

Jung-Fu Lin

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201
papers

6,805
citations

42
h-index

74
g-index

210
ext. papers

7,744
ext. citations

6.4
avg, IF

5.77
L-index

#	Paper	IF	Citations
201	Amorphous FeOOH oxygen evolution reaction catalyst for photoelectrochemical water splitting. <i>Journal of the American Chemical Society</i> , 2014 , 136, 2843-50	16.4	424
200	Pressure-induced semiconducting to metallic transition in multilayered molybdenum disulphide. <i>Nature Communications</i> , 2014 , 5, 3731	17.4	380
199	Combined charge carrier transport and photoelectrochemical characterization of BiVO ₄ single crystals: intrinsic behavior of a complex metal oxide. <i>Journal of the American Chemical Society</i> , 2013 , 135, 11389-96	16.4	359
198	Spin transition of iron in magnesiowüstite in the Earth's lower mantle. <i>Nature</i> , 2005 , 436, 377-80	50.4	286
197	Pressure-dependent optical and vibrational properties of monolayer molybdenum disulfide. <i>Nano Letters</i> , 2015 , 15, 346-53	11.5	217
196	Spin transition zone in Earth's lower mantle. <i>Science</i> , 2007 , 317, 1740-3	33.3	167
195	EFFECTS OF THE ELECTRONIC SPIN TRANSITIONS OF IRON IN LOWER MANTLE MINERALS: IMPLICATIONS FOR DEEP MANTLE GEOPHYSICS AND GEOCHEMISTRY. <i>Reviews of Geophysics</i> , 2013 , 51, 244-275	23.1	156
194	Sound velocities of hot dense iron: Birch's law revisited. <i>Science</i> , 2005 , 308, 1892-4	33.3	133
193	Iron-silicon alloy in Earth's core?. <i>Science</i> , 2002 , 295, 313-5	33.3	127
192	Intermediate-spin ferrous iron in lowermost mantle post-perovskite and perovskite. <i>Nature Geoscience</i> , 2008 , 1, 688-691	18.3	124
191	Crystal structure of a high-pressure/high-temperature phase of alumina by in situ X-ray diffraction. <i>Nature Materials</i> , 2004 , 3, 389-93	27	116
190	X-ray Raman scattering study of MgSiO ₃ glass at high pressure: implication for triclustered MgSiO ₃ melt in Earth's mantle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 7925-9	11.5	110
189	The spin state of iron in minerals of Earth's lower mantle. <i>Geophysical Research Letters</i> , 2005 , 32, n/a-n/a	4.9	96
188	Sound velocities of iron-nickel and iron-silicon alloys at high pressures. <i>Geophysical Research Letters</i> , 2003 , 30,	4.9	90
187	Pressure-Modulated Conductivity, Carrier Density, and Mobility of Multilayered Tungsten Disulfide. <i>ACS Nano</i> , 2015 , 9, 9117-23	16.7	83
186	Spin transition of iron in the Earth's lower mantle. <i>Physics of the Earth and Planetary Interiors</i> , 2008 , 170, 248-259	2.3	79
185	High pressure-temperature Raman measurements of H ₂ O melting to 22 GPa and 900 K. <i>Journal of Chemical Physics</i> , 2004 , 121, 8423-7	3.9	79

184	Melting behavior of H2O at high pressures and temperatures. <i>Geophysical Research Letters</i> , 2005 , 32,	4.9	78
183	Sound velocities of Fe and Fe-Si alloy in the Earth's core. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 10239-44	11.5	75
182	Improved Visible Light Harvesting of WO3 by Incorporation of Sulfur or Iodine: A Tale of Two Impurities. <i>Chemistry of Materials</i> , 2014 , 26, 1670-1677	9.6	71
181	Electronic bonding transition in compressed SiO2 glass. <i>Physical Review B</i> , 2007 , 75,	3.3	71
180	Recent advances in high-pressure science and technology. <i>Matter and Radiation at Extremes</i> , 2016 , 1, 59-75	4.7	70
179	Pressure effect on the electronic structure of iron in (Mg,Fe)(Si,Al)O3 perovskite: a combined synchrotron Mössbauer and X-ray emission spectroscopy study up to 100 GPa. <i>Physics and Chemistry of Minerals</i> , 2006 , 33, 575-585	1.6	70
178	Origin of superconductivity in the Weyl semimetal WTe2 under pressure. <i>Physical Review B</i> , 2016 , 94,	3.3	68
177	Compression of single-crystal magnesium oxide to 118 GPa and a ruby pressure gauge for helium pressure media. <i>American Mineralogist</i> , 2008 , 93, 1823-1828	2.9	66
176	Synthesis of clathrate cerium superhydride CeH at 80-100 GPa with atomic hydrogen sublattice. <i>Nature Communications</i> , 2019 , 10, 4453	17.4	64
175	In situ high P-T Raman spectroscopy and laser heating of carbon dioxide. <i>Journal of Chemical Physics</i> , 2004 , 121, 2780-7	3.9	64
174	Magnetic transition and sound velocities of Fe3S at high pressure: implications for Earth and planetary cores. <i>Earth and Planetary Science Letters</i> , 2004 , 226, 33-40	5.3	64
173	Static compression of iron-silicon alloys: Implications for silicon in the Earth's core. <i>Journal of Geophysical Research</i> , 2003 , 108,		62
172	Pressure-induced electronic spin transition of iron in magnesiowustite-(Mg,Fe)O. <i>Physical Review B</i> , 2006 , 73,	3.3	57
171	Stability of magnesiowustite in Earth's lower mantle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003 , 100, 4405-8	11.5	57
170	Sound velocities of hydrous ringwoodite to 16 GPa and 673 K. <i>Earth and Planetary Science Letters</i> , 2012 , 331-332, 112-119	5.3	54
169	Magnetic transition in compressed Fe3C from x-ray emission spectroscopy. <i>Physical Review B</i> , 2004 , 70,	3.3	54
168	Thermal equation of state of lower-mantle ferropericlase across the spin crossover. <i>Geophysical Research Letters</i> , 2011 , 38, n/a-n/a	4.9	49
167	Using the Earth as a polarized electron source to search for long-range spin-spin interactions. <i>Science</i> , 2013 , 339, 928-32	33.3	48

166	Amorphous boron gasket in diamond anvil cell research. <i>Review of Scientific Instruments</i> , 2003 , 74, 4732-4736	4.7	36	48
165	Vibrational and elastic properties of ferromagnesite across the electronic spin-pairing transition of iron. <i>American Mineralogist</i> , 2012 , 97, 583-591	2.9		47
164	Sound velocities of ferropericlase in the Earth's lower mantle. <i>Geophysical Research Letters</i> , 2006 , 33,	4.9		47
163	Iron-Nickel alloy in the Earth's core. <i>Geophysical Research Letters</i> , 2002 , 29, 109-1-109-3	4.9		47
162	Elasticity of single-crystal olivine at high pressures and temperatures. <i>Earth and Planetary Science Letters</i> , 2015 , 426, 204-215	5.3		43
161	Experimental evidence of exciton capture by mid-gap defects in CVD grown monolayer MoSe ₂ . <i>Npj 2D Materials and Applications</i> , 2017 , 1,	8.8		43
160	Electronic spin states of ferric and ferrous iron in the lower-mantle silicate perovskite. <i>American Mineralogist</i> , 2012 , 97, 592-597	2.9		42
159	Electrical conductivity of the lower-mantle ferropericlase across the electronic spin transition. <i>Geophysical Research Letters</i> , 2007 , 34,	4.9		42
158	Elasticity of single-crystal iron-bearing pyrope up to 20 GPa and 750 K. <i>Earth and Planetary Science Letters</i> , 2013 , 361, 134-142	5.3		40
157	High-pressure orthorhombic ferromagnesite as a potential deep-mantle carbon carrier. <i>Scientific Reports</i> , 2015 , 5, 7640	4.9		38
156	Thermal Conductivity Enhancement in MoS ₂ under Extreme Strain. <i>Physical Review Letters</i> , 2019 , 122, 155901	7.4		37
155	Effects of iron on the lattice thermal conductivity of Earth's deep mantle and implications for mantle dynamics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, 4099-4104	11.5		37
154	Iron-rich perovskite in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2011 , 309, 179-184	5.3		37
153	Deformation of lower-mantle ferropericlase (Mg,Fe)O across the electronic spin transition. <i>Physics and Chemistry of Minerals</i> , 2009 , 36, 585-592	1.6		37
152	Experimental study of thermal conductivity at high pressures: Implications for the deep Earth's interior. <i>Physics of the Earth and Planetary Interiors</i> , 2015 , 247, 11-16	2.3		36
151	In situ high pressure-temperature Raman spectroscopy technique with laser-heated diamond anvil cells. <i>Review of Scientific Instruments</i> , 2004 , 75, 3302-3306	1.7		36
150	Raman study at high pressure and the thermodynamic properties of corundum; application of Kieffer's model. <i>American Mineralogist</i> , 1995 , 80, 1157-1165	2.9		36
149	Thermal equation of state and spin transition of magnesiosiderite at high pressure and temperature. <i>American Mineralogist</i> , 2014 , 99, 84-93	2.9		35

148	Elasticity of Ferropicrclase across the Spin Crossover in the Earth's Lower Mantle. <i>Scientific Reports</i> , 2015 , 5, 17188	4.9	35
147	Pressure-decoupled magnetic and structural transitions of the parent compound of iron-based 122 superconductors BaFe ₂ As ₂ . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 17263-6	11.5	35
146	Nuclear resonant scattering at high pressure and high temperature. <i>High Pressure Research</i> , 2004 , 24, 447-457	1.6	35
145	Pressure-induced phase transformations in LiAlH ₄ . <i>Journal of Physical Chemistry B</i> , 2006 , 110, 11088-97	3.4	34
144	Single-crystal elasticity of the deep-mantle magnesite at high pressure and temperature. <i>Earth and Planetary Science Letters</i> , 2014 , 392, 292-299	5.3	33
143	Absolute temperature measurement in a laser-heated diamond anvil cell. <i>Geophysical Research Letters</i> , 2004 , 31,	4.9	33
142	Reduced lattice thermal conductivity of Fe-bearing bridgmanite in Earth's deep mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2017 , 122, 4900-4917	3.6	32
141	Unified understanding of the valence transition in the rare-earth monochalcogenides under pressure. <i>Physical Review B</i> , 2013 , 87,	3.3	32
140	Single-crystal synchrotron X-ray diffraction study of wüstite and magnesiowüstite at lower-mantle pressures. <i>Journal of Synchrotron Radiation</i> , 2005 , 12, 577-83	2.4	32
139	Effects of the Fe ³⁺ spin transition on the equation of state of bridgmanite. <i>Geophysical Research Letters</i> , 2015 , 42, 4335-4342	4.9	31
138	Pressure-Induced Charge Transfer Doping of Monolayer Graphene/MoS ₂ Heterostructure. <i>Small</i> , 2016 , 12, 4063-9	11	31
137	Ruby pressure scale in a low-temperature diamond anvil cell. <i>Journal of Applied Physics</i> , 2012 , 112, 124503	3.5	30
136	Anisotropic Saturable and Excited-State Absorption in Bulk ReS ₂ . <i>Advanced Optical Materials</i> , 2018 , 6, 1800137	8.1	29
135	Spin transition of ferric iron in the NAL phase: Implications for the seismic heterogeneities of subducted slabs in the lower mantle. <i>Earth and Planetary Science Letters</i> , 2016 , 434, 91-100	5.3	28
134	Pressure-Dependent Light Emission of Charged and Neutral Excitons in Monolayer MoSe. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 3556-3563	6.4	28
133	Temperature and pressure-induced valence transitions in YbNi ₂ Ge ₂ and YbPd ₂ Si ₂ . <i>Physical Review B</i> , 2010 , 82,	3.3	28
132	Phase relations of Fe-Si alloy in Earth's core. <i>Geophysical Research Letters</i> , 2009 , 36,	4.9	27
131	Iron isotopic fractionation between silicate mantle and metallic core at high pressure. <i>Nature Communications</i> , 2017 , 8, 14377	17.4	26

130	Abnormal Elasticity of Single-Crystal Magnesiosiderite across the Spin Transition in Earth's Lower Mantle. <i>Physical Review Letters</i> , 2017 , 118, 036402	7.4	25
129	Spin and valence states of iron in Al-bearing silicate glass at high pressures studied by synchrotron Mössbauer and X-ray emission spectroscopy. <i>American Mineralogist</i> , 2014 , 99, 415-423	2.9	25
128	Anisotropic Electron-Phonon Interactions in Angle-Resolved Raman Study of Strained Black Phosphorus. <i>ACS Nano</i> , 2018 , 12, 12512-12522	16.7	25
127	Synthesis, electronic transport and optical properties of Si:Fe ₂ O ₃ single crystals. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 559-567	7.1	24
126	Strong coupling between 4f valence instability and 3d ferromagnetism in Yb(x)Fe ₄ Sb ₁₂ studied by resonant x-ray emission spectroscopy. <i>Physical Review Letters</i> , 2011 , 107, 177203	7.4	24
125	Phase relations of Fe ₃ C and Fe ₇ C ₃ up to 185 GPa and 5200 K: Implication for the stability of iron carbide in the Earth's core. <i>Geophysical Research Letters</i> , 2016 , 43, 12,415	4.9	24
124	Water Concentration in Single-Crystal (Al,Fe)-Bearing Bridgmanite Grown From the Hydrous Melt: Implications for Dehydration Melting at the Topmost Lower Mantle. <i>Geophysical Research Letters</i> , 2019 , 46, 10346-10357	4.9	23
123	A Low Viscosity Lunar Magma Ocean Forms a Stratified Anorthitic Flotation Crust With Mafic Poor and Rich Units. <i>Geophysical Research Letters</i> , 2017 , 44, 11,282	4.9	23
122	Low thermal conductivity of iron-silicon alloys at Earth's core conditions with implications for the geodynamo. <i>Nature Communications</i> , 2020 , 11, 3332	17.4	22
121	Abnormal elastic and vibrational behaviors of magnetite at high pressures. <i>Scientific Reports</i> , 2014 , 4, 6282	4.9	22
120	Role of valence fluctuations in the superconductivity of Ce ₁₂₂ compounds. <i>Physical Review Letters</i> , 2014 , 113, 086403	7.4	22
119	Reconciliation of Experiments and Theory on Transport Properties of Iron and the Geodynamo. <i>Physical Review Letters</i> , 2020 , 125, 078501	7.4	22
118	Equation of state and hyperfine parameters of high-spin bridgmanite in the Earth's lower mantle by synchrotron X-ray diffraction and Mössbauer spectroscopy. <i>American Mineralogist</i> , 2017 , 102, 357-368	2.9	21
117	Abnormal Elasticity of Fe-Bearing Bridgmanite in the Earth's Lower Mantle. <i>Geophysical Research Letters</i> , 2018 , 45, 4725-4732	4.9	21
116	Quantum critical point and spin fluctuations in lower-mantle ferroperricite. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 7142-7	11.5	21
115	SciPhon: a data analysis software for nuclear resonant inelastic X-ray scattering with applications to Fe, Kr, Sn, Eu and Dy. <i>Journal of Synchrotron Radiation</i> , 2018 , 25, 1581-1599	2.4	21
114	Stacking-Order-Driven Optical Properties and Carrier Dynamics in ReS ₂ . <i>Advanced Materials</i> , 2020 , 32, e1908311	24	20
113	Radial x-ray diffraction of tungsten tetraboride to 86 GPa under nonhydrostatic compression. <i>Journal of Applied Physics</i> , 2013 , 113, 033507	2.5	20

112	Compression studies of gibbsite and its high-pressure polymorph. <i>Physics and Chemistry of Minerals</i> , 1999 , 26, 576-583	1.6	20
111	High-spin Fe ²⁺ and Fe ³⁺ in single-crystal aluminous bridgmanite in the lower mantle. <i>Geophysical Research Letters</i> , 2016 , 43, 6952-6959	4.9	20
110	Radiative conductivity and abundance of post-perovskite in the lowermost mantle. <i>Earth and Planetary Science Letters</i> , 2017 , 479, 43-49	5.3	19
109	New High-Pressure Phase of CaCO ₃ at the Topmost Lower Mantle: Implication for the Deep-Mantle Carbon Transportation. <i>Geophysical Research Letters</i> , 2018 , 45, 1355-1360	4.9	19
108	Towards band structure and band offset engineering of monolayer Mo (1T _x) W (x) S ₂ via Strain. <i>2D Materials</i> , 2018 , 5, 015008	5.9	19
107	Electrical Resistivity of Fe-C Alloy at High Pressure: Effects of Carbon as a Light Element on the Thermal Conductivity of the Earth's Core. <i>Journal of Geophysical Research: Solid Earth</i> , 2018 , 123, 3564-3577	3.6	19
106	Spin transition of Fe ³⁺ in Al-bearing phase D: An alternative explanation for small-scale seismic scatterers in the mid-lower mantle. <i>Earth and Planetary Science Letters</i> , 2013 , 382, 1-9	5.3	19
105	Melting behavior of the lower-mantle ferropericlase across the spin crossover: Implication for the ultra-low velocity zones at the lowermost mantle. <i>Earth and Planetary Science Letters</i> , 2018 , 503, 1-9	5.3	19
104	Shear wave anisotropy of textured hcp-Fe in the Earth's inner core. <i>Earth and Planetary Science Letters</i> , 2010 , 298, 361-366	5.3	18
103	Shock Compression and Melting of an Fe-Ni-Si Alloy: Implications for the Temperature Profile of the Earth's Core and the Heat Flux Across the Core-Mantle Boundary. <i>Journal of Geophysical Research: Solid Earth</i> , 2018 , 123, 1314-1327	3.6	17
102	Tungsten Hexanitride with Single-Bonded Armchairlike Hexazine Structure at High Pressure. <i>Physical Review Letters</i> , 2021 , 126, 065702	7.4	17
101	Synthesis of large and homogeneous single crystals of water-bearing minerals by slow cooling at deep-mantle pressures. <i>American Mineralogist</i> , 2015 , 100, 1483-1492	2.9	16
100	Valence transitions in the heavy-fermion compound YbCuAl as a function of temperature and pressure. <i>Physical Review B</i> , 2013 , 87,	3.3	16
99	Iron partitioning between ferropericlase and bridgmanite in the Earth's lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2017 , 122, 1074-1087	3.6	15
98	Elasticity of single-crystal superhydrous phase B at simultaneous high pressure-temperature conditions. <i>Geophysical Research Letters</i> , 2016 , 43, 8458-8465	4.9	15
97	Non-destructive measurement of photoexcited carrier transport in graphene with ultrafast grating imaging technique. <i>Carbon</i> , 2016 , 107, 233-239	10.4	15
96	Confirming a pyrolitic lower mantle using self-consistent pressure scales and new constraints on CaSiO ₃ perovskite. <i>Journal of Geophysical Research: Solid Earth</i> , 2016 , 121, 4876-4894	3.6	15
95	Sound velocities of bcc-Fe and Fe _{0.85} Si _{0.15} alloy at high pressure and temperature. <i>Physics of the Earth and Planetary Interiors</i> , 2014 , 233, 24-32	2.3	15

94	Iron partitioning in natural lower-mantle minerals: Toward a chemically heterogeneous lower mantle. <i>American Mineralogist</i> , 2017 , 102, 824-832	2.9	14
93	Abnormal acoustic wave velocities in basaltic and (Fe,Al)-bearing silicate glasses at high pressures. <i>Geophysical Research Letters</i> , 2014 , 41, 8832-8839	4.9	14
92	Magnesite formation from MgO and CO ₂ at the pressures and temperatures of Earth's mantle. <i>American Mineralogist</i> , 2013 , 98, 1211-1218	2.9	14
91	Electronic structure of YbGa _{1.15} Si _{0.85} and YbGa _x Ge _{2-x} probed by resonant x-ray emission and photoelectron spectroscopies. <i>Physical Review B</i> , 2011 , 83,	3.3	14
90	Origin of Pressure-induced Superconducting Phase in KxFe ₂ -ySe ₂ studied by Synchrotron X-ray Diffraction and Spectroscopy. <i>Scientific Reports</i> , 2016 , 6, 30946	4.9	14
89	Iron isotopic fractionation in mineral phases from Earth's lower mantle: Did terrestrial magma ocean crystallization fractionate iron isotopes?. <i>Earth and Planetary Science Letters</i> , 2019 , 506, 113-122	5.3	14
88	Elasticity of single-crystal periclase at high pressure and temperature: The effect of iron on the elasticity and seismic parameters of ferropiclase in the lower mantle. <i>American Mineralogist</i> , 2019 , 104, 262-275	2.9	13
87	Coupling-Assisted Renormalization of Excitons and Vibrations in Compressed MoSe ₂ /WSe ₂ Heterostructure. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 5820-5828	3.8	13
86	Pressure-induced valence change of YbNiGe ₃ investigated by resonant x-ray emission spectroscopy at the Yb L ₃ edge. <i>Physical Review B</i> , 2014 , 89,	3.3	13
85	Hybridization and suppression of superconductivity in CeFeAsO _{1-x} : Pressure and temperature dependence of the electronic structure. <i>Physical Review B</i> , 2010 , 82,	3.3	13
84	Resonant X-ray emission study of the lower-mantle ferropiclase at high pressures. <i>American Mineralogist</i> , 2010 , 95, 1125-1131	2.9	13
83	Mineral Physics Quest to the Earth's Core. <i>Eos</i> , 2009 , 90, 21	1.5	13
82	X-ray emission spectroscopy with a laser-heated diamond anvil cell: a new experimental probe of the spin state of iron in the Earth's interior. <i>Journal of Synchrotron Radiation</i> , 2005 , 12, 637-41	2.4	13
81	Pressure-induced phase transitions in gypsum. <i>High Pressure Research</i> , 2000 , 17, 57-75	1.6	13
80	High pressure Raman study of layered Mo _{0.5} W _{0.5} S ₂ ternary compound. <i>2D Materials</i> , 2016 , 3, 025003	3.9	13
79	Seismic anisotropy of the D' layer induced by (001) deformation of post-perovskite. <i>Nature Communications</i> , 2017 , 8, 14669	17.4	12
78	Phonon density of states of Fe ₂ O ₃ across high-pressure structural and electronic transitions. <i>Physical Review B</i> , 2011 , 84,	3.3	12
77	Electronic transitions in CePd ₂ Si ₂ studied by resonant x-ray emission spectroscopy at high pressures and low temperatures. <i>Physical Review B</i> , 2012 , 86,	3.3	12

76	Synchrotron Mössbauer spectroscopic study of ferroperricite at high pressures and temperatures. <i>American Mineralogist</i> , 2009 , 94, 594-599	2.9	12
75	Electronic spin transition of iron in the Earth's deep mantle. <i>Eos</i> , 2007 , 88, 13	1.5	12
74	Nuclear resonant inelastic X-ray scattering at high pressure and low temperature. <i>Journal of Synchrotron Radiation</i> , 2015 , 22, 760-5	2.4	11
73	Degree of Permanent Densification in Oxide Glasses upon Extreme Compression up to 24 GPa at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 2917-2924	6.4	11
72	Elasticity of ferroperricite and seismic heterogeneity in the Earth's lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2016 , 121, 8488-8500	3.6	11
71	Optical signatures of low spin Fe ³⁺ in NAL at high pressure. <i>Journal of Geophysical Research: Solid Earth</i> , 2017 , 122, 3565-3573	3.6	11
70	Comment 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,	3.3	11
69	Seismic parameters of hcp-Fe alloyed with Ni and Si in the Earth's inner core. <i>Journal of Geophysical Research: Solid Earth</i> , 2016 , 121, 610-623	3.6	11
68	Transport properties of Fe-Ni-Si alloys at Earth's core conditions: Insight into the viability of thermal and compositional convection. <i>Earth and Planetary Science Letters</i> , 2021 , 553, 116614	5.3	11
67	Elasticity of lower-mantle bridgmanite. <i>Nature</i> , 2018 , 564, E18-E26	50.4	11
66	Structural, vibrational, and electronic topological transitions of Bi _{1.5} Sb _{0.5} Te _{1.8} Se _{1.2} under pressure. <i>Journal of Applied Physics</i> , 2018 , 123, 115903	2.5	10
65	(Fe,Al)-bearing post-perovskite in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2014 , 403, 157-165	5.3	10
64	Garnet-to-perovskite transition in Gd ₃ Sc ₂ Ga ₃ O ₁₂ at high pressure and high temperature. <i>Inorganic Chemistry</i> , 2013 , 52, 431-4	5.1	10
63	Melting curve of vanadium up to 256 GPa: Consistency between experiments and theory. <i>Physical Review B</i> , 2020 , 102,	3.3	9
62	Blocked radiative heat transport in the hot pyrolytic lower mantle. <i>Earth and Planetary Science Letters</i> , 2020 , 537, 116176	5.3	9
61	Spin transition of Fe ²⁺ in ringwoodite (Mg,Fe)SiO ₄ at high pressures. <i>American Mineralogist</i> , 2013 , 98, 1803-1810	2.9	9
60	Pressure-induced anomalous valence crossover in cubic YbCu-based compounds. <i>Scientific Reports</i> , 2017 , 7, 5846	4.9	9
59	Pressure and Temperature Dependences of the Electronic Structure of CeIrSi ₃ Probed by Resonant X-ray Emission Spectroscopy. <i>Journal of the Physical Society of Japan</i> , 2011 , 80, 124701	1.5	9

58	Valence band x-ray emission spectra of compressed germanium. <i>Physical Review Letters</i> , 2006 , 96, 1374024	7.4	9
57	Pressure-Dependent Behavior of Defect-Modulated Band Structure in Boron Arsenide. <i>Advanced Materials</i> , 2020 , 32, e2001942	24	9
56	Single-crystal elasticity of (Al,Fe)-bearing bridgmanite and seismic shear wave radial anisotropy at the topmost lower mantle. <i>Earth and Planetary Science Letters</i> , 2019 , 518, 116-126	5.3	8
55	Picosecond transient thermoreflectance for thermal conductivity characterization. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2019 , 23, 211-221	3.7	8
54	Determination of the full elastic tensor of single crystals using shear wave velocities by Brillouin spectroscopy. <i>American Mineralogist</i> , 2015 , 100, 2590-2601	2.9	8
53	Anomalous perovskite PbRuO ₃ stabilized under high pressure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 20003-7	11.5	8
52	Two-stage spin transition of iron in FeAl-bearing phase D at lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , 2016 , 121, 6411-6420	3.6	8
51	Anomalous bulk modulus in vanadate spinels. <i>Physical Review B</i> , 2016 , 94,	3.3	7
50	Synchrotron-based high-pressure research in materials science. <i>MRS Bulletin</i> , 2016 , 41, 473-478	3.2	7
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