

# Christian Huber

## List of Publications by Year in descending order

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Version: 2024-02-01

49  
papers

2,735  
citations

230014

27  
h-index

242451

47  
g-index

57  
all docs

57  
docs citations

57  
times ranked

2270  
citing authors

#	ARTICLE	IF	CITATIONS
1	Estimating melt fraction in silicic systems using Bayesian inversion of magnetotelluric data. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 423, 107470.	0.8	5
2	Sulfides in Mercury's Mantle: Implications for Mercury's Interior as Interpreted From Moment of Inertia. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	3
3	Physics-Informed Neural Networks (PINNs) for Wave Propagation and Full Waveform Inversions. <i>Journal of Geophysical Research: Solid Earth</i> , 2022, 127, .	1.4	84
4	Thank You to Our 2021 Peer Reviewers. <i>Geophysical Research Letters</i> , 2022, 49, .	1.5	0
5	Anomalous recurring slope lineae on Mars: Implications for formation mechanisms. <i>Icarus</i> , 2021, 357, 114129.	1.1	5
6	Modeling Lunar Pyroclasts to Probe the Volatile Content of the Lunar Interior. <i>Journal of Geophysical Research E: Planets</i> , 2021, 126, e2020JE006645.	1.5	2
7	Thank You to Our 2020 Peer Reviewers. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093126.	1.5	0
8	Characterizing the ice-ocean interface of icy worlds: A theoretical approach. <i>Icarus</i> , 2021, 360, 114318.	1.1	21
9	Explosive or effusive style of volcanic eruption determined by magma storage conditions. <i>Nature Geoscience</i> , 2021, 14, 781-786.	5.4	34
10	Physical models and predictions for recurring slope lineae formed by wet and dry processes.. <i>Icarus</i> , 2020, 335, 113385.	1.1	16
11	Experimental Investigations on the Effects of Dissolved Gases on the Freezing Dynamics of Ocean Worlds. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006528.	1.5	2
12	Detectability of Melt-Rich Lenses in Magmatic Reservoirs From Teleseismic Waveform Modeling. <i>Journal of Geophysical Research: Solid Earth</i> , 2020, 125, e2020JB020264.	1.4	9
13	Entrainment and Dynamics of Ocean-Derived Impurities Within Europa's Ice Shell. <i>Journal of Geophysical Research E: Planets</i> , 2020, 125, e2020JE006394.	1.5	39
14	Thank You to Our 2019 Peer Reviewers. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL088048.	1.5	0
15	A critical magma chamber size for volcanic eruptions. <i>Geology</i> , 2020, 48, 431-435.	2.0	31
16	Optimal depth of subvolcanic magma chamber growth controlled by volatiles and crust rheology. <i>Nature Geoscience</i> , 2019, 12, 762-768.	5.4	97
17	Impact of Synthetic Porous Medium Geometric Properties on Solute Transport Using Direct 3D Pore-Scale Simulations. <i>Geofluids</i> , 2019, 2019, 1-13.	0.3	3
18	Origin of Shallow Volcanic Tremor: The Dynamics of Gas Pockets Trapped Beneath Thin Permeable Media. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 4831-4861.	1.4	36

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19	Magma Chamber Growth During Intercaldera Periods: Insights From Thermo-Mechanical Modeling With Applications to Laguna del Maule, Campi Flegrei, Santorini, and Aso. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 1574-1591.	1.0	45
20	A New Correction for He Loss Applied to (U-Th)/He Dating of Grains with Complex Shapes and Polymineralic Aggregates. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 5744-5764.	1.0	2
21	The Inner Workings of Crustal Distillation Columns; the Physical Mechanisms and Rates Controlling Phase Separation in Silicic Magma Reservoirs. <i>Journal of Petrology</i> , 2019, 60, 3-18.	1.1	120
22	Multiphase Reactive Transport and Platelet Ice Accretion in the Sea Ice of McMurdo Sound, Antarctica. <i>Journal of Geophysical Research: Oceans</i> , 2018, 123, 324-345.	1.0	20
23	A Physical Model for Three-Phase Compaction in Silicic Magma Reservoirs. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 2685-2705.	1.4	36
24	Sensitivity to lunar cycles prior to the 2007 eruption of Ruapehu volcano. <i>Scientific Reports</i> , 2018, 8, 1476.	1.6	36
25	Influence of Exsolved Volatiles on Reheating Silicic Magmas by Recharge and Consequences for Eruptive Style at Volc�n Quizapu (Chile). <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 4123-4135.	1.0	32
26	Perspectives on geochemical proxies: The impact of model and parameter selection on the quantification of carbonate recrystallization rates. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 217, 171-192.	1.6	23
27	The mechanics of shallow magma reservoir outgassing. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2887-2905.	1.0	69
28	Pore-scale simulations of concentration tails in heterogeneous porous media. <i>Journal of Contaminant Hydrology</i> , 2017, 205, 47-56.	1.6	10
29	A self-similar behavior for the relative viscosity of concentrated suspensions of rigid spheroids. <i>Rheologica Acta</i> , 2017, 56, 35-49.	1.1	14
30	Bubble accumulation and its role in the evolution of magma reservoirs in the upper crust. <i>Nature</i> , 2016, 532, 492-495.	13.7	163
31	Silicic magma reservoirs in the Earth's crust. <i>American Mineralogist</i> , 2016, 101, 2377-2404.	0.9	292
32	Magma reservoir response to transient recharge events: The case of Santorini volcano (Greece). <i>Geology</i> , 2016, 44, 23-26.	2.0	64
33	A pore-scale investigation of the dynamic response of saturated porous media to transient stresses. <i>Geofluids</i> , 2015, 15, 11-23.	0.3	10
34	Isotopic Gradients Across Fluid-Mineral Boundaries. <i>Reviews in Mineralogy and Geochemistry</i> , 2015, 80, 355-391.	2.2	23
35	A generalized equation for rheology of emulsions and suspensions of deformable particles subjected to simple shear at low Reynolds number. <i>Rheologica Acta</i> , 2015, 54, 85-108.	1.1	72
36	A new lattice Boltzmann model for interface reactions between immiscible fluids. <i>Advances in Water Resources</i> , 2015, 82, 139-149.	1.7	16

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37	A new pore-scale model for linear and non-linear heterogeneous dissolution and precipitation. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 124, 109-130.	1.6	79
38	A model for eruption frequency of upper crustal silicic magma chambers. <i>Earth and Planetary Science Letters</i> , 2014, 403, 117-130.	1.8	106
39	Channelization of buoyant nonwetting fluids in saturated porous media. <i>Water Resources Research</i> , 2013, 49, 6371-6380.	1.7	14
40	Crystal-poor versus crystal-rich ignimbrites: A competition between stirring and reactivation. <i>Geology</i> , 2012, 40, 115-118.	2.0	139
41	A physical model for metal extraction and transport in shallow magmatic systems. <i>Geochemistry, Geophysics, Geosystems</i> , 2012, 13, .	1.0	79
42	Pore-scale mass and reactant transport in multiphase porous media flows. <i>Journal of Fluid Mechanics</i> , 2011, 686, 40-76.	1.4	140
43	A lattice Boltzmann model for noble gas diffusion in solids: The importance of domain shape and diffusive anisotropy and implications for thermochronometry. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 2170-2186.	1.6	27
44	Thermo-mechanical reactivation of locked crystal mushes: Melting-induced internal fracturing and assimilation processes in magmas. <i>Earth and Planetary Science Letters</i> , 2011, 304, 443-454.	1.8	124
45	Two Competing Effects of Volatiles on Heat Transfer in Crystal-rich Magmas: Thermal Insulation vs Defrosting. <i>Journal of Petrology</i> , 2010, 51, 847-867.	1.1	88
46	Diffusion-controlled spherulite growth in obsidian inferred from H <sub>2</sub> O concentration profiles. <i>Contributions To Mineralogy and Petrology</i> , 2009, 157, 163-172.	1.2	61
47	Application of the multi distribution function lattice Boltzmann approach to thermal flows. <i>European Physical Journal: Special Topics</i> , 2009, 171, 37-43.	1.2	11
48	Homogenization processes in silicic magma chambers by stirring and mushification (latent heat) $T_j ETQq0 0 0 rgBT/Q$ Overlock 10 Tf 50 3	1.8	183
49	Lattice Boltzmann model for melting with natural convection. <i>International Journal of Heat and Fluid Flow</i> , 2008, 29, 1469-1480.	1.1	237