

Roberto Moretti

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8153684/publications.pdf>

Version: 2024-02-01

88
papers

4,461
citations

94269

37
h-index

106150

65
g-index

95
all docs

95
docs citations

95
times ranked

2860
citing authors

#	ARTICLE	IF	CITATIONS
1	The compositional dependence of the saturation surface of H ₂ O+CO ₂ fluids in silicate melts. <i>Chemical Geology</i> , 2006, 229, 78-95.	1.4	485
2	Forecasting Etna eruptions by real-time observation of volcanic gas composition. <i>Geology</i> , 2007, 35, 1115.	2.0	270
3	REE in skarn systems: A LA-ICP-MS study of garnets from the Crown Jewel gold deposit. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 185-205.	1.6	220
4	The origin of the fumaroles of La Solfatara (Campi Flegrei, South Italy). <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 3040-3055.	1.6	161
5	The 2007 eruption of Stromboli volcano: Insights from real-time measurement of the volcanic gas plume CO ₂ /SO ₂ ratio. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 182, 221-230.	0.8	155
6	Sulfur Isotopes in Magmatic-Hydrothermal Systems, Melts, and Magmas. <i>Reviews in Mineralogy and Geochemistry</i> , 2011, 73, 423-492.	2.2	153
7	A model of degassing for Stromboli volcano. <i>Earth and Planetary Science Letters</i> , 2010, 295, 195-204.	1.8	148
8	Modeling the Solubility of Sulfur in Magmas: A 50-Year Old Geochemical Challenge. <i>Reviews in Mineralogy and Geochemistry</i> , 2011, 73, 167-213.	2.2	132
9	Oxidation state of iron in silicate glasses and melts: a thermochemical model. <i>Chemical Geology</i> , 2001, 174, 157-179.	1.4	116
10	Mantle to surface degassing of alkalic magmas at Erebus volcano, Antarctica. <i>Earth and Planetary Science Letters</i> , 2011, 306, 261-271.	1.8	116
11	Turmoil at Turrialba Volcano (Costa Rica): Degassing and eruptive processes inferred from high-frequency gas monitoring. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 5761-5775.	1.4	105
12	The feeding system of Agnano-Monte Spina eruption (Campi Flegrei, Italy): Dragging the past into present activity and future scenarios. <i>Chemical Geology</i> , 2010, 270, 135-147.	1.4	102
13	On the oxidation state and volatile behavior in multicomponent gas-melt equilibria. <i>Chemical Geology</i> , 2004, 213, 265-280.	1.4	97
14	Determination of water content in silicate glasses using Raman spectrometry: Implications for the study of explosive volcanism. <i>American Mineralogist</i> , 2012, 97, 779-790.	0.9	94
15	Excess volatiles supplied by mingling of mafic magma at an andesite arc volcano. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	1.0	86
16	Solubility and speciation of sulfur in silicate melts: The Conjugated Toop-Samis-Flood-Grjothheim (CTSFG) model. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 801-823.	1.6	85
17	The deep magmatic system of the Campi Flegrei caldera (Italy). <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	85
18	Chlorine partitioning between a basaltic melt and H ₂ O-CO ₂ fluids at Mount Etna. <i>Chemical Geology</i> , 2009, 263, 37-50.	1.4	75

#	ARTICLE	IF	CITATIONS
19	Hydrogen in the gas plume of an open-vent volcano, Mount Etna, Italy. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	70
20	Modeling the interplay of fO ₂ and fS ₂ along the FeS-silicate melt equilibrium. <i>Chemical Geology</i> , 2008, 256, 286-298.	1.4	66
21	A <sc>CO</sc> ₂â€gas precursor to the <sc>M</sc>arch 2015 <sc>V</sc>illarrica volcano eruption. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2120-2132.	1.0	66
22	A model for the saturation of C-O-H-S fluids in silicate melts. <i>Geological Society Special Publication</i> , 2003, 213, 81-101.	0.8	63
23	Multiple magma degassing sources at an explosive volcano. <i>Earth and Planetary Science Letters</i> , 2013, 367, 95-104.	1.8	60
24	The Campi Flegrei caldera unrest: Discriminating magma intrusions from hydrothermal effects and implications for possible evolution. <i>Earth-Science Reviews</i> , 2019, 188, 108-122.	4.0	60
25	A CO ₂ -rich magma source beneath the Phlegraean Volcanic District (Southern Italy): Evidence from a melt inclusion study. <i>Chemical Geology</i> , 2011, 287, 66-80.	1.4	59
26	The active portion of the Campi Flegrei caldera structure imaged by 3â€ inversion of gravity data. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 4681-4697.	1.0	59
27	The Deep Plumbing System of Ischia: a Physico-chemical Window on the Fluid-saturated and CO ₂ -sustained Neapolitan Volcanism (Southern Italy). <i>Journal of Petrology</i> , 2013, 54, 951-984.	1.1	56
28	First 13C/12C isotopic characterisation of volcanic plume CO ₂ . <i>Bulletin of Volcanology</i> , 2011, 73, 531-542.	1.1	52
29	Tracking Formation of a Lava Lake From Ground and Space: Masaya Volcano (Nicaragua), 2014â€2017. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 496-515.	1.0	52
30	Geochemistry of the Submarine Gaseous Emissions of Panarea (Aeolian Islands, Southern Italy): Magmatic vs. Hydrothermal Origin and Implications for Volcanic Surveillance. <i>Pure and Applied Geophysics</i> , 2006, 163, 759-780.	0.8	48
31	Geochemical and isotopic insights into the assembly, evolution and disruption of a magmatic plumbing system before and after a cataclysmic caldera-collapse eruption at Ischia volcano (Italy). <i>Contributions To Mineralogy and Petrology</i> , 2014, 168, 1.	1.2	48
32	Polymerization and disproportionation of iron and sulfur in silicate melts: insights from an optical basicity-based approach. <i>Journal of Non-Crystalline Solids</i> , 2003, 323, 111-119.	1.5	46
33	The 2018 unrest phase at La Soufrierre of Guadeloupe (French West Indies) andesitic volcano: Scrutiny of a failed but prodromal phreatic eruption. <i>Journal of Volcanology and Geothermal Research</i> , 2020, 393, 106769.	0.8	45
34	Degassing vs. eruptive styles at Mt. Etna volcano (Sicily, Italy). Part I: Volatile stocking, gas fluxing, and the shift from low-energy to highly explosive basaltic eruptions. <i>Chemical Geology</i> , 2018, 482, 1-17.	1.4	43
35	Mantle and crustal processes in the magmatism of the Campania region: inferences from mineralogy, geochemistry, and Srâ€Ndâ€O isotopes of young hybrid volcanics of the Ischia island (South Italy). <i>Contributions To Mineralogy and Petrology</i> , 2013, 165, 1173-1194.	1.2	42
36	Experimental investigations on the explosivity of steamâ€driven eruptions: A case study of Solfatara volcano (Campi Flegrei). <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 7996-8014.	1.4	38

#	ARTICLE	IF	CITATIONS
37	A geochemical and geophysical reappraisal to the significance of the recent unrest at Campi Flegrei caldera (Southern Italy). <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 1244-1269.	1.0	38
38	Open-system magma evolution and fluid transfer at Campi Flegrei caldera (Southern Italy) during the past 5 ka as revealed by geochemical and isotopic data: The example of the Nisida eruption. <i>Chemical Geology</i> , 2016, 427, 109-124.	1.4	37
39	Rheology of phonolitic magmas – the case of the Erebus lava lake. <i>Earth and Planetary Science Letters</i> , 2015, 411, 53-61.	1.8	35
40	An Appraisal of Endmember Energy and Mixing Properties of Rare Earth Garnets. <i>Geochimica Et Cosmochimica Acta</i> , 1998, 62, 1147-1173.	1.6	34
41	Alteration-induced Volcano Instability at La Soufrière de Guadeloupe (Eastern Caribbean). <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB022514.	1.4	34
42	A polymeric approach to the sulfide capacity of silicate slags and melts. <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2003, 34, 399-410.	1.0	31
43	7. Modeling the Solubility of Sulfur in Magmas: A 50-Year Old Geochemical Challenge. , 2011, , 167-214.		29
44	Caldera unrest driven by CO ₂ -induced drying of the deep hydrothermal system. <i>Scientific Reports</i> , 2018, 8, 8309.	1.6	28
45	Spatio-Temporal Relationships between Fumarolic Activity, Hydrothermal Fluid Circulation and Geophysical Signals at an Arc Volcano in Degassing Unrest: La Soufrière of Guadeloupe (French West Indies). <i>Journal of Geophysical Research</i> , 2021, 126, e2021JB022514.	1.0	28
46	Seismic precursors of a basaltic paroxysmal explosion track deep gas accumulation and slug upraise. <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	27
47	Speciation and amphoteric behaviour of water in aluminosilicate melts and glasses: high-temperature Raman spectroscopy and reaction equilibria. <i>European Journal of Mineralogy</i> , 2014, 25, 777-790.	0.4	24
48	Heterogeneous large total CO ₂ abundance in the shallow magmatic system of Kilauea volcano, Hawaii. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	23
49	The thermal regime of the Campi Flegrei magmatic system reconstructed through 3D numerical simulations. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 328, 210-221.	0.8	23
50	Lux-Flood basicity of binary silicate melts. <i>Journal of Physics and Chemistry of Solids</i> , 2004, 65, 1609-1614.	1.9	22
51	Polymerisation, basicity, oxidation state and their role in ionic modelling of silicate melts. <i>Annals of Geophysics</i> , 2009, 48, .	0.5	21
52	A multi-decadal view of the heat and mass budget of a volcano in unrest: La Soufrière de Guadeloupe (French West Indies). <i>Bulletin of Volcanology</i> , 2021, 83, 1.	1.1	20
53	Feasibility study of a geothermal energy system for indoor swimming pool in Campi Flegrei area. <i>Thermal Science and Engineering Progress</i> , 2018, 6, 421-425.	1.3	18
54	Volatile segregation and generation of highly vesiculated explosive magmas by volatile-melt fining processes: The case of the Campanian Ignimbrite eruption. <i>Chemical Geology</i> , 2019, 503, 1-14.	1.4	18

#	ARTICLE	IF	CITATIONS
55	Magmas are the Largest Repositories and Carriers of Earth's Redox Processes. <i>Elements</i> , 2020, 16, 173-178.	0.5	18
56	The amphoteric behavior of water in silicate melts from the point of view of their ionic-polymeric constitution. <i>Chemical Geology</i> , 2014, 367, 23-33.	1.4	17
57	Volcanic and Geothermal Redox Engines. <i>Elements</i> , 2020, 16, 179-184.	0.5	16
58	The thermal properties of hydrothermally altered andesites from La Soufrière de Guadeloupe (Eastern Tj ETQq0 0 0 rgBT /Overlock 10 T	0.8	14
59	Understanding volcanic hazard at the most populated caldera in the world: <sc>C</sc>ampi <sc>F</sc>legrei, <sc>S</sc>outhern <sc>I</sc>aly. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2004-2008.	1.0	13
60	A machine-learning approach for automatic classification of volcanic seismicity at La Soufrière Volcano, Guadeloupe. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 411, 107151.	0.8	13
61	The tensile strength of hydrothermally altered volcanic rocks. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 428, 107576.	0.8	13
62	Gas Monitoring of Volcanic-Hydrothermal Plumes in a Tropical Environment: The Case of La Soufrière de Guadeloupe Unrest Volcano (Lesser Antilles). <i>Frontiers in Earth Science</i> , 2022, 10, .	0.8	12
63	Earth's Electrodes. <i>Elements</i> , 2020, 16, 157-160.	0.5	11
64	Terminal Strombolian activity at Etna's central craters during summer 2012: The most CO ₂ -rich volcanic gas ever recorded at Mount Etna. <i>Geochemical Journal</i> , 2016, 50, 123-138.	0.5	11
65	Intercomparison of geochemical techniques at La Soufrière de Guadeloupe (FWI) volcano: their advantages and their limits over a long-standing unrest. <i>Italian Journal of Geosciences</i> , 2020, 139, 398-412.	0.4	10
66	Reactivation of Stromboli's summit craters at the end of the 2007 effusive eruption detected by thermal surveys and seismicity. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 7376-7395.	1.4	9
67	Improved quantification of CO ₂ emission at Campi Flegrei by combined Lagrangian Stochastic and Eulerian dispersion modelling. <i>Atmospheric Environment</i> , 2017, 170, 1-11.	1.9	9
68	In situ XANES study of the influence of varying temperature and oxygen fugacity on iron oxidation state and coordination in a phonolitic melt. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	1.2	9
69	Magmatic Processes at La Soufrière de Guadeloupe: Insights From Crystal Studies and Diffusion Timescales for Eruption Onset. <i>Frontiers in Earth Science</i> , 2021, 9, .	0.8	9
70	Thermodynamics of Multi-component Gas-Melt Equilibrium in Magmas: Theory, Models, and Applications. <i>Reviews in Mineralogy and Geochemistry</i> , 2022, 87, 431-556.	2.2	9
71	Modeling of the thermal state of Mount Vesuvius from 1631 A.D. to present and the role of CO ₂ degassing on the volcanic conduit closure after the 1944 A.D. eruption. <i>Journal of Geophysical Research</i> , 2007, 112, .	3.3	8
72	Real-time quadrupole mass spectrometry of hydrothermal gases from the unstable Pisciarelli fumaroles (Campi Flegrei): Trends, challenges and processes. <i>International Journal of Mass Spectrometry</i> , 2017, 415, 44-54.	0.7	8

#	ARTICLE	IF	CITATIONS
73	Bottom-up vs top-down drivers of eruption style: Petro-geochemical constraints from the holocene explosive activity at La Soufrière de Guadeloupe. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 424, 107488.	0.8	8
74	Hydrothermal versus magmatic. , 2020, , 371-406.		7
75	Physics, chemistry and rheology of silicate melts and glasses. <i>Chemical Geology</i> , 2006, 229, 1.	1.4	6
76	Testing gas dispersion modelling: A case study at La Soufrière volcano (Guadeloupe, Lesser Antilles). <i>Journal of Volcanology and Geothermal Research</i> , 2021, 417, 107312.	0.8	6
77	Monitoring Hydrothermal Activity Using Major and Trace Elements in Low-Temperature Fumarolic Condensates: The Case of La Soufriere de Guadeloupe Volcano. <i>Geosciences (Switzerland)</i> , 2022, 12, 267.	1.0	6
78	14. Sulfur Isotopes in Magmatic-Hydrothermal Systems, Melts, and Magmas. , 2011, , 423-492.		5
79	The Basse-Terre Island of Guadeloupe (Eastern Caribbean, France) and Its Volcanic-Hydrothermal Geodiversity: A Case Study of Challenges, Perspectives, and New Paradigms for Resilience and Sustainability on Volcanic Islands. <i>Geosciences (Switzerland)</i> , 2021, 11, 454.	1.0	5
80	Decoding water-rock interaction and volatile input at La Soufriere volcano (Guadeloupe) using time-series major and trace element analyses in gas condensates. <i>Journal of Volcanology and Geothermal Research</i> , 2022, 425, 107517.	0.8	5
81	Whole-rock oxygen isotope ratios as a proxy for the strength and stiffness of hydrothermally altered volcanic rocks. <i>Bulletin of Volcanology</i> , 2022, 84, .	1.1	5
82	Gas Leakage From Shallow Ponding Magma and Trapdoor Faulting at Sierra Negra Volcano (Isabela) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	4
83	Redox behavior of degassing magmas: critical review and comparison of glass-based oxybarometers with application to Etna volcano. <i>Comptes Rendus - Geoscience</i> , 2022, 354, 249-279.	0.4	4
84	Building a Natural-Hazard-Resilient High-Quality Seismic Network: How WI Network Sustained Hurricanes Maria and Irma. <i>Seismological Research Letters</i> , 2021, 92, 77-84.	0.8	3
85	On the significance of static interactions in silicate garnets. <i>Journal of Physics and Chemistry of Solids</i> , 1998, 59, 893-901.	1.9	2
86	Seismogenic potential of withdrawal-reinjection cycles: Numerical modelling and implication on induced seismicity. <i>Geothermics</i> , 2020, 85, 101770.	1.5	2
87	Metallome deregulation and health-related impacts due to long-term exposure to recent volcanic ash deposits: New chemical and isotopic insights. <i>Science of the Total Environment</i> , 2022, 829, 154383.	3.9	1
88	8th Silicate Melt Workshop. <i>Chemical Geology</i> , 2008, 256, 77-79.	1.4	0