Daniele Giordano

List of Publications by Citations

64 papers	3,401 citations	30 h-index	58 g-index
72 ext. papers	3,810 ext. citations	4.2 avg, IF	5.36 L-index

#	Paper	IF	Citations
64	Viscosity of magmatic liquids: A model. *Earth and Planetary Science Letters*, **2008**, 271, 123-134	5.3	1029
63	Non-Arrhenian multicomponent melt viscosity: a model. *Earth and Planetary Science Letters*, **2003**, 208, 337-349	5.3	172
62	Viscosity of hydrous Etna basalt: implications for Plinian-style basaltic eruptions. *Bulletin of Volcanology*, **2003**, 65, 8-14	2.4	147
61	The rheology of crystal-bearing basaltic magmas from Stromboli and Etna. *Geochimica Et Cosmochimica Acta*, **2011**, 75, 3214-3236	5.5	135
60	Glass transition temperatures of natural hydrous melts: a relationship with shear viscosity and implications for the welding process. *Journal of Volcanology and Geothermal Research*, **2005**, 142, 105-118	2.8	127
59	The combined effects of water and fluorine on the viscosity of silicic magmas. *Geochimica Et Cosmochimica Acta*, **2004**, 68, 5159-5168	5.5	118
58	An expanded non-Arrhenian model for silicate melt viscosity: A treatment for metaluminous, peraluminous and peralkaline liquids. *Chemical Geology*, **2006**, 229, 42-56	4.2	89
57	Influence of glass polymerisation and oxidation on micro-Raman water analysis in alumino-silicate glasses. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 197-217	5.5	75
56	The dry and hydrous viscosities of alkaline melts from Vesuvius and Phlegrean Fields. *Chemical Geology*, **2003**, 202, 23-38	4.2	74
55	The viscosity of trachytes, and comparison with basalts, phonolites, and rhyolites. *Chemical Geology* , **2004**, 213, 49-61	4.2	72
54	Viscosity of peridotite liquid. *Earth and Planetary Science Letters*, **2004**, 226, 127-138	5.3	72
53	High-temperature limits on viscosity of non-Arrhenian silicate melts. *American Mineralogist*, **2004**, 88, 1390-1394	2.9	67
52	Predicting shear viscosity during volcanic processes at the glass transition: a calorimetric calibration. *Earth and Planetary Science Letters*, **2002**, 198, 417-427	5.3	66
51	Spectroscopic analysis (FTIR, Raman) of water in mafic and intermediate glasses and glass inclusions. *Geochimica Et Cosmochimica Acta*, **2010**, 74, 5641-5656	5.5	56
50	Viscosity and glass transition temperature of hydrous melts in the system CaAl2Si2O8□CaMgSi2O6. *Chemical Geology*, **2008**, 256, 203-215	4.2	56
49	Micro-Raman determination of iron redox state in dry natural glasses: Application to peralkaline rhyolites and basalts. *Chemical Geology*, **2009**, 259, 78-88	4.2	52
48	The rheology of peralkaline rhyolites from Pantelleria Island. *Journal of Volcanology and Geothermal Research*, **2013**, 249, 201-216	2.8	50

47	Viscosity of a Teide phonolite in the welding interval. *Journal of Volcanology and Geothermal Research*, **2000**, 103, 239-245	2.8	49
46	Rheological properties of magma from the 1538 eruption of Monte Nuovo (Phlegrean Fields, Italy): An experimental study. *Chemical Geology*, **2008**, 256, 158-171	4.2	44
45	A model for the viscosity of rhyolite as a function of H2O-content and pressure: A calibration based on centrifuge piston cylinder experiments. *Geochimica Et Cosmochimica Acta*, **2008**, 72, 6103-6123	5.5	43
44	The effect of oxygen fugacity on the rheological evolution of crystallizing basaltic melts. *Earth and Planetary Science Letters*, **2018**, 487, 21-32	5.3	42
43	Physical properties of CaAl2Si2O8□CaMgSi2O6□FeO□Fe2O3 melts: Analogues for extra-terrestrial basalt. *Chemical Geology*, **2013**, 346, 93-105	4.2	42
42	Thermo-rheological magma control on the impact of highly fluid lava flows at Mt. Nyiragongo. *Geophysical Research Letters*, **2007**, 34,	4.9	42
41	The rheological evolution of alkaline Vesuvius magmas and comparison with alkaline series from the Phlegrean Fields, Etna, Stromboli and Teide. *Geochimica Et Cosmochimica Acta*, **2009**, 73, 6613-6630	5.5	38
40	In situ thermal characterization of cooling/crystallizing lavas during rheology measurements and implications for lava flow emplacement. *Geochimica Et Cosmochimica Acta*, **2016**, 195, 244-258	5.5	38
39	A model for silicate melt viscosity in the system CaMgSi2O6-CaAl2Si2O8-NaAlSi3O8. *Geochimica Et Cosmochimica Acta*, **2005**, 69, 5333-5349	5.5	36
38	The rheological evolution of the 2014/2015 eruption at Holuhraun, central Iceland. *Bulletin of Volcanology*, **2017**, 79, 1	2.4	34
37	Heat capacity, configurational heat capacity and fragility of hydrous magmas. *Geochimica Et Cosmochimica Acta*, **2014**, 142, 314-333	5.5	33
36	Texture and composition of pumices and scoriae from the Campi Flegrei caldera (Italy): Implications on the dynamics of explosive eruptions. *Geochemistry, Geophysics, Geosystems*, **2008**, 9, n/a-n/a	3.6	32
35	The multiphase rheology of magmas from Monte Nuovo (Campi Flegrei, Italy). *Chemical Geology*, **2013**, 346, 213-227	4.2	31
34	The kinetic fragility of natural silicate melts. *Journal of Physics Condensed Matter*, **2003**, 15, S945-S954	1.8	28
33	Influence of composition and thermal history of volcanic glasses on water content as determined by micro-Raman spectrometry. *Applied Geochemistry*, **2006**, 21, 802-812	3.5	27
32	Dynamics of magma ascent and fragmentation in trachytic versus rhyolitic eruptions. *Journal of Volcanology and Geothermal Research*, **2004**, 131, 93-108	2.8	27
31	Modelling the non-Arrhenian rheology of silicate melts: Numerical considerations. *European Journal of Mineralogy*, **2002**, 14, 417-428	2.2	25
30	Shear Rate-Dependent Disequilibrium Rheology and Dynamics of Basalt Solidification. *Geophysical Research Letters*, **2018**, 45, 6466-6475	4.9	25

29	High-temperature deformation of volcanic materials in the presence of water. *American Mineralogist*, **2008**, 93, 74-80	2.9	20
28	A rheological model for glassforming silicate melts in the systems CAS, MAS, MCAS. *Journal of Physics Condensed Matter*, **2007**, 19, 205148	1.8	19
27	Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna. *Solid Earth*, **2010**, 1, 61-69	3.3	18
26	Effusive silicic volcanism in the Paran□Magmatic Province, South Brazil: Evidence for locally-fed lava flows and domes from detailed field work. *Journal of Volcanology and Geothermal Research*, **2018**, 355, 204-218	2.8	17
25	Rheology of porous volcanic materials: High-temperature experimentation under controlled water pressure. *Chemical Geology*, **2008**, 256, 216-230	4.2	17
24	Effusive silicic volcanism in the Paran□Magmatic Province, South Brazil: Physico-chemical conditions of storage and eruption and considerations on the rheological behavior during emplacement. *Journal of Volcanology and Geothermal Research*, **2018**, 355, 115-135	2.8	16
23	. *IEEE Transactions on Geoscience and Remote Sensing*, **2016**, 54, 6687-6699	8.1	16
22	Densification mechanisms of haplogranite glasses as a function of water content and pressure based on density and Raman data. *Geochimica Et Cosmochimica Acta*, **2014**, 138, 158-180	5.5	16
21	Towards a structural model for the viscosity of geological melts. *Earth and Planetary Science Letters* , **2018**, 501, 202-212	5.3	16
20	Permeability measurements of Campi Flegrei pyroclastic products: An example from the Campanian Ignimbrite and Monte Nuovo eruptions. *Journal of Volcanology and Geothermal Research*, **2014**, 272, 16-22	2.8	15
19	The 2.0□1.88 Ga Paleoproterozoic evolution of the southern Amazonian Craton (Brazil): An interpretation inferred by lithofaciological, geochemical and geochronological data. *Gondwana Research*, **2019**, 70, 1-24	5.1	14
18	Modelling configurational entropy of silicate melts. *Chemical Geology*, **2017**, 461, 140-151	4.2	12
17	A novel protocol for resolving feldspar crystals in synchrotron X-ray microtomographic images of crystallized natural magmas and synthetic analogs. *American Mineralogist*, **2016**, 101, 2301-2311	2.9	11
16	Paleoproterozoic felsic volcanism of the Tapajõ Mineral Province, Southern Amazon Craton, Brazil. *Journal of Volcanology and Geothermal Research*, **2016**, 310, 98-106	2.8	10
15	Heat capacity of hydrous trachybasalt from Mt Etna: comparison with CaAl2Si2O8 (An)□CaMgSi2O6 (Di) as basaltic proxy compositions. *Contributions To Mineralogy and Petrology*, **2015**, 170, 1	3.5	9
14	A calibrated database of Raman spectra for natural silicate glasses: implications for modelling melt physical properties. *Journal of Raman Spectroscopy*, **2020**, 51, 1822-1838	2.3	9
13	Volcanology of the Southwestern sector of Vesuvius volcano, Italy. *Journal of Maps*, **2016**, 12, 425-440	2.2	7
12	The heat capacity of hydrous multicomponent natural melts and glasses. *Chemical Geology*, **2017**, 461, 96-103	4.2	7

List of Publications

11	Archaeomagnetic dating of Copper Age furnaces at Croce di Papa village and relations on Vesuvius and Phlegraean Fields volcanic activity. *Journal of Volcanology and Geothermal Research*, **2018**, 349, 217-229	2.8	7
10	Raman Spectroscopy from Laboratory and Proximal to Remote Sensing: A Tool for the Volcanological Sciences. *Remote Sensing*, **2020**, 12, 805	5	6
9	Equilibrium Viscosity and Disequilibrium Rheology of a high Magnesium Basalt from Piton De La Fournaise volcano, La Reunion, Indian Ocean, France. *Annals of Geophysics*, **2018**, 61,	1.1	6
8	A Raman spectroscopic tool to estimate chemical composition of natural volcanic glasses. *Chemical Geology*, **2020**, 556, 119819	4.2	5
7	Giant gas bubbles in a rheomorphic vent fill at the Las Cañadas caldera, Tenerife (Canary Islands). *Bulletin of Volcanology*, **2009**, 71, 919-932	2.4	4
6	Advances in the rheology of natural multiphase silicate melts: Import for magma transport and lava flow emplacement. *Annals of Geophysics*, **2019**, 61,	1.1	4
5	From magma ascent to ash generation: investigating volcanic conduit processes by integrating experiments, numerical modeling, and observations. *Annals of Geophysics*, **2017**, 60,	1.1	3
4	Retrieving dissolved H2O content from micro-Raman spectroscopy on nanolitized silicic glasses: Application to volcanic products of the Paran□Magmatic Province, Brazil. *Chemical Geology*, **2021**, 567, 120058	4.2	3
3	Viscosity of Palmas-type magmas of the Paran□Magmatic Province (Rio Grande do Sul State, Brazil): Implications for high-temperature silicic volcanism. *Chemical Geology*, **2021**, 560, 119981	4.2	3
2	Rheological control on the dynamics of explosive activity in the 2000 summit eruption of Mt. Etna		2
1	Temperature-pressure-composition model for melt viscosity in the Di-An-Ab system. *Chemical Geology*, **2021**, 560, 119895	4.2	1