

Yusheng Zhao

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

232
papers

9,678
citations

50
h-index

89
g-index

241
ext. papers

11,019
ext. citations

7
avg, IF

6.05
L-index

#	Paper	IF	Citations
232	Antiperovskite Electrolytes for Solid-State Batteries.. <i>Chemical Reviews</i> , 2022 ,	68.1	18
231	Unravelling mechanisms for the formation of amorphous bands in B6O under nonhydrostatic pressure. <i>Scripta Materialia</i> , 2022 , 209, 114376	5.6	
230	Sandwiched Li plating between Lithiophilic-Lithiophobic gradient Silver@Fullerene interphase layer for ultrastable lithium metal anodes. <i>Chemical Engineering Journal</i> , 2022 , 429, 132156	14.7	7
229	Giant Viscoelasticity near Mott Criticality in PbCrO ₃ with Large Lattice Anomalies.. <i>Physical Review Letters</i> , 2022 , 128, 095702	7.4	0
228	Pressure-induced polymerization and bandgap-adjustment of TPEPA.. <i>RSC Advances</i> , 2022 , 12, 11996-12001	0.9	0
227	Concurrent Pressure-Induced Spin-State Transitions and Jahn-Teller Distortions in MnTe. <i>Chemistry of Materials</i> , 2022 , 34, 3931-3940	9.6	1
226	Strengthening Superhard Materials by Nanostructure Engineering. <i>Journal of Superhard Materials</i> , 2021 , 43, 307-329	0.9	0
225	Li-Rich Antiperovskite/Nitrile Butadiene Rubber Composite Electrolyte for Sheet-Type Solid-State Lithium Metal Battery. <i>Frontiers in Chemistry</i> , 2021 , 9, 744417	5	2
224	Configuring solid-state batteries to power electric vehicles: a deliberation on technology, chemistry and energy. <i>Chemical Communications</i> , 2021 , 57, 12587-12594	5.8	2
223	High-Pressure and High-Temperature Synthesis and In Situ High-Pressure Synchrotron X-ray Diffraction Study of HfSi. <i>Inorganic Chemistry</i> , 2021 , 60, 15215-15222	5.1	0
222	Operation of large-volume cubic press above 8 GPa and 2500°C with a centimeter-sized cell volume using an optimized hybrid assembly. <i>High Pressure Research</i> , 2021 , 41, 132-141	1.6	0
221	Enhanced Hardness in Transition-Metal Monocarbides via Optimal Occupancy of Bonding Orbitals. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 14365-14376	9.5	3
220	Calibration of Manganin pressure gauge for diamond-anvil cells. <i>Review of Scientific Instruments</i> , 2021 , 92, 033905	1.7	1
219	Mechanochemical synthesis of Li ₂ OHI with enhanced lithium ionic conductivity. <i>Functional Materials Letters</i> , 2021 , 14, 2150012	1.2	
218	Strain-driven structural selection and amorphization during first-order phase transitions in nanocrystalline Ho ₂ O ₃ under pressure. <i>Physical Review B</i> , 2021 , 103,	3.3	1
217	Experimental Studies on Gas Hydrate-Based CO ₂ Storage: State-of-the-Art and Future Research Directions. <i>Energy Technology</i> , 2021 , 9, 2100004	3.5	3
216	Novel Nitride Materials Synthesized at High Pressure. <i>Crystals</i> , 2021 , 11, 614	2.3	2

215	Composite polymer electrolytes with uniform distribution of ionic liquid-grafted ZIF-90 nanofillers for high-performance solid-state Li batteries. <i>Chemical Engineering Journal</i> , 2021 , 412, 128733	14.7	24
214	Lithium-Rich Anti-perovskite LiOHBr-Based Polymer Electrolytes Enabling an Improved Interfacial Stability with a Three-Dimensional-Structured Lithium Metal Anode in All-Solid-State Batteries. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 28108-28117	9.5	4
213	Sound Velocities, Elasticity, and Mechanical Properties of Stoichiometric Submicron Polycrystalline EMoN at High Pressure. <i>Inorganic Chemistry</i> , 2021 , 60, 11897-11906	5.1	0
212	Antiperovskite Ionic Conductor Layer for Stabilizing the Interface of NASICON Solid Electrolyte Against Li Metal in All-Solid-State Batteries**. <i>Batteries and Supercaps</i> , 2021 , 4, 1491-1498	5.6	4
211	Stabilization of NASICON-Type Electrolyte against Li Anode via an Ionic Conductive MOF-Incorporated Adhesive Interlayer. <i>ACS Energy Letters</i> , 2021 , 6, 3141-3150	20.1	8
210	Regulating the lithium metal growth by Li ₃ BO ₃ /Li ₂ OHCl solid-state electrolyte for long-lasting lithium metal stripping-plating. <i>Journal of Power Sources</i> , 2021 , 507, 230299	8.9	1
209	Experimental and theoretical study on dissociation thermodynamics and kinetics of hydrogen-propane hydrate. <i>Chemical Engineering Journal</i> , 2021 , 426, 131279	14.7	2
208	Inhibition of Manganese Dissolution in Mn ₂ O ₃ Cathode with Controllable Ni ²⁺ Incorporation for High-Performance Zinc Ion Battery. <i>Advanced Functional Materials</i> , 2021 , 31, 2009412	15.6	54
207	Optimized Interfaces in Anti-Perovskite Electrolyte-Based Solid-State Lithium Metal Batteries for Enhanced Performance.. <i>Frontiers in Chemistry</i> , 2021 , 9, 786956	5	0
206	Metal-organic frameworks for solid-state electrolytes. <i>Energy and Environmental Science</i> , 2020 , 13, 2386-2403	35.1	71
205	Freestanding agaric-like molybdenum carbide/graphene/N-doped carbon foam as effective polysulfide anchor and catalyst for high performance lithium sulfur batteries. <i>Energy Storage Materials</i> , 2020 , 33, 73-81	19.4	35
204	Bandgap widening by pressure-induced disorder in two-dimensional lead halide perovskite. <i>Applied Physics Letters</i> , 2020 , 116, 101901	3.4	6
203	Compressibility and thermoelasticity of CrN. <i>High Pressure Research</i> , 2020 , 40, 423-433	1.6	
202	Strain stiffening, high load-invariant hardness, and electronic anomalies of boron phosphide under pressure. <i>Physical Review B</i> , 2020 , 101,	3.3	14
201	Enhanced Structural Stability of Sb ₂ Se ₃ via Pressure-Induced Alloying and Amorphization. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 3421-3428	3.8	4
200	Large-volume cubic press produces high temperatures above 4000 Kelvin for study of the refractory materials at pressures. <i>Review of Scientific Instruments</i> , 2020 , 91, 015118	1.7	8
199	Self-Regulated Phenomenon of Inorganic Artificial Solid Electrolyte Interphase for Lithium Metal Batteries. <i>Nano Letters</i> , 2020 , 20, 4029-4037	11.5	47
198	Neutron diffraction study of crystal structure and temperature driven molecular reorientation in solid CO. <i>AIP Advances</i> , 2020 , 10, 045301	1.5	2

197	Growth of Millimeter Size B6O Single Crystals in a B-H3BO3 System at High Pressure and High Temperature. <i>Crystal Growth and Design</i> , 2020 , 20, 3732-3736	3.5	2
196	Unraveling microstrain-promoted structural evolution and thermally driven phase transition in cBc2O3 nanocrystals at high pressure. <i>Physical Review B</i> , 2020 , 102,	3.3	1
195	Structural disorder, sublattice melting, and thermo-elastic properties of anti-perovskite Li3OBr under high pressure and temperature. <i>Applied Physics Letters</i> , 2020 , 117, 081904	3.4	3
194	Pressure-Induced Remarkable Enhancement of Self-Trapped Exciton Emission in One-Dimensional CsCuI with Tetrahedral Units. <i>Journal of the American Chemical Society</i> , 2020 , 142, 1786-1791	16.4	61
193	Engineering Frenkel defects of anti-perovskite solid-state electrolytes and their applications in all-solid-state lithium-ion batteries. <i>Chemical Communications</i> , 2020 , 56, 1251-1254	5.8	18
192	Antiperovskites with Exceptional Functionalities. <i>Advanced Materials</i> , 2020 , 32, e1905007	24	40
191	Mechanochemical reactions of MnO2 and graphite nanosheets as a durable zinc ion battery cathode. <i>Applied Surface Science</i> , 2020 , 534, 147630	6.7	45
190	Mechanism of enhanced ionic conductivity by rotational nitrite group in antiperovskite Na3ONO2. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 21265-21272	13	11
189	Local Structural Changes and Inductive Effects on Ion Conduction in Antiperovskite Solid Electrolytes. <i>Chemistry of Materials</i> , 2020 , 32, 8827-8835	9.6	8
188	Dual redox-active copper hexacyanoferrate nanosheets as cathode materials for advanced sodium-ion batteries. <i>Energy Storage Materials</i> , 2020 , 33, 432-441	19.4	10
187	Pressure-driven switching of magnetism in layered CrCl. <i>Nanoscale</i> , 2020 , 12, 22935-22944	7.7	2
186	NiMn-Layered Double Hydroxides Chemically Anchored on Ti3C2 MXene for Superior Lithium Ion Storage. <i>ACS Applied Energy Materials</i> , 2020 , 3, 11119-11130	6.1	21
185	Pressure-Induced Phase Transition and Band Gap Engineering in Propylammonium Lead Bromide Perovskite. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 15204-15208	3.8	8
184	3D Printing of Hierarchical Graphene Lattice for Advanced Na Metal Anodes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3869-3877	6.1	26
183	Phase Stability and Compressibility of 3R-MoN at High Pressure. <i>Scientific Reports</i> , 2019 , 9, 10524	4.9	3
182	Ca-doped Na2Zn2TeO6 layered sodium conductor for all-solid-state sodium-ion batteries. <i>Electrochimica Acta</i> , 2019 , 298, 121-126	6.7	25
181	Thermally reduced graphene paper with fast Li ion diffusion for stable Li metal anode. <i>Electrochimica Acta</i> , 2019 , 294, 413-422	6.7	23
180	Pressure-Driven Reversible Switching between n- and p-Type Conduction in Chalcopyrite CuFeS. <i>Journal of the American Chemical Society</i> , 2019 , 141, 505-510	16.4	19

179	Structure Distortion Induced Monoclinic Nickel Hexacyanoferrate as High-Performance Cathode for Na-Ion Batteries. <i>Advanced Energy Materials</i> , 2019 , 9, 1803158	21.8	54
178	Vanadium Diboride (VB) Synthesized at High Pressure: Elastic, Mechanical, Electronic, and Magnetic Properties and Thermal Stability. <i>Inorganic Chemistry</i> , 2018 , 57, 1096-1105	5.1	39
177	Synthesis of single-crystal perovskite PbCrO ₃ through a new reaction route at high pressure. <i>High Pressure Research</i> , 2018 , 38, 136-144	1.6	3
176	Thermoelasticity and anomalies in the pressure dependence of phonon velocities in niobium. <i>Applied Physics Letters</i> , 2018 , 112, 011901	3.4	10
175	Thermally Induced Anomaly in the Shear Behavior of Magnetite at High Pressure. <i>Physical Review Applied</i> , 2018 , 10,	4.3	2
174	Pressure-induced structural and electronic transitions, metallization, and enhanced visible-light responsiveness in layered rhenium disulphide. <i>Physical Review B</i> , 2018 , 97,	3.3	18
173	Magnetic origin of phase stability in cubic EMoN . <i>Applied Physics Letters</i> , 2018 , 113, 221901	3.4	6
172	Insights into the Li ⁺ storage mechanism of TiC@C-TiO ₂ core-shell nanostructures as high performance anodes. <i>Nano Energy</i> , 2018 , 50, 25-34	17.1	35
171	Emergent superconductivity in an iron-based honeycomb lattice initiated by pressure-driven spin-crossover. <i>Nature Communications</i> , 2018 , 9, 1914	17.4	59
170	Stoichiometric ENbN : The Most Incompressible Cubic Transition Metal Mononitride. <i>Physica Status Solidi (B): Basic Research</i> , 2017 , 254, 1700063	1.3	2
169	Synthesis of Onion-Like EMoN Catalyst for Selective Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19451-19460	3.8	21
168	Ultrastrong Boron Frameworks in ZrB : A Highway for Electron Conducting. <i>Advanced Materials</i> , 2017 , 29, 1604003	24	50
167	Pressure induced polymerization of acetylide anions in CaC and 10 fold enhancement of electrical conductivity. <i>Chemical Science</i> , 2017 , 8, 298-304	9.4	13
166	Giant Pressure-Driven Lattice Collapse Coupled with Intermetallic Bonding and Spin-State Transition in Manganese Chalcogenides. <i>Angewandte Chemie</i> , 2016 , 128, 10506-10509	3.6	6
165	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. <i>Angewandte Chemie</i> , 2016 , 128, 10119-10122	3.6	22
164	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 9965-8	16.4	155
163	Pressure-Driven Cooperative Spin-Crossover, Large-Volume Collapse, and Semiconductor-to-Metal Transition in Manganese(II) Honeycomb Lattices. <i>Journal of the American Chemical Society</i> , 2016 , 138, 15751-15757	16.4	50
162	Sodium Ion Transport Mechanisms in Antiperovskite Electrolytes Na ₃ OBr and Na ₄ OI ₂ : An in Situ Neutron Diffraction Study. <i>Inorganic Chemistry</i> , 2016 , 55, 5993-8	5.1	48

161	Antiperovskite LiOCl Superionic Conductor Films for Solid-State Li-Ion Batteries. <i>Advanced Science</i> , 2016 , 3, 1500359	13.6	120
160	Reaction mechanism studies towards effective fabrication of lithium-rich anti-perovskites Li ₃ OX (X= Cl, Br). <i>Solid State Ionics</i> , 2016 , 284, 14-19	3.3	58
159	Synthesis, Hardness, and Electronic Properties of Stoichiometric VN and CrN. <i>Crystal Growth and Design</i> , 2016 , 16, 351-358	3.5	38
158	Pressure-induced shift of T _c and structural transition in 122-type pnictide superconductor Ca _{0.34} Na _{0.66} Fe ₂ As ₂ . <i>AIP Advances</i> , 2016 , 6, 075104	1.5	2
157	Reversible switching between pressure-induced amorphization and thermal-driven recrystallization in VO ₂ (B) nanosheets. <i>Nature Communications</i> , 2016 , 7, 12214	17.4	30
156	Enhanced ionic conductivity with Li ₇ O ₂ Br ₃ phase in Li ₃ OBr anti-perovskite solid electrolyte. <i>Applied Physics Letters</i> , 2016 , 109, 101904	3.4	27
155	Thermal equation of state of silicon carbide. <i>Applied Physics Letters</i> , 2016 , 108, 061906	3.4	21
154	Robust high pressure stability and negative thermal expansion in sodium-rich antiperovskites Na ₃ OBr and Na ₄ OI ₂ . <i>Journal of Applied Physics</i> , 2016 , 119, 025901	2.5	11
153	Elastic, magnetic and electronic properties of iridium phosphide Ir ₂ P. <i>Scientific Reports</i> , 2016 , 6, 21787	4.9	14
152	Giant Pressure-Driven Lattice Collapse Coupled with Intermetallic Bonding and Spin-State Transition in Manganese Chalcogenides. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 10350-3	16.4	24
151	Enhanced Structural Stability and Photo Responsiveness of CH ₃ NH ₃ SnI ₃ Perovskite via Pressure-Induced Amorphization and Recrystallization. <i>Advanced Materials</i> , 2016 , 28, 8663-8668	24	134
150	Structural manipulation approaches towards enhanced sodium ionic conductivity in Na-rich antiperovskites. <i>Journal of Power Sources</i> , 2015 , 293, 735-740	8.9	69
149	A new molybdenum nitride catalyst with rhombohedral MoS ₂ structure for hydrogenation applications. <i>Journal of the American Chemical Society</i> , 2015 , 137, 4815-22	16.4	148
148	Revisit of Pressure-Induced Phase Transition in PbSe: Crystal Structure, and Thermoelastic and Electrical Properties. <i>Inorganic Chemistry</i> , 2015 , 54, 4981-9	5.1	18
147	Pressure-Induced Phase Transformation, Reversible Amorphization, and Anomalous Visible Light Response in Organolead Bromide Perovskite. <i>Journal of the American Chemical Society</i> , 2015 , 137, 11144-9	16.4	226
146	Diamond-cBN alloy: A universal cutting material. <i>Applied Physics Letters</i> , 2015 , 107, 101901	3.4	23
145	Unusual Mott transition in multiferroic PbCrO ₃ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 15320-5	11.5	13
144	The Hardest Superconducting Metal Nitride. <i>Scientific Reports</i> , 2015 , 5, 13733	4.9	61

143	High Pressure Phase-Transformation Induced Texture Evolution and Strengthening in Zirconium Metal: Experiment and Modeling. <i>Scientific Reports</i> , 2015 , 5, 12552	4.9	18
142	Hardness, elastic, and electronic properties of chromium monoboride. <i>Applied Physics Letters</i> , 2015 , 106, 221902	3.4	46
141	Local structural distortion and electrical transport properties of Bi(Ni _{1/2} Ti _{1/2})O ₃ perovskite under high pressure. <i>Scientific Reports</i> , 2015 , 5, 18229	4.9	5
140	Sulfur-catalyzed phase transition in MoS ₂ under high pressure and temperature. <i>Journal of Physics and Chemistry of Solids</i> , 2014 , 75, 100-104	3.9	18
139	Enhanced electron transport in Nb-doped TiO ₂ nanoparticles via pressure-induced phase transitions. <i>Journal of the American Chemical Society</i> , 2014 , 136, 419-26	16.4	139
138	Effect of Pressure and Temperature on Structural Stability of MoS ₂ . <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3230-3235	3.8	84
137	Li-rich anti-perovskite Li ₃ OCl films with enhanced ionic conductivity. <i>Chemical Communications</i> , 2014 , 50, 11520-2	5.8	95
136	Crystal structure and encapsulation dynamics of ice II-structured neon hydrate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 10456-61	11.5	28
135	Conventional empirical law reverses in the phase transitions of 122-type iron-based superconductors. <i>Scientific Reports</i> , 2014 , 4, 7172	4.9	15
134	Pressure-induced reversal between thermal contraction and expansion in ferroelectric PbTiO ₃ . <i>Scientific Reports</i> , 2014 , 4, 3700	4.9	13
133	Structural stability of WS ₂ under high pressure. <i>International Journal of Modern Physics B</i> , 2014 , 28, 1450168	1.68	20
132	Pressure-induced superconductivity in LaFeAsO: The role of anionic height and magnetic ordering. <i>Applied Physics Letters</i> , 2014 , 105, 251902	3.4	6
131	High pressure-high temperature synthesis of lithium-rich Li ₃ O(Cl, Br) and Li _{3-x} Cax/2OCl anti-perovskite halides. <i>Inorganic Chemistry Communication</i> , 2014 , 48, 140-143	3.1	23
130	Pressure induced valence change of Eu in EuFe ₂ As ₂ at low temperature and high pressures probed by resonant inelastic x-ray scattering. <i>Applied Physics Letters</i> , 2014 , 104, 042601	3.4	11
129	Nuclear forward scattering and first-principles studies of the iron oxide phase Fe ₄ O ₅ . <i>Physical Review B</i> , 2014 , 90,	3.3	7
128	High-temperature neutron diffraction study of deuterated brucite. <i>Physics and Chemistry of Minerals</i> , 2013 , 40, 799-810	1.6	14
127	Pressure-induced amorphization in single-crystal Ta ₂ O ₅ nanowires: a kinetic mechanism and improved electrical conductivity. <i>Journal of the American Chemical Society</i> , 2013 , 135, 13947-53	16.4	49
126	Thermal equation of state and thermodynamic Grüneisen parameter of beryllium metal. <i>Journal of Applied Physics</i> , 2013 , 114, 173509	2.5	7

125	Ab initio study of the stabilities of and mechanism of superionic transport in lithium-rich antiperovskites. <i>Physical Review B</i> , 2013 , 87,	3.3	98
124	Grain size effects on the compressibility and yield strength of copper. <i>Journal of Physics and Chemistry of Solids</i> , 2013 , 74, 75-79	3.9	9
123	Pressure-induced valence and structural changes in YbMn ₂ Ge ₂ -inelastic X-ray spectroscopy and theoretical investigations. <i>Inorganic Chemistry</i> , 2013 , 52, 832-9	5.1	11
122	New exploration on phase transition and structure of PbS under high pressure and temperature. <i>Journal of Applied Physics</i> , 2013 , 113, 043509	2.5	2
121	Elasticity and Equation of State of Perovskite: Implications for the Earth's Lower Mantle. <i>Geophysical Monograph Series</i> , 2013 , 191-196	1.1	2
120	Temperature and pressure effects of multiferroic Bi ₂ NiTiO ₆ compound. <i>Journal of Applied Physics</i> , 2013 , 113, 143514	2.5	9
119	Phase-transition induced elastic softening and band gap transition in semiconducting PbS at high pressure. <i>Inorganic Chemistry</i> , 2013 , 52, 8638-43	5.1	24
118	Compressive-tensile deformation of nanocrystalline nickel at high pressure and temperature conditions. <i>Applied Physics Letters</i> , 2013 , 103, 043118	3.4	2
117	Characterization of Stress, Pressure, and Temperature in SAM85, a Dia Type High Pressure Apparatus. <i>Geophysical Monograph Series</i> , 2013 , 13-17	1.1	53
116	High pressure synchrotron x-ray diffraction studies of superprotonic transitions in phosphate solid acids. <i>Solid State Ionics</i> , 2012 , 213, 58-62	3.3	10
115	High pressure neutron and synchrotron X-ray diffraction studies of tetragonal LaFeAsO _{0.9} F _{0.1} . <i>High Pressure Research</i> , 2012 , 32, 405-411	1.6	2
114	Synthesis of stoichiometric and bulk CrN through a solid-state ion-exchange reaction. <i>Chemistry - A European Journal</i> , 2012 , 18, 15459-63	4.8	32
113	Constitutive law and flow mechanism in diamond deformation. <i>Scientific Reports</i> , 2012 , 2, 876	4.9	25
112	Synthesis, Crystal Structure, and Elastic Properties of Novel Tungsten Nitrides. <i>Chemistry of Materials</i> , 2012 , 24, 3023-3028	9.6	127
111	Comparative studies of yield strength and elastic compressibility between nanocrystalline and bulk cobalt. <i>Journal of Applied Physics</i> , 2012 , 111, 113506	2.5	7
110	Experimental visualization of lithium conduction pathways in garnet-type Li ₇ La ₃ Zr ₂ O ₁₂ . <i>Chemical Communications</i> , 2012 , 48, 9840-2	5.8	79
109	Pore size-controlled gases and alcohols separation within ultramicroporous homochiral lanthanide-organic frameworks. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7813		48
108	Structural Stability and Compressibility Study for ZnO Nanobelts under High Pressure. <i>Journal of Physical Chemistry C</i> , 2012 , 116, 2074-2079	3.8	19

107	In situ structure characterization of Pb(Yb _{1/2} Nb _{1/2})O ₃ -PbTiO ₃ crystals under high pressure-temperature. <i>Applied Physics Letters</i> , 2012 , 101, 062904	3.4	8
106	Superionic conductivity in lithium-rich anti-perovskites. <i>Journal of the American Chemical Society</i> , 2012 , 134, 15042-7	16.4	322
105	Correlation between superconductivity and structural properties under high pressure of iron pnictide superconductor Ce _{0.6} Y _{0.4} FeAsO _{0.8} F _{0.2} . <i>Applied Physics Letters</i> , 2012 , 100, 052601	3.4	2
104	Experimental invalidation of phase-transition-induced elastic softening in CrN. <i>Physical Review B</i> , 2012 , 86,	3.3	42
103	Pressure-induced disordered substitution alloy in Sb ₂ Te ₃ . <i>Inorganic Chemistry</i> , 2011 , 50, 11291-3	5.1	59
102	Superhard diamond/tungsten carbide nanocomposites. <i>Applied Physics Letters</i> , 2011 , 98, 121914	3.4	17
101	Pressure induced high spin-low spin transition in FeSe superconductor studied by x-ray emission spectroscopy and ab initio calculations. <i>Applied Physics Letters</i> , 2011 , 99, 061913	3.4	12
100	Discovery of the recoverable high-pressure iron oxide Fe ₄ O ₅ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 17281-5	11.5	94
99	Pressure effect on crystal structure and superconductivity of La _{0.8} Th _{0.2} FeAsO. <i>Physica Status Solidi - Rapid Research Letters</i> , 2011 , 5, 208-210	2.5	
98	Comparative studies of constitutive properties of nanocrystalline and bulk iron during compressive deformation. <i>Acta Materialia</i> , 2011 , 59, 3384-3389	8.4	12
97	Pressure-induced isostructural phase transition and correlation of FeAs coordination with the superconducting properties of 111-type Na(1-x)FeAs. <i>Journal of the American Chemical Society</i> , 2011 , 133, 7892-6	16.4	51
96	Pressure induced structural transition and enhancement of superconductivity in Co doped CeFeAsO. <i>Applied Physics Letters</i> , 2011 , 98, 012511	3.4	11
95	Thermodynamic stability and unusual strength of ultra-incompressible rhenium nitrides. <i>Physical Review B</i> , 2011 , 83,	3.3	48
94	Thermal equations of state and phase relation of PbTiO ₃ : A high P-T synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2011 , 110, 084103	2.5	21
93	Thermal equation of state of TiC: A synchrotron x-ray diffraction study. <i>Journal of Applied Physics</i> , 2010 , 107, 113517	2.5	7
92	Porous Metal-Organic Frameworks Containing Alkali-Bridged Two-Fold Interpenetration: Synthesis, Gas Adsorption, and Fluorescence Properties. <i>Crystal Growth and Design</i> , 2010 , 10, 1301-1306	3.5	41
91	Storage and separation applications of nanoporous metal-organic frameworks. <i>CrystEngComm</i> , 2010 , 12, 1337-1353	3.3	139
90	Characterization of reaction intermediate aggregates in aniline oxidative polymerization at low proton concentration. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 10337-46	3.4	50

89	High-pressure neutron diffraction studies at LANSCE. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 99, 585-599	2.6	23
88	Polyaniline Morphology and Detectable Intermediate Aggregates. <i>Macromolecular Chemistry and Physics</i> , 2010 , 211, 627-634	2.6	15
87	In situ X-ray study of ammonia borane at high pressures. <i>International Journal of Hydrogen Energy</i> , 2010 , 35, 11064-11070	6.7	31
86	Experimental and theoretical studies on the elasticity of molybdenum to 12 GPa. <i>Journal of Applied Physics</i> , 2009 , 106, 043506	2.5	14
85	Elastic moduli and strength of nanocrystalline cubic BC ₂ N from x-ray diffraction under nonhydrostatic compression. <i>Physical Review B</i> , 2009 , 79,	3.3	36
84	First-principles prediction of mechanical properties of gamma-boron. <i>Applied Physics Letters</i> , 2009 , 94, 191906	3.4	37
83	High-temperature crystal structures and chemical modifications in RbH(2)PO(4). <i>Journal of Physics Condensed Matter</i> , 2009 , 21, 325401	1.8	20
82	Self-Assembled Polyaniline Nanotubes with Rectangular Cross-Sections. <i>Macromolecular Chemistry and Physics</i> , 2009 , 210, 1600-1606	2.6	17
81	Thermal equation of state of copper studied by high P-T synchrotron x-ray diffraction. <i>Applied Physics Letters</i> , 2009 , 94, 071904	3.4	22
80	Superhard diamondlike BC ₅ : A first-principles investigation. <i>Physical Review B</i> , 2009 , 80,	3.3	23
79	Thermodynamic and mechanical stabilities of tantalum nitride. <i>Physical Review Letters</i> , 2009 , 103, 185504	4.4	65
78	Nanocrystalline tungsten carbide: As incompressible as diamond. <i>Applied Physics Letters</i> , 2009 , 95, 211906	4.4	38
77	Cubic to tetragonal phase transformation in cold-compressed Pd nanocubes. <i>Nano Letters</i> , 2008 , 8, 972-51.5	5.1	77
76	Thermal equations of state for titanium obtained by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2008 , 78,	3.3	42
75	Hydrogen adsorption in a highly stable porous rare-earth metal-organic framework: sorption properties and neutron diffraction studies. <i>Journal of the American Chemical Society</i> , 2008 , 130, 9626-7	16.4	278
74	Strength measurement of boron suboxide B ₆ O at high pressure and temperature using in situ synchrotron X-ray diffraction. <i>High Pressure Research</i> , 2008 , 28, 423-430	1.6	1
73	Size Dependence of Cubic to Trigonal Structural Distortion in Silver Micro- and Nanocrystals under High Pressure. <i>Journal of Physical Chemistry C</i> , 2008 , 112, 20135-20137	3.8	23
72	Thermal equation of state of rhenium diboride by high pressure-temperature synchrotron x-ray studies. <i>Physical Review B</i> , 2008 , 78,	3.3	31

71	Phase transition and compressibility in silicon nanowires. <i>Nano Letters</i> , 2008 , 8, 2891-5	11.5	45
70	In situ phase transition study of nano- and coarse-grained TiO ₂ under high pressure/temperature conditions. <i>Journal of Physics Condensed Matter</i> , 2008 , 20, 125224	1.8	14
69	Study of hardness and deformation of brittle materials with a density functional theory. <i>Journal of Applied Physics</i> , 2008 , 104, 053508	2.5	11
68	Thermal equations of state and melting of lithium deuteride under high pressure. <i>Journal of Applied Physics</i> , 2008 , 103, 093513	2.5	8
67	Microstrain and grain-size analysis from diffraction peak width and graphical derivation of high-pressure thermomechanics. <i>Journal of Applied Crystallography</i> , 2008 , 41, 1095-1108	3.8	133
66	X-Ray Induced Synthesis of 8H Diamond. <i>Advanced Materials</i> , 2008 , 20, 3303-3307	24	22
65	Experimental constraints on the phase diagram of titanium metal. <i>Journal of Physics and Chemistry of Solids</i> , 2008 , 69, 2559-2563	3.9	21
64	What is the theoretical density of a nanocrystalline material?. <i>Acta Materialia</i> , 2008 , 56, 3663-3671	8.4	39
63	Phase transformation in Sm ₂ O ₃ at high pressure: In situ synchrotron X-ray diffraction study and ab initio DFT calculation. <i>Solid State Communications</i> , 2008 , 145, 250-254	1.6	49
62	Strength weakening by nanocrystals in ceramic materials. <i>Nano Letters</i> , 2007 , 7, 3196-9	11.5	38
61	Comparative studies of compressibility between nanocrystalline and bulk nickel. <i>Applied Physics Letters</i> , 2007 , 90, 043112	3.4	32
60	Thermomechanics of nanocrystalline nickel under high pressure-temperature conditions. <i>Nano Letters</i> , 2007 , 7, 426-32	11.5	31
59	High-temperature phase transitions in CsH ₂ PO ₄ under ambient and high-pressure conditions: a synchrotron x-ray diffraction study. <i>Journal of Chemical Physics</i> , 2007 , 127, 194701	3.9	26
58	Elasticity of β phase zirconium. <i>Physical Review B</i> , 2007 , 76,	3.3	28
57	Elastic properties of yttrium-doped BaCeO ₃ perovskite. <i>Applied Physics Letters</i> , 2007 , 90, 161903	3.4	14
56	Compressibility and pressure-induced amorphization of guest-free melanophlogite: An in-situ synchrotron X-ray diffraction study. <i>American Mineralogist</i> , 2007 , 92, 166-173	2.9	13
55	Pressure-induced cubic to monoclinic phase transformation in erbium sesquioxide Er ₂ O ₃ . <i>Inorganic Chemistry</i> , 2007 , 46, 6164-9	5.1	61
54	Pressure-driven phase transitions in NaBH ₄ : theory and experiments. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 13873-6	3.4	32

53	Equations of state and phase transformation of depleted uranium DU-238 by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2007 , 75,	3.3	9
52	In situ neutron diffraction study of deuterated portlandite Ca(OD) ₂ at high pressure and temperature. <i>Physics and Chemistry of Minerals</i> , 2007 , 34, 223-232	1.6	26
51	HighP-TNano-Mechanics of Polycrystalline Nickel. <i>Nanoscale Research Letters</i> , 2007 , 2, 476-91	5	8
50	Impurity effects on the phase transformations and equations of state of zirconium metals. <i>Journal of Physics and Chemistry of Solids</i> , 2007 , 68, 2297-2302	3.9	22
49	Inelastic neutron scattering study of hydrogen in d(8)-THFD(2)O ice clathrate. <i>Journal of Chemical Physics</i> , 2007 , 127, 134505	3.9	31
48	Cubic phases of BC ₂ N: A first-principles study. <i>Physical Review B</i> , 2007 , 75,	3.3	40
47	Enhancement of yield strength in zirconium metal through high-pressure induced structural phase transition. <i>Applied Physics Letters</i> , 2007 , 91, 201907	3.4	26
46	High-pressure/low-temperature neutron scattering of gas inclusion compounds: progress and prospects. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 5727-31	11.5	19
45	MATERIALS SCIENCE: High-Pressure Microscopy. <i>Science</i> , 2006 , 312, 1149-1150	33.3	13
44	Pressure-induced long-range magnetic ordering in cobalt oxide. <i>Physical Review B</i> , 2006 , 74,	3.3	15
43	Fast synthesis method and phase diagram of hydrogen clathrate hydrate. <i>Applied Physics Letters</i> , 2006 , 88, 131909	3.4	73
42	Kinetics of SiC formation during high P-T reaction between diamond and silicon. <i>Diamond and Related Materials</i> , 2005 , 14, 1611-1615	3.5	21
41	Pressure-Induced Amorphization and Phase Transformations in β -LiAlSiO ₄ . <i>Chemistry of Materials</i> , 2005 , 17, 2817-2824	9.6	35
40	Thermal equations of state of the β and γ phases of zirconium. <i>Physical Review B</i> , 2005 , 71,	3.3	93
39	Experimental constraints on the phase diagram of elemental zirconium. <i>Journal of Physics and Chemistry of Solids</i> , 2005 , 66, 1213-1219	3.9	58
38	Morphology-tuned wurtzite-type ZnS nanobelts. <i>Nature Materials</i> , 2005 , 4, 922-7	27	273
37	Effects of defect and pressure on the thermal expansivity of Fe _x O. <i>Physics and Chemistry of Minerals</i> , 2005 , 32, 241-247	1.6	9
36	Development of high P-T neutron diffraction at LANSCE β toroidal anvil press, TAP-98, in the HiPPO diffractometer 2005 , 461-474		12

35	Variable pressure-temperature neutron diffraction of wüstite (Fe _{1-x} O): Absence of long-range magnetic order to 20GPa. <i>Applied Physics Letters</i> , 2005 , 86, 052505	3.4	19
34	In situ pressure Raman spectroscopy and mechanical stability of superhard boron suboxide. <i>Applied Physics Letters</i> , 2005 , 86, 041911	3.4	21
33	Advanced setup for high-pressure and low-temperature neutron diffraction at hydrostatic conditions. <i>Review of Scientific Instruments</i> , 2005 , 76, 063909	1.7	8
32	Hard superconducting nitrides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 3198-201	11.5	225
31	Thermoelastic and texture behavior of aluminum at high pressure and high temperature investigated by in situ neutron diffraction. <i>Journal of Applied Physics</i> , 2004 , 95, 4645-4650	2.5	21
30	Pressure induced increase of particle size and resulting weakening of elastic stiffness of CeO ₂ nanocrystals. <i>Applied Physics Letters</i> , 2004 , 85, 124-126	3.4	34
29	A quenchable superhard carbon phase synthesized by cold compression of carbon nanotubes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004 , 101, 13699-702	11.5	133
28	Formation of zirconium metallic glass. <i>Nature</i> , 2004 , 430, 332-5	50.4	41
27	Ultrahard diamond single crystals from chemical vapor deposition. <i>Physica Status Solidi A</i> , 2004 , 201, R25-R27		80
26	Size-Induced Reduction of Transition Pressure and Enhancement of Bulk Modulus of AlN Nanocrystals. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 11506-11508	3.4	50
25	Enhancement of fracture toughness in nanostructured diamond/BiC composites. <i>Applied Physics Letters</i> , 2004 , 84, 1356-1358	3.4	90
24	Structure and dynamics of hydrogen molecules in the novel clathrate hydrate by high pressure neutron diffraction. <i>Physical Review Letters</i> , 2004 , 93, 125503	7.4	241
23	Hardness and fracture toughness of brittle materials: A density functional theory study. <i>Physical Review B</i> , 2004 , 70,	3.3	60
22	High pressure Raman spectroscopy of spinel-type ferrite ZnFe ₂ O ₄ . <i>Journal of Physics and Chemistry of Solids</i> , 2003 , 64, 2517-2523	3.9	194
21	Threshold Pressure for Disappearance of Size-Induced Effect in Spinel-Structure Ge ₃ N ₄ Nanocrystals. <i>Journal of Physical Chemistry B</i> , 2003 , 107, 14151-14153	3.4	24
20	Bulk metallic glass gasket for high pressure, in situ x-ray diffraction. <i>Review of Scientific Instruments</i> , 2003 , 74, 3012-3016	1.7	8
19	Critical pressure for weakening of size-induced stiffness in spinel-structure Si ₃ N ₄ nanocrystals. <i>Applied Physics Letters</i> , 2003 , 83, 3174-3176	3.4	18
18	Boron suboxide: As hard as cubic boron nitride. <i>Applied Physics Letters</i> , 2002 , 81, 643-645	3.4	237

17	Growth of boron suboxide crystals in the BB_2O_3 system at high pressure and high temperature. <i>Journal of Materials Research</i> , 2002 , 17, 284-290	2.5	36
16	Hydrogen clusters in clathrate hydrate. <i>Science</i> , 2002 , 297, 2247-9	33.3	696
15	Thermoelastic equation of state of molybdenum. <i>Physical Review B</i> , 2000 , 62, 8766-8776	3.3	63
14	A high P cell assembly for neutron diffraction up to 10GPa and 1500 K. <i>High Pressure Research</i> , 1999 , 16, 161-177	1.6	32
13	Correction of diffraction optics and P determination using thermoelastic equations of state of multiple phases. <i>Journal of Applied Crystallography</i> , 1999 , 32, 218-225	3.8	3
12	Crystal Chemistry and Phase Transitions of Perovskite in P Space: Data for $(\text{KxNa}_{1-x})\text{MgF}_3$ Perovskites. <i>Journal of Solid State Chemistry</i> , 1998 , 141, 121-132	3.3	31
11	P- V- T Data of hexagonal boron nitride h BN and determination of pressure and temperature using thermoelastic equations of state of multiple phases. <i>High Pressure Research</i> , 1997 , 15, 369-386	1.6	32
10	Thermoelastic equation of state of jadeite $\text{NaAlSi}_2\text{O}_6$: An energy-dispersive Reitveld Refinement Study of low symmetry and multiple phases diffraction. <i>Geophysical Research Letters</i> , 1997 , 24, 5-8	4.9	45
9	A high P-T single-crystal X-ray diffraction study of thermoelasticity of MgSiO_3 orthoenstatite. <i>Physics and Chemistry of Minerals</i> , 1995 , 22, 393	1.6	41
8	Perovskite at high P-T conditions: An in situ synchrotron X ray diffraction study of NaMgF_3 perovskite. <i>Journal of Geophysical Research</i> , 1994 , 99, 2871-2885		26
7	P-V-T equation of state of $(\text{Mg,Fe})\text{SiO}_3$ perovskite: constraints on composition of the lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 1994 , 83, 13-40	2.3	172
6	Mineral physics constraints on the chemical composition of the Earth's lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 1994 , 85, 273-292	2.3	56
5	Thermal expansion and structural distortion of perovskite data for NaMgF_3 perovskite. Part I. <i>Physics of the Earth and Planetary Interiors</i> , 1993 , 76, 1-16	2.3	140
4	Critical phenomena and phase transition of perovskite data for NaMgF_3 perovskite. Part II. <i>Physics of the Earth and Planetary Interiors</i> , 1993 , 76, 17-34	2.3	90
3	Large volume high pressure research using the wiggler port at NSLS. <i>High Pressure Research</i> , 1992 , 8, 617-623	1.6	34
2	Thermal expansion of SrZrO_3 and BaZrO_3 perovskites. <i>Physics and Chemistry of Minerals</i> , 1991 , 18, 294	1.6	65
1	Anti-perovskite materials for energy storage batteries. <i>Informa Materials</i> ,	23.1	7