Gregor Golabek

List of Publications by Year
in descending order

38 papers	2,058 citations	279798 23 h-index	330143 37 g-index
56 all docs	56 docs citations	56 times ranked	1552 citing authors

#	Article	IF	Citations
1	A benchmark comparison of spontaneous subduction modelsâ€"Towards a free surface. Physics of the Earth and Planetary Interiors, 2008, 171, 198-223.	1.9	361
2	A comparison of numerical surface topography calculations in geodynamic modelling: an evaluation of the â€˜sticky airâ€™ method. Geophysical Journal International, 2012, 189, 38-54.	2.4	301
3	Continental crust formation on early Earth controlled by intrusive magmatism. Nature, 2017, 545, 332-335.	27.8	174
4	Bifurcation of planetary building blocks during Solar System formation. Science, 2021, 371, 365-370.	12.6	108
5	Origin of the martian dichotomy and Tharsis from a giant impact causing massive magmatism. Icarus, 2011, 215, 346-357.	2.5	99
6	A water budget dichotomy of rocky protoplanets from 26Al-heating. Nature Astronomy, 2019, 3, 307-313.	10.1	91
7	The effects of short-lived radionuclides and porosity on the early thermo-mechanical evolution of planetesimals. Icarus, 2016, 274, 350-365.	2.5	89
8	Impact splash chondrule formation during planetesimal recycling. Icarus, 2018, 302, 27-43.	2.5	79
9	Coupling SPH and thermochemical models of planets: Methodology and example of a Mars-sized body. Icarus, 2018, 301, 235-246.	2.5	65
10	Numerical models of the thermomechanical evolution of planetesimals: Application to the acapulcoiteâ€lodranite parent body. Meteoritics and Planetary Science, 2014, 49, 1083-1099.	1.6	59
11	Numerical modeling of protocore destabilization during planetary accretion: Methodology and results. Icarus, 2009, 204, 732-748.	2.5	50
12	Earth's core formation aided by flow channelling instabilities induced by iron diapirs. Earth and Planetary Science Letters, 2008, 271, 24-33.	4.4	46
13	Centrifuge assisted percolation of Feâ€"S melts in partially molten peridotite: Time constraints for planetary core formation. Earth and Planetary Science Letters, 2009, 288, 84-95.	4.4	39
14	Constraints on the Feâ€"S melt connectivity in mantle silicates from electrical impedance measurements. Physics of the Earth and Planetary Interiors, 2009, 177, 139-146.	1.9	38
15	Effect of a single large impact on the coupled atmosphere-interior evolution of Venus. Icarus, 2016, 268, 295-312.	2.5	38
16	Water and the Interior Structure of Terrestrial Planets and Icy Bodies. Space Science Reviews, 2018, 214, 1.	8.1	33
17	Late metalâ€"silicate separation on the IAB parent asteroid: Constraints from combined W and Pt isotopes and thermal modelling. Earth and Planetary Science Letters, 2018, 482, 490-500.	4.4	33
18	Solid-state plastic deformation in the dynamic interior of a differentiated asteroid. Nature Geoscience, 2013, 6, 93-97.	12.9	32

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19	Magma ascent in planetesimals: Control by grain size. Earth and Planetary Science Letters, 2019, 507, 154-165.	4.4	31
20	Is Vesta an intact and pristine protoplanet?. Icarus, 2015, 254, 190-201.	2.5	30
21	Dry late accretion inferred from Venusâ€™s coupled atmosphere and internal evolution. Nature Geoscience, 2020, 13, 265-269.	12.9	27
22	N-body simulations of oligarchic growth of Mars: Implications for Hfâ€“W chronology. Earth and Planetary Science Letters, 2013, 366, 6-16.	4.4	26
23	Scaling laws for the geometry of an impact-induced magma ocean. Earth and Planetary Science Letters, 2021, 568, 116983.	4.4	25
24	Formation of ridges in a stable lithosphere in mantle convection models with a viscoplastic rheology. Geophysical Research Letters, 2015, 42, 4770-4777.	4.0	23
25	Ferropericlase Control of Lower Mantle Rheology: Impact of Phase Morphology. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008688.	2.5	20
26	Rheological controls on the terrestrial core formation mechanism. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	18
27	Effect of Water on Lattice Thermal Conductivity of Ringwoodite and Its Implications for the Thermal Evolution of Descending Slabs. Geophysical Research Letters, 2020, 47, e2020GL087607.	4.0	16
28	Fast grain growth of olivine in liquid Feâ€“S and the formation of pallasites with rounded olivine grains. Geochimica Et Cosmochimica Acta, 2015, 162, 259-275.	3.9	15
29	Pore-scale permeability prediction for Newtonian and non-Newtonian fluids. Solid Earth, 2019, 10, 1717-1731.	2.8	15
30	Can Grain Size Reduction Initiate Transform Faults?â€”Insights From a 3â€D Numerical Study. Tectonics, 2020, 39, e2019TC005793.	2.8	15
31	Selfâ€consistent generation of singleâ€plume state for Enceladus using nonâ€Newtonian rheology. Journal of Geophysical Research E: Planets, 2014, 119, 416-439.	3.6	13
32	Two-stage formation of pallasites and the evolution of their parent bodies revealed by deformation experiments. Earth and Planetary Science Letters, 2020, 546, 116419.	4.4	12
33	Combined numerical and experimental study of microstructure and permeability in porous granular media. Solid Earth, 2020, 11, 1079-1095.	2.8	12
34	Olivine grain growth in partially molten Feâ€“Niâ€“S: A proxy for the genesis of pallasite meteorites. Earth and Planetary Science Letters, 2018, 504, 38-52.	4.4	10
35	Modification of icy planetesimals by early thermal evolution and collisions: Constraints for formation time and initial size of comets and small KBOs. Icarus, 2021, 363, 114437.	2.5	8
36	Protocore destabilization in planetary embryos formed by cold accretion: Feedbacks from non-Newtonian rheology and energy dissipation. Icarus, 2011, 213, 24-42.	2.5	4

#	Article	IF	Citations
37	Olivine aggregates reveal a complex collisional history of the main group pallasite parent body. Meteoritics and Planetary Science, 2022, 57, 1098-1115.	1.6	2
38	Water and the Interior Structure of Terrestrial Planets and Icy Bodies. Space Sciences Series of ISSI, 2018, , 343-375.	0.0	0