

# Andrea Di Muro

## List of Publications by Year in descending order

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75  
papers

2,688  
citations

172457

29  
h-index

197818

49  
g-index

80  
all docs

80  
docs citations

80  
times ranked

1970  
citing authors

#	ARTICLE	IF	CITATIONS
1	Conditions of Magma Storage, Degassing and Ascent at Stromboli: New Insights into the Volcano Plumbing System with Inferences on the Eruptive Dynamics. <i>Journal of Petrology</i> , 2010, 51, 603-626.	2.8	208
2	A model of degassing for Stromboli volcano. <i>Earth and Planetary Science Letters</i> , 2010, 295, 195-204.	4.4	148
3	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
4	A new comprehensive classification of the Piton de la Fournaise activity spanning the 1985–2010 period. Search and analysis of short-term precursors from a broad-band seismological station. <i>Journal of Volcanology and Geothermal Research</i> , 2012, 241-242, 78-104.	2.1	108
5	The evolution of pore connectivity in volcanic rocks. <i>Earth and Planetary Science Letters</i> , 2017, 462, 99-109.	4.4	96
6	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
7	The Shallow Plumbing System of Piton de la Fournaise Volcano (La Reunion Island, Indian Ocean) Revealed by the Major 2007 Caldera-Forming Eruption. <i>Journal of Petrology</i> , 2014, 55, 1287-1315.	2.8	85
8	Quantification of water content and speciation in natural silicic glasses (phonolite, dacite, rhyolite) by confocal microRaman spectrometry. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 2868-2884.	3.9	84
9	Magma and Volatile Supply to Post-collapse Volcanism and Block Resurgence in Siwi Caldera (Tanna) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.8	84
10	Role of conduit shear on ascent of the crystal-rich magma feeding the 800-year-b.p. Plinian eruption of Quilotoa Volcano (Ecuador). <i>Bulletin of Volcanology</i> , 2004, 66, 307-321.	3.0	67
11	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
12	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
13	Explosive activity of the summit cone of Piton de la Fournaise volcano (La Réunion island): A historical and geological review. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 264, 117-133.	2.1	58
14	Mass partition during collapsing and transitional columns by using numerical simulations. <i>Journal of Volcanology and Geothermal Research</i> , 2002, 115, 1-18.	2.1	52
15	Rift zones and magma plumbing system of Piton de la Fournaise volcano: How do they differ from Hawaii and Etna?. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 303, 112-129.	2.1	52
16	First Results from the UnderVolc High Resolution Seismic and GPS Network Deployed on Piton de la Fournaise Volcano. <i>Seismological Research Letters</i> , 2012, 83, 97-102.	1.9	49
17	Shallow system rejuvenation and magma discharge trends at Piton de la Fournaise volcano (La) Tj ETQq1 1 0.784314 rgBT /Overlock 10	4.4	48
18	Fall vs flow activity during the 1991 climactic eruption of Pinatubo Volcano (Philippines). <i>Bulletin of Volcanology</i> , 2001, 62, 549-566.	3.0	47

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19	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
20	Extensive CO <sub>2</sub> degassing in the upper mantle beneath oceanic basaltic volcanoes: First insights from Piton de la Fournaise volcano (La Réunion Island). <i>Geochimica Et Cosmochimica Acta</i> , 2018, 235, 376-401.	3.9	43
21	The 2018-ongoing Mayotte submarine eruption: Magma migration imaged by petrological monitoring. <i>Earth and Planetary Science Letters</i> , 2021, 571, 117085.	4.4	36
22	Contemporaneous convective and collapsing eruptive dynamics: The transitional regime of explosive eruptions. <i>Geophysical Research Letters</i> , 2004, 31, n/a-n/a.	4.0	35
23	Integrating field, textural, and geochemical monitoring to track eruption triggers and dynamics: a case study from Piton de la Fournaise. <i>Solid Earth</i> , 2018, 9, 431-455.	2.8	35
24	New data for the characterization of Milos obsidians. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2006, 268, 371-386.	1.5	34
25	The 2007 eruptions and caldera collapse of the Piton de la Fournaise volcano (La Réunion Island) from tilt analysis at a single very broadband seismic station. <i>Geophysical Research Letters</i> , 2014, 41, 2803-2811.	4.0	34
26	Effusive crises at Piton de la Fournaise 2014–2015: a review of a multi-national response model. <i>Journal of Applied Volcanology</i> , 2017, 6, .	2.0	34
27	Magma interactions, crystal mush formation, timescales, and unrest during caldera collapse and lateral eruption at ocean island basaltic volcanoes (Piton de la Fournaise, La Réunion). <i>Earth and Planetary Science Letters</i> , 2019, 515, 187-199.	4.4	33
28	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
29	Pre-1991 sulfur transfer between mafic injections and dacite magma in the Mt. Pinatubo reservoir. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 175, 517-540.	2.1	31
30	Deep fluid transfer evidenced by surface deformation during the 2014–2015 unrest at Piton de la Fournaise volcano. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 321, 140-148.	2.1	30
31	Complex colour and chemical zoning of sodalite-group phases in a ha <sup>1/4</sup> ynophyre lava from Mt. Vulture, Italy. <i>Mineralogical Magazine</i> , 2004, 68, 591-614.	1.4	29
32	Very- and ultra-long-period seismic signals prior to and during caldera formation on La Réunion Island. <i>Scientific Reports</i> , 2019, 9, 8068.	3.3	26
33	Footprints and conditions of multistep alkali enrichment in basaltic melts at Piton de la Fournaise (La Réunion Island). <i>Journal of Volcanology and Geothermal Research</i> , 2016, 321, 140-148.	3.0	26
34	Injection of vesicular magma into an andesitic dome at the effusive–explosive transition. <i>Earth and Planetary Science Letters</i> , 2010, 295, 83-90.	4.4	25
35	New evidence of CO <sub>2</sub> soil degassing anomalies on Piton de la Fournaise volcano and the link with volcano tectonic structures. <i>Geochemistry, Geophysics, Geosystems</i> , 2015, 16, 4388-4404.	2.5	25
36	New perspectives on volcano monitoring in a tropical environment: Continuous measurements of soil CO <sub>2</sub> flux at Piton de la Fournaise (La Réunion Island, France). <i>Geophysical Research Letters</i> , 2017, 44, 8244-8253.	4.0	25

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37	Eruptive dynamics of the Citlaltépetl Pumice-at Citlaltépetl volcano, Eastern Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2006, 158, 401-429.	2.1	24
38	Explosive eruptions from the interaction of magmatic and hydrothermal systems during flank extension: the Bellecombe Tephra of Piton de La Fournaise (La Réunion Island). <i>Bulletin of Volcanology</i> , 2016, 78, 1.	3.0	24
39	Toward continuous quantification of lava extrusion rate: Results from the multidisciplinary analysis of the 2 January 2010 eruption of Piton de la Fournaise volcano, La Réunion. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 3026-3047.	3.4	23
40	Magma Degassing at Piton de la Fournaise Volcano. <i>Active Volcanoes of the World</i> , 2016, , 203-222.	1.4	23
41	Basaltic dyke eruptions at Piton de La Fournaise: characterization of the eruptive products with implications for reservoir conditions, conduit processes and eruptive dynamics. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	23
42	Transport and sedimentation dynamics of transitional explosive eruption columns: The example of the 800BP Quilotoa plinian eruption (Ecuador). <i>Journal of Volcanology and Geothermal Research</i> , 2008, 174, 307-324.	2.1	22
43	MeMoVolc consensual document: a review of cross-disciplinary approaches to characterizing small explosive magmatic eruptions. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	22
44	Investigating the deepest part of a volcano plumbing system: Evidence for an active magma path below the western flank of Piton de la Fournaise (La Réunion Island). <i>Journal of Volcanology and Geothermal Research</i> , 2017, 341, 193-207.	2.1	22
45	Evidences of Plug Pressurization Enhancing Magma Fragmentation During the September 2016 Basaltic Eruption at Piton de la Fournaise (La Réunion Island, France). <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2019GC008611.	2.5	22
46	Fifteen Years of Intense Eruptive Activity (1998–2013) at Piton de la Fournaise Volcano: A Review. <i>Active Volcanoes of the World</i> , 2016, , 139-170.	1.4	22
47	First results of the Piton de la Fournaise STRAP 2015 experiment: multidisciplinary tracking of a volcanic gas and aerosol plume. <i>Atmospheric Chemistry and Physics</i> , 2017, 17, 5355-5378.	4.9	21
48	Timescales of magmatic processes during the eruptive cycle 2014–2015 at Piton de la Fournaise, La Réunion, obtained from Mg–Fe diffusion modelling in olivine. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	20
49	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
50	Lava flow hazard map of Piton de la Fournaise volcano. <i>Natural Hazards and Earth System Sciences</i> , 2021, 21, 2355-2377.	3.6	19
51	Magma Paths at Piton de la Fournaise Volcano. <i>Active Volcanoes of the World</i> , 2016, , 91-106.	1.4	19
52	Zirconolite and calzirtite in banded forsterite-spinel-calcite skarn ejecta from the 1631 eruption of Vesuvius: inferences for magma-wallrock interactions. <i>Mineralogical Magazine</i> , 2009, 73, 333-356.	1.4	17
53	Control of source fertility on the eruptive activity of Piton de la Fournaise volcano, La Réunion. <i>Scientific Reports</i> , 2018, 8, 14478.	3.3	16
54	Variability of ash deposits at Piton de la Fournaise (La Reunion Island): insights into fragmentation processes at basaltic shield volcanoes. <i>Bulletin of Volcanology</i> , 2020, 82, 1.	3.0	16

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55	Degassing and gas percolation in basaltic magmas. <i>Earth and Planetary Science Letters</i> , 2021, 573, 117134.	4.4	16
56	Eruptive Activity on the Western Flank of Piton de la Fournaise (La Réunion Island, Indian Ocean): Insights on Magma Transfer, Storage and Evolution at an Oceanic Volcanic Island. <i>Journal of Petrology</i> , 2019, 60, 1717-1752.	2.8	14
57	Paroxysmal eruptions tracked by variations of helium isotopes: inferences from Piton de la Fournaise (La Réunion island). <i>Scientific Reports</i> , 2020, 10, 9809.	3.3	14
58	Novel interpretation for shift between eruptive styles in some volcanoes. <i>Eos</i> , 2005, 86, 333.	0.1	13
59	Pre-historic (<5kiloyear) Explosive Activity at Piton de la Fournaise Volcano. <i>Active Volcanoes of the World</i> , 2016, , 107-138.	1.4	13
60	Volcano Crisis Management at Piton de la Fournaise (La Réunion) during the COVID-19 Lockdown. <i>Seismological Research Letters</i> , 2021, 92, 38-52.	1.9	12
61	Seismic anisotropy and its precursory change before eruptions at Piton de la Fournaise volcano, La Réunion. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 3430-3458.	3.4	11
62	Small-scale spatial variability of soil CO2 flux: Implication for monitoring strategy. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 366, 13-26.	2.1	11
63	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
64	Modeling the lava heat flux during severe effusive volcanic eruption: An important impact on surface air quality. <i>Journal of Geophysical Research D: Atmospheres</i> , 2014, 119, 11,729-11,742.	3.3	10
65	Explosive style, magma degassing and evolution in the Chaimilla eruption, Villarrica volcano, Southern Andes. <i>Bulletin of Volcanology</i> , 2015, 77, 1.	3.0	10
66	Raman spectroscopy as suitable tool for the field study of recent volcanic environments. <i>Journal of Raman Spectroscopy</i> , 2016, 47, 740-742.	2.5	8
67	Gas Geochemistry at Grande Comore and Mayotte Volcanic Islands (Comoros Archipelago), Indian Ocean. <i>Geochemistry, Geophysics, Geosystems</i> , 2021, 22, e2021GC009870.	2.5	8
68	Geology and Morphostructural Evolution of Piton de la Fournaise. <i>Active Volcanoes of the World</i> , 2016, , 45-59.	1.4	7
69	Comment on "Conduit convection, magma mixing, and melt inclusion trends at persistent degassing volcanoes" by Fred Witham, published in <i>Earth Planetary Science Letters</i> (2011) 301, 345-352. <i>Earth and Planetary Science Letters</i> , 2011, 306, 306-308.	4.4	6
70	Origin and fate of sulfide liquids in hotspot volcanism (La Réunion): Pb isotope constraints from residual Fe-Cu oxides. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 194, 179-192.	3.9	6
71	Magmatic and phreatomagmatic contributions on the ash-dominated basaltic eruptions: Insights from the April and November-December 2005 paroxysmal events at Karthala volcano, Comoros. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 424, 107500.	2.1	4
72	Volcanological Map of the Plaine des Sables, Piton de la Fournaise. <i>Active Volcanoes of the World</i> , 2016, , 327-330.	1.4	3

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73	Lava Volume from Remote Sensing Data: Comparisons with Reverse Petrological Approaches for Two Types of Effusive Eruption. <i>Remote Sensing</i> , 2022, 14, 323.	4.0	3
74	Simulations and parameterisation of shallow volcanic plumes of Piton de la Fournaise, Réunion Island, using MAFSO-NH version 4-9-3. <i>Geoscientific Model Development</i> , 2015, 8, 1427-1443.	3.6	2
75	Intracaldera explosions and lava emissions during the 2007 caldera collapse of Piton de la Fournaise, La Réunion Island. <i>Bulletin of Volcanology</i> , 2022, 84, 1.	3.0	1