

Yusheng Zhao

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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	Hydrogen clusters in clathrate hydrate. <i>Science</i> , 2002 , 297, 2247-9	33.3	696
231	Superionic conductivity in lithium-rich anti-perovskites. <i>Journal of the American Chemical Society</i> , 2012 , 134, 15042-7	16.4	322
230	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
229	Morphology-tuned wurtzite-type ZnS nanobelts. <i>Nature Materials</i> , 2005 , 4, 922-7	27	273
228	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
227	Boron suboxide: As hard as cubic boron nitride. <i>Applied Physics Letters</i> , 2002 , 81, 643-645	3.4	237
226	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
225	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
224	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
223	P-V-T equation of state of (Mg,Fe)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
222	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. <i>Angewandte Chemie - International Edition</i> , 2016 , 55, 9965-8	16.4	155
221	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
220	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
219	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
218	Storage and separation applications of nanoporous metal-organic frameworks. <i>CrystEngComm</i> , 2010 , 12, 1337-1353	3.3	139
217	Enhanced Structural Stability and Photo Responsiveness of CH ₃ NH ₃ SnI Perovskite via Pressure-Induced Amorphization and Recrystallization. <i>Advanced Materials</i> , 2016 , 28, 8663-8668	24	134
216	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

215	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
214	Synthesis, Crystal Structure, and Elastic Properties of Novel Tungsten Nitrides. <i>Chemistry of Materials</i> , 2012 , 24, 3023-3028	9.6	127
213	Antiperovskite LiOCl Superionic Conductor Films for Solid-State Li-Ion Batteries. <i>Advanced Science</i> , 2016 , 3, 1500359	13.6	120
212	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
211	Li-rich anti-perovskite Li3OCl films with enhanced ionic conductivity. <i>Chemical Communications</i> , 2014 , 50, 11520-2	5.8	95
210	Discovery of the recoverable high-pressure iron oxide Fe4O5. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 17281-5	11.5	94
209	Thermal equations of state of the β and β' phases of zirconium. <i>Physical Review B</i> , 2005 , 71,	3.3	93
208	Enhancement of fracture toughness in nanostructured diamond/SiC composites. <i>Applied Physics Letters</i> , 2004 , 84, 1356-1358	3.4	90
207	Critical phenomena and phase transition of perovskite β data for NaMgF3 perovskite. Part II. <i>Physics of the Earth and Planetary Interiors</i> , 1993 , 76, 17-34	2.3	90
206	Effect of Pressure and Temperature on Structural Stability of MoS2. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 3230-3235	3.8	84
205	Ultrahard diamond single crystals from chemical vapor deposition. <i>Physica Status Solidi A</i> , 2004 , 201, R25-R27		80
204	Experimental visualization of lithium conduction pathways in garnet-type Li7La3Zr2O12. <i>Chemical Communications</i> , 2012 , 48, 9840-2	5.8	79
203	Cubic to tetragonal phase transformation in cold-compressed Pd nanocubes. <i>Nano Letters</i> , 2008 , 8, 972-51.5	11.5	77
202	Fast synthesis method and phase diagram of hydrogen clathrate hydrate. <i>Applied Physics Letters</i> , 2006 , 88, 131909	3.4	73
201	Metal-organic frameworks for solid-state electrolytes. <i>Energy and Environmental Science</i> , 2020 , 13, 2386-3403	34.3	71
200	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
199	Thermodynamic and mechanical stabilities of tantalum nitride. <i>Physical Review Letters</i> , 2009 , 103, 185507.4	7.4	65
198	Thermal expansion of SrZrO3 and BaZrO3 perovskites. <i>Physics and Chemistry of Minerals</i> , 1991 , 18, 294	1.6	65

- 197 Thermoelastic equation of state of molybdenum. *Physical Review B*, **2000**, 62, 8766-8776 3.3 63
- 196 The Hardest Superconducting Metal Nitride. *Scientific Reports*, **2015**, 5, 13733 4.9 61
- 195 Pressure-induced cubic to monoclinic phase transformation in erbium sesquioxide Er₂O₃. *Inorganic Chemistry*, **2007**, 46, 6164-9 5.1 61
- 194 Pressure-Induced Remarkable Enhancement of Self-Trapped Exciton Emission in One-Dimensional CsCuI with Tetrahedral Units. *Journal of the American Chemical Society*, **2020**, 142, 1786-1791 16.4 61
- 193 Hardness and fracture toughness of brittle materials: A density functional theory study. *Physical Review B*, **2004**, 70, 3.3 60
- 192 Pressure-induced disordered substitution alloy in Sb₂Te₃. *Inorganic Chemistry*, **2011**, 50, 11291-3 5.1 59
- 191 Emergent superconductivity in an iron-based honeycomb lattice initiated by pressure-driven spin-crossover. *Nature Communications*, **2018**, 9, 1914 17.4 59
- 190 Reaction mechanism studies towards effective fabrication of lithium-rich anti-perovskites Li₃OX (X= Cl, Br). *Solid State Ionics*, **2016**, 284, 14-19 3.3 58
- 189 Experimental constraints on the phase diagram of elemental zirconium. *Journal of Physics and Chemistry of Solids*, **2005**, 66, 1213-1219 3.9 58
- 188 Mineral physics constraints on the chemical composition of the Earth's lower mantle. *Physics of the Earth and Planetary Interiors*, **1994**, 85, 273-292 2.3 56
- 187 Structure Distortion Induced Monoclinic Nickel Hexacyanoferrate as High-Performance Cathode for Na-Ion Batteries. *Advanced Energy Materials*, **2019**, 9, 1803158 21.8 54
- 186 Inhibition of Manganese Dissolution in Mn₂O₃ Cathode with Controllable Ni²⁺ Incorporation for High-Performance Zinc Ion Battery. *Advanced Functional Materials*, **2021**, 31, 2009412 15.6 54
- 185 Characterization of Stress, Pressure, and Temperature in SAm85, a Dia Type High Pressure Apparatus. *Geophysical Monograph Series*, **2013**, 13-17 1.1 53
- 184 Pressure-induced isostructural phase transition and correlation of FeAs coordination with the superconducting properties of 111-type Na(1-x)FeAs. *Journal of the American Chemical Society*, **2011**, 133, 7892-6 16.4 51
- 183 Pressure-Driven Cooperative Spin-Crossover, Large-Volume Collapse, and Semiconductor-to-Metal Transition in Manganese(II) Honeycomb Lattices. *Journal of the American Chemical Society*, **2016**, 138, 15751-15757 16.4 50
- 182 Ultrastrong Boron Frameworks in ZrB : A Highway for Electron Conducting. *Advanced Materials*, **2017**, 29, 1604003 24 50
- 181 Characterization of reaction intermediate aggregates in aniline oxidative polymerization at low proton concentration. *Journal of Physical Chemistry B*, **2010**, 114, 10337-46 3.4 50
- 180 Size-Induced Reduction of Transition Pressure and Enhancement of Bulk Modulus of AlN Nanocrystals. *Journal of Physical Chemistry B*, **2004**, 108, 11506-11508 3.4 50

179	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
178	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
177	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
176	Pore size-controlled gases and alcohols separation within ultramicroporous homochiral lanthanide-organic frameworks. <i>Journal of Materials Chemistry</i> , 2012 , 22, 7813		48
175	Thermodynamic stability and unusual strength of ultra-incompressible rhenium nitrides. <i>Physical Review B</i> , 2011 , 83,	3.3	48
174	Self-Regulated Phenomenon of Inorganic Artificial Solid Electrolyte Interphase for Lithium Metal Batteries. <i>Nano Letters</i> , 2020 , 20, 4029-4037	11.5	47
173	Hardness, elastic, and electronic properties of chromium monoboride. <i>Applied Physics Letters</i> , 2015 , 106, 221902	3.4	46
172	Thermoelastic equation of state of jadeite NaAlSi ₂ 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
171	Phase transition and compressibility in silicon nanowires. <i>Nano Letters</i> , 2008 , 8, 2891-5	11.5	45
170	Mechanochemical reactions of MnO ₂ and graphite nanosheets as a durable zinc ion battery cathode. <i>Applied Surface Science</i> , 2020 , 534, 147630	6.7	45
169	Experimental invalidation of phase-transition-induced elastic softening in CrN. <i>Physical Review B</i> , 2012 , 86,	3.3	42
168	Thermal equations of state for titanium obtained by high pressure-temperature diffraction studies. <i>Physical Review B</i> , 2008 , 78,	3.3	42
167	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
166	Formation of zirconium metallic glass. <i>Nature</i> , 2004 , 430, 332-5	50.4	41
165	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
164	Cubic phases of BC ₂ N: A first-principles study. <i>Physical Review B</i> , 2007 , 75,	3.3	40
163	Antiperovskites with Exceptional Functionalities. <i>Advanced Materials</i> , 2020 , 32, e1905007	24	40
162	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

161	What is the theoretical density of a nanocrystalline material?. <i>Acta Materialia</i> , 2008 , 56, 3663-3671	8.4	39
160	Synthesis, Hardness, and Electronic Properties of Stoichiometric VN and CrN. <i>Crystal Growth and Design</i> , 2016 , 16, 351-358	3.5	38
159	Nanocrystalline tungsten carbide: As incompressible as diamond. <i>Applied Physics Letters</i> , 2009 , 95, 211906	9.4	38
158	Strength weakening by nanocrystals in ceramic materials. <i>Nano Letters</i> , 2007 , 7, 3196-9	11.5	38
157	First-principles prediction of mechanical properties of gamma-boron. <i>Applied Physics Letters</i> , 2009 , 94, 191906	3.4	37
156	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
155	Growth of boron suboxide crystals in the BB ₂ O ₃ system at high pressure and high temperature. <i>Journal of Materials Research</i> , 2002 , 17, 284-290	2.5	36
154	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
153	Pressure-Induced Amorphization and Phase Transformations in β -LiAlSiO ₄ . <i>Chemistry of Materials</i> , 2005 , 17, 2817-2824	9.6	35
152	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
151	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
150	Large volume high pressure research using the wiggler port at NSLS. <i>High Pressure Research</i> , 1992 , 8, 617-623	1.6	34
149	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
148	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
147	Comparative studies of compressibility between nanocrystalline and bulk nickel. <i>Applied Physics Letters</i> , 2007 , 90, 043112	3.4	32
146	Pressure-driven phase transitions in NaBH ₄ : theory and experiments. <i>Journal of Physical Chemistry B</i> , 2007 , 111, 13873-6	3.4	32
145	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
144	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

143	Crystal Chemistry and Phase Transitions of Perovskite in P-T Space: Data for (K _x Na _{1-x})MgF ₃ Perovskites. <i>Journal of Solid State Chemistry</i> , 1998 , 141, 121-132	3.3	31
142	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
141	Thermomechanics of nanocrystalline nickel under high pressure-temperature conditions. <i>Nano Letters</i> , 2007 , 7, 426-32	11.5	31
140	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
139	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
138	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
137	Elasticity of P phase zirconium. <i>Physical Review B</i> , 2007 , 76,	3.3	28
136	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
135	3D Printing of Hierarchical Graphene Lattice for Advanced Na Metal Anodes. <i>ACS Applied Energy Materials</i> , 2019 , 2, 3869-3877	6.1	26
134	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
133	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
132	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
131	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
130	Constitutive law and flow mechanism in diamond deformation. <i>Scientific Reports</i> , 2012 , 2, 876	4.9	25
129	Ca-doped Na ₂ Zn ₂ TeO ₆ layered sodium conductor for all-solid-state sodium-ion batteries. <i>Electrochimica Acta</i> , 2019 , 298, 121-126	6.7	25
128	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
127	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
126	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

125	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
124	Diamond-cBN alloy: A universal cutting material. <i>Applied Physics Letters</i> , 2015 , 107, 101901	3.4	23
123	High pressure-high temperature synthesis of lithium-rich $\text{Li}_3\text{O}(\text{Cl}, \text{Br})$ and $\text{Li}_3\text{Cax}/2\text{OCl}$ anti-perovskite halides. <i>Inorganic Chemistry Communication</i> , 2014 , 48, 140-143	3.1	23
122	Superhard diamondlike BC5: A first-principles investigation. <i>Physical Review B</i> , 2009 , 80,	3.3	23
121	High-pressure neutron diffraction studies at LANSCE. <i>Applied Physics A: Materials Science and Processing</i> , 2010 , 99, 585-599	2.6	23
120	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
119	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
118	Fluorine-Doped Antiperovskite Electrolyte for All-Solid-State Lithium-Ion Batteries. <i>Angewandte Chemie</i> , 2016 , 128, 10119-10122	3.6	22
117	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
116	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
115	X-Ray Induced Synthesis of 8H Diamond. <i>Advanced Materials</i> , 2008 , 20, 3303-3307	24	22
114	Synthesis of Onion-Like EMoN Catalyst for Selective Hydrogenation. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 19451-19460	3.8	21
113	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
112	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
111	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
110	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
109	In situ pressure Raman spectroscopy and mechanical stability of superhard boron suboxide. <i>Applied Physics Letters</i> , 2005 , 86, 041911	3.4	21
108	NiMn-Layered Double Hydroxides Chemically Anchored on Ti_3C_2 MXene for Superior Lithium Ion Storage. <i>ACS Applied Energy Materials</i> , 2020 , 3, 11119-11130	6.1	21

107	Thermal equation of state of silicon carbide. <i>Applied Physics Letters</i> , 2016 , 108, 061906	3.4	21
106	Structural stability of WS ₂ under high pressure. <i>International Journal of Modern Physics B</i> , 2014 , 28, 1450168	1.68	20
105	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
104	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
103	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
102	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
101	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
100	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
99	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
98	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
97	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
96	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
95	Antiperovskite Electrolytes for Solid-State Batteries.. <i>Chemical Reviews</i> , 2022 ,	68.1	18
94	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
93	Superhard diamond/tungsten carbide nanocomposites. <i>Applied Physics Letters</i> , 2011 , 98, 121914	3.4	17
92	Self-Assembled Polyaniline Nanotubes with Rectangular Cross-Sections. <i>Macromolecular Chemistry and Physics</i> , 2009 , 210, 1600-1606	2.6	17
91	Conventional empirical law reverses in the phase transitions of 122-type iron-based superconductors. <i>Scientific Reports</i> , 2014 , 4, 7172	4.9	15
90	Polyaniline Morphology and Detectable Intermediate Aggregates. <i>Macromolecular Chemistry and Physics</i> , 2010 , 211, 627-634	2.6	15

89	Pressure-induced long-range magnetic ordering in cobalt oxide. <i>Physical Review B</i> , 2006 , 74,	3.3	15
88	Strain stiffening, high load-invariant hardness, and electronic anomalies of boron phosphide under pressure. <i>Physical Review B</i> , 2020 , 101,	3.3	14
87	High-temperature neutron diffraction study of deuterated brucite. <i>Physics and Chemistry of Minerals</i> , 2013 , 40, 799-810	1.6	14
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	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
84	Elastic properties of yttrium-doped BaCeO ₃ perovskite. <i>Applied Physics Letters</i> , 2007 , 90, 161903	3.4	14
83	Elastic, magnetic and electronic properties of iridium phosphide Ir ₂ P. <i>Scientific Reports</i> , 2016 , 6, 21787	4.9	14
82	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
81	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
80	Pressure-induced reversal between thermal contraction and expansion in ferroelectric PbTiO ₃ . <i>Scientific Reports</i> , 2014 , 4, 3700	4.9	13
79	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
78	MATERIALS SCIENCE: High-Pressure Microscopy. <i>Science</i> , 2006 , 312, 1149-1150	33.3	13
77	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
76	Comparative studies of constitutive properties of nanocrystalline and bulk iron during compressive deformation. <i>Acta Materialia</i> , 2011 , 59, 3384-3389	8.4	12
75	Development of high P _{max} neutron diffraction at LANSCE toroidal anvil press, TAP-98, in the HiPPO diffractometer 2005 , 461-474		12
74	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
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