Sergio Gurrieri

List of Publications by Year
in descending order

65	3,024	159585 30	168389 53
papers	citations	h-index	g-index

69	69	69	2134
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Forecasting Etna eruptions by real-time observation of volcanic gas composition. Geology, 2007, 35, 1115.	4.4	270
2	Chemical mapping of a fumarolic field: La Fossa Crater, Vulcano Island (Aeolian Islands, Italy). Geophysical Research Letters, 2005, 32, .	4.0	160
3	The 2007 eruption of Stromboli volcano: Insights from real-time measurement of the volcanic gas plume CO2/SO2 ratio. Journal of Volcanology and Geothermal Research, 2009, 182, 221-230.	2.1	155
4	Unmanned aerial vehicle measurements of volcanic carbon dioxide fluxes. Geophysical Research Letters, 2008, 35, .	4.0	142
5	Emission of bromine and iodine from Mount Etna volcano. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	116
6	Total volatile flux from Mount Etna. Geophysical Research Letters, 2008, 35, .	4.0	112
7	Insights into magma and fluid transfer at Mount Etna by a multiparametric approach: A model of the events leading to the 2011 eruptive cycle. Journal of Geophysical Research: Solid Earth, 2013, 118, 3519-3539.	3.4	108
8	Energetics of chemolithoautotrophy in the hydrothermal system of Vulcano Island, southern Italy. Geobiology, 2003, 1, 37-58.	2.4	105
9	Patterns in the recent 2007â€“2008 activity of Mount Etna volcano investigated by integrated geophysical and geochemical observations. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	88
10	Rates of carbon dioxide plume degassing from Mount Etna volcano. Journal of Geophysical Research, 2006, 111, .	3.3	86
11	Anomalous soil CO 2 degassing in relation to faults and eruptive fissures on Mount Etna (Sicily, Italy). Bulletin of Volcanology, 1998, 60, 252-259.	3.0	80
12	Relationships between diffuse CO 2 emissions and volcanic activity on the island of Vulcano (Aeolian) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.0	77
13	Variation of H₂O/CO₂ and CO₂/SO₂ ratios of volcanic gases discharged by continuous degassing of Mount Etna volcano, Italy. Journal of Geophysical Research, 2008, 113, .	3.3	74
14	Plume chemistry provides insights into mechanisms of sulfur and halogen degassing in basaltic volcanoes. Earth and Planetary Science Letters, 2004, 222, 469-483.	4.4	71
15	Evaluation of carbon isotope fractionation of soil CO2 under an advectiveâ€“diffusive regimen: A tool for computing the isotopic composition of unfractionated deep source. Geochimica Et Cosmochimica Acta, 2007, 71, 3016-3027.	3.9	64
16	Soil CO2 degassing on Mt Etna (Sicily) during the period 1989?1993: discrimination between climatic and volcanic influences. Bulletin of Volcanology, 1995, 57, 52-60.	3.0	62
17	Trace metal modeling of groundwaterâ€“gasâ€“rock interactions in a volcanic aquifer: Mount Vesuvius, Southern Italy. Chemical Geology, 2005, 216, 289-311.	3.3	62
18	Soil CO2 degassing along tectonic structures of Mount Etna (Sicily): the Pernicana fault. Applied Geochemistry, 1997, 12, 429-436.	3.0	61

#	Article	IF	Citations
19	First observational evidence for the CO₂-driven origin of Stromboli's major explosions. Solid Earth, 2011, 2, 135-142.	2.8	56
20	Tracking Formation of a Lava Lake From Ground and Space: Masaya Volcano (Nicaragua), 2014â€“2017. Geochemistry, Geophysics, Geosystems, 2018, 19, 496-515.	2.5	52
21	CO2flux measurements in volcanic areas using the dynamic concentration method: Influence of soil permeability. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	47
22	Chemical and isotopic characterization of the gases of Mount Etna (Italy). Journal of Volcanology and Geothermal Research, 1997, 78, 65-76.	2.1	43
23	New evidence for the form and extent of the Pernicana Fault System (Mt. Etna) from structural and soilâ€“gas surveying. Journal of Volcanology and Geothermal Research, 1998, 84, 143-152.	2.1	42
24	Ten years of soil CO₂ continuous monitoring on Mt. Etna: Exploring the relationship between processes of soil degassing and volcanic activity. Geochemistry, Geophysics, Geosystems, 2013, 14, 2886-2899.	2.5	42
25	Soil CO. Bulletin of Volcanology, 1995, 57, 52.	3.0	42
26	Geochemical monitoring of groundwaters (1998â€“2001) at Vesuvius volcano (Italy). Journal of Volcanology and Geothermal Research, 2004, 133, 81-104.	2.1	41
27	Microbial communities near the oxic/anoxic interface in the hydrothermal system of Vulcano Island, Italy. Chemical Geology, 2005, 224, 169-182.	3.3	41
28	Diffuse degassing of carbon dioxide at Sommaâ€“Vesuvius volcanic complex (Southern Italy) and its relation with regional tectonics. Journal of Volcanology and Geothermal Research, 2004, 133, 55-79.	2.1	38
29	Pressurization and depressurization phases inside the plumbing system of Mount Etna volcano: Evidence from a multiparametric approach. Journal of Geophysical Research: Solid Earth, 2015, 120, 5965-5982.	3.4	36
30	Gas hazard on Vulcano Island. Nature, 1991, 350, 26-27.	27.8	34
31	Magma-ascent processes during 2005â€“2009 at Mt Etna inferred by soil CO2 emissions in peripheral areas of the volcano. Chemical Geology, 2012, 330-331, 218-227.	3.3	31
32	Tectonic control over large-scale diffuse degassing in eastern Sicily (Italy). Geofluids, 2002, 2, 273-284.	0.7	30
33	Hydrothermal buffering of the SO2/H2S ratio in volcanic gases: Evidence from La Fossa Crater fumarolic field, Vulcano Island. Geophysical Research Letters, 2006, 33, .	4.0	29
34	Temporal Changes in Fluid Chemistry and Energy Profiles in the Vulcano Island Hydrothermal System. Astrobiology, 2007, 7, 905-932.	3.0	27
35	The monitoring of natural soil CO2 emissions: Issues and perspectives. Earth-Science Reviews, 2019, 198, 102928.	9.1	27
36	New evidence of CO₂ soil degassing anomalies on <scp>P</scp>iton de la <scp>F</scp>ournaise volcano and the link with volcano tectonic structures. Geochemistry, Geophysics, Geosystems, 2015, 16, 4388-4404.	2.5	25

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37	New perspectives on volcano monitoring in a tropical environment: Continuous measurements of soil CO₂ flux at Piton de la Fournaise (La RÃ©union Island, France). Geophysical Research Letters, 2017, 44, 8244-8253.	4.0	25
38	Continuous monitoring of soil CO₂ flux on Mt. Etna: The 2004â€“2005 eruption and the role of regional tectonics and volcano tectonics. Journal of Geophysical Research, 2008, 113, .	3.3	22
39	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 RÃ©union Island). Journal of Volcanology and Geothermal Research, 2017, 341, 193-207.	2.1	22
40	Fault-controlled Soil CO2 Degassing and Shallow Magma Bodies: Summit and Lower East Rift of Kilauea Volcano (Hawaii), 1997. Pure and Applied Geophysics, 2006, 163, 853-867.	1.9	21
41	Effects of soil gas permeability and recirculation flux on soil CO2 flux measurements performed using a closed dynamic accumulation chamber. Chemical Geology, 2009, 265, 387-393.	3.3	21
42	Relationship between soil CO2 flux and volcanic tremor at Mt. Etna: Implications for magma dynamics. Environmental Earth Sciences, 2010, 61, 477-489.	2.7	21
43	Inverse and forward modelling of groundwater circulation in a seismically active area (Monferrato,) Tj ETQq1 1 0.784314 rgBT /Overlo 2008, 248, 14-39.	3.3	20
44	Long-term record of CO2degassing along Mt. Etna's flanks and its relationship with magma dynamics and eastern flank instability. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	20
45	Continuous monitoring of hydrogen and carbon dioxide at Mt Etna. Chemical Geology, 2013, 357, 41-51.	3.3	20
46	Intense overpressurization at basaltic open-conduit volcanoes as inferred by geochemical signals: The case of the Mt. Etna December 2018 eruption. Science Advances, 2021, 7, eabg6297.	10.3	20
47	Crustal dynamics of Mount Vesuvius from 1998 to 2005: Effects on seismicity and fluid circulation. Journal of Geophysical Research, 2008, 113, .	3.3	19
48	Geochemical investigations applied to active fault detection in a volcanic area: the North-East Rift on Mt. Etna (Sicily, Italy). Geophysical Research Letters, 1999, 26, 2005-2008.	4.0	18
49	In situ Permeability Measurements Based on a Radial Gas Advection Model: Relationships Between Soil Permeability and Diffuse CO2 Degassing in Volcanic Areas. Pure and Applied Geophysics, 2006, 163, 897-914.	1.9	18
50	CO2 and H2S concentrations in the atmosphere at the Solfatara of Pozzuoli. Bulletin of Volcanology, 1984, 47, 287-293.	3.0	17
51	Hydrologic and geochemical survey of the lake â€œSpecchio di Venereâ€•(Pantelleria island, Southern) Tj ETQq1 1 0.784314 rgBT /Ov	1.2	17
52	Long-term continuous monitoring of the dissolved CO2 performed by using a new device in groundwater of the Mt. Etna (southern Italy). Water Research, 2011, 45, 3005-3011.	11.3	15
53	Contemporary total dissolved gas pressure and soil temperature anomalies recorded at Stromboli volcano (Italy). Geophysical Research Letters, 2007, 34, .	4.0	12
54	Volcano Crisis Management at Piton de la Fournaise (La RÃ©union) during the COVID-19 Lockdown. Seismological Research Letters, 2021, 92, 38-52.	1.9	12

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55	Small-scale spatial variability of soil CO2 flux: Implication for monitoring strategy. Journal of Volcanology and Geothermal Research, 2018, 366, 13-26.	2.1	11
56	A PTFE membrane for the in situ extraction of dissolved gases in natural waters: Theory and applications. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	10
57	Asynchronous changes of CO₂, H₂, and He concentrations in soil gases: A theoretical model and experimental results. Journal of Geophysical Research: Solid Earth, 2016, 121, 1565-1583.	3.4	10
58	The first observations of CO2 and CO2/SO2 degassing variations recorded at Mt. Etna during the 2018 eruptions followed by three strong earthquakes. Italian Journal of Geosciences, 2021, 140, 95-106.	0.8	10
59	Change in magma supply dynamics identified in observations of soil CO2 emissions in the summit area of Mt. Etna. Bulletin of Volcanology, 2014, 76, 1.	3.0	9
60	Stressâ€induced temperature variations in groundwater of the Monferrato area (northâ€western Italy). Geofluids, 2012, 12, 142-149.	0.7	8
61	Temporal variations in air permeability and soil CO 2 flux in volcanic ash soils (island of V ulcano, I) Tj ETQq1 1 0.784314 rgBT /Overlo	2.5	8
62	An innovative method for continuous measurement of soil CO2 flux. Chemical Geology, 2013, 341, 102-109.	3.3	7
63	Using pressure transients within a polymeric membrane for gas composition measurements. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	2
64	Wavelet-based filtering and prediction of soil CO2 flux: Example from Etna volcano (Italy). Journal of Volcanology and Geothermal Research, 2022, 421, 107421.	2.1	2
65	Fault-controlled Soil CO2 Degassing and Shallow Magma Bodies: Summit and Lower East Rift of Kilauea Volcano (Hawaii), 1997. , 0, , 853-867.		1