

Heather C Watson

List of Publications by Year in descending order

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Version: 2024-02-01

25
papers

896
citations

567281

15
h-index

677142

22
g-index

25
all docs

25
docs citations

25
times ranked

971
citing authors

#	ARTICLE	IF	CITATIONS
1	Spin transition and equations of state of (Mg, Fe)O solid solutions. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	152
2	Intermediate-spin ferrous iron in lowermost mantle post-perovskite and perovskite. <i>Nature Geoscience</i> , 2008, 1, 688-691.	12.9	131
3	Density profile of pyrolite under the lower mantle conditions. <i>Geophysical Research Letters</i> , 2009, 36, .	4.0	70
4	Effect of conductive impurities on electrical conductivity in polycrystalline olivine. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	68
5	Experimental quantification of the fractionation of Fe isotopes during metal segregation from a silicate melt. <i>Earth and Planetary Science Letters</i> , 2006, 248, 851-867.	4.4	64
6	The Fe- ⁵⁴ Cr system at 5GPa and implications for Earth's core. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 4146-4158.	3.9	48
7	Iron-rich perovskite in the Earth's lower mantle. <i>Earth and Planetary Science Letters</i> , 2011, 309, 179-184.	4.4	41
8	Thermoelastic properties of (Mg _{0.64} Fe _{0.36})O ferropericlaise based on in situ X-ray diffraction to 26.7GPa and 2173K. <i>Physics of the Earth and Planetary Interiors</i> , 2005, 151, 163-176.	1.9	38
9	Assessment of temperature gradients in multianvil assemblies using spinel layer growth kinetics. <i>Geochemistry, Geophysics, Geosystems</i> , 2003, 4, .	2.5	36
10	The iron-nickel-phosphorus system: Effects on the distribution of trace elements during the evolution of iron meteorites. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 2674-2691.	3.9	35
11	Spin and valence states of iron in Al-bearing silicate glass at high pressures studied by synchrotron Mossbauer and X-ray emission spectroscopy. <i>American Mineralogist</i> , 2014, 99, 415-423.	1.9	35
12	Thermal history, partial preservation and sampling bias recorded by Stardust cometary grains during their capture. <i>Earth and Planetary Science Letters</i> , 2008, 273, 195-202.	4.4	32
13	Connectivity of core forming melts: Experimental constraints from electrical conductivity and X-ray tomography. <i>Physics of the Earth and Planetary Interiors</i> , 2011, 186, 172-182.	1.9	31
14	In situ high-pressure and high-temperature X-ray microtomographic imaging during large deformation: A new technique for studying mechanical behavior of multiphase composites. , 2011, 7, 40-53.		25
15	Siderophile trace element diffusion in Fe-Ni alloys. <i>Physics of the Earth and Planetary Interiors</i> , 2003, 139, 65-75.	1.9	24
16	Iron and nickel isotope fractionation by diffusion, with applications to iron meteorites. <i>Earth and Planetary Science Letters</i> , 2016, 451, 159-167.	4.4	15
17	The effects of shear deformation on planetesimal core segregation: Results from in-situ X-ray micro-tomography. <i>American Mineralogist</i> , 2016, 101, 1996-2004.	1.9	12
18	and Planetary Science Letters, 2014, 403, 157-165.		

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19	High-pressure X-ray diffraction and X-ray emission studies on iron-bearing silicate perovskite under high pressures. <i>High Pressure Research</i> , 2010, 30, 230-237.	1.2	10
20	A Paris-Edinburgh Cell for High-Pressure and High-Temperature Structure Studies on Silicate Liquids Using Monochromatic Synchrotron Radiation. <i>Minerals (Basel, Switzerland)</i> , 2019, 9, 715.	2.0	7
21	Diffusion of Au, Pd, Re, and P in FeNi alloys at High Pressure. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 3550-3561.	3.9	6
22	How to make a planet: An introduction: Figure 1. <i>American Mineralogist</i> , 2015, 100, 1093-1097.	1.9	3
23	A multi-faceted experimental study on the dynamic behavior of MgSiO ₃ glass in the Earth's deep interior. <i>American Mineralogist</i> , 2022, 107, 1313-1324.	1.9	2
24	Undergraduate Research and Training in Ion-Beam Analysis of Environmental Materials. <i>Physics Procedia</i> , 2017, 90, 344-353.	1.2	0
25	Compression of porous aluminum: combined ultrasonic and microtomography measurements with lattice-Boltzmann permeability simulations. <i>High Pressure Research</i> , 2019, 39, 438-456.	1.2	0