# Magnus Tumi Gudmundsson

List of Publications by Year
in descending order



| 100 | 4,162 | 117571 | 118793 |
|---|---|---|---|
| papers | citations | 34 h-index | 62 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. | 1.1 | 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, . | 1.5 | 30 |
| 3 | GrÃmsvÃ¶tn 1919-2019: The legacy of Erik Ygberg and Hakon Wadell. Jokull, 2021, 70, 129-138. | 0.2 | 0 |
| 4 | Seismic activity associated with the 1963â€"1967 Surtsey eruption off the coast of South Iceland. Bulletin of Volcanology, 2021, 83, 1. | 1.1 | 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. | 1.5 | 4 |
| 6 | Basalt-Hosted Microbial Communities in the Subsurface of the Young Volcanic Island of Surtsey, Iceland. Frontiers in Microbiology, 2021, 12, 728977. | 1.5 | 6 |
| 7 | JÃ¶klarannsÃ³knir Ã¡ Ãslandi Ã¡ fimmta Ã¡ratugnum â€" frumkvÃ¶Ã°lastarf SteinÃ¾Ã³rs SigurÃ°ssonar. Jokull, 2021, 71, 123-139. | 0.2 | 0 |
| 8 | VORFERÃ•JÃ–RFÃ•2021. Jokull, 2021, 71, 163-168. | 0.2 | 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. | 0.2 | 2 |
| 10 | The explosive basaltic Katla eruptionin 1918, south Iceland, I: Course of events, tephra fall and flood routes. Jokull, 2021, 71, 1-20. | 0.2 | 2 |
| 11 | JÃ¶klarannsÃ³knafÃ©lag Ãslands Ã-sjÃ¶tÃu Ã¡r. Jokull, 2021, 71, 149-160. | 0.2 | 0 |
| 12 | JÃ¶klarannsÃ³knafÃ©lag Ãslands - SkÌrsla formanns Ã¡ aÃ°alfundi 23. febrÃºar 2021. Jokull, 2021, 71, 171-175. | 0.2 | 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. | 0.8 | 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. | 0.8 | 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. | 0.8 | 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. | 0.8 | 19 |
| 17 | Non-surface mass balance of glaciers in Iceland. Journal of Glaciology, 2020, 66, 685-697. | 1.1 | 17 |
| 18 | Unexpected large eruptions from buoyant magma bodies within viscoelastic crust. Nature Communications, 2020, 11, 2403. | 5.8 | 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. | 1.4 | 11 |
| 20 | Morphometry of glaciovolcanic edifices from Iceland: Types and evolution. Geomorphology, 2020, 370, 107334. | 1.1 | 7 |
| 21 | A 25.6 m long firn core extracted from the GrÃ¤msvÃ¶tn ice shelf in June 1993. Jokull, 2020, , 157-159. | 0.2 | 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. | 1.4 | 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. | 4.6 | 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, . | 0.8 | 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. | 0.8 | 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. | 0.8 | 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. | 1.8 | 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. | 1.1 | 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. | 0.8 | 112 |
| 30 | Crisis Coordination and Communication During the 2010 EyjafjallajÃ¶kull Eruption. Advances in Volcanology, 2017, , 271-288. | 0.7 | 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, . | 0.8 | 37 |
| 32 | Conclusion: recommendations and findings of the RED SEED working group. Geological Society Special Publication, 2016, 426, 567-648. | 0.8 | 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. | 1.8 | 38 |
| 34 | Gradual caldera collapse at BÃ¡rdarbunga volcano, Iceland, regulated by lateral magma outflow. Science, 2016, 353, aaf8988. | 6.0 | 230 |
| 35 | MeMoVolc report on classification and dynamics of volcanic explosive eruptions. Bulletin of Volcanology, 2016, 78, 1. | 1.1 | 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. | 1.4 | 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. | 1.1 | 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. | 0.8 | 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, . | 0.9 | 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, . | 0.9 | 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. | 13.7 | 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. | 1.0 | 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. | 5.4 | 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. | 1.4 | 12 |
| 49 | Ash generation and distribution from the April-May 2010 eruption of EyjafjallajÃ¶kull, Iceland. Scientific Reports, 2012, 2, 572. | 1.6 | 287 |
| 50 | A numerical model for meltwater channel evolution in glaciers. Cryosphere, 2012, 6, 493-503. | 1.5 | 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, . | 1.5 | 63 |
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| 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. | 1.1 | 47 |
| 58 | Validating Subglacial Volcanic Eruption Using Ground-Based C-Band Radar Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 1266-1282. | 2.7 | 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. | 1.9 | 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. | 2.0 | 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, . | 1.5 | 24 |
| 65 | An unusual jÃ¶kulhlaup resulting from subglacial volcanism, SÃ³lheimajÃ¶kull, Iceland. Quaternary Science Reviews, 2010, 29, 1363-1381. | 1.4 | 47 |
| 66 | Progressive cooling of the hyaloclastite ridge at GjÃ¡lp, Iceland, 1996â€“2005. Journal of Volcanology and Geothermal Research, 2008, 170, 218-229. | 0.8 | 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. | 1.0 | 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. | 1.3 | 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. | 0.8 | 1 |
| 71 | Geothermal activity in the subglacial Katla caldera, Iceland, 1999â€“2005, studied with radar altimetry. Annals of Glaciology, 2007, 45, 66-72. | 2.8 | 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. | 0.7 | 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. | 1.9 | 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. | 1.0 | 59 |
| 76 | Structure of the GrÃ¾svÃ¶tn central volcano under the VatnajÃ¶kull icecap, Iceland. Geophysical Journal International, 2007, 168, 863-876. | 1.0 | 33 |
| 77 | Probabilistic model for eruptions and associated flood events in the Katla caldera, Iceland. Computational Geosciences, 2006, 10, 179-200. | 1.2 | 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. | 0.8 | 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. | 0.5 | 16 |
| 80 | Iceâ€“water interactions during floods from GrÃ¦nalÃ³n glacier-dammed lake, Iceland. Annals of Glaciology, 2005, 40, 133-138. | 2.8 | 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. | 1.1 | 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 |
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| 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 |
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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 |
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| 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. | 1.1 | 60 |
| 96 | Variations in the thermal output of the subglacial GrÃ¤msvÃ¶tn Caldera, Iceland. Geophysical Research Letters, 1993, 20, 2127-2130. | 1.5 | 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. | 1.0 | 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. | 1.0 | 16 |
| 100 | Design of the subsurface observatory at Surtsey volcano, Iceland. Scientific Drilling, 0, 25, 57-62. | 1.0 | 3 |