

Dipta B Ghosh

List of Publications by Year in descending order

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Version: 2024-02-01

20
papers

453
citations

687363

13
h-index

752698

20
g-index

20
all docs

20
docs citations

20
times ranked

491
citing authors

#	ARTICLE	IF	CITATIONS
1	Behavior and properties of water in silicate melts under deep mantle conditions. <i>Scientific Reports</i> , 2021, 11, 10588.	3.3	13
2	Deep neural network potentials for diffusional lithium isotope fractionation in silicate melts. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 303, 38-50.	3.9	11
3	Hydration-driven stabilization and volume collapse of grain boundaries in Mg ₂ SiO ₄ forsterite predicted by first-principles simulations. <i>American Mineralogist</i> , 2021, , .	1.9	1
4	Anomalous Behavior of Viscosity and Electrical Conductivity of MgSiO ₃ Melt at Mantle Conditions. <i>Geophysical Research Letters</i> , 2021, 48, e2021GL093573.	4.0	7
5	A magma ocean origin to divergent redox evolutions of rocky planetary bodies and early atmospheres. <i>Nature Communications</i> , 2020, 11, 2007.	12.8	44
6	Effects of valence and spin of Fe in MgSiO ₃ melts: Structural insights from first-principles molecular dynamics simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2020, 279, 107-118.	3.9	8
7	First-Principles Study of FeO 2 H x Solid and Melt System at High Pressures: Implications for Ultralow-Velocity Zones. <i>Journal of Geophysical Research: Solid Earth</i> , 2019, 124, 4566-4575.	3.4	6
8	Nitrogen Content in the Earth's Outer Core. <i>Geophysical Research Letters</i> , 2019, 46, 89-98.	4.0	10
9	Thermodynamics, structure, and transport properties of the MgO-Al ₂ O ₃ liquid system. <i>Physics and Chemistry of Minerals</i> , 2019, 46, 501-512.	0.8	2
10	First-principles molecular dynamics simulations of anorthite (CaAl ₂ Si ₂ O ₈) glass at high pressure. <i>Physics and Chemistry of Minerals</i> , 2018, 45, 575-587.	0.8	20
11	Density-Pressure Profiles of Fe-Bearing MgSiO ₃ Liquid: Effects of Valence and Spin States, and Implications for the Chemical Evolution of the Lower Mantle. <i>Geophysical Research Letters</i> , 2018, 45, 3959-3966.	4.0	22
12	Carbon-bearing silicate melt at deep mantle conditions. <i>Scientific Reports</i> , 2017, 7, 848.	3.3	30
13	Transport properties of carbonated silicate melt at high pressure. <i>Science Advances</i> , 2017, 3, e1701840.	10.3	28
14	Solid-liquid density and spin crossovers in (Mg, Fe)O system at deep mantle conditions. <i>Scientific Reports</i> , 2016, 6, 37269.	3.3	17
15	First-principles simulations of CaO and CaSiO ₃ liquids: structure, thermodynamics and diffusion. <i>Physics and Chemistry of Minerals</i> , 2015, 42, 393-404.	0.8	29
16	First-principles prediction of pressure-enhanced defect segregation and migration at MgO grain boundaries. <i>American Mineralogist</i> , 2015, 100, 1053-1058.	1.9	13
17	Structure and density of basaltic melts at mantle conditions from first-principles simulations. <i>Nature Communications</i> , 2015, 6, 8578.	12.8	76
18	First principles simulations of the stability and structure of grain boundaries in Mg ₂ SiO ₄ forsterite. <i>Physics and Chemistry of Minerals</i> , 2014, 41, 163-171.	0.8	13

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19	First-principles molecular dynamics simulations of MgSiO ₃ glass: Structure, density, and elasticity at high pressure. <i>American Mineralogist</i> , 2014, 99, 1304-1314.	1.9	62
20	Diffusion and viscosity of Mg ₂ SiO ₄ liquid at high pressure from first-principles simulations. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4591-4600.	3.9	41