

Jibamitra Ganguly

List of Publications by Year in descending order

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Version: 2024-02-01

56
papers

3,407
citations

159585

30
h-index

223800

46
g-index

57
all docs

57
docs citations

57
times ranked

1962
citing authors

#	ARTICLE	IF	CITATIONS
1	Quartz-coesite transition revisited; reversed experimental determination at 500-1200 degrees C and retrieved thermochemical properties. <i>American Mineralogist</i> , 1995, 80, 231-238.	1.9	269
2	Cation diffusion in aluminosilicate garnets: experimental determination in spessartine-almandine diffusion couples, evaluation of effective binary diffusion coefficients, and applications. <i>Contributions To Mineralogy and Petrology</i> , 1992, 111, 74-86.	3.1	260
3	Diffusion closure temperature and age of a mineral with arbitrary extent of diffusion: theoretical formulation and applications. <i>Earth and Planetary Science Letters</i> , 1999, 170, 131-140.	4.4	213
4	Garnet and clinopyroxene solid solutions, and geothermometry based on Fe-Mg distribution coefficient. <i>Geochimica Et Cosmochimica Acta</i> , 1979, 43, 1021-1029.	3.9	192
5	Cation diffusion in aluminosilicate garnets: experimental determination in pyrope-almandine diffusion couples. <i>Contributions To Mineralogy and Petrology</i> , 1998, 131, 171-180.	3.1	167
6	Rare earth diffusion kinetics in garnet: Experimental studies and applications. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2385-2398.	3.9	158
7	Exhumation history of a section of the Sikkim Himalayas, India: records in the metamorphic mineral equilibria and compositional zoning of garnet. <i>Earth and Planetary Science Letters</i> , 2000, 183, 471-486.	4.4	138
8	Compositional Zoning and Cation Diffusion in Garnets. , 1991, , 120-175.		134
9	Diffusion kinetics of Cr in olivine and ^{53}Mn – ^{53}Cr thermochronology of early solar system objects. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 799-809.	3.9	108
10	Experimental determination of cation diffusivities in aluminosilicate garnets. <i>Contributions To Mineralogy and Petrology</i> , 1985, 90, 45-51.	3.1	103
11	The energetics of natural garnet solid solution. <i>Contributions To Mineralogy and Petrology</i> , 1974, 48, 137-148.	3.1	97
12	Experimental determination of cation diffusivities in aluminosilicate garnets. <i>Contributions To Mineralogy and Petrology</i> , 1985, 90, 36-44.	3.1	91
13	Diffusion kinetics of Fe^{2+} and Mg in aluminous spinel. <i>Geochimica Et Cosmochimica Acta</i> , 2002, 66, 2903-2913.	3.9	89
14	Sm – Nd dating of spatially controlled domains of garnet single crystals: a new method of high-temperature thermochronology. <i>Earth and Planetary Science Letters</i> , 2003, 213, 31-42.	4.4	88
15	Thermal history of mesosiderites: Quantitative constraints from compositional zoning and Fe-Mg ordering in orthopyroxenes. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 2711-2723.	3.9	85
16	Mixtures and Mineral Reactions. <i>Minerals and Rocks</i> , 1987, , .	0.3	85
17	Density profiles of oceanic slabs and surrounding mantle: Integrated thermodynamic and thermal modeling, and implications for the fate of slabs at the 660km discontinuity. <i>Physics of the Earth and Planetary Interiors</i> , 2009, 172, 257-267.	1.9	84
18	^{176}Lu – ^{176}Hf geochronology of garnet I: experimental determination of the diffusion kinetics of Lu^{3+} and Hf^{4+} in garnet, closure temperatures and geochronological implications. <i>Contributions To Mineralogy and Petrology</i> , 2015, 169, 1.	3.1	80

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19	Metamorphism of Greater and Lesser Himalayan rocks exposed in the Modi Khola valley, central Nepal. Contributions To Mineralogy and Petrology, 2010, 159, 203-223.	3.1	67
20	Al_2O_3 solubility in orthopyroxene in the system $MgO-Al_2O_3-SiO_2$: A reevaluation, and mantle geotherm. Journal of Geophysical Research, 1980, 85, 6963-6972.	3.3	66
21	H-chondrite parent asteroid: A multistage cooling, fragmentation and re-accretion history constrained by thermometric studies, diffusion kinetic modeling and geochronological data. Geochimica Et Cosmochimica Acta, 2013, 105, 206-220.	3.9	63
22	The energetics of natural garnet solid solution. Contributions To Mineralogy and Petrology, 1976, 55, 81-90.	3.1	58
23	$Ca-Mg$ diffusion in diopside: tracer and chemical inter-diffusion coefficients. Contributions To Mineralogy and Petrology, 2010, 159, 175-186.	3.1	53
24	Aluminous orthopyroxene: Order-disorder, thermodynamic properties, and petrologic implications. Contributions To Mineralogy and Petrology, 1979, 69, 375-385.	3.1	51
25	Relationship between cooling rate and cooling age of a mineral: Theory and applications to meteorites. Meteoritics and Planetary Science, 2001, 36, 167-175.	1.6	50
26	Multicomponent diffusion in garnets I: general theoretical considerations and experimental data for $Fe-Mg$ systems. Contributions To Mineralogy and Petrology, 2012, 164, 571-586.	3.1	49
27	Cr diffusion in orthopyroxene: Experimental determination, $^{53}Mn-^{53}Cr$ thermochronology, and planetary applications. Geochimica Et Cosmochimica Acta, 2007, 71, 3915-3925.	3.9	48
28	Cooling history of lunar Mg-suite gabbro-norite 76255, troctolite 76535 and Stillwater pyroxenite SC-936: The record in exsolution and ordering in pyroxenes. Geochimica Et Cosmochimica Acta, 2006, 70, 6068-6078.	3.9	45
29	Activity-composition relation of jadeite in omphacite pyroxene: Theoretical deductions. Earth and Planetary Science Letters, 1973, 19, 145-153.	4.4	41
30	Constraint on the time scale of biotite-grade metamorphism during Acadian Orogeny from a natural garnet-garnet diffusion couple. American Mineralogist, 1996, 81, 1208-1216.	1.9	41
31	$^{176}Lu-^{176}Hf$ geochronology of garnet II: numerical simulations of the development of garnet-whole-rock $^{176}Lu-^{176}Hf$ isochrons and a new method for constraining the thermal history of metamorphic rocks. Contributions To Mineralogy and Petrology, 2015, 169, 1.	3.1	38
32	Garnet compositions as recorders of P-T history of metamorphic rocks. Gondwana Research, 2010, 18, 138-146.	6.0	27
33	Olivine coronas, metamorphism, and the thermal history of the Morristown and Emery mesosiderites. Geochimica Et Cosmochimica Acta, 1994, 58, 2725-2741.	3.9	26
34	Diffusion kinetics in minerals. , 0, , 271-309.		26
35	Incorporation of water into olivine during nebular condensation: Insights from density functional theory and thermodynamics, and implications for phyllosilicate formation and terrestrial water inventory. Meteoritics and Planetary Science, 2015, 50, 578-589.	1.6	25
36	$^{176}Lu-^{176}Hf$ and $^{147}Sm-^{143}Nd$ ages of the Martian shergottites: Evaluation of the shock-resetting hypothesis through diffusion kinetic experiments and modeling, and petrological observations. Earth and Planetary Science Letters, 2014, 395, 173-183.	4.4	24

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37	Time-temperature relation of mineral isochrons: a thermodynamic model, and illustrative examples for the RbSr system. <i>Earth and Planetary Science Letters</i> , 1987, 81, 338-348.	4.4	22
38	Some aspects of multicomponent excess free energy models with subregular binaries. <i>Geochimica Et Cosmochimica Acta</i> , 1994, 58, 3763-3767.	3.9	22
39	Cation ordering in orthopyroxenes from two stony-iron meteorites: implications for cooling rates and metal-silicate mixing. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 1291-1297.	3.9	22
40	Neodymium diffusion in orthopyroxene: Experimental studies and applications to geological and planetary problems. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4684-4698.	3.9	21
41	Cooling rates of LL, L and H chondrites and constraints on the duration of peak thermal conditions: Diffusion kinetic modeling and implications for fragmentation of asteroids and impact resetting of petrologic types. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 192, 135-148.	3.9	17
42	Diffusion kinetics of Cr in spinel: Experimental studies and implications for ^{53}Mn - ^{53}Cr cosmochronology. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 175, 20-35.	3.9	16
43	Potassium diffusion in melilite: Experimental studies and constraints on the thermal history and size of planetesimals hosting CAIs. <i>Meteoritics and Planetary Science</i> , 2004, 39, 1911-1919.	1.6	11
44	Diffusion kinetics of lutetium in diopside and the effect of thermal metamorphism on Lu-Hf systematics in clinopyroxene. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 204, 32-51.	3.9	11
45	Experimental determination of cation diffusivities in aluminosilicate garnets: reply to the discussion by Freer of Part I, and correction of Mn tracer diffusion data in Part II. <i>Contributions To Mineralogy and Petrology</i> , 1987, 97, 537-538.	3.1	9
46	Closure Temperature, Cooling Age and High Temperature Thermochronology. , 2009, , 89-99.		6
47	Hydrogen Isotope Fractionation in the Epidote-Hydrogen and Epidote-Water Systems: Theoretical Study and Implications. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 1029-1034.	2.7	5
48	12. Cation Diffusion Kinetics in Aluminosilicate Garnets and Geological Applications. , 2010, , 559-602.		2
49	Comment on "Reconciliation of the excess ^{176}Hf conundrum in meteorites: Recent disturbances of the Lu-Hf and Sm-Nd isotope systematics" [Geochim. Cosmochim. Acta 212 (2017) 303-323]. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 230, 190-192.	3.9	2
50	Hydrogen Isotope Fractionation in the Talc-Serpentine-Brucite-Water System: Theoretical Studies and Implications. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 880-889.	2.7	2
51	Modelling Paleogeotherms in the Continental Lithosphere: A Brief Review and Applications to Problems in the Indian Subcontinent. <i>Society of Earth Scientists Series</i> , 2014, , 89-108.	0.3	0
52	Element Fractionation in Geological Systems. <i>Springer Textbooks in Earth Sciences, Geography and Environment</i> , 2020, , 399-427.	0.3	0
53	Thermodynamic Solution and Mixing Models: Non-electrolytes. <i>Springer Textbooks in Earth Sciences, Geography and Environment</i> , 2020, , 283-317.	0.3	0
54	Equilibria Involving Solutions and Gaseous Mixtures. <i>Springer Textbooks in Earth Sciences, Geography and Environment</i> , 2020, , 319-398.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Surface Effects. Springer Textbooks in Earth Sciences, Geography and Environment, 2020, , 467-512.	0.3	0
56	First and Second Laws. Springer Textbooks in Earth Sciences, Geography and Environment, 2020, , 21-56.	0.3	0