

Alain Burgisser

List of Publications by Year in descending order

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Version: 2024-02-01

50
papers

1,972
citations

236912

25
h-index

243610

44
g-index

50
all docs

50
docs citations

50
times ranked

1605
citing authors

#	ARTICLE	IF	CITATIONS
1	Modeling water exsolution from a growing and solidifying felsic magma body. <i>Lithos</i> , 2021, 402-403, 105799.	1.4	6
2	Evidence for deep gas loss in open volcanic systems. <i>Bulletin of Volcanology</i> , 2021, 83, 1.	3.0	8
3	Triggering of the powerful 14 July 2013 Vulcanian explosion at Tungurahua Volcano, Ecuador. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 392, 106762.	2.1	17
4	The architecture of intrusions in magmatic mush. <i>Earth and Planetary Science Letters</i> , 2020, 549, 116539.	4.4	16
5	Rheological change and degassing during a trachytic Vulcanian eruption at Kilian Volcano, Chañe des Puys, France. <i>Bulletin of Volcanology</i> , 2020, 82, 1.	3.0	3
6	Numerical simulations of magmatic enclave deformation. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 392, 106790.	2.1	7
7	The role of oxides in the shallow vesiculation of ascending magmas. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 406, 107072.	2.1	7
8	Lubrication effects on magmatic mush dynamics. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 380, 19-30.	2.1	26
9	Conduit processes during the February 11, 2010 Vulcanian eruption of Soufrière Hills, Montserrat. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 373, 23-35.	2.1	6
10	Travel on thin air. <i>Nature Geoscience</i> , 2019, 12, 311-312.	12.9	1
11	Bubble Coalescence and Percolation Threshold in Expanding Rhyolitic Magma. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 1054-1074.	2.5	28
12	The percolation threshold and permeability evolution of ascending magmas. <i>Earth and Planetary Science Letters</i> , 2017, 470, 37-47.	4.4	36
13	On the kinematics and dynamics of crystal-rich systems. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6131-6159.	3.4	64
14	Sulfur isotopic zoning in apatite crystals: A new record of dynamic sulfur behavior in magmas. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 215, 387-403.	3.9	21
15	Time scales of crystal mixing in magma mushes. <i>Geophysical Research Letters</i> , 2016, 43, 1543-1550.	4.0	51
16	Preexplosive conduit conditions during the 2010 eruption of Merapi volcano (Java, Indonesia). <i>Geophysical Research Letters</i> , 2016, 43, 11,595.	4.0	14
17	An expansion-coalescence model to track gas bubble populations in magmas. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 313, 44-58.	2.1	8
18	A model of the geochemical and physical fluctuations of the lava lake at Erebus volcano, Antarctica. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 308, 142-157.	2.1	4

#	ARTICLE	IF	CITATIONS
19	Cyclic degassing of Erebus volcano, Antarctica. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	31
20	Transient degassing events at the lava lake of Erebus volcano, Antarctica: Chemistry and mechanisms. <i>GeoResJ</i> , 2015, 7, 43-58.	1.4	9
21	Simulating the behavior of volatiles belonging to the H ₂ O-CO ₂ -S system in silicate melts under magmatic conditions with the software D-Compress. <i>Computers and Geosciences</i> , 2015, 79, 1-14.	4.2	85
22	The Role of Viscous Particle Segregation in Forming Chromite Layers from Slumped Crystal Slurries: Insights from Analogue Experiments. <i>Journal of Petrology</i> , 2015, 56, 2425-2444.	2.8	37
23	Megacrystals track magma convection between reservoir and surface. <i>Earth and Planetary Science Letters</i> , 2015, 413, 1-12.	4.4	35
24	Pre-Eruptive Conditions of the Hideaway Park Topaz Rhyolite: Insights into Metal Source and Evolution of Magma Parental to the Henderson Porphyry Molybdenum Deposit, Colorado. <i>Journal of Petrology</i> , 2015, 56, 645-679.	2.8	55
25	Magma Ascent and Degassing at Shallow Levels. , 2015, , 225-236.		20
26	Chloride partitioning and solubility in hydrous phonolites from Erebus volcano: A contribution towards a multi-component degassing model. <i>GeoResJ</i> , 2014, 3-4, 27-45.	1.4	10
27	Generation of CO ₂ -rich melts during basalt magma ascent and degassing. <i>Contributions To Mineralogy and Petrology</i> , 2013, 166, 545-561.	3.1	72
28	Incipient melt segregation as preserved in subaqueous pyroclasts. <i>Geology</i> , 2012, 40, 355-358.	4.4	6
29	Mechanisms of bubble coalescence in silicic magmas. <i>Bulletin of Volcanology</i> , 2012, 74, 2339-2352.	3.0	64
30	A semi-empirical method to calculate the permeability of homogeneously fluidized pyroclastic material. <i>Journal of Volcanology and Geothermal Research</i> , 2012, 243-244, 97-106.	2.1	5
31	Numerical simulations of convection in crystal-bearing magmas: A case study of the magmatic system at Erebus, Antarctica. <i>Journal of Geophysical Research</i> , 2012, 117, .	3.3	30
32	Backward tracking of gas chemistry measurements at Erebus volcano. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	2.5	29
33	Experimental constrains on shear-induced crystal breakage in magmas. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	20
34	A rapid mechanism to remobilize and homogenize highly crystalline magma bodies. <i>Nature</i> , 2011, 471, 212-215.	27.8	204
35	Pre-explosive conduit conditions of the 1997 Vulcanian explosions at Soufriere Hills Volcano, Montserrat: II. Overpressure and depth distributions. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 199, 193-205.	2.1	41
36	Strain-induced magma degassing: insights from simple-shear experiments on bubble bearing melts. <i>Bulletin of Volcanology</i> , 2011, 73, 1245-1257.	3.0	71

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37	Pre-explosive conduit conditions of the 1997 Vulcanian explosions at Soufrière Hills Volcano, Montserrat: I. Pressure and vesicularity distributions. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 194, 27-41.	2.1	49
38	Characterization of juvenile pyroclasts from the Kos Plateau Tuff (Aegean Arc): insights into the eruptive dynamics of a large rhyolitic eruption. <i>Bulletin of Volcanology</i> , 2009, 71, 643-658.	3.0	68
39	Conditions for the growth of a long-lived shallow crustal magma chamber below Mount Pelee volcano (Martinique, Lesser Antilles Arc). <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	73
40	Chemical patterns of erupting silicic magmas and their influence on the amount of degassing during ascent. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	29
41	Eruption and Deposition of the Fisher Tuff (Alaska): Evidence for the Evolution of Pyroclastic Flows. <i>Journal of Geology</i> , 2007, 115, 417-435.	1.4	13
42	Redox evolution of a degassing magma rising to the surface. <i>Nature</i> , 2007, 445, 194-197.	27.8	221
43	Using hydraulic equivalences to discriminate transport processes of volcanic flows. <i>Geology</i> , 2006, 34, 157.	4.4	11
44	Experimental and model constraints on degassing of magma during ascent and eruption. , 2006, , .		12
45	Addressing complexity in laboratory experiments: the scaling of dilute multiphase flows in magmatic systems. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 141, 245-265.	2.1	84
46	Physical volcanology of the 2,050 bp caldera-forming eruption of Okmok volcano, Alaska. <i>Bulletin of Volcanology</i> , 2005, 67, 497-525.	3.0	31
47	Experimental constraints on degassing and permeability in volcanic conduit flow. <i>Bulletin of Volcanology</i> , 2004, 67, 42-56.	3.0	118
48	On the Effects of Stokes, Richardson, and Stability Numbers in Persistent and Accelerating Vortices. , 2003, , 111-120.		0
49	Reconciling pyroclastic flow and surge: the multiphase physics of pyroclastic density currents. <i>Earth and Planetary Science Letters</i> , 2002, 202, 405-418.	4.4	115
50	The dispersive velocity of compressional waves in magmatic suspensions. <i>Geophysical Journal International</i> , 0, , .	2.4	1