedral boron allotrope synthesized at high pressure and high temperature. <i>Physical Review B</i> , 2017, 95, .	1.1	14

#	ARTICLE	IF	CITATIONS
127	Ir–Re binary alloys under extreme conditions and their electrocatalytic activity in methanol oxidation. Acta Materialia, 2017, 139, 236-243.	3.8	13
128	Magnetic flux tailoring through Lenz lenses for ultrasmall samples: A new pathway to high-pressure nuclear magnetic resonance. Science Advances, 2017, 3, eaao5242. High-pressure magnetic, electronic, and structural properties of CrMnMg	4.7	38
129	$F \frac{dM}{dt} = eM^2$		

#	ARTICLE	IF	CITATIONS
145	Structural distortions in the high-pressure polar phases of ammonium metal formates. <i>CrystEngComm</i> , 2016, 18, 8849-8857.	1.3	22
146	High-Pressure Phase Transformations in TiPO_4 : A Route to Pentacoordinated Phosphorus. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 15053-15057.	7.2	22
147	Discovery of Fe_7O_9 : a new iron oxide with a complex monoclinic structure. <i>Scientific Reports</i> , 2016, 6, 32852.	1.6	50
148	Terapascal static pressure generation with ultrahigh yield strength nanodiamond. <i>Science Advances</i> , 2016, 2, e1600341.	4.7	161
149	High-Pressure Phase Transformations in TiPO_4 : A Route to Pentacoordinated Phosphorus. <i>Angewandte Chemie</i> , 2016, 128, 15277-15281.	1.6	9
150	Sound velocities of bridgmanite from density of states determined by nuclear inelastic scattering and first-principles calculations. <i>Progress in Earth and Planetary Science</i> , 2016, 3, .	1.1	6
151	Structural complexity of simple Fe_2O_3 at high pressures and temperatures. <i>Nature Communications</i> , 2016, 7, 10661.	5.8	161
152	Time differentiated nuclear resonance spectroscopy coupled with pulsed laser heating in diamond anvil cells. <i>Review of Scientific Instruments</i> , 2015, 86, 114501.	0.6	13
153	Structural and vibrational properties of single crystals of Scandia, Sc_2O_3 under high pressure. <i>Journal of Applied Physics</i> , 2015, 118, .	1.1	21
154	Pressure-induced normal-incommensurate and incommensurate-commensurate phase transitions in CrOCl . <i>Scientific Reports</i> , 2015, 5, 9647.	1.6	13
155	Oxidation state of the lower mantle: In situ observations of the iron electronic configuration in bridgmanite at extreme conditions. <i>Earth and Planetary Science Letters</i> , 2015, 423, 78-86.	1.8	30
156	The Pressure-Induced Polymorphic Transformations in Fluconazole. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 4164-4169.	1.6	11
157	Shock compression of stishovite and melting of silica at planetary interior conditions. <i>Science</i> , 2015, 347, 418-420.	6.0	123
158	High Poisson's ratio of Earth's inner core explained by carbon alloying. <i>Nature Geoscience</i> , 2015, 8, 220-223.	5.4	113
159	First-principles calculations of properties of orthorhombic iron carbide Fe_7C_3 at the Earth's core conditions. <i>Physical Review B</i> , 2015, 91, .	1.1	20
160	Compressibility and structural stability of spinel-type MnIn_2O_4 . <i>Journal of Solid State Chemistry</i> , 2015, 230, 301-308.	1.4	13
161	Melting relations of multicomponent carbonate MgCO_3 - FeCO_3 - CaCO_3 - Na_2CO_3 system at 12-26 GPa: application to deeper mantle diamond formation. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 817-824.	0.3	9
162	Crystal structures and compressibility of novel iron borides Fe_2B_7 and Fe_5B_{50} synthesized at high pressure and high temperature. <i>Journal of Solid State Chemistry</i> , 2015, 230, 102-109.	1.4	11

#	ARTICLE	IF	CITATIONS
163	Compressibility of IrOs alloys under high pressure. <i>Journal of Alloys and Compounds</i> , 2015, 622, 155-161.	2.8	14
164	Revised calibration of the Sm:SrB ₄ O ₇ pressure sensor using the Sm-doped yttrium-aluminum garnet primary pressure scale. <i>Journal of Applied Physics</i> , 2015, 117, .	1.1	36
165	The use of ultrasonic cavitation for near-surface structuring of robust and low-cost AlNi catalysts for hydrogen production. <i>Green Chemistry</i> , 2015, 17, 2745-2749.	4.6	37
166	The most incompressible metal osmium at static pressures above 750 gigapascals. <i>Nature</i> , 2015, 525, 226-229.	13.7	159
167	High-pressure synthesis of skiaegite-majorite garnet and investigation of its crystal structure. <i>American Mineralogist</i> , 2015, 100, 2650-2654.	0.9	6
168	High-pressure spectroscopic study of siderite (FeCO ₃) with a focus on spin crossover. <i>American Mineralogist</i> , 2015, 100, 2670-2681.	0.9	57
169	Synthesis of nanocrystalline diamond from glassy carbon balls. <i>Journal of Crystal Growth</i> , 2015, 412, 54-59.	0.7	16
170	The Polymorphic Phase Transformations in the Chlorpropamide under Pressure. <i>Journal of Pharmaceutical Sciences</i> , 2015, 104, 81-86.	1.6	12
171	Melting and decomposition of MgCO ₃ at pressures up to 84 GPa. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 73-81.	0.3	42
172	Crystal structures of cristobalite-type and coesite-type PON redetermined on the basis of single-crystal X-ray diffraction data. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2015, 71, 1325-1327.	0.2	6
173	Pressure-induced phase transitions in coesite. <i>American Mineralogist</i> , 2014, 99, 755-763.	0.9	16
174	High-pressure crystal chemistry of coesite-I and its transition to coesite-II. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2014, 229, 761-773.	0.4	17
175	In-situ infrared spectra of hydroxyl in wadsleyite and ringwoodite at high pressure and high temperature. <i>American Mineralogist</i> , 2014, 99, 724-729.	0.9	18
176	Magnesium silicate perovskite and effect of iron oxidation state on its bulk sound velocity at the conditions of the lower mantle. <i>Earth and Planetary Science Letters</i> , 2014, 393, 182-186.	1.8	39
177	Lower mantle electrical conductivity based on measurements of Al,Fe-bearing perovskite under lower mantle conditions. <i>Earth and Planetary Science Letters</i> , 2014, 393, 165-172.	1.8	41
178	Crystal chemistry of Fe ³⁺ -bearing (Mg, Fe)SiO ₃ perovskite: a single-crystal X-ray diffraction study. <i>Physics and Chemistry of Minerals</i> , 2014, 41, 409-417.	0.3	16
179	Electronic spin state of Fe,Al-containing MgSiO ₃ perovskite at lower mantle conditions. <i>Lithos</i> , 2014, 189, 167-172.	0.6	19
180	Raman study of MgCO ₃ -FeCO ₃ carbonate solid solution at high pressures up to 55 GPa. <i>Physics and Chemistry of Minerals</i> , 2014, 41, 633-638.	0.3	37

#	ARTICLE	IF	CITATIONS
181	Novel non-magnetic hard boride Co ₅ B ₁₆ synthesized under high pressure. <i>Journal of Alloys and Compounds</i> , 2014, 608, 69-72.	2.8	17
182	Role of Disorder in the Thermodynamics and Atomic Dynamics of Glasses. <i>Physical Review Letters</i> , 2014, 112, 025502.	2.9	125
183	X-ray single-crystal and Raman study of knorringite, Mg ₃ (Cr _{1.58} Mg _{0.21} Si _{0.21})Si ₃ O ₁₂ , synthesized at 16 ÅGPa and 1,600 Å°C. <i>Physics and Chemistry of Minerals</i> , 2014, 41, 267-272.	0.3	8
184	Lonsdaleite is faulted and twinned cubic diamond and does not exist as a discrete material. <i>Nature Communications</i> , 2014, 5, 5447.	5.8	201
185	A Hard Oxide Semiconductor with A Direct and Narrow Bandgap and Switchable p-n Electrical Conduction. <i>Advanced Materials</i> , 2014, 26, 8185-8191.	11.1	44
186	Peierls distortion, magnetism, and high hardness of manganese tetraboride. <i>Physical Review B</i> , 2014, 89, .	1.1	53
187	Crystal structure and thermal expansion of Mn _{1-x} Fe _x Ge. <i>Acta Crystallographica Section B: Structural Science, Crystal Engineering and Materials</i> , 2014, 70, 676-680.	0.5	15
188	Bulk Silicon Crystals with the High Boron Content, Si _x B _x : Two Semiconductors Form an Unusual Metal. <i>Chemistry of Materials</i> , 2014, 26, 5274-5281.	3.2	15
189	The influence of solid solution on elastic wave velocity determination in (Mg,Fe)O using nuclear inelastic scattering. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 229, 16-23.	0.7	7
190	On origin of lower-mantle diamonds and their primary inclusions. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 228, 176-185.	0.7	27
191	Iron spin state in silicate glass at high pressure: Implications for melts in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2014, 385, 130-136.	1.8	16
192	The effect of Fe spin crossovers on its partitioning behavior and oxidation state in a pyrolitic Earth's lower mantle system. <i>Earth and Planetary Science Letters</i> , 2014, 399, 86-91.	1.8	37
193	High-pressure behavior of FeOCl. <i>Physical Review B</i> , 2013, 88, .	1.1	13
194	Probing nonequivalent sites in iron phosphide Fe ₂ P and its mechanism of phase transition. <i>European Physical Journal B</i> , 2013, 86, 1.	0.6	13
195	Transition Metal Oxides Under Extreme Conditions. , 2013, , 223-239.		6
196	Effect of Lone-Electron-Pair Cations on the Orientation of Crystallographic Shear Planes in Anion-Deficient Perovskites. <i>Inorganic Chemistry</i> , 2013, 52, 10009-10020.	1.9	15
197	Discovery of a Superhard Iron Tetraboride Superconductor. <i>Physical Review Letters</i> , 2013, 111, 157002.	2.9	192
198	Pressure-Induced Hydrogen Bond Symmetrization in Iron Oxyhydroxide. <i>Physical Review Letters</i> , 2013, 111, 175501.	2.9	46

#	ARTICLE	IF	CITATIONS
199	Experimental evidence of orbital order in LaB_{12} . Physical Review B, 2013, 88, .	1.1	27
200	High-pressure behavior of structural, optical, and electronic transport properties of the golden Th ₂ S ₃ -type Ti ₂ O ₃ . Physical Review B, 2013, 88, .	1.1	24
201	Novel high pressure monoclinic Fe ₂ O ₃ polymorph revealed by single-crystal synchrotron X-ray diffraction studies. High Pressure Research, 2013, 33, 534-545.	0.4	29
202	Anomalous compression and new high-pressure phases of vanadium sesquioxide, V ₂ O ₃ . Journal of Physics Condensed Matter, 2013, 25, 385401.	0.7	11
203	Perovskite-like Mn ₂ O ₃ : A Path to New Manganites. Angewandte Chemie - International Edition, 2013, 52, 1494-1498.	7.2	96
204	Mott transition in CaFe_2O_4 . Physical Review B, 2013, 88, .	1.1	16
205	Controversy about ultrahard nanotwinned cBN. Nature, 2013, 502, E1-E2.	13.7	21
206	Importance of Correlation Effects in hcp Iron Revealed by a Pressure-Induced Electronic Topological Transition. Physical Review Letters, 2013, 110, 117206.	2.9	58
207	Raman spectroscopy of glassy carbon up to 60 GPa. Applied Physics Letters, 2013, 102, .	1.5	39
208	Raman spectroscopy investigation of alpha boron at elevated pressures and temperatures. Solid State Communications, 2013, 154, 34-39.	0.9	27
209	Iron spin state in silicate perovskite at conditions of the Earth's deep interior. High Pressure Research, 2013, 33, 663-672.	0.4	27
210	Electronic properties and magnetism of iron at the Earth's inner core conditions. Physical Review B, 2013, 87, .	1.1	42
211	Effect of iron oxidation state on the electrical conductivity of the Earth's lower mantle. Nature Communications, 2013, 4, 1427.	5.8	60
212	Dzhuluite, Ca ₃ SbSnFe ₃ O ₁₂ , a new bitikleite-group garnet from the Upper Chegem Caldera, Northern Caucasus, Kabardino-Balkaria, Russia. European Journal of Mineralogy, 2013, 25, 231-239.	0.4	6
213	Eltyubyuite, Ca ₁₂ Fe ₃ +10Si ₄ O ₃₂ Cl ₆ - the Fe ³⁺ analogue of wadalite: a new mineral from the Northern Caucasus, Kabardino-Balkaria, Russia. European Journal of Mineralogy, 2013, 25, 221-229.	0.4	10
214	High pressure synthesis and investigation of single crystals of metastable boron phases. High Pressure Research, 2013, 33, 673-683.	0.4	23
215	Hyperfine Splitting and Room-Temperature Ferromagnetism of Ni at Multimegabar Pressure. Physical Review Letters, 2013, 111, 157601.	2.9	27
216	Lattice dynamics of coesite. Journal of Physics Condensed Matter, 2013, 25, 275401.	0.7	3

#	ARTICLE	IF	CITATIONS
217	Stability of MnB2 with AlB2-type structure revealed by first-principles calculations and experiments. Applied Physics Letters, 2013, 102.	1.5	14
218	Frustrated pentagonal Cairo lattice in the non-collinear antiferromagnet Bi ₄ FeO ₅ . Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13509-13514.	1.1	23
219	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
220	Experimental evidence of superionic conduction in H2O ice. Journal of Chemical Physics, 2012, 137, 194505.	1.2	55
221	In situ Raman spectroscopic study of the pressure induced structural changes in ammonia borane. Journal of Chemical Physics, 2012, 137, 074506.	1.2	18
222	Diamond anvils with a spherical support designed for X-ray and neutron diffraction experiments in DAC. High Pressure Research, 2012, 32, 537-543.	0.4	6
223	Pressure-driven Phase Transition in CaFeAsF at 40 and 300 K. Journal of Physics: Conference Series, 2012, 377, 012034.	0.3	0
224	Portable double-sided laser-heating system for Mössbauer spectroscopy and X-ray diffraction experiments at synchrotron facilities with diamond anvil cells. Review of Scientific Instruments, 2012, 83, 124501.	0.6	50
225	BX90: A new diamond anvil cell design for X-ray diffraction and optical measurements. Review of Scientific Instruments, 2012, 83, 125102.	0.6	251
226	High-pressure structural studies of eskolaite by means of single-crystal X-ray diffraction. American Mineralogist, 2012, 97, 1764-1770.	0.9	26
227	The crystal structure of aluminum doped $\hat{\Gamma}^2$ -rhombohedral boron. Journal of Solid State Chemistry, 2012, 194, 188-193.	1.4	7
228	Structurally hidden magnetic transitions in Fe ₃ C at high pressures. Physical Review B, 2012, 85, .	1.1	41
229	Angular, spectral, and temporal properties of nuclear radiation from a ⁵⁷ Fe synchrotron Mössbauer source. Physical Review A, 2012, 86, .	1.0	14
230	Implementation of micro-ball nanodiamond anvils for high-pressure studies above 6â€‰Mbar. Nature Communications, 2012, 3, 1163.	5.8	239
231	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
232	Edgrewite Ca ₉ (SiO ₄) ₄ F ₂ -hydroxyledgrewite Ca ₉ (SiO ₄) ₄ (OH) ₂ , a new series of calcium humite-group minerals from altered xenoliths in the ignimbrite of Upper Chegem caldera, Northern Caucasus, Kabardino-Balkaria, Russia. American Mineralogist, 2012, 97, 1998-2006.	0.9	14
233	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
234	<i>MossA</i> : a program for analyzing energy-domain Mössbauer spectra from conventional and synchrotron sources. Journal of Applied Crystallography, 2012, 45, 329-331.	1.9	219

#	ARTICLE	IF	CITATIONS
235	The ⁵⁷ Fe Synchrotron Mössbauer Source at the ESRF. Journal of Synchrotron Radiation, 2012, 19, 559-569.	1.0	171
236	High-pressure and high-temperature Raman spectroscopic study of hydrous wadsleyite (Mg_2SiO_4). Physics and Chemistry of Minerals, 2012, 39, 57-64.	0.3	5
237	The dehydration process of gypsum under high pressure. Physics and Chemistry of Minerals, 2012, 39, 65-71.	0.3	16
238	High-pressure behavior of iron carbide (Fe_7C_3) at inner core conditions. Journal of Geophysical Research, 2011, 116, .	3.3	75
239	Transmission X-ray diffraction as a new tool for diamond fluid inclusion studies. Mineralogical Magazine, 2011, 75, 2657-2675.	0.6	17
240	Electron-Deficient and Polycenter Bonds in the High-Pressure B^{III} Phase of Boron. Physical Review Letters, 2011, 106, 215502.	2.9	46
241	Investigation into high-pressure behavior of MnTiO_3 : X-ray diffraction and Raman spectroscopy with diamond anvil cells. Geoscience Frontiers, 2011, 2, 107-114.	4.3	26
242	X-ray diffraction and Mössbauer 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
243	Impact of lattice vibrations on equation of state of the hardest boron phase. Physical Review B, 2011, 83, .	1.1	13
244	In situ high-pressure study of FeP: Implications for planetary cores. Physics of the Earth and Planetary Interiors, 2011, 184, 154-159.	0.7	24
245	High-pressure high-temperature synthesis of Cr_2O_3 and Ga_2O_3 . High Pressure Research, 2011, 31, 23-29.	0.4	26
246	Experimental pressure-temperature phase diagram of boron: resolving the long-standing enigma. Scientific Reports, 2011, 1, 96.	1.6	81
247	Missing-atom structure of diamond $\sqrt{5}$ (001) twist grain boundary. Physical Review B, 2011, 84, .	1.1	2
248	High pressure synthesis of single crystals of $\sqrt{5}$ -boron. Journal of Crystal Growth, 2011, 321, 162-166.	0.7	26
249	Ruby and Sm:YAG fluorescence pressure gauges up to 120 GPa and 700 K. Journal of Applied Physics, 2011, 110, .	1.1	19
250	Pressure dependence of the low-temperature crystal structure and phase transition behavior of CaFeAsF and SrFeAsF : A synchrotron x-ray diffraction study. Physical Review B, 2011, 84, .	1.1	11
251	Pressure dependence of the low-temperature crystal structure and phase transition behavior of CaFeAsF and SrFeAsF : A synchrotron x-ray diffraction study. Physical Review B, 2011, 84, .	1.1	101
252	Effect of composition and pressure on phase transitions in Fe_xO at low temperature. Journal of Applied Physics, 2011, 110, 026109.	1.1	8

#	ARTICLE	IF	CITATIONS
253	High-pressure structural behavior of $\hat{\text{A}}\text{-Fe}_2\text{O}_3$ studied by single-crystal X-ray diffraction and synchrotron radiation up to 25 GPa. <i>American Mineralogist</i> , 2011, 96, 1781-1786.	0.9	19
254	The S^{3+} Ion Is Stable in Geological Fluids at Elevated Temperatures and Pressures. <i>Science</i> , 2011, 331, 1052-1054.	6.0	158
255	High-Pressure Structural Phase Transitions in FeAs Based Compounds at Ambient and Low Temperatures. , 2011, , .		0
256	Pressure-induced structural phase transition of the iron end-member of ringwoodite ($\hat{\text{A}}\text{-Fe}_2\text{SiO}_4$) investigated by X-ray diffraction and Mossbauer spectroscopy. <i>American Mineralogist</i> , 2011, 96, 833-840.	0.9	12
257	Combining FIB milling and conventional Argon ion milling techniques to prepare high-quality site-specific TEM samples for quantitative EELS analysis of oxygen in molten iron. <i>Journal of Microscopy</i> , 2010, 238, 200-209.	0.8	16
258	Pressure-induced isostructural phase transformation in $\hat{\text{B}}\text{-B28}$. <i>Physical Review B</i> , 2010, 82, .	1.1	27
259	Raman spectroscopic study of PbCO_3 at high pressures and temperatures. <i>Physics and Chemistry of Minerals</i> , 2010, 37, 45-56.	0.3	32
260	Growth of single crystals of B28 at high pressures and high temperatures. <i>Journal of Crystal Growth</i> , 2010, 312, 3388-3394.	0.7	12
261	Structural characterization of the $\text{FeTiO}_3\hat{\text{A}}\text{-MnTiO}_3$ solid solution. <i>Journal of Solid State Chemistry</i> , 2010, 183, 2483-2489.	1.4	29
262	An in situ high pressure-high temperature powder diffraction study of the formation of a precursor phase of bismuth manganite. <i>Ceramics International</i> , 2010, 36, 2315-2321.	2.3	2
263	Symmetry of platelet defects in diamond: new insights with synchrotron light. <i>Acta Crystallographica Section B: Structural Science</i> , 2010, 66, 493-496.	1.8	2
264	<i>In situ</i> high-pressure study of LiNbO_3 -type FeTiO_3 : X-ray diffraction and Mossbauer spectroscopy. <i>High Pressure Research</i> , 2010, 30, 395-405.	0.4	20
265	Structural stability of a golden semiconducting orthorhombic polymorph of Ti_2O_3 under high pressures and high temperatures. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 375402.	0.7	37
266	Tuning of the stoichiometry of $\text{Fe}_{1-x}\text{Ti}_x\text{O}_3$ by compression. <i>Physical Review B</i> , 2010, 81, .		19
267	Simultaneous high-pressure and high-temperature volume measurements of ice VII and its thermal equation of state. <i>Physical Review B</i> , 2010, 82, .	1.1	20
268	Tetragonal To Collapsed Tetragonal Phase Transition In BaFe_2As_2 and CaFe_2As_2 . , 2010, , .		1
269	Single-crystal X-ray diffraction at megabar pressures and temperatures of thousands of degrees. <i>High Pressure Research</i> , 2010, 30, 620-633.	0.4	65
270	The crystal structure of gypsum-II determined by single-crystal synchrotron X-ray diffraction data. <i>American Mineralogist</i> , 2010, 95, 655-658.	0.9	12

#	ARTICLE	IF	CITATIONS
271	Partitioning of oxygen between the Earth's mantle and core. Journal of Geophysical Research, 2010, 115, .	3.3	87
272	High-pressure behavior of otavite (CdCO ₃). Journal of Alloys and Compounds, 2010, 508, 251-257.	2.8	28
273	Carbon polymorphism in shocked meteorites: Evidence for new natural ultrahard phases. Earth and Planetary Science Letters, 2010, 290, 150-154.	1.8	32
274	Carbonatitic mineralogy of natural diamond-forming fluids. Earth and Planetary Science Letters, 2010, 291, 126-137.	1.8	61
275	Equation of state and elastic properties of face-centered-cubic Fe-Mg alloy at ultrahigh pressures from first-principles. Earth and Planetary Science Letters, 2010, 293, 130-134.	1.8	6
276	Shear wave anisotropy of textured hcp-Fe in the Earth's inner core. Earth and Planetary Science Letters, 2010, 298, 361-366.	1.8	19
277	Low-spin Fe ²⁺ 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
278	Akaogiite: An ultra-dense polymorph of TiO ₂ with the baddeleyite-type structure, in shocked garnet gneiss from the Ries Crater, Germany. American Mineralogist, 2010, 95, 892-895.	0.9	44
279	Diamond as a high pressure gauge up to 2.7 Mbar. Applied Physics Letters, 2010, 97, .	1.5	29
280	Structure-Property Relationships in Novel High Pressure Superhard Materials. NATO Science for Peace and Security Series B: Physics and Biophysics, 2010, , 419-433.	0.2	1
281	Effect of Spin Transitions in Iron on Structure and Properties of Mantle Minerals. NATO Science for Peace and Security Series B: Physics and Biophysics, 2010, , 231-240.	0.2	2
282	10.1007/s11446-008-1001-3. , 2010, 53, 1.		0
283	Influence of global magnetic state on chemical interactions in high-pressure high-temperature synthesis of B ₂ Fe ₂ Si. Applied Physics Letters, 2009, 94, 181912.	1.5	8
284	Superhard Semiconducting Optically Transparent High Pressure Phase of Boron. Physical Review Letters, 2009, 102, 185501.	2.9	139
285	High-pressure ferroelastic phase transition in aluminosilicate hollandite. Physical Review B, 2009, 80, .	1.1	13
286	Diamond anvil cell syntheses and compressibility studies of the spinel-structured gallium oxonitride. High Pressure Research, 2009, 29, 389-395.	0.4	6
287	High-Pressure Synthesis and Study of NO+NO ₃ ²⁻ and NO ₂ +NO ₃ ²⁻ Ionic Solids. Advances in Physical Chemistry, 2009, 2009, 1-11.	2.0	6
288	Structural stability of the sigma phase FeCr under pressure up to 77 GPa. Journal of Physics Condensed Matter, 2009, 21, 075706.	0.7	4

#	ARTICLE	IF	CITATIONS
289	Development of micro-XANES mapping in the diamond anvil cell. Journal of Synchrotron Radiation, 2009, 16, 376-379.	1.0	23
290	Portable laser-heating system for diamond anvil cells. Journal of Synchrotron Radiation, 2009, 16, 737-741.	1.0	61
291	Isothermal compressibility and thermal expansion of nitrogen doped hafnia. Solid State Communications, 2009, 149, 2160-2163.	0.9	1
292	Iron oxidation state of FeTiO_3 at high pressure. Physical Review B, 2009, 79, .	1.1	27
293	Polarized Raman spectroscopy of high-pressure orthorhombic boron phase. High Pressure Research, 2009, 29, 530-535.	0.4	11
294	The high-pressure-high-temperature behavior of bassanite. American Mineralogist, 2009, 94, 1596-1602.	0.9	7
295	Pressure-induced phase transitions of AX_2 -type iron pnictides: an <i>ab initio</i> study. Journal of Physics Condensed Matter, 2009, 21, 185403.	0.7	17
296	High-pressure experimental and computational XANES studies of $(\text{Mg,Fe})(\text{Si,Al})\text{O}_3$ perovskite and $(\text{Mg,Fe})\text{O}$ ferropericlae as in the Earth's lower mantle. Physical Review B, 2009, 79, .	1.1	27
297	Unusual Compression Behavior of Anatase TiO_2 Nanocrystals. Physical Review Letters, 2009, 103, 075505.	2.9	63
298	Short-range order and Fe clustering in MgFe_2O_4 at high pressure. Physical Review B, 2009, 80, .	1.1	41
299	Structural study of FeP_2 at high pressure. High Pressure Research, 2009, 29, 235-244.	0.4	15
300	High-Pressure Behavior of Perovskite: FeTiO_3 Dissociation into FeTiO_3		

#	ARTICLE	IF	CITATIONS
307	Stable intermediate-spin ferrous iron in lower-mantle perovskite. <i>Nature Geoscience</i> , 2008, 1, 684-687.	5.4	150
308	Simultaneous volume measurements of post-perovskite and perovskite in MgSiO ₃ and their thermal equations of state. <i>Earth and Planetary Science Letters</i> , 2008, 265, 515-524.	1.8	49
309	In situ micro-Raman and X-ray diffraction study of diamonds and petrology of the new ureilite UAE 001 from the United Arab Emirates. <i>Meteoritics and Planetary Science</i> , 2008, 43, 1127-1136.	0.7	22
310	Hyperspectral ¹ / ₄ -XANES mapping in the diamond-anvil cell: analytical procedure applied to the decomposition of (Mg,Fe)-ringwoodite at the upper/lower mantle boundary. <i>High Pressure Research</i> , 2008, 28, 665-673.	0.4	25
311	An insight into what superconducts in polycrystalline boron-doped diamonds based on investigations of microstructure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 11619-11622.	3.3	57
312	Monoclinic FeO at high pressures. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2008, 223, 461-464.	0.4	10
313	Synthesis, microstructure and hardness of bulk ultrahard BN nanocomposites. <i>Journal of Materials Research</i> , 2008, 23, 981-993.	1.2	23
314	Optical Absorption and Radiative Thermal Conductivity of Silicate Perovskite to 125 Gigapascals. <i>Science</i> , 2008, 322, 1529-1532.	6.0	105
315	Seifertite, a dense orthorhombic polymorph of silica from the Martian meteorites Shergotty and Zagami. <i>European Journal of Mineralogy</i> , 2008, 20, 523-528.	0.4	96
316	A novel gas-loading system for mechanically closing of various types of diamond anvil cells. <i>Review of Scientific Instruments</i> , 2008, 79, 045110.	0.6	101
317	Anelasticity of Fe _x O at high pressure. <i>Applied Physics Letters</i> , 2008, 93, 034106.	1.5	7
318	Large carbon-isotope shift of TC in boron-doped diamond. <i>Applied Physics Letters</i> , 2008, 92, .	1.5	18
319	Comment on "Synthesis of Ultra-Incompressible Superhard Rhenium Diboride at Ambient Pressure". <i>Science</i> , 2007, 318, 1550-1550.	6.0	86
320	Melting of ice VII and new high-pressure, high-temperature amorphous ice. , 2007, , .		3
321	Crystal chemistry of hydration in aluminous orthopyroxene. <i>American Mineralogist</i> , 2007, 92, 973-976.	0.9	15
322	<i>In-situ</i> combined X-ray diffraction and electrical resistance measurements at high pressures and temperatures in diamond anvil cells. <i>High Pressure Research</i> , 2007, 27, 213-222.	0.4	7
323	Reply to "Comments on "Spin crossover in (Mg,Fe)O: A Mössbauer effect study with an alternative interpretation of x-ray emission spectroscopy data" . <i>Physical Review B</i> , 2007, 75, .	1.1	2
324	Noblest of All Metals Is Structurally Unstable at High Pressure. <i>Physical Review Letters</i> , 2007, 98, 045503.	2.9	79

#	ARTICLE	IF	CITATIONS
325	Raman spectroscopy of the 10-A phase at simultaneously HP-HT. <i>European Journal of Mineralogy</i> , 2007, 19, 623-629.	0.4	11
326	Sound wave velocities of fcc Fe-Ni alloy at high pressure and temperature by mean of inelastic X-ray scattering. <i>Physics of the Earth and Planetary Interiors</i> , 2007, 164, 83-89.	0.7	57
327	Phase transition in CaSiO ₃ perovskite. <i>Earth and Planetary Science Letters</i> , 2007, 260, 564-569.	1.8	64
328	FeO and MnO high-pressure phase diagrams: relations between structural and magnetic properties. <i>Phase Transitions</i> , 2007, 80, 1151-1163.	0.6	17
329	Pure Iron Compressed and Heated to Extreme Conditions. <i>Physical Review Letters</i> , 2007, 99, 165505.	2.9	83
330	Body-Centered Cubic Iron-Nickel Alloy in Earth's Core. <i>Science</i> , 2007, 316, 1880-1883.	6.0	187
331	Characterization of phases synthesized close to the boundary of C60 collapse at high temperature high pressure conditions. <i>Diamond and Related Materials</i> , 2007, 16, 1550-1556.	1.8	19
332	Equation of state and thermal expansivity of LiF and NaF. <i>High Pressure Research</i> , 2007, 27, 483-489.	0.4	43
333	Optical absorption spectra of ferropervicase to 84 GPa. <i>American Mineralogist</i> , 2007, 92, 433-436.	0.9	68
334	Superhard nanocomposite of dense polymorphs of boron nitride: Noncarbon material has reached diamond hardness. <i>Applied Physics Letters</i> , 2007, 90, 101912.	1.5	201
335	Dispersive XAS on a High Brilliance Source: Highlights and Future Opportunities. <i>AIP Conference Proceedings</i> , 2007, , .	0.3	1
336	Raman spectroscopy study of REH ₃ under pressure. <i>Solid State Communications</i> , 2007, 142, 337-341.	0.9	13
337	Isothermal compression of nitrogen doped zirconia/zirconium oxonitride Zr ₇ O ₁₁ N ₂ and equation of states. <i>Solid State Communications</i> , 2007, 143, 408-411.	0.9	8
338	High-pressure phase transition in LiBH ₄ . <i>Journal of Solid State Chemistry</i> , 2007, 180, 510-517.	1.4	62
339	Structural and magnetic properties of polymerized C60 with Fe. <i>European Physical Journal B</i> , 2007, 55, 57-62.	0.6	23
340	Effect of non-hydrostatic conditions on the elastic behaviour of magnetite: an in situ single-crystal X-ray diffraction study. <i>Physics and Chemistry of Minerals</i> , 2007, 34, 627-635.	0.3	44
341	Nonlinear size dependence of anatase TiO ₂ lattice parameters. <i>Applied Physics Letters</i> , 2006, 88, 243103.	1.5	98
342	High-pressure synthesis and physical properties of an orthorhombic phase of chromium dioxide. <i>Journal of Applied Physics</i> , 2006, 99, 053909.	1.1	21

#	ARTICLE	IF	CITATIONS
343	Superior Wear Resistance of Aggregated Diamond Nanorods. Nano Letters, 2006, 6, 824-826.	4.5	81
344	Compressibility of boron-doped diamond. High Pressure Research, 2006, 26, 79-85.	0.4	5
345	Size-Dependent Pressure-Induced Amorphization in Nanoscale TiO ₂ . Physical Review Letters, 2006, 96, 135702.	2.9	150
346	Pressure-Induced Chemical Decomposition and Structural Changes of Boric Acid. Journal of Physical Chemistry B, 2006, 110, 13858-13865.	1.2	14
347	The high-pressure behaviour of the 10 $\bar{1}1$ phase: A spectroscopic and diffractometric study up to 42 GPa. Earth and Planetary Science Letters, 2006, 246, 444-457.	1.8	27
348	High-pressure / High-temperature Synthesis and Characterization of Boron-doped Diamond. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2006, 61, 1561-1565.	0.3	24
349	Compression Behavior of Zr-doped Nanoanatase. Zeitschrift Fur Naturforschung - Section B Journal of Chemical Sciences, 2006, 61, 1577-1585.	0.3	7
350	High-brilliance X-ray system for high-pressure in-house research: applications for studies of superhard materials. High Pressure Research, 2006, 26, 137-143.	0.4	12
351	Pressure-induced phase transition in Mg _{0.8} Fe _{0.2} O ferropericlyase. Physics and Chemistry of Minerals, 2006, 33, 35-44.	0.3	24
352	Hydrogenation of C ₆₀ at 2 GPa pressure and high temperature. Chemical Physics, 2006, 325, 445-451.	0.9	29
353	Collapsed hexagonal phase in a compressed TiZr alloy: Angle-dispersive synchrotron-radiation x-ray diffraction study. Physical Review B, 2006, 73, .	1.1	12
354	Guest editors' preface. High Pressure Research, 2006, 26, 55-60.	0.4	0
355	Size effects on the structure and phase transition behavior of baddeleyite TiO ₂ . Solid State Communications, 2005, 134, 541-546.	0.9	30
356	Grain-size control in situ at high pressures and high temperatures in a diamond-anvil cell. Journal of Synchrotron Radiation, 2005, 12, 560-565.	1.0	6
357	Internal and external electrical heating in diamond anvil cells. , 2005, , 487-501.		10
358	Beating the Miscibility Barrier between Iron Group Elements and Magnesium by High-Pressure Alloying. Physical Review Letters, 2005, 95, 245502.	2.9	65
359	Decomposition of ferropericlyase (Mg _{0.80} Fe _{0.20})O at high pressures and temperatures. Journal of Alloys and Compounds, 2005, 390, 41-45.	2.8	11
360	Nanocrystalline diamond synthesized from C ₆₀ . Diamond and Related Materials, 2005, 14, 16-22.	1.8	85

#	ARTICLE	IF	CITATIONS
361	Finite-size and pressure effects on the Raman spectrum of nanocrystalline anataseTiO2. Physical Review B, 2005, 71, .	1.1	374
362	Aggregated diamond nanorods, the densest and least compressible form of carbon. Applied Physics Letters, 2005, 87, 083106.	1.5	96
363	Chemistry at extreme conditions: approaching the Earth's major interface. , 2005, , 289-314.		1
364	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
365	Iron-magnesium alloying at high pressures and temperatures. Journal of Physics Condensed Matter, 2004, 16, S1143-S1150.	0.7	15
366	CubicTiO2as a potential light absorber in solar-energy conversion. Physical Review B, 2004, 70, .	1.1	66
367	Pressure-Induced Magnetization in FeO: Evidence from Elasticity and Mössbauer Spectroscopy. Physical Review Letters, 2004, 93, 215502.	2.9	55
368	Amorphization of cuprite, Cu2O, due to chemical decomposition under high pressure. JETP Letters, 2004, 80, 704-706.	0.4	14
369	Thermal decomposition of the methoxide complexes MoO(OMe)4, Re4O6(OMe)12 and (Re1~Mo) Tj ETQq1 1 0.784314 rgBT/Overl 2.0 23		
370	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
371	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
372	Synthesis of bulk superhard semiconducting B-C material. Applied Physics Letters, 2004, 85, 1508-1510.	1.5	68
373	Titanium metal at high pressure: Synchrotron experiments andab initio calculations. Physical Review B, 2004, 69, .	1.1	50
374	High-pressure and high-temperature synthesis of the cubicTiO2polymorph. Physical Review B, 2004, 70, .	1.1	108
375	A class of new high-pressure silica polymorphs. Physics of the Earth and Planetary Interiors, 2004, 143-144, 231-240.	0.7	41
376	Reaction of iron and silica at core-mantle boundary conditions. Physics of the Earth and Planetary Interiors, 2004, 146, 243-247.	0.7	9
377	Angle-dispersive diffraction under non-hydrostatic stress in diamond anvil cells. Journal of Alloys and Compounds, 2004, 375, 86-92.	2.8	10
378	High-Pressure Crystallography at Elevated Temperatures: Experimental Approach. , 2004, , 393-410.		3

#	ARTICLE	IF	CITATIONS
379	Compression behavior of nanocrystalline anatase TiO ₂ . <i>Solid State Communications</i> , 2003, 125, 111-115.	0.9	66
380	Iron-silica interaction at extreme conditions and the electrically conducting layer at the base of Earth's mantle. <i>Nature</i> , 2003, 422, 58-61.	13.7	108
381	A new natural, super-hard, transparent polymorph of carbon from the Popigai impact crater, Russia. <i>Comptes Rendus - Geoscience</i> , 2003, 335, 889-898.	0.4	43
382	Raman Spectroscopic Study of Pressure Effects on the Spin-Crossover Coordination Polymers Fe(Pyrazine)[M(CN) ₄] \cdot 2H ₂ O (M = Ni, Pd, Pt). First Observation of a Piezo-Hysteresis Loop at Room Temperature. <i>Journal of Physical Chemistry B</i> , 2003, 107, 3149-3155.	1.2	129
383	\pm -PbO ₂ -type high-pressure polymorph of GeO ₂ . <i>Physical Review B</i> , 2003, 67, .	1.1	38
384	MELTING CURVE OF WATER STUDIED IN EXTERNALLY HEATED DIAMOND-ANVIL CELL. <i>High Pressure Research</i> , 2003, 23, 307-311.	0.4	39
385	Whole-cell heater for the diamond anvil cell. <i>Review of Scientific Instruments</i> , 2003, 74, 3433-3437.	0.6	119
386	Carbon transport in diamond anvil cells. <i>High Temperatures - High Pressures</i> , 2003, 35/36, 237-249.	0.3	36
387	Cotunnite-Structured Titanium Dioxide and the Hardest known Oxide. <i>High Pressure Research</i> , 2002, 22, 429-433.	0.4	8
388	Equation of State and Crystal Structure of NaAlSiO ₄ with Calcium-Ferrite Type Structure in the Conditions of the Lower Mantle. <i>High Pressure Research</i> , 2002, 22, 495-499.	0.4	18
389	Compressibility of baddeleyite-type TiO ₂ from static compression to 40 GPa. <i>Journal of Alloys and Compounds</i> , 2002, 340, 46-48.	2.8	15
390	FCC-HCP phase boundary in lead. <i>Solid State Communications</i> , 2002, 122, 125-127.	0.9	50
391	Experimental vibrational Grüneisen ratio values for μ -iron up to 330 GPa at 300 K. <i>Geophysical Research Letters</i> , 2001, 28, 399-402.	1.5	67
392	Pressure-Induced Invar Effect in Fe-Ni Alloys. <i>Physical Review Letters</i> , 2001, 86, 4851-4854.	2.9	78
393	Experimental and Theoretical Identification of a New High-Pressure TiO ₂ Polymorph. <i>Physical Review Letters</i> , 2001, 87, 2755-01.	2.9	175
394	Stability of KAlSi ₃ O ₈ Hollandite-type structure in the Earth's lower mantle conditions. <i>Geophysical Research Letters</i> , 2001, 28, 2735-2738.	1.5	26
395	Correction to "Experimental vibrational Grüneisen ratio values for μ -iron up to 330 GPa at 300 K". <i>Geophysical Research Letters</i> , 2001, 28, 2359-2359.	1.5	17
396	A natural shock-induced dense polymorph of rutile with \pm -PbO ₂ structure in the suevite from the Ries crater in Germany. <i>Earth and Planetary Science Letters</i> , 2001, 192, 485-495.	1.8	87

#	ARTICLE	IF	CITATIONS
397	Direct transition from cristobalite to post-stishovite alpha-PbO ₂ -like silica phase. <i>European Journal of Mineralogy</i> , 2001, 13, 479-483.	0.4	22
398	Stability of (Mg _{0.5} Fe _{0.5})O and (Mg _{0.8} Fe _{0.2})O magnesiowustites in the lower mantle. <i>European Journal of Mineralogy</i> , 2001, 13, 857-861.	0.4	21
399	Chemical interaction of Fe and Al ₂ O ₃ as a source of heterogeneity at the Earth's core-mantle boundary. <i>Nature</i> , 2001, 412, 527-529.	13.7	40
400	An Ultradense Polymorph of Rutile with Seven-Coordinated Titanium from the Ries Crater. <i>Science</i> , 2001, 293, 1467-1470.	6.0	98
401	X-ray diffraction under non-hydrostatic conditions in experiments with diamond anvil cell: wüstite (FeO) as an example. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 288, 187-190.	2.6	25
402	Experimental and theoretical investigations on eskolaite (Cr ₂ O ₃) at high pressures. <i>Journal of Alloys and Compounds</i> , 2000, 302, 16-20.	2.8	26
403	Compressibility measurements on iridium. <i>Journal of Alloys and Compounds</i> , 2000, 306, 26-29.	2.8	36
404	Natural NaAlSi ₃ O ₈ -Hollandite in the Shocked Sixiangkou Meteorite. <i>Science</i> , 2000, 287, 1633-1636.	6.0	175
405	A Monoclinic Post-Stishovite Polymorph of Silica in the Shergotty Meteorite. <i>Science</i> , 2000, 288, 1632-1634.	6.0	106
406	High pressure phase transformation of jadeite and stability of NaAlSi ₃ O ₈ with calcium-ferrite type structure in the lower mantle conditions. <i>Geophysical Research Letters</i> , 2000, 27, 2025-2028.	1.5	32
407	Equation of state of MgSiO ₃ with the perovskite structure based on experimental measurement. <i>American Mineralogist</i> , 1999, 84, 226-232.	0.9	47
408	Emissivity measurements on some metals and oxides using multiwavelength spectral radiometry. <i>High Temperatures - High Pressures</i> , 1999, 31, 393-399.	0.3	31
409	Temperature-induced ruby fluorescence shifts up to a pressure of 15 GPa in an externally heated diamond anvil cell. <i>High Temperatures - High Pressures</i> , 1999, 31, 299-305.	0.3	66
410	In-situ x-ray study of the thermal expansion of iron at multimegabar pressure. <i>High Temperatures - High Pressures</i> , 1999, 31, 553-559.	0.3	16
411	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. <i>Physics and Chemistry of Minerals</i> , 1998, 25, 434-441.	0.3	96
412	Theoretical Study of the stability of MgSiO ₃ -perovskite in the deep mantle. <i>Geophysical Research Letters</i> , 1998, 25, 4253-4256.	1.5	18
413	Structure of γ -iron at High Temperature and Pressure. , 1998, 281, 11a-11.		19
414	Stability of γ -iron: A new synchrotron X-ray study of heated iron at high pressure. <i>European Journal of Mineralogy</i> , 1998, 10, 43-48.	0.4	19

#	ARTICLE	IF	CITATIONS
415	In situ X-ray study of perovskite (MgSiO ₃): Phase transition and dissociation at mantle conditions. <i>European Journal of Mineralogy</i> , 1998, 10, 1275-1282.	0.4	30
416	Thermodynamic data for the phases in the CaSiO ₃ system. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 1181-1191.	1.6	46
417	Systematics of thermodynamic data on solids: Thermochemical and pressure-volume-temperature properties of some minerals. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 4151-4158.	1.6	13
418	High-temperature Raman spectroscopy and quasi-harmonic lattice dynamic simulation of diopside. <i>Physics and Chemistry of Minerals</i> , 1997, 24, 440-446.	0.3	16
419	Molecular and lattice dynamics study of the MgO-SiO ₂ system using a transferable interatomic potential. <i>Geochimica Et Cosmochimica Acta</i> , 1996, 60, 1645-1656.	1.6	43
420	Equations of state of MgSiO ₃ -perovskite and MgO (periclase) from computer simulations. <i>Physics of the Earth and Planetary Interiors</i> , 1996, 98, 47-54.	0.7	17
421	Molecular dynamics of NaCl (B1 and B2) and MgO (B1) melting; two-phase simulation. <i>American Mineralogist</i> , 1996, 81, 303-316.	0.9	143
422	Molecular dynamics of stishovite melting. <i>Geochimica Et Cosmochimica Acta</i> , 1995, 59, 1883-1889.	1.6	54
423	Anionic N18 Macrocycles and a Polynitrogen Double Helix in Novel Yttrium Polynitrides YN ₆ and Y ₂ N ₁₁ at 100 GPa. <i>Angewandte Chemie</i> , 0, , .	1.6	0