

Sigurdur R Gislason

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

5,454
citations

94433

37
h-index

128289

60
g-index

61
all docs

61
docs citations

61
times ranked

4157
citing authors

#	ARTICLE	IF	CITATIONS
1	An experimental study of basalt-seawater-CO ₂ interaction at 130°C. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 308, 21-41.	3.9	28
2	Hydrothermal and Cold Spring Water and Primary Productivity Effects on Magnesium Isotopes: Lake Myvatn, Iceland. <i>Frontiers in Earth Science</i> , 2020, 8, .	1.8	4
3	Experimental observations of CO ₂ -water-basaltic glass interaction in a large column reactor experiment at 50°C. <i>International Journal of Greenhouse Gas Control</i> , 2019, 89, 9-19.	4.6	18
4	Acceptance of the 2018 C.C. Patterson Award to Sigurdur R. Gislason. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 246, 591-593.	3.9	1
5	Using stable Mg isotope signatures to assess the fate of magnesium during the in situ mineralisation of CO ₂ and H ₂ S at the CarbFix site in SW-Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 2019, 245, 542-555.	3.9	27
6	Molybdenum isotope behaviour in groundwaters and terrestrial hydrothermal systems, Iceland. <i>Earth and Planetary Science Letters</i> , 2018, 486, 108-118.	4.4	37
7	Reaction path modelling of in-situ mineralisation of CO ₂ at the CarbFix site at Hellisheidi, SW-Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 220, 348-366.	3.9	72
8	A brief history of CarbFix: Challenges and victories of the project's pilot phase. <i>Energy Procedia</i> , 2018, 146, 103-114.	1.8	52
9	The geology and hydrology of the CarbFix2 site, SW-Iceland. <i>Energy Procedia</i> , 2018, 146, 146-157.	1.8	21
10	Olivine dissolution rates: A critical review. <i>Chemical Geology</i> , 2018, 500, 1-19.	3.3	114
11	The chemistry and saturation states of subsurface fluids during the in situ mineralisation of CO ₂ and H ₂ S at the CarbFix site in SW-Iceland. <i>International Journal of Greenhouse Gas Control</i> , 2017, 58, 87-102.	4.6	93
12	Continental weathering and terrestrial (oxyhydr)oxide export: Comparing glacial and non-glacial catchments in Iceland. <i>Chemical Geology</i> , 2017, 462, 55-66.	3.3	13
13	Pollution from the 2014-15 Bárðarbunga eruption monitored by snow cores from the Vatnajökull glacier, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 347, 371-396.	2.1	6
14	Major impact of volcanic gases on the chemical composition of precipitation in Iceland during the 2014-2015 Holuhraun eruption. <i>Journal of Geophysical Research D: Atmospheres</i> , 2017, 122, 1971-1982.	3.3	24
15	Rapid carbon mineralization for permanent disposal of anthropogenic carbon dioxide emissions. <i>Science</i> , 2016, 352, 1312-1314.	12.6	565
16	The effect of hydrothermal spring weathering processes and primary productivity on lithium isotopes: Lake Myvatn, Iceland. <i>Chemical Geology</i> , 2016, 445, 4-13.	3.3	62
17	CO ₂ Storage Potential of Basaltic Rocks Offshore Iceland. <i>Energy Procedia</i> , 2016, 86, 371-380.	1.8	43
18	The chemical composition of rivers and snow affected by the 2014/2015 Bárðarbunga eruption, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 316, 101-119.	2.1	16

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19	Solving the carbon-dioxide buoyancy challenge: The design and field testing of a dissolved CO ₂ injection system. <i>International Journal of Greenhouse Gas Control</i> , 2015, 37, 213-219.	4.6	96
20	The effect of the 2002 glacial flood on dissolved and suspended chemical fluxes in the Skaftá river, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 301, 253-276.	2.1	8
21	Rapid solubility and mineral storage of CO ₂ in basalt. <i>Energy Procedia</i> , 2014, 63, 4561-4574.	1.8	52
22	Carbon Storage in Basalt. <i>Science</i> , 2014, 344, 373-374.	12.6	202
23	The role of silicate surfaces on calcite precipitation kinetics. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 135, 231-250.	3.9	40
24	Experimental determination of plagioclase dissolution rates as a function of its composition and pH at 22°C. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 139, 154-172.	3.9	69
25	An experimental study of basaltic glass-H ₂ O-CO ₂ interaction at 22 and 50°C: Implications for subsurface storage of CO ₂ . <i>Geochimica Et Cosmochimica Acta</i> , 2014, 126, 123-145.	3.9	72
26	The chemistry and element fluxes of the July 2011 MálakvÁsl and KaldakvÁsl glacial floods, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 273, 41-57.	2.1	16
27	CO ₂ storage potential of basaltic rocks in Iceland and the oceanic ridges. <i>Energy Procedia</i> , 2014, 63, 4585-4600.	1.8	82
28	The geology and water chemistry of the Hellisheidi, SW-Iceland carbon storage site. <i>International Journal of Greenhouse Gas Control</i> , 2013, 12, 399-418.	4.6	96
29	Experimental determination of rhyolitic glass dissolution rates at 40-200°C and 2<pH<10.1. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 100, 251-263.	3.9	37
30	Do carbonate precipitates affect dissolution kinetics?. <i>Chemical Geology</i> , 2013, 337-338, 56-66.	3.3	47
31	Does the presence of heterotrophic bacterium <i>Pseudomonas reactans</i> affect basaltic glass dissolution rates?. <i>Chemical Geology</i> , 2012, 296-297, 1-18.	3.3	30
32	Riverine particulate material dissolution in seawater and its implications for the global cycles of the elements. <i>Comptes Rendus - Geoscience</i> , 2012, 344, 646-651.	1.2	39
33	A field and reactive transport model study of arsenic in a basaltic rock aquifer. <i>Applied Geochemistry</i> , 2011, 26, 553-564.	3.0	13
34	The role of riverine particulate material on the global cycles of the elements. <i>Applied Geochemistry</i> , 2011, 26, S365-S369.	3.0	62
35	Dissolution of basalts and peridotite in seawater, in the presence of ligands, and CO ₂ : Implications for mineral sequestration of carbon dioxide. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 5510-5525.	3.9	92
36	An experimental study of crystalline basalt dissolution from 2 $\frac{1}{2}$ pH $\frac{1}{2}$ 11 and temperatures from 5 to 75 °C. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 5496-5509.	3.9	158

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37	Direct evidence of the feedback between climate and weathering. <i>Earth and Planetary Science Letters</i> , 2009, 277, 213-222.	4.4	310
38	Pedogenesis and weathering rates of a Histic Andosol in Iceland: Field and experimental soil solution study. <i>Geoderma</i> , 2008, 144, 572-592.	5.1	28
39	Regulation of Arsenic Mobility on Basaltic Glass Surfaces by Speciation and pH. <i>Environmental Science & Technology</i> , 2008, 42, 8816-8821.	10.0	14
40	The effect of volcanic eruptions on the chemistry of surface waters: The 1991 and 2000 eruptions of Mt. Hekla, Iceland. <i>Journal of Volcanology and Geothermal Research</i> , 2007, 164, 293-316.	2.1	54
41	The influence of weathering process on riverine osmium isotopes in a basaltic terrain. <i>Earth and Planetary Science Letters</i> , 2006, 243, 732-748.	4.4	34
42	A diverse ecosystem response to volcanic aerosols. <i>Chemical Geology</i> , 2006, 231, 57-66.	3.3	56
43	Trace element degassing and enrichment in the eruptive plume of the 2000 eruption of Hekla volcano, Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 461-479.	3.9	90
44	The effect of crystallinity on dissolution rates and CO ₂ consumption capacity of silicates. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 858-870.	3.9	178
45	The effect of soil solution chemistry on the weathering rate of a Histic Andosol. <i>Journal of Geochemical Exploration</i> , 2006, 88, 321-324.	3.2	9
46	Suspended basaltic glass-seawater interactions. <i>Journal of Geochemical Exploration</i> , 2006, 88, 332-335.	3.2	3
47	Role of river-suspended material in the global carbon cycle. <i>Geology</i> , 2006, 34, 49.	4.4	103
48	The impact of sampling techniques on soil pore water carbon measurements of an Icelandic Histic Andosol. <i>Science of the Total Environment</i> , 2006, 369, 203-219.	8.0	24
49	The erosion and suspended matter/seawater interaction during and after the 1996 outburst flood from the Vatnajökull Glacier, Iceland. <i>Earth and Planetary Science Letters</i> , 2005, 237, 433-452.	4.4	41
50	The effect of fluoride on the dissolution rates of natural glasses at pH 4 and 25°C. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 4571-4582.	3.9	96
51	The dissolution rates of natural glasses as a function of their composition at pH 4 and 10.6, and temperatures from 25 to 74°C. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 4843-4858.	3.9	321
52	Mechanism, rates, and consequences of basaltic glass dissolution: II. An experimental study of the dissolution rates of basaltic glass as a function of pH and temperature. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 3817-3832.	3.9	390
53	The mechanism, rates and consequences of basaltic glass dissolution: I. An experimental study of the dissolution rates of basaltic glass as a function of aqueous Al, Si and oxalic acid concentration at 25°C and pH = 3 and 11. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 3671-3681.	3.9	408
54	Seafloor weathering controls on atmospheric CO ₂ and global climate. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 965-973.	3.9	157

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55	Kinetic and thermodynamic properties of moganite, a novel silica polymorph. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 1193-1204.	3.9	92
56	Dissolution of primary basaltic minerals in natural waters: saturation state and kinetics. <i>Chemical Geology</i> , 1993, 105, 117-135.	3.3	117
57	Experimental meteoric water-basalt interactions: Characterization and interpretation of alteration products. <i>Geochimica Et Cosmochimica Acta</i> , 1993, 57, 1459-1471.	3.9	49
58	The 1991 eruption of Hekla, Iceland. <i>Bulletin of Volcanology</i> , 1992, 54, 238-246.	3.0	127
59	Meteoric water-basalt interactions. I: A laboratory study. <i>Geochimica Et Cosmochimica Acta</i> , 1987, 51, 2827-2840.	3.9	207
60	Meteoric water-basalt interactions. II: A field study in N.E. Iceland. <i>Geochimica Et Cosmochimica Acta</i> , 1987, 51, 2841-2855.	3.9	134