## **Christian Huber**

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Estimating melt fraction in silicic systems using Bayesian inversion of magnetotelluric data. Journal of Volcanology and Geothermal Research, 2022, 423, 107470.	2.1	5
2	Sulfides in Mercury's Mantle: Implications for Mercury's Interior as Interpreted From Moment of Inertia. Geophysical Research Letters, 2022, 49, .	4.0	3
3	Physicsâ€Informed Neural Networks (PINNs) for Wave Propagation and Full Waveform Inversions. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	84
4	Thank You to Our 2021 Peer Reviewers. Geophysical Research Letters, 2022, 49, .	4.0	0
5	Anomalous recurring slope lineae on Mars: Implications for formation mechanisms. Icarus, 2021, 357, 114129.	2.5	5
6	Modeling Lunar Pyroclasts to Probe the Volatile Content of the Lunar Interior. Journal of Geophysical Research E: Planets, 2021, 126, e2020JE006645.	3.6	2
7	Thank You to Our 2020 Peer Reviewers. Geophysical Research Letters, 2021, 48, e2021GL093126.	4.0	0
8	Characterizing the ice-ocean interface of icy worlds: A theoretical approach. Icarus, 2021, 360, 114318.	2.5	21
9	Explosive or effusive style of volcanic eruption determined by magma storage conditions. Nature Geoscience, 2021, 14, 781-786.	12.9	34
10	Physical models and predictions for recurring slope lineae formed by wet and dry processes Icarus, 2020, 335, 113385.	2.5	16
11	Experimental Investigations on the Effects of Dissolved Gases on the Freezing Dynamics of Ocean Worlds. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006528.	3.6	2
12	Detectability of Meltâ€Rich Lenses in Magmatic Reservoirs From Teleseismic Waveform Modeling. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020264.	3.4	9
13	Entrainment and Dynamics of Oceanâ€Derived Impurities Within Europa's Ice Shell. Journal of Geophysical Research E: Planets, 2020, 125, e2020JE006394.	3.6	39
14	Thank You to Our 2019 Peer Reviewers. Geophysical Research Letters, 2020, 47, e2020GL088048.	4.0	0
15	A critical magma chamber size for volcanic eruptions. Geology, 2020, 48, 431-435.	4.4	31
16	Optimal depth of subvolcanic magma chamber growth controlled by volatiles and crust rheology. Nature Geoscience, 2019, 12, 762-768.	12.9	97
17	Impact of Synthetic Porous Medium Geometric Properties on Solute Transport Using Direct 3D Pore-Scale Simulations. Geofluids, 2019, 2019, 1-13.	0.7	3
18	Origin of Shallow Volcanic Tremor: The Dynamics of Gas Pockets Trapped Beneath Thin Permeable Media. Journal of Geophysical Research: Solid Earth, 2019, 124, 4831-4861.	3.4	36

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19	Magma Chamber Growth During Intercaldera Periods: Insights From Thermoâ€Mechanical Modeling With Applications to Laguna del Maule, Campi Flegrei, Santorini, and Aso. Geochemistry, Geophysics, Geosystems, 2019, 20, 1574-1591.	2.5	45
20	A New Correction for He Loss Applied to (Uâ€Th)/He Dating of Grains with Complex Shapes and Polymineralic Aggregates. Geochemistry, Geophysics, Geosystems, 2019, 20, 5744-5764.	2.5	2
21	The Inner Workings of Crustal Distillation Columns; the Physical Mechanisms and Rates Controlling Phase Separation in Silicic Magma Reservoirs. Journal of Petrology, 2019, 60, 3-18.	2.8	120
22	Multiphase Reactive Transport and Platelet Ice Accretion in the Sea Ice of McMurdo Sound, Antarctica. Journal of Geophysical Research: Oceans, 2018, 123, 324-345.	2.6	20
23	A Physical Model for Threeâ€Phase Compaction in Silicic Magma Reservoirs. Journal of Geophysical Research: Solid Earth, 2018, 123, 2685-2705.	3.4	36
24	Sensitivity to lunar cycles prior to the 2007 eruption of Ruapehu volcano. Scientific Reports, 2018, 8, 1476.	3.3	36
25	Influence of Exsolved Volatiles on Reheating Silicic Magmas by Recharge and Consequences for Eruptive Style at Volcán Quizapu (Chile). Geochemistry, Geophysics, Geosystems, 2017, 18, 4123-4135.	2.5	32
26	Perspectives on geochemical proxies: The impact of model and parameter selection on the quantification of carbonate recrystallization rates. Geochimica Et Cosmochimica Acta, 2017, 217, 171-192.	3.9	23
27	The mechanics of shallow magma reservoir outgassing. Geochemistry, Geophysics, Geosystems, 2017, 18, 2887-2905.	2.5	69
28	Pore-scale simulations of concentration tails in heterogeneous porous media. Journal of Contaminant Hydrology, 2017, 205, 47-56.	3.3	10
29	A self-similar behavior for the relative viscosity of concentrated suspensions of rigid spheroids. Rheologica Acta, 2017, 56, 35-49.	2.4	14
30	Bubble accumulation and its role in the evolution of magma reservoirs in the upper crust. Nature, 2016, 532, 492-495.	27.8	163
31	Silicic magma reservoirs in the Earth's crust. American Mineralogist, 2016, 101, 2377-2404.	1.9	292
32	Magma reservoir response to transient recharge events: The case of Santorini volcano (Greece). Geology, 2016, 44, 23-26.	4.4	64
33	A poreâ€scale investigation of the dynamic response of saturated porous media to transient stresses. Geofluids, 2015, 15, 11-23.	0.7	10
34	Isotopic Gradients Across Fluid–Mineral Boundaries. Reviews in Mineralogy and Geochemistry, 2015, 80, 355-391.	4.8	23
35	A generalized equation for rheology of emulsions and suspensions of deformable particles subjected to simple shear at low Reynolds number. Rheologica Acta, 2015, 54, 85-108.	2.4	72
36	A new lattice Boltzmann model for interface reactions between immiscible fluids. Advances in Water Resources, 2015, 82, 139-149.	3.8	16

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37	A new pore-scale model for linear and non-linear heterogeneous dissolution and precipitation. Geochimica Et Cosmochimica Acta, 2014, 124, 109-130.	3.9	79
38	A model for eruption frequency of upper crustal silicic magma chambers. Earth and Planetary Science Letters, 2014, 403, 117-130.	4.4	106
39	Channelization of buoyant nonwetting fluids in saturated porous media. Water Resources Research, 2013, 49, 6371-6380.	4.2	14
40	Crystal-poor versus crystal-rich ignimbrites: A competition between stirring and reactivation. Geology, 2012, 40, 115-118.	4.4	139
41	A physical model for metal extraction and transport in shallow magmatic systems. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	79
42	Pore-scale mass and reactant transport in multiphase porous media flows. Journal of Fluid Mechanics, 2011, 686, 40-76.	3.4	140
43	A lattice Boltzmann model for noble gas diffusion in solids: The importance of domain shape and diffusive anisotropy and implications for thermochronometry. Geochimica Et Cosmochimica Acta, 2011, 75, 2170-2186.	3.9	27
44	Thermo-mechanical reactivation of locked crystal mushes: Melting-induced internal fracturing and assimilation processes in magmas. Earth and Planetary Science Letters, 2011, 304, 443-454.	4.4	124
45	Two Competing Effects of Volatiles on Heat Transfer in Crystal-rich Magmas: Thermal Insulation vs Defrosting. Journal of Petrology, 2010, 51, 847-867.	2.8	88
46	Diffusion-controlled spherulite growth in obsidian inferred from H2O concentration profiles. Contributions To Mineralogy and Petrology, 2009, 157, 163-172.	3.1	61
47	Application of the multi distribution function lattice Boltzmann approach to thermal flows. European Physical Journal: Special Topics, 2009, 171, 37-43.	2.6	11
48	Homogenization processes in silicic magma chambers by stirring and mushification (latent heat) Tj ETQq0 0 0 rg	BT_/Qverlo	ck 10 Tf 50 3

48	nonogenization processes in sincic magina chambers by suming and mushincation (latent neat) if ETQq0.0.0 rgb	4.4	183

49Lattice Boltzmann model for melting with natural convection. International Journal of Heat and Fluid Flow, 2008, 29, 1469-1480.2.4237	
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