JÃ¼rg M Matter

List of Publications by Year
in descending order

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28	2,775	394421	501196
papers	citations	19 h-index	28 g-index

34	34	34	2555
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rapid carbon mineralization for permanent disposal of anthropogenic carbon dioxide emissions. Science, 2016, 352, 1312-1314.	12.6	565
2	Permanent storage of carbon dioxide in geological reservoirs by mineral carbonation. Nature Geoscience, 2009, 2, 837-841.	12.9	425
3	Rates and Mechanisms of Mineral Carbonation in Peridotite: Natural Processes and Recipes for Enhanced, in situ CO₂ Capture and Storage. Annual Review of Earth and Planetary Sciences, 2011, 39, 545-576.	11.0	336
4	Mineral sequestration of carbon dioxide in basalt: A pre-injection overview of the CarbFix project. International Journal of Greenhouse Gas Control, 2010, 4, 537-545.	4.6	294
5	Chemical and morphological changes during olivine carbonation for CO2 storage in the presence of NaCl and NaHCO3. Physical Chemistry Chemical Physics, 2014, 16, 4679.	2.8	145
6	Reaction path modeling of enhanced in situ CO2 mineralization for carbon sequestration in the peridotite of the Samail Ophiolite, Sultanate of Oman. Chemical Geology, 2012, 330-331, 86-100.	3.3	127
7	Geological and Geochemical Controls on Subsurface Microbial Life in the Samail Ophiolite, Oman. Frontiers in Microbiology, 2017, 8, 56.	3.5	126
8	Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitability. Geochimica Et Cosmochimica Acta, 2016, 179, 217-241.	3.9	102
9	The chemistry and saturation states of subsurface fluids during the in situ mineralisation of CO2 and H2S at the CarbFix site in SW-Iceland. International Journal of Greenhouse Gas Control, 2017, 58, 87-102.	4.6	93
10	Assessing the carbon sequestration potential of basalt using X-ray micro-CT and rock mechanics. International Journal of Greenhouse Gas Control, 2018, 70, 146-156.	4.6	60
11	Recharge areas and geochemical evolution of groundwater in an alluvial aquifer system in the Sultanate of Oman. Hydrogeology Journal, 2006, 14, 203-224.	2.1	59
12	High reactivity of deep biota under anthropogenic CO2 injection into basalt. Nature Communications, 2017, 8, 1063.	12.8	55
13	Potential for offsetting diamond mine carbon emissions through mineral carbonation of processed kimberlite: an assessment of De Beers mine sites in South Africa and Canada. Mineralogy and Petrology, 2018, 112, 755-765.	1.1	47
14	Adjusting Mitigation Pathways to Stabilize Climate at 1.5Â°C and 2.0Â°C Rise in Global Temperatures to Year 2300. Earth's Future, 2018, 6, 601-615.	6.3	32
15	Molecular Evidence for an Active Microbial Methane Cycle in Subsurface Serpentinite-Hosted Groundwaters in the Samail Ophiolite, Oman. Applied and Environmental Microbiology, 2021, 87, .	3.1	29
16	Multitracer determination of apparent groundwater ages in peridotite aquifers within the Samail ophiolite, Sultanate of Oman. Earth and Planetary Science Letters, 2019, 516, 37-48.	4.4	28
17	Experimental study on mafic rock dissolution rates within CO2-seawater-rock systems. Geochimica Et Cosmochimica Acta, 2020, 272, 259-275.	3.9	28
18	Global Carbon Dioxide Removal Potential of Waste Materials From Metal and Diamond Mining. Frontiers in Climate, 2021, 3, .	2.8	28

#	Article	IF	Citations
19	Accessing the Subsurface Biosphere Within Rocks Undergoing Active Lowâ€Temperature Serpentinization in the Samail Ophiolite (Oman Drilling Project). Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006315.	3.0	27
20	Aqueous Geochemical and Microbial Variation Across Discrete Depth Intervals in a Peridotite Aquifer Assessed Using a Packer System in the Samail Ophiolite, Oman. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006319.	3.0	23
21	Lowâ€Temperature Hydrogen Formation During Aqueous Alteration of Serpentinized Peridotite in the Samail Ophiolite. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021981.	3.4	22
22	Groundwater flow characterization of an ophiolitic hard-rock aquifer from cross-borehole multi-level hydraulic experiments. Journal of Hydrology, 2020, 589, 125152.	5.4	21
23	Geochemical, Biological, and Clumped Isotopologue Evidence for Substantial Microbial Methane Production Under Carbon Limitation in Serpentinites of the Samail Ophiolite, Oman. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2020JG006025.	3.0	19
24	Microbial Stimulation and Succession following a Test Well Injection Simulating COâ„ Leakage into a Shallow Newark Basin Aquifer. PLoS ONE, 2015, 10, e0117812.	2.5	17
25	Initial Results From the Oman Drilling Project Multiâ€Borehole Observatory: Petrogenesis and Ongoing Alteration of Mantle Peridotite in the Weathering Horizon. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022729.	3.4	16
26	Multimodal imaging and stochastic percolation simulation for improved quantification of effective porosity and surface area in vesicular basalt. Advances in Water Resources, 2018, 121, 235-244.	3.8	13
27	Listvenite Formation During Mass Transfer into the Leading Edge of the Mantle Wedge: Initial Results from Oman Drilling Project Hole BT1B. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	11
28	Reply to â€œMethane origin in the Samail ophiolite: Comment on â€˜Modern water/rock reactions in Oman hyperalkaline peridotite aquifers and implications for microbial habitabilityâ€™â€•[Geochim. Cosmochim. Acta 179 (2016) 217â€“241]. Geochimica Et Cosmochimica Acta, 2017, 197, 471-473.	3.9	9