Magnus Tumi Gudmundsson

List of Publications by Year
in descending order

100	4,162	117625 34	118850 62
papers	citations	h-index	g-index

121	121	121	3194
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The effect of wind and plume height reconstruction methods on the accuracy of simple plume models â€" a second look at the 2010 EyjafjallajÃ¶kull eruption. Bulletin of Volcanology, 2022, 84, 1.	3.0	4
2	Volume, Effusion Rate, and Lava Transport During the 2021 Fagradalsfjall Eruption: Results From Near Realâ€Time Photogrammetric Monitoring. Geophysical Research Letters, 2022, 49, .	4.0	30
3	GrÃmsvÃ¶tn 1919-2019: The legacy of Erik Ygberg and Hakon Wadell. Jokull, 2021, 70, 129-138.	0.1	0
4	Seismic activity associated with the 1963â€"1967 Surtsey eruption off the coast of South Iceland. Bulletin of Volcanology, 2021, 83, 1.	3.0	3
5	Development of a subglacial lake monitored with radio-echo sounding: case study from the eastern SkaftÃ¡ cauldron in the VatnajÃ¶kull ice cap, Iceland. Cryosphere, 2021, 15, 3731-3749.	3.9	4
6	Basalt-Hosted Microbial Communities in the Subsurface of the Young Volcanic Island of Surtsey, Iceland. Frontiers in Microbiology, 2021, 12, 728977.	3.5	6
7	JÃ¶klarannsÃ³knir Ã¡ Ãslandi Ã¡ fimmta Ã¡ratugnum â€" frumkvÃ¶Ã°lastarf SteinÃ¾Ã³rs SigurÃ°ssonar. Jokull, 2021, 71, 123-139.	0.1	0
8	VORFERÃ•JÃ–RFÃ•2021. Jokull, 2021, 71, 163-168.	0.1	0
9	The explosive, basaltic Katla eruption in 1918, south Iceland, II: Isopach map, ice cap deposition of tephra and layer volume. Jokull, 2021, 71, 21-38.	0.1	2
10	The explosive basaltic Katla eruptionin 1918, south Iceland, I: Course of events, tephra fall and flood routes. Jokull, 2021, 71, 1-20.	0.1	2
11	JÃ¶klarannsÃ³knafÃ©lag Ãslands Ã-sjÃ¶tÃu Ã¡r. Jokull, 2021, 71, 149-160.	0.1	0
12	JÃ¶klarannsÃ³knafÃ©lag Ãslands - SkÌrsla formanns Ã¡ aÃ°alfundi 23. febrÃºar 2021. Jokull, 2021, 71, 171-175.	0.1	0
13	Underwater and drone based photogrammetry reveals structural control at Geysir geothermal field in Iceland. Journal of Volcanology and Geothermal Research, 2020, 391, 106282.	2.1	59
14	A half-century of geologic and geothermic investigations in Iceland: The legacy of KristjÃ¡n SÃ¦mundsson. Journal of Volcanology and Geothermal Research, 2020, 391, 106434.	2.1	4
15	Alteration progress within the Surtsey hydrothermal system, SW Iceland â€" A time-lapse petrographic study of cores drilled in 1979 and 2017. Journal of Volcanology and Geothermal Research, 2020, 392, 106754.	2.1	14
16	Operational response and hazards assessment during the 2014â€"2015 volcanic crisis at BÃ¡rÃ°arbunga volcano and associated eruption at Holuhraun, Iceland. Journal of Volcanology and Geothermal Research, 2020, 390, 106753.	2.1	19
17	Non-surface mass balance of glaciers in Iceland. Journal of Glaciology, 2020, 66, 685-697.	2.2	17
18	Unexpected large eruptions from buoyant magma bodies within viscoelastic crust. Nature Communications, 2020, 11, 2403.	12.8	29

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19	The Surtsey volcano geothermal system: An analogue for seawater-oceanic crust interaction with implications for the elemental budget of the oceanic crust. Chemical Geology, 2020, 550, 119702.	3.3	11
20	Morphometry of glaciovolcanic edifices from Iceland: Types and evolution. Geomorphology, 2020, 370, 107334.	2.6	7
21	A 25.6 m long firn core extracted from the GrÃ¤msvÃ¶tn ice shelf in June 1993. Jokull, 2020, , 157-159.	0.1	0
22	Changes in Geothermal Activity at BÃ¡rdarbunga, Iceland, Following the 2014â€“2015 Caldera Collapse, Investigated Using Geothermal System Modeling. Journal of Geophysical Research: Solid Earth, 2019, 124, 8187-8204.	3.4	8
23	Persistent albedo reduction on southern Icelandic glaciers due to ashfall from the 2010 EyjafjallajÃ¶kull eruption. Remote Sensing of Environment, 2019, 233, 111396.	11.0	18
24	Integration of SAR Data Into Monitoring of the 2014â€“2015 Holuhraun Eruption, Iceland: Contribution of the Icelandic Volcanoes Supersite and the FutureVolc Projects. Frontiers in Earth Science, 2018, 6, .	1.8	21
25	Thermal power of GrÃ¤msvÃ¶tn, Iceland, from 1998 to 2016: Quantifying the effects of volcanic activity and geothermal anomalies. Journal of Volcanology and Geothermal Research, 2018, 358, 184-193.	2.1	8
26	REFIR- A multi-parameter system for near real-time estimates of plume-height and mass eruption rate during explosive eruptions. Journal of Volcanology and Geothermal Research, 2018, 360, 61-83.	2.1	15
27	Evolution of deformation and stress changes during the caldera collapse and dyking at BÃ¡rdarbunga, 2014â€“2015: Implication for triggering of seismicity at nearby TungnafellsjÃ¶kull volcano. Earth and Planetary Science Letters, 2017, 462, 212-223.	4.4	24
28	Subglacial volcanic activity above a lateral dyke path during the 2014â€“2015 BÃ¡rdarbunga-Holuhraun rifting episode, Iceland. Bulletin of Volcanology, 2017, 79, 1.	3.0	22
29	Lava field evolution and emplacement dynamics of the 2014â€“2015 basaltic fissure eruption at Holuhraun, Iceland. Journal of Volcanology and Geothermal Research, 2017, 340, 155-169.	2.1	112
30	Crisis Coordination and Communication During the 2010 EyjafjallajÃ¶kull Eruption. Advances in Volcanology, 2017, , 271-288.	1.1	8
31	High-Resolution Digital Elevation Modeling from TLS and UAV Campaign Reveals Structural Complexity at the 2014/2015 Holuhraun Eruption Site, Iceland. Frontiers in Earth Science, 2017, 5, .	1.8	37
32	Conclusion: recommendations and findings of the RED SEED working group. Geological Society Special Publication, 2016, 426, 567-648.	1.3	12
33	Multidisciplinary constraints of hydrothermal explosions based on the 2013 Gengissig lake events, KverkfjÃ¶ll volcano, Iceland. Earth and Planetary Science Letters, 2016, 434, 308-319.	4.4	38
34	Gradual caldera collapse at BÃ¡rdarbunga volcano, Iceland, regulated by lateral magma outflow. Science, 2016, 353, aaf8988.	12.6	230
35	MeMoVolc report on classification and dynamics of volcanic explosive eruptions. Bulletin of Volcanology, 2016, 78, 1.	3.0	31
36	Experimental studies of heat transfer at the dynamic magma ice/water interface: Application to subglacially emplaced lava. Journal of Geophysical Research: Solid Earth, 2016, 121, 3261-3277.	3.4	5

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37	Subglacial lava propagation, ice melting and heat transfer during emplacement of an intermediate lava flow in the 2010 EyjafjallajÃ¶kull eruption. Bulletin of Volcanology, 2016, 78, 1.	3.0	18
38	Fracture movements and graben subsidence during the 2014 BÃ¡rÃ°arbunga dike intrusion in Iceland. Journal of Volcanology and Geothermal Research, 2016, 310, 242-252.	2.1	66
39	Mass eruption rates in pulsating eruptions estimated from video analysis of the gas thrust-buoyancy transitionâ€"a case study of the 2010 eruption of EyjafjallajÃ¶kull, Iceland. Earth, Planets and Space, 2015, 67, .	2.5	30
40	Reconstruction of the geometry of volcanic vents by trajectory tracking of fast ejecta - the case of the EyjafjallajÃ¶kull 2010 eruption (Iceland). Earth, Planets and Space, 2015, 67, .	2.5	19
41	Glaciovolcanism. , 2015, , 377-393.		17
42	Segmented lateral dyke growth in a rifting event at BÃ¡rÃ°arbunga volcanic system, Iceland. Nature, 2015, 517, 191-195.	27.8	436
43	Fire in the Hole: Recreating Volcanic Eruptions with Cannon Blasts. Eos, 2015, 96, .	0.1	1
44	Next article >> << Previous article Environmental pressure from the 2014â€"15 eruption of BÃ¡rÃ°arbunga volcano, Iceland. Geochemical Perspectives Letters, 2015, , 84-93.	5.0	90
45	Ice Cauldron. , 2015, , 953-958.		0
46	Volcanic plume height correlated with magma-pressure change at GrÃ¡msvÃ¶tn Volcano, Iceland. Nature Geoscience, 2014, 7, 214-218.	12.9	86
47	Futurevolc: A European volcanological supersite observatory in Iceland, a monitoring system and network for the future. , 2013, , .		1
48	Observing Iceland's EyjafjallajÃ¶kull 2010 eruptions with the autonomous NASA Volcano Sensor Web. Journal of Geophysical Research: Solid Earth, 2013, 118, 1936-1956.	3.4	12
49	Ash generation and distribution from the April-May 2010 eruption of EyjafjallajÃ¶kull, Iceland. Scientific Reports, 2012, 2, 572.	3.3	287
50	A numerical model for meltwater channel evolution in glaciers. Cryosphere, 2012, 6, 493-503.	3.9	34
51	Automatic estimation of volcanic ash plume height using WorldView-2 imagery. , 2012, , .		1
52	Magma mobilization by downwardâ€propagating decompression of the EyjafjallajÃ¶kull volcanic plumbing system. Geophysical Research Letters, 2012, 39, .	4.0	63
53	Monitoring of the plume from the basaltic phreatomagmatic 2004 GrÃ¡msvÃ¶tn eruptionâ€"application of weather radar and comparison with plume models. Bulletin of Volcanology, 2012, 74, 1395-1407.	3.0	29
54	Ash from the EyjafjallajÃ¶kull eruption (Iceland): Fragmentation processes and aerodynamic behavior. Journal of Geophysical Research, 2012, 117, .	3.3	83

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55	Interactions between lava and snow/ice during the 2010 FimmvÃ¶rÃ°uhÃ¡ls eruption, southâ€central Iceland. Journal of Geophysical Research, 2012, 117, .	3.3	46
56	Iceâ€volcano interactions during the 2010 EyjafjallajÃ¶kull eruption, as revealed by airborne imaging radar. Journal of Geophysical Research, 2012, 117, .	3.3	60
57	Dynamics, stratigraphy and proximal dispersal of supraglacial tephra during the ice-confined 2004 eruption at GrÃmsvÃ¶tn Volcano, Iceland. Bulletin of Volcanology, 2012, 74, 1057-1082.	3.0	47
58	Validating Subglacial Volcanic Eruption Using Ground-Based C-Band Radar Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1266-1282.	6.3	12
59	Response of EyjafjallajÃ¶kull, TorfajÃ¶kull and TindfjallajÃ¶kull ice caps in Iceland to regional warming, deduced by remote sensing. Polar Research, 2011, 30, 7282.	1.6	25
60	Near-source observations of aerosol size distributions in the eruptive plumes from EyjafjallajÃ¶kull volcano, Marchâ€“April 2010. Atmospheric Environment, 2011, 45, 3210-3216.	4.1	21
61	Aggregation-dominated ash settling from the EyjafjallajÃ¶kull volcanic cloud illuminated by field and laboratory high-speed imaging. Geology, 2011, 39, 891-894.	4.4	88
62	Eruptions of EyjafjallajÃ¶kull Volcano, Iceland. Eos, 2010, 91, 190-191.	0.1	117
63	Aircraft and Volcanic Ash a Key Focus of EGU Meeting. Eos, 2010, 91, 191.	0.1	1
64	Experiments on the heat discharge at the dynamic magmaâ€waterâ€interface. Geophysical Research Letters, 2010, 37, .	4.0	24
65	An unusual jÃ¶kulhlaup resulting from subglacial volcanism, SÃ³lheimajÃ¶kull, Iceland. Quaternary Science Reviews, 2010, 29, 1363-1381.	3.0	47
66	Progressive cooling of the hyaloclastite ridge at GjÃ¡lp, Iceland, 1996â€“2005. Journal of Volcanology and Geothermal Research, 2008, 170, 218-229.	2.1	26
67	Seismic and geodetic insights into magma accumulation at Katla subglacial volcano, Iceland: 1999 to 2005. Journal of Geophysical Research, 2008, 113, .	3.3	30
68	Six million years of glacial history recorded in volcanic lithofacies of the James Ross Island Volcanic Group, Antarctic Peninsula. Palaeogeography, Palaeoclimatology, Palaeoecology, 2008, 260, 122-148.	2.3	129
69	Monitoring active subglacial volcanoes: a case study using airborne remotely sensed imagery of GrÃmsvÃ¶tn, Iceland. International Journal of Remote Sensing, 2008, 29, 6501-6514.	2.9	6
70	Comparison and validation of Airborne Thematic Mapper thermal imagery using ground-based temperature data for GrÃmsvÃ¶tn caldera, VatnajÃ¶kull, Iceland. Geological Society Special Publication, 2007, 283, 31-43.	1.3	1
71	Geothermal activity in the subglacial Katla caldera, Iceland, 1999â€“2005, studied with radar altimetry. Annals of Glaciology, 2007, 45, 66-72.	1.4	50
72	Volcanic systems and calderas in the VatnajÃ¶kull region, central Iceland: Constraints on crustal structure from gravity data. Journal of Geodynamics, 2007, 43, 153-169.	1.6	53

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73	Numerical studies of ice flow over subglacial geothermal heat sources at GrÃ¾svÃ¶tn, Iceland, using Full Stokes equations. Journal of Geophysical Research, 2007, 112, .	3.3	23
74	Large hazardous floods as translatory waves. Environmental Modelling and Software, 2007, 22, 1392-1399.	4.5	20
75	Discriminating volcano deformation due to magma movements and variable surface loads: application to Katla subglacial volcano, Iceland. Geophysical Journal International, 2007, 169, 325-338.	2.4	59
76	Structure of the GrÃ¾svÃ¶tn central volcano under the VatnajÃ¶kull icecap, Iceland. Geophysical Journal International, 2007, 168, 863-876.	2.4	33
77	Probabilistic model for eruptions and associated flood events in the Katla caldera, Iceland. Computational Geosciences, 2006, 10, 179-200.	2.4	44
78	The formation of Helgafell, southwest Iceland, a monogenetic subglacial hyaloclastite ridge: Sedimentology, hydrology and volcanoâ€“ice interaction. Journal of Volcanology and Geothermal Research, 2006, 152, 359-377.	2.1	69
79	Palaeomagnetic, 40Ar/39Ar, and stratigraphical correlation of Mioceneâ€“Pliocene basalts in the Brandy Bay area, James Ross Island, Antarctica. Antarctic Science, 2005, 17, 409-417.	0.9	16
80	Iceâ€“water interactions during floods from GrÃ¦nalÃ³n glacier-dammed lake, Iceland. Annals of Glaciology, 2005, 40, 133-138.	1.4	12
81	The 1996 eruption at Gjï¿½lp, Vatnajï¿½kull ice cap, Iceland: efficiency of heat transfer, ice deformation and subglacial water pressure. Bulletin of Volcanology, 2004, 66, 46-65.	3.0	127
82	Possible Juventae Chasma subice volcanic eruptions and Maja Valles ice outburst floods on Mars: Implications of Mars Global Surveyor crater densities, geomorphology, and topography. Journal of Geophysical Research, 2003, 108, .	3.3	57
83	Melting of ice by magma-ice-water interactions during subglacial eruptions as an indicator of heat transfer in subaqueous eruptions. Geophysical Monograph Series, 2003, , 61-72.	0.1	31
84	The hyaloclastite ridge formed in the subglacial 1996 eruption in GjÃ¡lp, VatnajÃ¶kull, Iceland: present day shape and future preservation. Geological Society Special Publication, 2002, 202, 319-335.	1.3	14
85	Three-dimensional glacier surface motion maps at the GjÃ¡lp eruption site, Iceland, inferred from combining InSAR and other ice-displacement data. Annals of Glaciology, 2002, 34, 315-322.	1.4	39
86	Study of volcano/ice interactions gains momentum. Eos, 2001, 82, 234-234.	0.1	1
87	Glacierâ€“volcano interactions deduced by SAR interferometry. Journal of Glaciology, 2001, 47, 58-70.	2.2	42
88	Volcanism and Ice Interactions on Earth and Mars. , 2000, , 39-73.		30
89	[Comment on â€œSatellite radar images capture a subglacial volcanic eruption in Icelandâ€] Comment: Subglacial eruptions and synthetic aperture radar images. Eos, 2000, 81, 134.	0.1	2
90	Eight centuries of periodic volcanism at the center of the Iceland hotspot revealed by glacier tephrostratigraphy. Geology, 1998, 26, 943.	4.4	123

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91	Center of the Iceland hotspot experiences volcanic unrest. Eos, 1997, 78, 369.	0.1	69
92	Gravity and magnetic studies of the subglacial GrÃ¬msvÃ¶tn volcano, Iceland: Implications for crustal and thermal structure. Journal of Geophysical Research, 1997, 102, 7691-7704.	3.3	35
93	Iceâ€“volcano interaction of the 1996 GjÃ¡lp subglacial eruption, VatnajÃ¶kull, Iceland. Nature, 1997, 389, 954-957.	27.8	294
94	Changes in jÃ¶kulhlaup sizes in GrÃ¬msvÃ¶tn, VatnajÃ¶kull, Iceland, 1934-91, deduced from in-situ measurements of subglacial lake volume. Journal of Glaciology, 1995, 41, 263-272.	2.2	7
95	Changes in jÃ¶kulhlaup sizes in GrÃ¬msvÃ¶tn, VatnajÃ¶kull, Iceland, 1934-91, deduced from in-situ measurements of subglacial lake volume. Journal of Glaciology, 1995, 41, 263-272.	2.2	60
96	Variations in the thermal output of the subglacial GrÃ¬msvÃ¶tn Caldera, Iceland. Geophysical Research Letters, 1993, 20, 2127-2130.	4.0	40
97	Lithofacies from the 1963-1967 Surtsey eruption in SUSTAIN drill cores SE-2a, SE-2b and SE-03. Surtsey Research, 0, 14, 19-32.	0.0	6
98	Time-lapse characterization of hydrothermal seawater and microbial interactions with basaltic tephra at Surtsey Volcano. Scientific Drilling, 0, 20, 51-58.	0.6	14
99	SUSTAIN drilling at Surtsey volcano, Iceland, tracks hydrothermal and microbiological interactions in basalt 50 years after eruption. Scientific Drilling, 0, 25, 35-46.	0.6	16
100	Design of the subsurface observatory at Surtsey volcano, Iceland. Scientific Drilling, 0, 25, 57-62.	0.6	3