

# Catherine A Mccammon

## List of Publications by Year in descending order

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258  
papers

11,758  
citations

26630

56  
h-index

38395

95  
g-index

267  
all docs

267  
docs citations

267  
times ranked

6596  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural evolution in a pyrolytic magma ocean under mantle conditions. <i>Earth and Planetary Science Letters</i> , 2022, 584, 117473.	4.4	4
2	Sustainable oxygen evolution catalysis – electrochemical generation of manganite via corrosion engineering of steel. <i>Materials Advances</i> , 2021, 2, 5650-5656.	5.4	0
3	Mössbauer Spectroscopy with High Spatial Resolution: Spotlight on Geoscience. <i>Topics in Applied Physics</i> , 2021, , 221-266.	0.8	2
4	Revealing the Complex Nature of Bonding in the Binary High-Pressure Compound $\text{FeO}$ . <i>Physical Review Letters</i> , 2021, 126, 106001.	7.8	21
5	A biogeochemical–hydrological framework for the role of redox-active compounds in aquatic systems. <i>Nature Geoscience</i> , 2021, 14, 264-272.	12.9	67
6	Serpentinization-Driven H <sub>2</sub> Production From Continental Break-Up to Mid-Ocean Ridge Spreading: Unexpected High Rates at the West Iberia Margin. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	15
7	The composition and redox state of bridgmanite in the lower mantle as a function of oxygen fugacity. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 303, 110-136.	3.9	16
8	Chemical Stability of FeOOH at High Pressure and Temperature, and Oxygen Recycling in Early Earth History**. <i>European Journal of Inorganic Chemistry</i> , 2021, 2021, 3048-3053.	2.0	16
9	Discovery of Elgoresyite, (Mg,Fe) <sub>5</sub> Si <sub>2</sub> O <sub>9</sub> : Implications for Novel Iron-Magnesium Silicates in Rocky Planetary Interiors. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 2124-2130.	2.7	6
10	Bridgmanite is nearly dry at the top of the lower mantle. <i>Earth and Planetary Science Letters</i> , 2021, 570, 117088.	4.4	14
11	The Effect of FeAl Substitution on the Crystal Structure of Mg <sub>3</sub> SiO <sub>3</sub> Bridgmanite. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021936.	3.4	6
12	A reversed redox gradient in Earth's mantle transition zone. <i>Earth and Planetary Science Letters</i> , 2021, 575, 117181.	4.4	1
13	Pressure Destabilizes Oxygen Vacancies in Bridgmanite. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, .	3.4	5
14	Effect of redox on Fe–Mg–Mn exchange between olivine and melt and an oxybarometer for basalts. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	42
15	Experimental constraint on grain-scale fluid connectivity in subduction zones. <i>Earth and Planetary Science Letters</i> , 2020, 552, 116610.	4.4	13
16	Identification of Mackinawite and Constraints on Its Electronic Configuration Using Mössbauer Spectroscopy. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 1090.	2.0	10
17	Seismic detectability of carbonates in the deep Earth: A nuclear inelastic scattering study. <i>American Mineralogist</i> , 2020, 105, 325-332.	1.9	9
18	Oxygen Vacancy Substitution Linked to Ferric Iron in Bridgmanite at 27 ÅGPa. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086296.	4.0	8

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19	Effects of composition and pressure on electronic states of iron in bridgmanite. <i>American Mineralogist</i> , 2020, 105, 1030-1039.	1.9	7
20	The Effect of Pulsed Laser Heating on the Stability of Ferropiclasite at High Pressures. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 542.	2.0	2
21	Deep Earth carbon reactions through time and space. <i>American Mineralogist</i> , 2020, 105, 22-27.	1.9	5
22	Stability and Solubility of the FeAlO <sub>3</sub> Component in Bridgmanite at Uppermost Lower Mantle Conditions. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2019JB018447.	3.4	15
23	The crystal structures of Fe-bearing MgCO <sub>3</sub> and <i>sp</i> -carbonates at 98â€¦GPa from single-crystal X-ray diffraction using synchrotron radiation. <i>Acta Crystallographica Section E: Crystallographic Communications</i> , 2020, 76, 715-719.	0.5	7
24	Experimental investigation of FeCO <sub>3</sub> (siderite) stability in Earth's lower mantle using XANES spectroscopy. <i>American Mineralogist</i> , 2019, 104, 1083-1091.	1.9	11
25	Effect of Fe <sup>3+</sup> on Phase Relations in the Lower Mantle: Implications for Redox Melting in Stagnant Slabs. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 12484-12497.	3.4	8
26	Single-crystal elasticity of iron-bearing phase E and seismic detection of water in Earth's upper mantle. <i>American Mineralogist</i> , 2019, 104, 1526-1529.	1.9	7
27	Fate of Hydrocarbons in Iron-Bearing Mineral Environments during Subduction. <i>Minerals (Basel, Switzerland)</i> , 2019, 9, 1078-1084.	2.0	8
28	A new (Mg <sub>0.5</sub> Fe <sub>0.5</sub> )(Si <sub>0.5</sub> Al <sub>0.5</sub> )O <sub>3</sub> LiNbO <sub>3</sub> -type phase synthesized at lower mantle conditions. <i>American Mineralogist</i> , 2019, 104, 1213-1216.	1.9	7
29	Local Structure of Ferrous Iron Formates at Low Temperature and High Pressure Studied by Mössbauer Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2019, 123, 21676-21684.	3.1	4
30	Deep magma ocean formation set the oxidation state of Earth's mantle. <i>Science</i> , 2019, 365, 903-906.	12.6	99
31	Mantle plumes are oxidised. <i>Earth and Planetary Science Letters</i> , 2019, 527, 115798.	4.4	85
32	Carbon-Bearing Phases throughout Earth's Interior. <i>Earth and Planetary Science Letters</i> , 2019, 527, 66-88.		7
33	Magnetism in cold subducting slabs at mantle transition zone depths. <i>Nature</i> , 2019, 570, 102-106.	27.8	33
34	Comparative study of the influence of pulsed and continuous wave laser heating on the mobilization of carbon and its chemical reaction with iron in a diamond anvil cell. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	17
35	Saline aqueous fluid circulation in mantle wedge inferred from olivine wetting properties. <i>Nature Communications</i> , 2019, 10, 5557.	12.8	18
36	Annealing of metamict gadolinite-(Y): X-ray diffraction, Raman, IR, and Mössbauer spectroscopy. <i>Zeitschrift Fur Kristallographie - Crystalline Materials</i> , 2019, 234, 587-593.	0.8	3

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37	Diamond destruction and growth during mantle metasomatism: An experimental study of diamond resorption features. <i>Earth and Planetary Science Letters</i> , 2019, 506, 493-506.	4.4	25
38	Oxidized iron in garnets from the mantle transition zone. <i>Nature Geoscience</i> , 2018, 11, 144-147.	12.9	48
39	Evidence for a pressure-induced spin transition in olivine-type LiFePO <sub>4</sub> triphylite. <i>Physical Review B</i> , 2018, 97, .	3.2	6
40	The high-pressure behavior of spherocobaltite (CoCO <sub>3</sub> ): a single crystal Raman spectroscopy and XRD study. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 59-68.	0.8	9
41	Sound velocities of skiaigite-iron-majorite solid solution to 56 GPa probed by nuclear inelastic scattering. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 397-404.	0.8	8
42	Pressure tuning of charge ordering in iron oxide. <i>Nature Communications</i> , 2018, 9, 4142.	12.8	22
43	Transport of melt and volatiles in magmas inferred from kinetic experiments on the partial melting of granitic rocks. <i>Lithos</i> , 2018, 318-319, 434-447.	1.4	9
44	Seismically invisible water in Earth's transition zone?. <i>Earth and Planetary Science Letters</i> , 2018, 498, 9-16.	4.4	40
45	Multidisciplinary Constraints on the Abundance of Diamond and Eclogite in the Cratonic Lithosphere. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 2062-2086.	2.5	49
46	Fe-N system at high pressure reveals a compound featuring polymeric nitrogen chains. <i>Nature Communications</i> , 2018, 9, 2756.	12.8	153
47	The behaviour of ferric iron during partial melting of peridotite. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 239, 235-254.	3.9	29
48	Abnormal Elasticity of Fe-Bearing Bridgmanite in the Earth's Lower Mantle. <i>Geophysical Research Letters</i> , 2018, 45, 4725-4732.	4.0	27
49	Effect of composition on compressibility of skiaigite-Fe-majorite garnet. <i>American Mineralogist</i> , 2017, 102, 184-191.	1.9	4
50	High-Pressure NiAs-Type Modification of FeN. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 7302-7306.	13.8	43
51	The spin state of Fe <sup>3+</sup> in lower mantle bridgmanite. <i>American Mineralogist</i> , 2017, 102, 1263-1269.	1.9	21
52	Changes in tourmaline composition during magmatic and hydrothermal processes leading to tin-ore deposition: The Cornubian Batholith, SW England. <i>Ore Geology Reviews</i> , 2017, 83, 215-234.	2.7	61
53	Portable double-sided pulsed laser heating system for time-resolved geoscience and materials science applications. <i>Review of Scientific Instruments</i> , 2017, 88, 084501.	1.3	24
54	High pressure elasticity of FeCO <sub>3</sub> -MgCO <sub>3</sub> carbonates. <i>Physics of the Earth and Planetary Interiors</i> , 2017, 271, 57-63.	1.9	22



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73	Sulfur solubility in reduced mafic silicate melts: Implications for the speciation and distribution of sulfur on Mercury. <i>Earth and Planetary Science Letters</i> , 2016, 448, 102-114.	4.4	98
74	Melting processes and mantle sources of lavas on Mercury. <i>Earth and Planetary Science Letters</i> , 2016, 439, 117-128.	4.4	77
75	Sound velocities of bridgmanite from density of states determined by nuclear inelastic scattering and first-principles calculations. <i>Progress in Earth and Planetary Science</i> , 2016, 3, .	3.0	6
76	Synchrotron Mössbauer Source technique for in situ measurement of iron-bearing inclusions in natural diamonds. <i>Lithos</i> , 2016, 265, 328-333.	1.4	17
77	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.	4.4	30
78	Structural complexity of simple Fe <sub>2</sub> O <sub>3</sub> at high pressures and temperatures. <i>Nature Communications</i> , 2016, 7, 10661.	12.8	161
79	Ferri-kaersutite, NaCa <sub>2</sub> (Mg <sub>3</sub> TiFe <sup>3+</sup> )(Si <sub>6</sub> Al <sub>2</sub> )O <sub>22</sub> O <sub>2</sub> , a new oxo-amphibole from Harrow Peaks, Northern Victoria Land, Antarctica. <i>American Mineralogist</i> , 2016, 101, 461-468.	1.9	2
80	Time differentiated nuclear resonance spectroscopy coupled with pulsed laser heating in diamond anvil cells. <i>Review of Scientific Instruments</i> , 2015, 86, 114501.	1.3	13
81	Comparative compressibility of hydrous wadsleyite and ringwoodite: Effect of H <sub>2</sub> O and implications for detecting water in the transition zone. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 8259-8280.	3.4	25
82	Oxidation state of the lower mantle: In situ observations of the iron electronic configuration in bridgmanite at extreme conditions. <i>Earth and Planetary Science Letters</i> , 2015, 423, 78-86.	4.4	30
83	The oxygen fugacity at which graphite or diamond forms from carbonate-bearing melts in eclogitic rocks. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	96
84	Fe <sup>3+</sup> partitioning systematics between orthopyroxene and garnet in mantle peridotite xenoliths and implications for thermobarometry of oxidized and reduced mantle rocks. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	16
85	Petrogenesis of the Rifted Southern Victoria Land Lithospheric Mantle, Antarctica, Inferred from Petrography, Geochemistry, Thermobarometry and Oxybarometry of Peridotite and Pyroxenite Xenoliths from the Mount Morning Eruptive Centre. <i>Journal of Petrology</i> , 2015, 56, 193-226.	2.8	30
86	Tibetan chromitites: Excavating the slab graveyard. <i>Geology</i> , 2015, 43, 179-182.	4.4	94
87	High Poisson's ratio of Earth's inner core explained by carbon alloying. <i>Nature Geoscience</i> , 2015, 8, 220-223.	12.9	113
88	The speciation of carbon monoxide in silicate melts and glasses. <i>American Mineralogist</i> , 2015, 100, 1641-1644.	1.9	23
89	Quantification of water in majoritic garnet. <i>American Mineralogist</i> , 2015, 100, 1084-1092.	1.9	14
90	Oxidation potential in the Earth's lower mantle as recorded by ferropericlase inclusions in diamond. <i>Earth and Planetary Science Letters</i> , 2015, 417, 49-56.	4.4	40

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91	Coupled Interactions between Volatile Activity and Fe Oxidation State during Arc Crustal Processes. <i>Journal of Petrology</i> , 2015, 56, 795-814.	2.8	45
92	High-pressure synthesis of skiaegite-majorite garnet and investigation of its crystal structure. <i>American Mineralogist</i> , 2015, 100, 2650-2654.	1.9	6
93	Water, iron, redox environment: effects on the wadsleyite–ringwoodite phase transition. <i>Contributions To Mineralogy and Petrology</i> , 2015, 170, 1.	3.1	19
94	High-pressure spectroscopic study of siderite (FeCO <sub>3</sub> ) with a focus on spin crossover. <i>American Mineralogist</i> , 2015, 100, 2670-2681.	1.9	57
95	Magnesium silicate perovskite and effect of iron oxidation state on its bulk sound velocity at the conditions of the lower mantle. <i>Earth and Planetary Science Letters</i> , 2014, 393, 182-186.	4.4	39
96	Lower mantle electrical conductivity based on measurements of Al,Fe-bearing perovskite under lower mantle conditions. <i>Earth and Planetary Science Letters</i> , 2014, 393, 165-172.	4.4	41
97	Crystal chemistry of Fe <sup>3+</sup> -bearing (Mg, Fe)SiO <sub>3</sub> perovskite: a single-crystal X-ray diffraction study. <i>Physics and Chemistry of Minerals</i> , 2014, 41, 409-417.	0.8	16
98	Electronic spin state of Fe,Al-containing MgSiO <sub>3</sub> perovskite at lower mantle conditions. <i>Lithos</i> , 2014, 189, 167-172.	1.4	19
99	The influence of solid solution on elastic wave velocity determination in (Mg,Fe)O using nuclear inelastic scattering. <i>Physics of the Earth and Planetary Interiors</i> , 2014, 229, 16-23.	1.9	7
100	Iron spin state in silicate glass at high pressure: Implications for melts in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2014, 385, 130-136.	4.4	16
101	High-pressure behavior of FeOCl. <i>Physical Review B</i> , 2013, 88, .	3.2	13
102	Probing nonequivalent sites in iron phosphide Fe <sub>2</sub> P and its mechanism of phase transition. <i>European Physical Journal B</i> , 2013, 86, 1.	1.5	13
103	Effect of Lone-Electron-Pair Cations on the Orientation of Crystallographic Shear Planes in Anion-Deficient Perovskites. <i>Inorganic Chemistry</i> , 2013, 52, 10009-10020.	4.0	15
104	Thermal equation of state of synthetic orthoferrosilite at lunar pressures and temperatures. <i>Physics and Chemistry of Minerals</i> , 2013, 40, 691-703.	0.8	3
105	Structure and density of molten fayalite at high pressure. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 118, 118-128.	3.9	51
106	Fe-rich and As-bearing vesuvianite and wiluite from Kozlov, Czech Republic. <i>American Mineralogist</i> , 2013, 98, 1330-1337.	1.9	14
107	Ferric iron content of ferropicriase as a function of composition, oxygen fugacity, temperature and pressure: Implications for redox conditions during diamond formation in the lower mantle. <i>Earth and Planetary Science Letters</i> , 2013, 365, 7-16.	4.4	26
108	The oxidation state of the mantle and the extraction of carbon from Earth's interior. <i>Nature</i> , 2013, 493, 84-88.	27.8	371



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109	Thermal history of nakhlites: A comparison between MIL 03346 and its terrestrial analogue Theoâ€™s flow. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 121, 571-581.	3.9	20
110	Vancomycin Use in Patients Discharged from the Emergency Department. <i>Annals of Emergency Medicine</i> , 2013, 62, S63-S64.	0.6	0
111	Mott transition in $\text{CaFe}_2\text{O}_4$ at around 50 GPa. <i>Physical Review B</i> , 2013, 88, .	3.2	16
112	Spin transition of $\text{Fe}^{3+}$ 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.	4.4	22
113	Importance of Correlation Effects in hcp Iron Revealed by a Pressure-Induced Electronic Topological Transition. <i>Physical Review Letters</i> , 2013, 110, 117206.	7.8	58
114	Iron spin state in silicate perovskite at conditions of the Earth's deep interior. <i>High Pressure Research</i> , 2013, 33, 663-672.	1.2	27
115	Effect of iron oxidation state on the electrical conductivity of the Earthâ€™s lower mantle. <i>Nature Communications</i> , 2013, 4, 1427.	12.8	60
116	Nuclear forward scattering by the 68.7 keV state of $^{73}\text{Ge}$ in $\text{CaGeO}_3$ and $\text{GeO}_2$ . <i>Europhysics Letters</i> , 2013, 104, 17006.	2.0	6
117	Portable double-sided laser-heating system for Mössbauer spectroscopy and X-ray diffraction experiments at synchrotron facilities with diamond anvil cells. <i>Review of Scientific Instruments</i> , 2012, 83, 124501.	1.3	50
118	Incorporation of Fe and Al in $\text{MgSiO}_3$ perovskite: An investigation by $^{27}\text{Al}$ and $^{29}\text{Si}$ NMR spectroscopy. <i>American Mineralogist</i> , 2012, 97, 1955-1964.	1.9	18
119	Ferric iron and water incorporation in wadsleyite under hydrous and oxidizing conditions: A XANES, Mossbauer, and SIMS study. <i>American Mineralogist</i> , 2012, 97, 1483-1493.	1.9	24
120	$\text{Fe}^{3+}$ -rich augite and high electrical conductivity in the deep lithosphere. <i>Geology</i> , 2012, 40, 131-134.	4.4	49
121	Structurally hidden magnetic transitions in $\text{Fe}_3\text{C}$ at high pressures. <i>Physical Review B</i> , 2012, 85, .	3.2	41
122	Angular, spectral, and temporal properties of nuclear radiation from a $^{57}\text{Fe}$ synchrotron Mössbauer source. <i>Physical Review A</i> , 2012, 86, .	2.5	14
123	Acoustic velocities of pure and iron-bearing magnesium silicate perovskite measured to 25 GPa and 1200 K. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	45
124	Effect of high pressure on the crystal structure and electronic properties of magnetite below 25 GPa. <i>American Mineralogist</i> , 2012, 97, 128-133.	1.9	31
125	Electronic spin states of ferric and ferrous iron in the lower-mantle silicate perovskite. <i>American Mineralogist</i> , 2012, 97, 592-597.	1.9	58
126	Local Oxygen-Vacancy Ordering and Twinned Octahedral Tilting Pattern in the $\text{Bi}_{0.81}\text{Pb}_{0.19}\text{FeO}_{2.905}$ Cubic Perovskite. <i>Chemistry of Materials</i> , 2012, 24, 1378-1385.	6.7	35



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127	Order–disorder–reorder process in thermally treated dolomite samples: a combined powder and single-crystal X-ray diffraction study. <i>Physics and Chemistry of Minerals</i> , 2012, 39, 319-328.	0.8	19
128	Anisotropic mean-squared-displacement tensor in cubic almandine garnet: a single crystal $^{57}\text{Fe}$ Mössbauer study. <i>Physics and Chemistry of Minerals</i> , 2012, 39, 561-575.	0.8	4
129	Effects of the Iron Content and Redox State on the Structure of Sodium Borosilicate Glasses: A $^{31}\text{P}$ Mössbauer and Boron K-edge XANES Spectroscopy Study. <i>Journal of the American Ceramic Society</i> , 2012, 95, 962-971.	3.8	47
130	<i>MossA</i> : a program for analyzing energy-domain Mössbauer spectra from conventional and synchrotron sources. <i>Journal of Applied Crystallography</i> , 2012, 45, 329-331.	4.5	219
131	The $^{57}\text{Fe}$ Synchrotron Mössbauer Source at the ESRF. <i>Journal of Synchrotron Radiation</i> , 2012, 19, 559-569.	2.4	171
132	Electrical conductivity of orthopyroxene and plagioclase in the lower crust. <i>Contributions To Mineralogy and Petrology</i> , 2012, 163, 33-48.	3.1	106
133	High-pressure behavior of iron carbide ( $\text{Fe}_7\text{C}_3$ ) at inner core conditions. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	75
134	Effect of water on the electrical conductivity of lower crustal clinopyroxene. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	82
135	The stability of magnesite in the transition zone and the lower mantle as function of oxygen fugacity. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	67
136	Effect of hydration on the single-crystal elasticity of Fe-bearing wadsleyite to 12 GPa. <i>American Mineralogist</i> , 2011, 96, 1606-1612.	1.9	51
137	X-ray diffraction and Mössbauer spectroscopy study of fcc iron hydride FeH at high pressures and implications for the composition of the Earth's core. <i>Earth and Planetary Science Letters</i> , 2011, 307, 409-414.	4.4	78
138	Iron-rich perovskite in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2011, 309, 179-184.	4.4	41
139	The compositional variability of eudialyte-group minerals. <i>Mineralogical Magazine</i> , 2011, 75, 87-115.	1.4	69
140	Microanalysis of the iron oxidation state in (Mg,Fe)O and application to the study of microscale processes. <i>Contributions To Mineralogy and Petrology</i> , 2011, 162, 1249-1257.	3.1	20
141	Lattice thermal conductivity of lower mantle minerals and heat flux from Earth's core. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 17901-17904.	7.1	103
142	Pressure-induced structural phase transition of the iron end-member of ringwoodite ( $\text{Fe}_2\text{SiO}_4$ ) investigated by X-ray diffraction and Mossbauer spectroscopy. <i>American Mineralogist</i> , 2011, 96, 833-840.	1.9	12
143	High-temperature Mossbauer spectroscopy: A probe for the relaxation time of Fe species in silicate melts and glasses. <i>American Mineralogist</i> , 2010, 95, 1701-1707.	1.9	6
144	Iron Partitioning and Density Changes of Pyrolite in Earth's Lower Mantle. <i>Science</i> , 2010, 327, 193-195.	12.6	197

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145	<i>In situ</i> high-pressure study of LiNbO <sub>3</sub> -type FeTiO <sub>3</sub> : X-ray diffraction and Mössbauer spectroscopy. High Pressure Research, 2010, 30, 395-405.	1.2	20
146	Microstructural investigations on strongly stained olivines of the chassignite NWA 2737 and implications for its shock history. Earth and Planetary Science Letters, 2010, 300, 255-263.	4.4	24
147	Tetrahedral occupancy of ferric iron in (Mg,Fe)O: Implications for point defects in the Earth's lower mantle. Physics of the Earth and Planetary Interiors, 2010, 180, 179-188.	1.9	27
148	Local environment and valence state of iron in microinclusions in fibrous diamonds: X-ray absorption and Mössbauer data. Russian Geology and Geophysics, 2010, 51, 1262-1266.	0.7	6
149	The effect of silica on ferric/ferrous ratio in silicate melts: An experimental study using Mossbauer spectroscopy. American Mineralogist, 2010, 95, 545-555.	1.9	31
150	Low-spin Fe <sup>2+</sup> in silicate perovskite and a possible layer at the base of the lower mantle. Physics of the Earth and Planetary Interiors, 2010, 180, 215-221.	1.9	44
151	Oxidation of the Kaapvaal lithospheric mantle driven by metasomatism. Contributions To Mineralogy and Petrology, 2009, 157, 491-504.	3.1	122
152	Portable laser-heating system for diamond anvil cells. Journal of Synchrotron Radiation, 2009, 16, 737-741.	2.4	61
153	Iron oxidation state of $\text{FeTiO}_3$ at high pressure. Physical Review B, 2009, 79, .	3.2	27
154	A simultaneous deformation and diffusion experiment: Quantifying the role of deformation in enhancing metamorphic reactions. Earth and Planetary Science Letters, 2009, 278, 386-394.	4.4	16
155	Fractionation of oxygen and iron isotopes by partial melting processes: Implications for the interpretation of stable isotope signatures in mafic rocks. Earth and Planetary Science Letters, 2009, 283, 156-166.	4.4	110
156	High efficiency of natural lamellar remanent magnetisation in single grains of ilmeno-hematite calculated using Mössbauer spectroscopy. Earth and Planetary Science Letters, 2009, 288, 268-278.	4.4	20
157	Moldavites from the Cheb Basin, Czech Republic. Geochimica Et Cosmochimica Acta, 2009, 73, 1145-1179.	3.9	27
158	High-pressure experimental and computational XANES studies of (Mg,Fe)(Si,Al)O <sub>3</sub> perovskite and (Mg,Fe)O ferropericlae as in the Earth's lower mantle. Physical Review B, 2009, 79, .	3.2	27
159	XANES study of spin crossover in Fe-bearing silicate perovskite. Phase Transitions, 2009, 82, 336-343.	1.3	0
160	Description and crystal structure of a new mineral "plimerite, ZnFe <sub>3</sub> +4(PO <sub>4</sub> ) <sub>3</sub> (OH) <sub>5</sub> " the Zn-analogue of rockbridgeite and frondelite, from Broken Hill, New South Wales, Australia. Mineralogical Magazine, 2009, 73, 131-148.	1.4	14
161	Short-range order and Fe clustering in $\text{Mg}_{1-x}\text{Fe}_x\text{O}$ at high pressure. Physical Review B, 2009, 80, .	3.2	27
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