Jean-Philippe Perrillat

List of Publications by Year
in descending order

44	1,576	331670 21	289244 40
papers	citations	h-index	g-index

44	44	44	1881
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Phase relations and equation of state of a natural MORB: Implications for the density profile of subducted oceanic crust in the Earth's lower mantle. Journal of Geophysical Research, 2010, 115, .	3.3	139
2	New host for carbon in the deep Earth. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 5184-5187.	7.1	118
3	Kinetics of antigorite dehydration: A real-time X-ray diffraction study. Earth and Planetary Science Letters, 2005, 236, 899-913.	4.4	112
4	The post-stishovite phase transition in hydrous alumina-bearing SiO ₂ in the lower mantle of the earth. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13588-13590.	7.1	102
5	Supervolcano eruptions driven by melt buoyancy in large silicic magma chambers. Nature Geoscience, 2014, 7, 122-125.	12.9	102
6	Phase transformations of subducted basaltic crust in the upmost lower mantle. Physics of the Earth and Planetary Interiors, 2006, 157, 139-149.	1.9	72
7	Kinetics of the Coesite-Quartz Transition: Application to the Exhumation of Ultrahigh-Pressure Rocks. Journal of Petrology, 2003, 44, 773-788.	2.8	71
8	Experimental investigation of the stability of Feâ€rich carbonates in the lower mantle. Journal of Geophysical Research, 2012, 117, .	3.3	68
9	Experimental evidence for perovskite and post-perovskite coexistence throughout the whole Dâ€³ region. Earth and Planetary Science Letters, 2010, 293, 90-96.	4.4	66
10	Tomography and imaging at the PSICHE beam line of the SOLEIL synchrotron. Review of Scientific Instruments, 2016, 87, 093704.	1.3	59
11	Neutral buoyancy of titanium-rich melts in the deep lunar interior. Nature Geoscience, 2012, 5, 186-189.	12.9	58
12	Compressibility change in iron-rich melt and implications for core formation models. Earth and Planetary Science Letters, 2011, 306, 118-122.	4.4	56
13	Equations of state of ice VI and ice VII at high pressure and high temperature. Journal of Chemical Physics, 2014, 141, 104505.	3.0	49
14	Salt partitioning between water and high-pressure ices. Implication for the dynamics and habitability of icy moons and water-rich planetary bodies. Earth and Planetary Science Letters, 2017, 463, 36-47.	4.4	39
15	Analytical transmission electron microscopy study of a natural MORB sample assemblage transformed at high pressure and high temperature. American Mineralogist, 2008, 93, 144-153.	1.9	38
16	Tetrahedrally bonded dense<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mtext>C</mml:mtext><mml:mn>2</mml:mn></mml:msub><mml:msub><mml:mtext> a defective wurtzite structure: X-ray diffraction and Raman scattering results at high pressure and ambient conditions. Physical Review B, 2009, 80, .	3.2	38
17	In situ structural investigation of Feâ€Sâ€Si immiscible liquid system and evolution of Feâ€S bond properties with pressure. Journal of Geophysical Research, 2008, 113, .	3.3	31
18	Multi-mode conversion imaging of the subducted Gorda and Juan de Fuca plates below the North American continent. Earth and Planetary Science Letters, 2016, 440, 135-146.	4.4	28

#	Article	IF	Citations
19	Orbital control on exceptional fossil preservation. Geology, 2019, 47, 103-106.	4.4	26
20	In situviscometry of high-pressure melts in the Parisâ€“Edinburgh cell: application to liquid FeS. High Pressure Research, 2010, 30, 415-423.	1.2	23
21	Insights into soft-part preservation from the Early Ordovician Fezouata Biota. Earth-Science Reviews, 2021, 213, 103464.	9.1	23
22	Deep crustal fracture zones control fluid escape and the seismic cycle in the Cascadia subduction zone. Earth and Planetary Science Letters, 2017, 460, 1-11.	4.4	21
23	Rotating tomography Parisâ€“Edinburgh cell: a novel portable press for micro-tomographic 4-D imaging at extreme pressure/temperature/stress conditions. High Pressure Research, 2016, 36, 512-532.	1.2	20
24	Mechanism and kinetics of the Î±â€“Î² transition in San Carlos olivine Mg_{1.8}Fe_{0.2}SiO₄. Journal of Geophysical Research: Solid Earth, 2013, 118, 110-119.	3.4	19
25	Contrasted effect of aluminum on the serpentinization rate of olivine and orthopyroxene under hydrothermal conditions. Chemical Geology, 2016, 441, 256-264.	3.3	18
26	Taphonomic pathway of exceptionally preserved fossils in the Lower Ordovician of Morocco. Geobios, 2020, 60, 99-115.	1.4	17
27	Kinetics of high-pressure mineral phase transformations using in situ time-resolved X-ray diffraction in the Paris-Edinburgh cell: a practical guide for data acquisition and treatment. Mineralogical Magazine, 2008, 72, 683-695.	1.4	16
28	High-speed tomography under extreme conditions at the PSICHE beamline of the SOLEIL Synchrotron. Journal of Synchrotron Radiation, 2018, 25, 818-825.	2.4	16
29	In situmonitoring of phase transformation microstructures at Earth's mantle pressure and temperature using multi-grain XRD. Journal of Applied Crystallography, 2015, 48, 1346-1354.	4.5	15
30	CO2-induced destabilization of pyrite-structured FeO2Hx in the lower mantle. National Science Review, 2018, 5, 870-877.	9.5	15
31	Recent Tomographic Imaging Developments at the PSICHE Beamline. Integrating Materials and Manufacturing Innovation, 2019, 8, 551-558.	2.6	15
32	Calibration of a diamond capsule cell assembly forin situdetermination of liquid properties in the Parisâ€“Edinburgh press. High Pressure Research, 2010, 30, 332-341.	1.2	14
33	Evolution of grain sizes and orientations during phase transitions in hydrous Mg₂SiO₄. Journal of Geophysical Research: Solid Earth, 2016, 121, 7161-7176.	3.4	14
34	Development of synchrotron X-ray micro-tomography under extreme conditions of pressure andÂtemperature. Journal of Synchrotron Radiation, 2017, 24, 240-247.	2.4	12
35	Deformation-aided segregation of Fe-S liquid from olivine under deep Earth conditions: Implications for core formation in the early solar system. Physics of the Earth and Planetary Interiors, 2017, 263, 38-54.	1.9	11
36	Single-crystal elastic properties of Ca0.07Mg1.93Si2O6 orthopyroxene. American Mineralogist, 2007, 92, 109-113.	1.9	9

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37	In situ Viscometry of Primitive Lunar Magmas at High Pressure and High Temperature. Frontiers in Earth Science, 2019, 7, .	1.8	9
38	Kinetics of the olivineâ€“ringwoodite transformation and seismic attenuation in the Earth's mantle transition zone. Earth and Planetary Science Letters, 2016, 433, 360-369.	4.4	8
39	Dataset for H₂, CH₄ and organic compounds formation during experimental serpentinization. Geoscience Data Journal, 2021, 8, 90-100.	4.4	4
40	Reevaluation of metal interconnectivity in a partially molten silicate matrix using 3D microtomography. Physics of the Earth and Planetary Interiors, 2020, 308, 106571.	1.9	2
41	The Weaklaw Vent, SE Scotland: Metasomatism of eruptive products by carbo-hydro-fluids of probable mantle origin. Mineralogical Magazine, 2019, 83, 855-867.	1.4	1
42	A new high-pressure technique for the measurement of low frequency seismic attenuation using cyclic torsional loading. Review of Scientific Instruments, 2021, 92, 093906.	1.3	1
43	Shear wave velocities across the olivine â€“ wadsleyite â€“ ringwoodite transitions and sharpness of the 410 km seismic discontinuity. Earth and Planetary Science Letters, 2022, 593, 117690.	4.4	1
44	Novel portable press for synchrotron time-resolved 3-D micro-imagining under extreme conditions. AIP Conference Proceedings, 2016, , .	0.4	0