

Daniele Giordano

List of Publications by Year in descending order

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66
papers

4,144
citations

136940

32
h-index

110368

64
g-index

72
all docs

72
docs citations

72
times ranked

2367
citing authors

#	ARTICLE	IF	CITATIONS
1	Viscosity of magmatic liquids: A model. <i>Earth and Planetary Science Letters</i> , 2008, 271, 123-134.	4.4	1,257
2	Non-Arrhenian multicomponent melt viscosity: a model. <i>Earth and Planetary Science Letters</i> , 2003, 208, 337-349.	4.4	188
3	Viscosity of hydrous Etna basalt: implications for Plinian-style basaltic eruptions. <i>Bulletin of Volcanology</i> , 2003, 65, 8-14.	3.0	176
4	The rheology of crystal-bearing basaltic magmas from Stromboli and Etna. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 3214-3236.	3.9	166
5	Glass transition temperatures of natural hydrous melts: a relationship with shear viscosity and implications for the welding process. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 142, 105-118.	2.1	150
6	The combined effects of water and fluorine on the viscosity of silicic magmas. <i>Geochimica Et Cosmochimica Acta</i> , 2004, 68, 5159-5168.	3.9	135
7	An expanded non-Arrhenian model for silicate melt viscosity: A treatment for metaluminous, peraluminous and peralkaline liquids. <i>Chemical Geology</i> , 2006, 229, 42-56.	3.3	126
8	Viscosity of peridotite liquid. <i>Earth and Planetary Science Letters</i> , 2004, 226, 127-138.	4.4	86
9	Influence of glass polymerisation and oxidation on micro-Raman water analysis in alumino-silicate glasses. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 197-217.	3.9	86
10	High-temperature limits on viscosity of non-Arrhenian silicate melts. <i>American Mineralogist</i> , 2004, 88, 1390-1394.	1.9	84
11	The viscosity of trachytes, and comparison with basalts, phonolites, and rhyolites. <i>Chemical Geology</i> , 2004, 213, 49-61.	3.3	83
12	The dry and hydrous viscosities of alkaline melts from Vesuvius and Phlegrean Fields. <i>Chemical Geology</i> , 2003, 202, 23-38.	3.3	80
13	Predicting shear viscosity during volcanic processes at the glass transition: a calorimetric calibration. <i>Earth and Planetary Science Letters</i> , 2002, 198, 417-427.	4.4	73
14	Spectroscopic analysis (FTIR, Raman) of water in mafic and intermediate glasses and glass inclusions. <i>Geochimica Et Cosmochimica Acta</i> , 2010, 74, 5641-5656.	3.9	66
15	Micro-Raman determination of iron redox state in dry natural glasses: Application to peralkaline rhyolites and basalts. <i>Chemical Geology</i> , 2009, 259, 78-88.	3.3	64
16	Viscosity and glass transition temperature of hydrous melts in the system $\text{CaAl}_2\text{Si}_2\text{O}_8\text{-CaMgSi}_2\text{O}_6$. <i>Chemical Geology</i> , 2008, 256, 203-215.	3.3	61
17	The rheology of peralkaline rhyolites from Pantelleria Island. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 249, 201-216.	2.1	59
18	The effect of oxygen fugacity on the rheological evolution of crystallizing basaltic melts. <i>Earth and Planetary Science Letters</i> , 2018, 487, 21-32.	4.4	57

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19	Viscosity of a Teide phonolite in the welding interval. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 103, 239-245.	2.1	56
20	A model for the viscosity of rhyolite as a function of H ₂ O-content and pressure: A calibration based on centrifuge piston cylinder experiments. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 6103-6123.	3.9	52
21	Thermo-rheological magma control on the impact of highly fluid lava flows at Mt. Nyiragongo. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	51
22	Physical properties of CaAl ₂ Si ₂ O ₈ –CaMgSi ₂ O ₆ –FeO–Fe ₂ O ₃ melts: Analogues for extra-terrestrial basalt. <i>Chemical Geology</i> , 2013, 346, 93-105.	3.3	51
23	In situ thermal characterization of cooling/crystallizing lavas during rheology measurements and implications for lava flow emplacement. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 195, 244-258.	3.9	51
24	Rheological properties of magma from the 1538 eruption of Monte Nuovo (Phlegrean Fields, Italy): An experimental study. <i>Chemical Geology</i> , 2008, 256, 158-171.	3.3	48
25	The rheological evolution of the 2014/2015 eruption at Holuhraun, central Iceland. <i>Bulletin of Volcanology</i> , 2017, 79, 1.	3.0	45
26	The rheological evolution of alkaline Vesuvius magmas and comparison with alkaline series from the Phlegrean Fields, Etna, Stromboli and Teide. <i>Geochimica Et Cosmochimica Acta</i> , 2009, 73, 6613-6630.	3.9	44
27	Shear Rate–Dependent Disequilibrium Rheology and Dynamics of Basalt Solidification. <i>Geophysical Research Letters</i> , 2018, 45, 6466-6475.	4.0	39
28	A model for silicate melt viscosity in the system CaMgSi ₂ O ₆ -CaAl ₂ Si ₂ O ₈ -NaAlSi ₃ O ₈ . <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 5333-5349.	3.9	38
29	Heat capacity, configurational heat capacity and fragility of hydrous magmas. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 142, 314-333.	3.9	37
30	The kinetic fragility of natural silicate melts. <i>Journal of Physics Condensed Matter</i> , 2003, 15, S945-S954.	1.8	35
31	The multiphase rheology of magmas from Monte Nuovo (Campi Flegrei, Italy). <i>Chemical Geology</i> , 2013, 346, 213-227.	3.3	33
32	Influence of composition and thermal history of volcanic glasses on water content as determined by micro-Raman spectrometry. <i>Applied Geochemistry</i> , 2006, 21, 802-812.	3.0	32
33	Texture and composition of pumices and scoriae from the Campi Flegrei caldera (Italy): Implications on the dynamics of explosive eruptions. <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	32
34	Dynamics of magma ascent and fragmentation in trachytic versus rhyolitic eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 131, 93-108.	2.1	29
35	Modelling the non-Arrhenian rheology of silicate melts: Numerical considerations. <i>European Journal of Mineralogy</i> , 2002, 14, 417-428.	1.3	26
36	Effusive silicic volcanism in the Parana Magmatic Province, South Brazil: Physico-chemical conditions of storage and eruption and considerations on the rheological behavior during emplacement. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 355, 115-135.	2.1	23

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37	Effusive silicic volcanism in the Paran Magmatic Province, South Brazil: Evidence for locally-fed lava flows and domes from detailed field work. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 355, 204-218.	2.1	23
38	Towards a structural model for the viscosity of geological melts. <i>Earth and Planetary Science Letters</i> , 2018, 501, 202-212.	4.4	23
39	The 2.01.88Ga Paleoproterozoic evolution of the southern Amazonian Craton (Brazil): An interpretation inferred by lithofaciological, geochemical and geochronological data. <i>Gondwana Research</i> , 2019, 70, 1-24.	6.0	23
40	Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna. <i>Solid Earth</i> , 2010, 1, 61-69.	2.8	22
41	A rheological model for glassforming silicate melts in the systems CAS, MAS, MCAS. <i>Journal of Physics Condensed Matter</i> , 2007, 19, 205148.	1.8	20
42	High-temperature deformation of volcanic materials in the presence of water. <i>American Mineralogist</i> , 2008, 93, 74-80.	1.9	20
43	A novel protocol for resolving feldspar crystals in synchrotron X-ray microtomographic images of crystallized natural magmas and synthetic analogs. <i>American Mineralogist</i> , 2016, 101, 2301-2311.	1.9	20
44	Rheology of porous volcanic materials: High-temperature experimentation under controlled water pressure. <i>Chemical Geology</i> , 2008, 256, 216-230.	3.3	19
45	Densification mechanisms of haplogranite glasses as a function of water content and pressure based on density and Raman data. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 138, 158-180.	3.9	19
46	Rapid Updating and Improvement of Airborne LIDAR DEMs Through Ground-Based SfM 3-D Modeling of Volcanic Features. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2016, 54, 6687-6699.	6.3	19
47	A Raman spectroscopic tool to estimate chemical composition of natural volcanic glasses. <i>Chemical Geology</i> , 2020, 556, 119819.	3.3	17
48	Dendritic crystallization in hydrous basaltic magmas controls magma mobility within the Earth crust. <i>Nature Communications</i> , 2022, 13, .	12.8	17
49	Permeability measurements of Campi Flegrei pyroclastic products: An example from the Campanian Ignimbrite and Monte Nuovo eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 272, 16-22.	2.1	16
50	A calibrated database of Raman spectra for natural silicate glasses: implications for modelling melt physical properties. <i>Journal of Raman Spectroscopy</i> , 2020, 51, 1822-1838.	2.5	16
51	Modelling configurational entropy of silicate melts. <i>Chemical Geology</i> , 2017, 461, 140-151.	3.3	14
52	Raman Spectroscopy from Laboratory and Proximal to Remote Sensing: A Tool for the Volcanological Sciences. <i>Remote Sensing</i> , 2020, 12, 805.	4.0	13
53	Heat capacity of hydrous trachybasalt from Mt Etna: comparison with CaAl ₂ Si ₂ O ₈ (An)CaMgSi ₂ O ₆ (Di) as basaltic proxy compositions. <i>Contributions To Mineralogy and Petrology</i> , 2015, 170, 1.	3.1	12
54	Volcanology of the Southwestern sector of Vesuvius volcano, Italy. <i>Journal of Maps</i> , 2016, 12, 425-440.	2.0	12

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55	Paleoproterozoic felsic volcanism of the Tapaj�s Mineral Province, Southern Amazon Craton, Brazil. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 310, 98-106.	2.1	11
56	Equilibrium Viscosity and Disequilibrium Rheology of a high Magnesium Basalt from Piton De La Fournaise volcano, La Reunion, Indian Ocean, France. <i>Annals of Geophysics</i> , 2018, 61, .	1.0	11
57	The heat capacity of hydrous multicomponent natural melts and glasses. <i>Chemical Geology</i> , 2017, 461, 96-103.	3.3	8
58	Archaeomagnetic dating of Copper Age furnaces at Croce di Papa village and relations on Vesuvius and Phlegraean Fields volcanic activity. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 349, 217-229.	2.1	8
59	Viscosity of Palmas-type magmas of the Paran� Magmatic Province (Rio Grande do Sul State, Brazil): Implications for high-temperature silicic volcanism. <i>Chemical Geology</i> , 2021, 560, 119981.	3.3	8
60	Retrieving dissolved H2O content from micro-Raman spectroscopy on nanolitized silicic glasses: Application to volcanic products of the Paran� Magmatic Province, Brazil. <i>Chemical Geology</i> , 2021, 567, 120058.	3.3	7
61	Advances in the rheology of natural multiphase silicate melts: Import for magma transport and lava flow emplacement. <i>Annals of Geophysics</i> , 2019, 61, .	1.0	6
62	Pre-Eruptive Conditions and Dynamics Recorded in Banded Pumices from the El Abrigo Caldera-Forming Eruption (Tenerife, Canary Islands). <i>Journal of Petrology</i> , 2022, 63, .	2.8	6
63	From magma ascent to ash generation: investigating volcanic conduit processes by integrating experiments, numerical modeling, and observations. <i>Annals of Geophysics</i> , 2017, 60, .	1.0	5
64	Giant gas bubbles in a rheomorphic vent fill at the Las Ca�adas caldera, Tenerife (Canary Islands). <i>Bulletin of Volcanology</i> , 2009, 71, 919-932.	3.0	4
65	Inflated pyroclasts in proximal fallout deposits reveal abrupt transitions in eruption behaviour. <i>Nature Communications</i> , 2022, 13, .	12.8	4
66	Temperature-pressure-composition model for melt viscosity in the Di-An-Ab system. <i>Chemical Geology</i> , 2021, 560, 119895.	3.3	2