Saswata Hier-Majumder

List of Publications by Year
in descending order

37	991	471509 17	434195 31
papers	citations	h-index	g-index

38	38	38	1090
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Electrical conductivity during incipient melting in the oceanic low-velocity zone. Nature, 2014, 509, 81-85.	27.8	164
2	Influence of protons on Fe-Mg interdiffusion in olivine. Journal of Geophysical Research, 2005, 110, .	3.3	112
3	Role of grain boundaries in magma migration and storage. Earth and Planetary Science Letters, 2006, 248, 735-749.	4.4	67
4	Sustainability of a subsurface ocean within Tritonâ€™s interior. Icarus, 2012, 220, 339-347.	2.5	63
5	The origin of volatiles in the <scp>E</scp>arth's mantle. Geochemistry, Geophysics, Geosystems, 2017, 18, 3078-3092.	2.5	57
6	Water weakening of clinopyroxenite in diffusion creep. Journal of Geophysical Research, 2005, 110, .	3.3	48
7	On grain boundary wetting during deformation. Acta Materialia, 2004, 52, 3425-3433.	7.9	40
8	Seismic signature of small melt fraction atop the transition zone. Earth and Planetary Science Letters, 2011, 308, 334-342.	4.4	40
9	Pervasive upper mantle melting beneath the western US. Earth and Planetary Science Letters, 2017, 463, 25-35.	4.4	35
10	Influence of contiguity on seismic velocities of partially molten aggregates. Journal of Geophysical Research, 2008, 113, .	3.3	33
11	Image Segmentation and Analysis of Pore Network Geometry in Two Natural Sandstones. Frontiers in Earth Science, 2018, 6, .	1.8	33
12	Role of dynamic grain boundary wetting in fluid circulation beneath volcanic arcs. Geophysical Research Letters, 2006, 33, .	4.0	29
13	A generalized formulation of interfacial tension driven fluid migration with dissolution/precipitation. Earth and Planetary Science Letters, 2009, 288, 138-148.	4.4	27
14	Processes controlling lithium isotopic distribution in contact aureoles: A case study of the Florence County pegmatites, Wisconsin. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	24
15	A threeâ€dimensional microgeodynamic model of melt geometry in the Earth's deep interior. Journal of Geophysical Research, 2012, 117, .	3.3	24
16	The Influence of Microporous Cements on the Pore Network Geometry of Natural Sedimentary Rocks. Frontiers in Earth Science, 2019, 7, .	1.8	24
17	Influence of dihedral angle on the seismic velocities in partially molten rocks. Earth and Planetary Science Letters, 2010, 299, 23-32.	4.4	21
18	An experimental study of the effects of surface tension in homogenizing perturbations in melt fraction. Earth and Planetary Science Letters, 2011, 307, 349-360.	4.4	17

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19	Stability and migration of slab-derived carbonate-rich melts above the transition zone. Earth and Planetary Science Letters, 2020, 531, 116000.	4.4	15
20	Development of anisotropic mobility during two-phase flow. Geophysical Journal International, 2011, 186, 59-68.	2.4	14
21	Relationship between the viscosity and topography of the ultralow-velocity zone near the coreâ€“mantle boundary. Earth and Planetary Science Letters, 2010, 299, 382-386.	4.4	13
22	The influence of temperature, bulk composition, and melting on the seismic signature of the low-velocity layer above the transition zone. Journal of Geophysical Research: Solid Earth, 2014, 119, 971-983.	3.4	13
23	Pore network analysis of Brae Formation sandstone, North Sea. Marine and Petroleum Geology, 2020, 122, 104614.	3.3	12
24	Microstructural Analysis From X-Ray CT Images of the Brae Formation Sandstone, North Sea. Frontiers in Earth Science, 2020, 8, .	1.8	12
25	Melt redistribution by pulsed compaction within UltraLow Velocity Zones. Physics of the Earth and Planetary Interiors, 2014, 229, 134-143.	1.9	9
26	Pore-scale assessment of subsurface carbon storage potential: implications for the UK Geoenergy Observatories project. Petroleum Geoscience, 2021, 27, petgeo2020-092.	1.5	9
27	Development of anisotropic contiguity in deforming partially molten aggregates: 2. Implications for the lithosphereâ€“asthenosphere boundary. Journal of Geophysical Research: Solid Earth, 2015, 120, 764-777.	3.4	8
28	Coupled flow and anisotropy in the UltraLow Velocity Zones. Earth and Planetary Science Letters, 2016, 450, 274-282.	4.4	6
29	Geological Carbon Sequestration by Reactive Infiltration Instability. Frontiers in Earth Science, 2020, 8, .	1.8	5
30	Pore Network Modeling of Core Forming Melts in Planetesimals. Frontiers in Earth Science, 2020, 8, .	1.8	4
31	An inversion approach for analysing the physical properties of a seismic low-velocity layer in the upper mantle. Physics of the Earth and Planetary Interiors, 2020, 304, 106502.	1.9	4
32	Evidence of Volatileâ€Induced Melting in the Northeast Asian Upper Mantle. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB022167.	3.4	3
33	Development of anisotropic contiguity in deforming partially molten aggregates: 1. Theory and fast multipole boundary elements method. Journal of Geophysical Research: Solid Earth, 2015, 120, 744-763.	3.4	2
34	Evidence for melt leakage from the Hawaiian plume above the mantle transition zone. Physics of the Earth and Planetary Interiors, 2021, 321, 106813.	1.9	2
35	Textures in Experimentally Deformed Olivine Aggregates: The Effects of Added Water and Melt. Materials Science Forum, 2005, 495-497, 63-68.	0.3	1
36	Analytical solution for two-phase flow within and outside a sphere under pure shear. Journal of Fluid Mechanics, 2018, 848, 987-1012.	3.4	1

#	Article	IF	Citations
37	The Stability of Carbonate Melts In the Mantle. Acta Geologica Sinica, 2019, 93, 172-172.	1.4	0