Domenik Wolff-Boenisch

List of Publications by Year
in descending order

51 papers	3,232 citations	201674 27 h-index	206112 48 g-index
51 all docs	51 docs citations	51 times ranked	2671 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	The dissolution rates of natural glasses as a function of their composition at pH 4 and 10.6, and temperatures from 25 to 74Â°C. Geochimica Et Cosmochimica Acta, 2004, 68, 4843-4858.	3.9	321
3	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
4	The effect of crystallinity on dissolution rates and CO2 consumption capacity of silicates. Geochimica Et Cosmochimica Acta, 2006, 70, 858-870.	3.9	178
5	An experimental study of crystalline basalt dissolution from 2 â©½ pH â©½ 11 and temperatures from 5 to 75 Â°C. Geochimica Et Cosmochimica Acta, 2011, 75, 5496-5509.	3.9	158
6	The CarbFix Pilot Projectâ€"Storing carbon dioxide in basalt. Energy Procedia, 2011, 4, 5579-5585.	1.8	101
7	Permanent Carbon Dioxide Storage into Basalt: The CarbFix Pilot Project, Iceland. Energy Procedia, 2009, 1, 3641-3646.	1.8	99
8	The effect of fluoride on the dissolution rates of natural glasses at pH 4 and 25Â°C. Geochimica Et Cosmochimica Acta, 2004, 68, 4571-4582.	3.9	96
9	Solving the carbon-dioxide buoyancy challenge: The design and field testing of a dissolved CO2 injection system. International Journal of Greenhouse Gas Control, 2015, 37, 213-219.	4.6	96
10	Dissolution of basalts and peridotite in seawater, in the presence of ligands, and CO2: Implications for mineral sequestration of carbon dioxide. Geochimica Et Cosmochimica Acta, 2011, 75, 5510-5525.	3.9	92
11	The effect of pH, grain size, and organic ligands on biotite weathering rates. Geochimica Et Cosmochimica Acta, 2015, 164, 127-145.	3.9	86
12	Do carbonate precipitates affect dissolution kinetics? 1: Basaltic glass. Chemical Geology, 2011, 284, 306-316.	3.3	74
13	An experimental study of basaltic glassâ€"H2Oâ€"CO2 interaction at 22 and 50Â°C: Implications for subsurface storage of CO2. Geochimica Et Cosmochimica Acta, 2014, 126, 123-145.	3.9	72
14	Experimental determination of plagioclase dissolution rates as a function of its composition and pH at 22Â°C. Geochimica Et Cosmochimica Acta, 2014, 139, 154-172.	3.9	69
15	Hydrogen wettability of clays: Implications for underground hydrogen storage. International Journal of Hydrogen Energy, 2021, 46, 34356-34361.	7.1	67
16	Spatial variations in chemical weathering and CO2 consumption in Nepalese High Himalayan catchments during the monsoon season. Geochimica Et Cosmochimica Acta, 2009, 73, 3148-3170.	3.9	55
17	Rapid solubility and mineral storage of CO2 in basalt. Energy Procedia, 2014, 63, 4561-4574.	1.8	52
18	A brief history of CarbFix: Challenges and victories of the projectâ€™s pilot phase. Energy Procedia, 2018, 146, 103-114.	1.8	52

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19	Do carbonate precipitates affect dissolution kinetics?. Chemical Geology, 2013, 337-338, 56-66.	3.3	47
20	CarbFix: a CCS pilot project imitating and accelerating natural CO₂ sequestration. , 2011, 1, 105-118.		46
21	Western Australia basalt-CO2-brine wettability at geo-storage conditions. Journal of Colloid and Interface Science, 2021, 603, 165-171.	9.4	46
22	The role of silicate surfaces on calcite precipitation kinetics. Geochimica Et Cosmochimica Acta, 2014, 135, 231-250.	3.9	40
23	The effect of rock composition on cyanobacterial weathering of crystalline basalt and rhyolite. Geobiology, 2012, 10, 434-444.	2.4	37
24	Flow-through reactor experiments on basalt-(sea)water-CO 2 reactions at 90 Â°C and neutral pH. What happens to the basalt pore space under post-injection conditions?. International Journal of Greenhouse Gas Control, 2018, 68, 176-190.	4.6	37
25	Dissolution of diopside and basaltic glass: the effect of carbonate coating. Mineralogical Magazine, 2008, 72, 135-139.	1.4	36
26	Geomorphic and climatic controls on chemical weathering in the High Himalayas of Nepal. Geomorphology, 2010, 122, 205-210.	2.6	36
27	The effect of desferrioxamine B, enterobactin, oxalic acid, and Na-alginate on the dissolution of uranyl-treatedgoethite at pH 6 and 25ÂÂ°C. Chemical Geology, 2007, 243, 357-368.	3.3	30
28	Opportunities and challenges for CarbFix: An evaluation of capacities and costs for the pilot scale mineralization sequestration project at Hellisheidi, Iceland and beyond. International Journal of Greenhouse Gas Control, 2011, 5, 1065-1072.	4.6	29
29	An experimental study of basaltâ€"seawaterâ€"CO2 interaction at 130ÂÂ°C. Geochimica Et Cosmochimica Acta, 2021, 308, 21-41.	3.9	28
30	A comparative study of the effect of desferrioxamine B, oxalic acid, and Na-alginate on the desorption of U(VI) from goethite at pH 6 and 25Â°C. Geochimica Et Cosmochimica Acta, 2006, 70, 4356-4366.	3.9	26
31	The effect of desferrioxamine B on the desorption of U(VI) from Georgia kaolinite KGa-1b and its ligand-promoted dissolution at pH 6 and 25ÂÂ°C. Chemical Geology, 2007, 242, 278-287.	3.3	24
32	Dissolution rates of crystalline basalt at pH 4 and 10 and 25-75Â°C. Mineralogical Magazine, 2008, 72, 155-158.	1.4	23
33	Basalt-CO2-brine wettability at storage conditions in basaltic formations. International Journal of Greenhouse Gas Control, 2020, 102, 103148.	4.6	23
34	Towards establishing a combined rate law of nucleation and crystal growth â€" The case study of gypsum precipitation. Journal of Crystal Growth, 2018, 485, 28-40.	1.5	19
35	Experimental Studies of Basalt-H2O-CO2 Interaction with a High Pressure Column Flow Reactor: the Mobility of Metals. Energy Procedia, 2013, 37, 5823-5833.	1.8	18
36	Review of available fluid sampling tools and sample recovery techniques for groundwater and unconventional geothermal research as well as carbon storage in deep sedimentary aquifers. Journal of Hydrology, 2014, 513, 68-80.	5.4	18

#	Article	IF	Citations
37	Experimental observations of CO2-water-basaltic glass interaction in a large column reactor experiment at 50â€¯Â°C. International Journal of Greenhouse Gas Control, 2019, 89, 9-19.	4.6	18
38	Toward Cleaner Geothermal Energy Utilization: Capturing and Sequestering CO $$_2$$ 2 and H $$_2$$ 2 S Emissions from Geothermal Power Plants. Transport in Porous Media, 2015, 108, 61-84.	2.6	17
39	On the buffer capacity of CO2 -charged seawater used for carbonation and subsequent mineral sequestration. Energy Procedia, 2011, 4, 3738-3745.	1.8	15
40	Gypsum solubility under pressure conditions relevant to CO 2 geological storage. International Journal of Greenhouse Gas Control, 2016, 55, 15-22.	4.6	15
41	A novel experimental system for the exploration of CO2-water-rock interactions under conditions relevant to CO2 geological storage. Chemical Engineering Journal, 2018, 334, 1206-1213.	12.7	14
42	CO2 sequestration in basaltic rocks in Iceland: Development of a piston-type downhole sampler for CO2 rich fluids and tracers. Energy Procedia, 2011, 4, 3510-3517.	1.8	12
43	A novel high pressure column flow reactor for experimental studies of CO2 mineral storage. Applied Geochemistry, 2013, 30, 91-104.	3.0	11
44	Geochemical modelling of petroleum well data from the Perth Basin. Implications for potential scaling during low enthalpy geothermal exploration from a hot sedimentary aquifer. Applied Geochemistry, 2013, 37, 12-28.	3.0	11
45	A foray into false positive results in mineral dissolution and precipitation studies. Applied Geochemistry, 2016, 71, 9-19.	3.0	7
46	Erratum to Domenik Wolff-Boenisch, Emmanuel J. Gabet, Douglas W. Burbank, Heiko Langner, Jaakko Putkonen (2009) â€œSpatial variations in chemical weathering and CO2 consumption in Nepalese High Himalayan catchments during the monsoon seasonâ€ Geochimica et Cosmochimica Acta 73, 3148â€“3170. Geochimica Et Cosmochimica Acta, 2009, 73, 6692-6696.	3.9	5
47	Kinetic control on the distribution of secondary precipitates during CO₂-basalt interactions. E3S Web of Conferences, 2019, 98, 04006.	0.5	5
48	Gypsum crystal growth kinetics under conditions relevant to CO2 geological storage. International Journal of Greenhouse Gas Control, 2019, 91, 102829.	4.6	5
49	The syringe sampler: An inexpensive alternative borehole sampling technique for CO₂-rich fluids during mineral carbon storage. , 2016, 6, 167-177.		4
50	Sorptionsverhalten von 2,4,6-Trinitrotoluol und 1,3-Dinitrobenzol an unterschiedlichen Bodenmodellsubstanzen. Grundwasser, 1996, 1, 63-68.	1.4	3
51	A case study on student perception of online lecturing. , 0, , .		0