

# Jung-Fu Lin

## List of Publications by Year in Descending Order

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**Version:** 2024-04-23

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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.

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	Molten iron in Earth-like exoplanet cores.. <i>Science</i> , <b>2022</b> , 375, 146-147	33.3	1
200	High thermal conductivity of stishovite promotes rapid warming of a sinking slab in Earth's mantle. <i>Earth and Planetary Science Letters</i> , <b>2022</b> , 584, 117477	5.3	0
199	Thermal conductivity of Fe-Si alloys and thermal stratification in Earth's core.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2022</b> , 119,	11.5	2
198	Equation of State Measurements on Iron Near the Melting Curve at Planetary Core Conditions by Shock and Ramp Compressions. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2020JB020008	3.6	1
197	Contrasting opacity of bridgmanite and ferropericlase in the lowermost mantle: Implications to radiative and electrical conductivity. <i>Earth and Planetary Science Letters</i> , <b>2021</b> , 562, 116871	5.3	6
196	Radiometric Temperature Determination in Nongray Bridgmanite: Applications to Melting Curve and Post-Perovskite Transition Boundary in the Lower Mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2021</b> , 126, e2021JB021723	3.6	1
195	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> , <b>2021</b> , 553, 116614	5.3	11
194	Nonlinear Optical Absorption of ReS <sub>2</sub> Driven by Stacking Order. <i>ACS Photonics</i> , <b>2021</b> , 8, 405-411	6.3	6
193	Iron force constants of bridgmanite at high pressure: Implications for iron isotope fractionation in the deep mantle. <i>Geochimica Et Cosmochimica Acta</i> , <b>2021</b> , 294, 215-231	5.5	0
192	Tungsten Hexanitride with Single-Bonded Armchairlike Hexazine Structure at High Pressure. <i>Physical Review Letters</i> , <b>2021</b> , 126, 065702	7.4	17
191	Nonlinear effects of hydration on high-pressure sound velocities of rhyolitic glasses. <i>American Mineralogist</i> , <b>2021</b> , 106, 1143-1152	2.9	0
190	Spectral Properties of Anhydrous Carbonates and Nitrates. <i>Earth and Space Science</i> , <b>2021</b> , 8, e2021EA001844	3.44	1
189	Elasticity of a Pseudoproper Ferroelastic Transition from Stishovite to Post-Stishovite at High Pressure. <i>Physical Review Letters</i> , <b>2021</b> , 126, 025701	7.4	5
188	Melting curve of vanadium up to 256 GPa: Consistency between experiments and theory. <i>Physical Review B</i> , <b>2020</b> , 102,	3.3	9
187	Degree of Permanent Densification in Oxide Glasses upon Extreme Compression up to 24 GPa at Room Temperature. <i>Journal of Physical Chemistry Letters</i> , <b>2020</b> , 11, 2917-2924	6.4	11
186	Spin Transition of Iron in Deep-Mantle Ferromagnetite. <i>Geophysical Monograph Series</i> , <b>2020</b> , 115-125	1.1	0
185	Phase and Melting Relations of Fe <sub>3</sub> C to 300 GPa and Carbon in the Core. <i>Geophysical Monograph Series</i> , <b>2020</b> , 25-36	1.1	2

184	Structural and Chemical Modifications of Carbon Dioxide on Transport to the Deep Earth. <i>Geophysical Monograph Series</i> , <b>2020</b> , 55-65	1.1	1
183	Structure and Properties of Liquid Fe-C Alloys at High Pressures by Experiments and First-Principles Calculations. <i>Geophysical Monograph Series</i> , <b>2020</b> , 37-45	1.1	
182	Blocked radiative heat transport in the hot pyrolytic lower mantle. <i>Earth and Planetary Science Letters</i> , <b>2020</b> , 537, 116176	5.3	9
181	Elasticity of single-crystal Fe-enriched diopside at high-pressure conditions: Implications for the origin of upper mantle low-velocity zones. <i>American Mineralogist</i> , <b>2020</b> , 105, 363-374	2.9	3
180	High-Pressure Transformations and Stability of Ferromagnesite in the Earth's Mantle. <i>Geophysical Monograph Series</i> , <b>2020</b> , 105-113	1.1	2
179	Prediction and Synthesis of Dysprosium Hydride Phases at High Pressure. <i>Inorganic Chemistry</i> , <b>2020</b> , 59, 5303-5312	5.1	5
178	Low thermal conductivity of iron-silicon alloys at Earth's core conditions with implications for the geodynamo. <i>Nature Communications</i> , <b>2020</b> , 11, 3332	17.4	22
177	Phase Diagrams of Carbonate Materials at High Pressures, with Implications for Melting and Carbon Cycling in the Deep Earth. <i>Geophysical Monograph Series</i> , <b>2020</b> , 137-165	1.1	4
176	Stacking-Order-Driven Optical Properties and Carrier Dynamics in ReS. <i>Advanced Materials</i> , <b>2020</b> , 32, e1908311	24	20
175	Pressure-Dependent Behavior of Defect-Modulated Band Structure in Boron Arsenide. <i>Advanced Materials</i> , <b>2020</b> , 32, e2001942	24	9
174	Reconciliation of Experiments and Theory on Transport Properties of Iron and the Geodynamo. <i>Physical Review Letters</i> , <b>2020</b> , 125, 078501	7.4	22
173	Structures and Crystal Chemistry of Carbonate at Earth's Mantle Conditions. <i>Geophysical Monograph Series</i> , <b>2020</b> , 87-95	1.1	1
172	Pressure effect on Kohn anomaly and electronic topological transition in single-crystal tantalum. <i>Physical Review B</i> , <b>2019</b> , 100,	3.3	6
171	Synthesis of clathrate cerium superhydride CeH at 80-100 GPa with atomic hydrogen sublattice. <i>Nature Communications</i> , <b>2019</b> , 10, 4453	17.4	64
170	Elasticity of single-crystal periclase at high pressure and temperature: The effect of iron on the elasticity and seismic parameters of ferropericlase in the lower mantle. <i>American Mineralogist</i> , <b>2019</b> , 104, 262-275	2.9	13
169	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> , <b>2019</b> , 518, 116-126	5.3	8
168	The effect of substrate and surface plasmons on symmetry breaking at the substrate interface of the topological insulator BiTe. <i>Scientific Reports</i> , <b>2019</b> , 9, 6147	4.9	5
167	Thermal Conductivity Enhancement in MoS <sub>2</sub> under Extreme Strain. <i>Physical Review Letters</i> , <b>2019</b> , 122, 155901	7.4	37

166	Picosecond transient thermorefectance for thermal conductivity characterization. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2019</b> , 23, 211-221	3.7	8
165	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> , <b>2019</b> , 46, 10346-10357	4.9	23
164	Fe Alloy Slurry and a Compacting Cumulate Pile Across Earth's Inner-Core Boundary. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2019</b> , 124, 10954-10967	3.6	1
163	Large time-varying inductance load for studying power flow on the Z machine. <i>Physical Review Accelerators and Beams</i> , <b>2019</b> , 22,	1.8	7
162	Study of the Pressure-Induced Second Superconducting Phase of (NH <sub>3</sub> ) <sub>y</sub> Cs <sub>0.4</sub> FeSe with Double-Dome Superconductivity. <i>Journal of the Physical Society of Japan</i> , <b>2019</b> , 88, 074704	1.5	2
161	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> , <b>2019</b> , 506, 113-122	5.3	14
160	Coupling-Assisted Renormalization of Excitons and Vibrations in Compressed MoSe <sub>2</sub> /WSe <sub>2</sub> Heterostructure. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 5820-5828	3.8	13
159	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> , <b>2018</b> , 115, 4099-4104	11.5	37
158	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> , <b>2018</b> , 123, 1314-1327	3.6	17
157	New High-Pressure Phase of CaCO <sub>3</sub> at the Topmost Lower Mantle: Implication for the Deep-Mantle Carbon Transportation. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 1355-1360	4.9	19
156	Reentrant valence transition in YbCu <sub>4.5</sub> under pressure. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	1
155	Structural, vibrational, and electronic topological transitions of Bi <sub>1.5</sub> Sb <sub>0.5</sub> Te <sub>1.8</sub> Se <sub>1.2</sub> under pressure. <i>Journal of Applied Physics</i> , <b>2018</b> , 123, 115903	2.5	10
154	Towards band structure and band offset engineering of monolayer Mo (1x) W (x) S <sub>2</sub> via Strain. <i>2D Materials</i> , <b>2018</b> , 5, 015008	5.9	19
153	Abnormal Elasticity of Fe-Bearing Bridgmanite in the Earth's Lower Mantle. <i>Geophysical Research Letters</i> , <b>2018</b> , 45, 4725-4732	4.9	21
152	Anisotropic Saturable and Excited-State Absorption in Bulk ReS <sub>2</sub> . <i>Advanced Optical Materials</i> , <b>2018</b> , 6, 1800137	8.1	29
151	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> , <b>2018</b> , 123, 3564-3577	3.6	19
150	Feldspar Raman shift and application as a magmatic thermobarometer. <i>American Mineralogist</i> , <b>2018</b> , 103, 600-609	2.9	7
149	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> , <b>2018</b> , 25, 1581-1599	2.4	21

148	Elasticity of lower-mantle bridgmanite. <i>Nature</i> , <b>2018</b> , 564, E18-E26	50.4	11
147	Anisotropic Electron-Phonon Interactions in Angle-Resolved Raman Study of Strained Black Phosphorus. <i>ACS Nano</i> , <b>2018</b> , 12, 12512-12522	16.7	25
146	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> , <b>2018</b> , 503, 1-9	5.3	19
145	Elastic stability of CO <sub>2</sub> phase I under high temperature and pressure. <i>Physical Review B</i> , <b>2018</b> , 98,	3.3	1
144	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> , <b>2017</b> , 102, 357-368	2.9	21
143	Iron isotopic fractionation between silicate mantle and metallic core at high pressure. <i>Nature Communications</i> , <b>2017</b> , 8, 14377	17.4	26
142	Abnormal Elasticity of Single-Crystal Magnesiosiderite across the Spin Transition in Earth's Lower Mantle. <i>Physical Review Letters</i> , <b>2017</b> , 118, 036402	7.4	25
141	Iron partitioning between ferropericlase and bridgmanite in the Earth's lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 1074-1087	3.6	15
140	Seismic anisotropy of the D' layer induced by (001) deformation of post-perovskite. <i>Nature Communications</i> , <b>2017</b> , 8, 14669	17.4	12
139	Reduced lattice thermal conductivity of Fe-bearing bridgmanite in Earth's deep mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 4900-4917	3.6	32
138	Iron partitioning in natural lower-mantle minerals: Toward a chemically heterogeneous lower mantle. <i>American Mineralogist</i> , <b>2017</b> , 102, 824-832	2.9	14
137	Radiative conductivity and abundance of post-perovskite in the lowermost mantle. <i>Earth and Planetary Science Letters</i> , <b>2017</b> , 479, 43-49	5.3	19
136	Electronic structures and spin states of BaFe <sub>2</sub> As <sub>2</sub> and SrFe <sub>2</sub> As <sub>2</sub> probed by x-ray emission spectroscopy at Fe and As K-absorption edges. <i>Physical Review B</i> , <b>2017</b> , 96,	3.3	3
135	Experimental evidence of exciton capture by mid-gap defects in CVD grown monolayer MoSe <sub>2</sub> . <i>Npj 2D Materials and Applications</i> , <b>2017</b> , 1,	8.8	43
134	Optical signatures of low spin Fe <sup>3+</sup> in NAL at high pressure. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2017</b> , 122, 3565-3573	3.6	11
133	Pressure-Dependent Light Emission of Charged and Neutral Excitons in Monolayer MoSe. <i>Journal of Physical Chemistry Letters</i> , <b>2017</b> , 8, 3556-3563	6.4	28
132	Pressure-induced anomalous valence crossover in cubic YbCu-based compounds. <i>Scientific Reports</i> , <b>2017</b> , 7, 5846	4.9	9
131	Implementation of single-shot ellipsometry on gas gun experiments <b>2017</b> ,		1

130	A Low Viscosity Lunar Magma Ocean Forms a Stratified Anorthitic Flotation Crust With Mafic Poor and Rich Units. <i>Geophysical Research Letters</i> , <b>2017</b> , 44, 11,282	4.9	23
129	Elasticity of single-crystal superhydrous phase B at simultaneous high pressure-temperature conditions. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 8458-8465	4.9	15
128	Elasticity of single-crystal NAL phase at high pressure: A potential source of the seismic anisotropy in the lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 5696-5707	3.6	4
127	Elasticity of ferropericlase and seismic heterogeneity in the Earth's lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 8488-8500	3.6	11
126	Non-destructive measurement of photoexcited carrier transport in graphene with ultrafast grating imaging technique. <i>Carbon</i> , <b>2016</b> , 107, 233-239	10.4	15
125	Confirming a pyrolitic lower mantle using self-consistent pressure scales and new constraints on CaSiO <sub>3</sub> perovskite. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 4876-4894	3.6	15
124	Anomalous bulk modulus in vanadate spinels. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	7
123	Pressure-induced phase transition in LaCo <sub>5</sub> studied by x-ray emission spectroscopy, x-ray diffraction, and density functional theory. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	3
122	Synchrotron-based high-pressure research in materials science. <i>MRS Bulletin</i> , <b>2016</b> , 41, 473-478	3.2	7
121	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> , <b>2016</b> , 434, 91-100	5.3	28
120	Recent advances in high-pressure science and technology. <i>Matter and Radiation at Extremes</i> , <b>2016</b> , 1, 59-75	4.7	70
119	Synthesis, electronic transport and optical properties of Si:Fe <sub>2</sub> O <sub>3</sub> single crystals. <i>Journal of Materials Chemistry C</i> , <b>2016</b> , 4, 559-567	7.1	24
118	Seismic parameters of hcp-Fe alloyed with Ni and Si in the Earth's inner core. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 610-623	3.6	11
117	Pressure-Induced Charge Transfer Doping of Monolayer Graphene/MoS <sub>2</sub> Heterostructure. <i>Small</i> , <b>2016</b> , 12, 4063-9	11	31
116	High pressure Raman study of layered Mo <sub>0.5</sub> W <sub>0.5</sub> S <sub>2</sub> ternary compound. <i>2D Materials</i> , <b>2016</b> , 3, 025003	3.9	13
115	Elasticity of methane hydrate phases at high pressure. <i>Journal of Chemical Physics</i> , <b>2016</b> , 144, 154501	3.9	4
114	Origin of superconductivity in the Weyl semimetal WTe <sub>2</sub> under pressure. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	68
113	Phase relations of Fe <sub>3</sub> C and Fe <sub>7</sub> C <sub>3</sub> up to 185 GPa and 5200 K: Implication for the stability of iron carbide in the Earth's core. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 12,415	4.9	24

112	Origin of Pressure-induced Superconducting Phase in $K_xFe_2-ySe_2$ studied by Synchrotron X-ray Diffraction and Spectroscopy. <i>Scientific Reports</i> , <b>2016</b> , 6, 30946	4.9	14
111	Two-stage spin transition of iron in FeAl-bearing phase D at lower mantle. <i>Journal of Geophysical Research: Solid Earth</i> , <b>2016</b> , 121, 6411-6420	3.6	8
110	High-spin $Fe^{2+}$ and $Fe^{3+}$ in single-crystal aluminous bridgmanite in the lower mantle. <i>Geophysical Research Letters</i> , <b>2016</b> , 43, 6952-6959	4.9	20
109	Nuclear resonant inelastic X-ray scattering at high pressure and low temperature. <i>Journal of Synchrotron Radiation</i> , <b>2015</b> , 22, 760-5	2.4	11
108	Elasticity of single-crystal olivine at high pressures and temperatures. <i>Earth and Planetary Science Letters</i> , <b>2015</b> , 426, 204-215	5.3	43
107	Synthesis of large and homogeneous single crystals of water-bearing minerals by slow cooling at deep-mantle pressures. <i>American Mineralogist</i> , <b>2015</b> , 100, 1483-1492	2.9	16
106	Pressure-Modulated Conductivity, Carrier Density, and Mobility of Multilayered Tungsten Disulfide. <i>ACS Nano</i> , <b>2015</b> , 9, 9117-23	16.7	83
105	Determination of the full elastic tensor of single crystals using shear wave velocities by Brillouin spectroscopy. <i>American Mineralogist</i> , <b>2015</b> , 100, 2590-2601	2.9	8
104	Experimental study of thermal conductivity at high pressures: Implications for the deep Earth's interior. <i>Physics of the Earth and Planetary Interiors</i> , <b>2015</b> , 247, 11-16	2.3	36
103	Strength of tungsten triboride under pressure up to 86 GPa from radial X-ray diffraction. <i>Journal of Alloys and Compounds</i> , <b>2015</b> , 621, 116-120	5.7	5
102	Pressure-dependent optical and vibrational properties of monolayer molybdenum disulfide. <i>Nano Letters</i> , <b>2015</b> , 15, 346-53	11.5	217
101	Pressure and temperature dependence of the Ce valence and $d$ - $f$ hybridization gap in $CeTIn_5$ ( $T=Co, Rh, Ir$ ) heavy-fermion superconductors. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	7
100	Effects of the $Fe^{3+}$ spin transition on the equation of state of bridgmanite. <i>Geophysical Research Letters</i> , <b>2015</b> , 42, 4335-4342	4.9	31
99	Elasticity of Ferropericlase across the Spin Crossover in the Earth's Lower Mantle. <i>Scientific Reports</i> , <b>2015</b> , 5, 17188	4.9	35
98	High-pressure orthorhombic ferromagnesite as a potential deep-mantle carbon carrier. <i>Scientific Reports</i> , <b>2015</b> , 5, 7640	4.9	38
97	Thermal equation of state and spin transition of magnesiosiderite at high pressure and temperature. <i>American Mineralogist</i> , <b>2014</b> , 99, 84-93	2.9	35
96	Pressure-induced semiconducting to metallic transition in multilayered molybdenum disulphide. <i>Nature Communications</i> , <b>2014</b> , 5, 3731	17.4	380
95	(Fe,Al)-bearing post-perovskite in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , <b>2014</b> , 403, 157-165	5.3	10



94	Improved Visible Light Harvesting of WO <sub>3</sub> by Incorporation of Sulfur or Iodine: A Tale of Two Impurities. <i>Chemistry of Materials</i> , <b>2014</b> , 26, 1670-1677	9.6	71
93	Raman and Nuclear Resonant Spectroscopy in Geosciences <b>2014</b> , 195-211		4
92	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> , <b>2014</b> , 99, 415-423	2.9	25
91	Single-crystal elasticity of the deep-mantle magnesite at high pressure and temperature. <i>Earth and Planetary Science Letters</i> , <b>2014</b> , 392, 292-299	5.3	33
90	Amorphous FeOOH oxygen evolution reaction catalyst for photoelectrochemical water splitting. <i>Journal of the American Chemical Society</i> , <b>2014</b> , 136, 2843-50	16.4	424
89	Sound velocities of bcc-Fe and Fe <sub>0.85</sub> Si <sub>0.15</sub> alloy at high pressure and temperature. <i>Physics of the Earth and Planetary Interiors</i> , <b>2014</b> , 233, 24-32	2.3	15
88	Abnormal elastic and vibrational behaviors of magnetite at high pressures. <i>Scientific Reports</i> , <b>2014</b> , 4, 6282	4.9	22
87	Strength and structural phase transitions of gadolinium at high pressure from radial X-ray diffraction. <i>Journal of Applied Physics</i> , <b>2014</b> , 116, 243503	2.5	4
86	Abnormal acoustic wave velocities in basaltic and (Fe,Al)-bearing silicate glasses at high pressures. <i>Geophysical Research Letters</i> , <b>2014</b> , 41, 8832-8839	4.9	14
85	Pressure-induced valence change of YbNiGe <sub>3</sub> investigated by resonant x-ray emission spectroscopy at the Yb L <sub>3</sub> edge. <i>Physical Review B</i> , <b>2014</b> , 89,	3.3	13
84	Role of valence fluctuations in the superconductivity of Ce <sub>122</sub> compounds. <i>Physical Review Letters</i> , <b>2014</b> , 113, 086403	7.4	22
83	Synchrotron Mössbauer study of Fe-bearing pyrope at high pressures and temperatures. <i>American Mineralogist</i> , <b>2013</b> , 98, 1146-1152	2.9	4
82	Phase Diagram and Physical Properties of H <sub>2</sub> O at High Pressures and Temperatures: Applications to Planetary Interiors. <i>Geophysical Monograph Series</i> , <b>2013</b> , 159-169	1.1	3
81	Spin transition of Fe <sup>2+</sup> in ringwoodite (Mg,Fe)SiO <sub>4</sub> at high pressures. <i>American Mineralogist</i> , <b>2013</b> , 98, 1803-1810	2.9	9
80	Combined charge carrier transport and photoelectrochemical characterization of BiVO <sub>4</sub> single crystals: intrinsic behavior of a complex metal oxide. <i>Journal of the American Chemical Society</i> , <b>2013</b> , 135, 11389-96	16.4	359
79	Anomalous perovskite PbRuO <sub>3</sub> stabilized under high pressure. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 20003-7	11.5	8
78	Spin transition of Fe <sup>3+</sup> 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> , <b>2013</b> , 382, 1-9	5.3	19
77	Elasticity of single-crystal iron-bearing pyrope up to 20 GPa and 750 K. <i>Earth and Planetary Science Letters</i> , <b>2013</b> , 361, 134-142	5.3	40



76	Using the Earth as a polarized electron source to search for long-range spin-spin interactions. <i>Science</i> , <b>2013</b> , 339, 928-32	33.3	48
75	Garnet-to-perovskite transition in Gd <sub>3</sub> Sc <sub>2</sub> Ga <sub>3</sub> O <sub>12</sub> at high pressure and high temperature. <i>Inorganic Chemistry</i> , <b>2013</b> , 52, 431-4	5.1	10
74	Unified understanding of the valence transition in the rare-earth monochalcogenides under pressure. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	32
73	Magnesite formation from MgO and CO <sub>2</sub> at the pressures and temperatures of Earth's mantle. <i>American Mineralogist</i> , <b>2013</b> , 98, 1211-1218	2.9	14
72	EFFECTS OF THE ELECTRONIC SPIN TRANSITIONS OF IRON IN LOWER MANTLE MINERALS: IMPLICATIONS FOR DEEP MANTLE GEOPHYSICS AND GEOCHEMISTRY. <i>Reviews of Geophysics</i> , <b>2013</b> , 51, 244-275	23.1	156
71	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> , <b>2013</b> , 110, 7142-7	11.5	21
70	Valence transitions in the heavy-fermion compound YbCuAl as a function of temperature and pressure. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	16
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66	Electronic spin transition of iron in the Earth's lower mantle <b>2013</b> , 517-524		
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64	Sound velocities of hydrous ringwoodite to 16 GPa and 673 K. <i>Earth and Planetary Science Letters</i> , <b>2012</b> , 331-332, 112-119	5.3	54
63	Electronic spin states of ferric and ferrous iron in the lower-mantle silicate perovskite. <i>American Mineralogist</i> , <b>2012</b> , 97, 592-597	2.9	42
62	Electronic spin transition of iron in the Earth's lower mantle. <i>Hyperfine Interactions</i> , <b>2012</b> , 207, 81-88	0.8	4
61	Vibrational and elastic properties of ferromagnesite across the electronic spin-pairing transition of iron. <i>American Mineralogist</i> , <b>2012</b> , 97, 583-591	2.9	47
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55	Pressure and Temperature Dependences of the Electronic Structure of CeIrSi <sub>3</sub> Probed by Resonant X-ray Emission Spectroscopy. <i>Journal of the Physical Society of Japan</i> , <b>2011</b> , 80, 124701	1.5	9
54	Electronic structure of YbGa <sub>1.15</sub> Si <sub>0.85</sub> and YbGa <sub>x</sub> Ge <sub>2-x</sub> probed by resonant x-ray emission and photoelectron spectroscopies. <i>Physical Review B</i> , <b>2011</b> , 83,	3.3	14
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14	Absolute temperature measurement in a laser-heated diamond anvil cell. <i>Geophysical Research Letters</i> , <b>2004</b> , 31,	4.9	33
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