Reidar G TrÃ¸nnes

List of Publications by Year
in descending order

28 papers	1,910 citations	394390 19 h-index	501174 28 g-index
29 all docs	29 docs citations	29 times ranked	1955 citing authors

#	Article	IF	Citations
1	Experimental evidence for the existence of iron-rich metal in the Earth's lower mantle. Nature, 2004, 428, 409-412.	27.8	500
2	Microdiamond in high-grade metamorphic rocks of the Western Gneiss region, Norway. Geology, 1995, 23, 597.	4.4	311
3	Deep mantle structure as a reference frame for movements in and on the Earth. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 8735-8740.	7.1	200
4	Peridotite melting and mineralâ€“melt partitioning of major and minor elements at 22â€“24.5 GPa. Earth and Planetary Science Letters, 2002, 197, 117-131.	4.4	135
5	Continental crust beneath southeast Iceland. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E1818-27.	7.1	102
6	Early Earth differentiation. Earth and Planetary Science Letters, 2004, 225, 253-269.	4.4	81
7	Holocene loess deposition in Iceland: Evidence for millennial-scale atmosphere-ocean coupling in the North Atlantic. Geology, 2005, 33, 509.	4.4	76
8	Earth evolution and dynamicsâ€”a tribute to Kevin Burke. Canadian Journal of Earth Sciences, 2016, 53, 1073-1087.	1.3	60
9	Primitive off-rift basalts from Iceland and Jan Mayen: Os-isotopic evidence for a mantle source containing enriched subcontinental lithosphere. Geochimica Et Cosmochimica Acta, 2009, 73, 3423-3449.	3.9	52
10	Structure, mineralogy and dynamics of the lowermost mantle. Mineralogy and Petrology, 2010, 99, 243-261.	1.1	41
11	Mildly peraluminous high-silica granites in a continental rift: the Drammen and Finnemarka batholiths, Oslo Rift, Norway. Contributions To Mineralogy and Petrology, 1992, 109, 275-294.	3.1	35
12	Subsolidus phase relations and perovskite compressibility in the system MgOâ€“AlO1.5â€“SiO2 with implications for Earth's lower mantle. Earth and Planetary Science Letters, 2006, 248, 77-89.	4.4	33
13	Equations of state of CaIrO3 perovskite and post-perovskite phases. American Mineralogist, 2007, 92, 1760-1763.	1.9	33
14	Donwilhelmsite, [CaAl4Si2O11], a new lunar high-pressure Ca-Al-silicate with relevance for subducted terrestrial sediments. American Mineralogist, 2020, 105, 1704-1711.	1.9	33
15	Element partitioning between silicate minerals and coexisting melts at pressures of 1â€“27 GPa, and implications for mantle evolution. Earth and Planetary Science Letters, 1992, 111, 241-255.	4.4	32
16	The 1362 AD Ã–rÃ¦fajÃ¶kull eruption, Iceland: Petrology and geochemistry of large-volume homogeneous rhyolite. Journal of Volcanology and Geothermal Research, 2007, 160, 42-58.	2.1	25
17	Stabilizing Effect of Compositional Viscosity Contrasts on Thermochemical Piles. Geophysical Research Letters, 2018, 45, 7523-7532.	4.0	25
18	The perovskite to post-perovskite transition in CaIrO3: Clapeyron slope and changes in bulk and shear moduli by density functional theory. Physics of the Earth and Planetary Interiors, 2007, 164, 50-62.	1.9	23

#	Article	IF	Citations
19	Experimental constraints on melting temperatures in the MgOâ€“SiO2 system at lower mantle pressures. Earth and Planetary Science Letters, 2017, 472, 186-196.	4.4	22
20	Iron spin state and site distribution in FeAlO3-bearing bridgmanite. Earth and Planetary Science Letters, 2016, 440, 178-186.	4.4	18
21	Melting relations and major element partitioning in an oxidized bulk Earth model composition at 15â€“26 GPa. Lithos, 2000, 53, 233-245.	1.4	17
22	Seismological expression of the iron spin crossover in ferropericlase in the Earthâ€™s lower mantle. Nature Communications, 2021, 12, 5905.	12.8	11
23	Phase diagram and P-V-T equation of state of Al-bearing seifertite at lowermost mantle conditions. American Mineralogist, 2014, 99, 2035-2042.	1.9	10
24	Crustal structure and origin of the Eggvin Bank west of Jan Mayen, NE Atlantic. Journal of Geophysical Research: Solid Earth, 2017, 122, 43-62.	3.4	10
25	How Thermochemical Piles Can (Periodically) Generate Plumes at Their Edges. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018726.	3.4	10
26	High-pressure silica phase transitions: Implications for deep mantle dynamics and silica crystallization in the protocore. American Mineralogist, 2020, 105, 1014-1020.	1.9	7
27	Core-mantle boundary topography and its relation to the viscosity structure of the lowermost mantle. Earth and Planetary Science Letters, 2020, 543, 116358.	4.4	6
28	Spatiotemporal Variations in Surface Heat Loss Imply a Heterogeneous Mantle Cooling History. Geophysical Research Letters, 2021, 48, e2020GL092119.	4.0	2