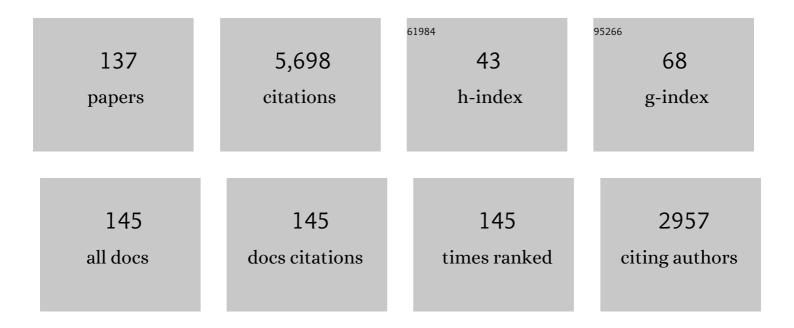
Alessandro Aiuppa

List of Publications by Year in descending order

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ALESSANDRO ALLIDDA

#	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	A model of degassing for Stromboli volcano. Earth and Planetary Science Letters, 2010, 295, 195-204.	4.4	148
5	Reactive halogen chemistry in volcanic plumes. Journal of Geophysical Research, 2007, 112, .	3.3	144
6	Magmas near the critical degassing pressure drive volcanic unrest towards a critical state. Nature Communications, 2016, 7, 13712.	12.8	144
7	Unmanned aerial vehicle measurements of volcanic carbon dioxide fluxes. Geophysical Research Letters, 2008, 35, .	4.0	142
8	H2S fluxes from Mt. Etna, Stromboli, and Vulcano (Italy) and implications for the sulfur budget at volcanoes. Geochimica Et Cosmochimica Acta, 2005, 69, 1861-1871.	3.9	139
9	Along-arc, inter-arc and arc-to-arc variations in volcanic gas CO 2 /S T ratios reveal dual source of carbon in arc volcanism. Earth-Science Reviews, 2017, 168, 24-47.	9.1	131
10	BrO formation in volcanic plumes. Geochimica Et Cosmochimica Acta, 2006, 70, 2935-2941.	3.9	122
11	Total volatile flux from Mount Etna. Geophysical Research Letters, 2008, 35, .	4.0	112
12	The emissions of CO2 and other volatiles from the world's subaerial volcanoes. Scientific Reports, 2019, 9, 18716.	3.3	109
13	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
14	Turmoil at Turrialba Volcano (Costa Rica): Degassing and eruptive processes inferred from highâ€frequency gas monitoring. Journal of Geophysical Research: Solid Earth, 2016, 121, 5761-5775.	3.4	105
15	Short-period volcanic gas precursors to phreatic eruptions: Insights from Poás Volcano, Costa Rica. Earth and Planetary Science Letters, 2016, 442, 218-227.	4.4	105
16	Degassing of halogens from basaltic volcanism: Insights from volcanic gas observations. Chemical Geology, 2009, 263, 99-109.	3.3	101
17	Unusually large magmatic CO ₂ gas emissions prior to a basaltic paroxysm. Geophysical Research Letters, 2010, 37, .	4.0	95
18	First observations of the fumarolic gas output from a restless caldera: Implications for the current period of unrest (2005–2013) at Campi Flegrei. Geochemistry, Geophysics, Geosystems, 2013, 14, 4153-4169.	2.5	91

#	Article	IF	CITATIONS
19	Patterns in the recent 2007–2008 activity of Mount Etna volcano investigated by integrated geophysical and geochemical observations. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	88
20	Rates of carbon dioxide plume degassing from Mount Etna volcano. Journal of Geophysical Research, 2006, 111, .	3.3	86
21	Excess volatiles supplied by mingling of mafic magma at an andesite arc volcano. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	86
22	Magma and Volatile Supply to Post-collapse Volcanism and Block Resurgence in Siwi Caldera (Tanna) Tj ETQq0 0	0 rgBT /O 2.8	verlock 10 Tf
23	CO2 flux emissions from the Earth's most actively degassing volcanoes, 2005–2015. Scientific Reports, 2019, 9, 5442.	3.3	84
24	Protocols for UV camera volcanic SO2 measurements. Journal of Volcanology and Geothermal Research, 2010, 194, 55-60.	2.1	83
25	Passive vs. active degassing modes at an open-vent volcano (Stromboli, Italy). Earth and Planetary Science Letters, 2012, 359-360, 106-116.	4.4	80
26	Variation of H ₂ 0/CO ₂ and CO ₂ /SO ₂ ratios of volcanic gases discharged by continuous degassing of Mount Etna volcano, Italy. Journal of Geophysical Research, 2008, 113, .	3.3	74
27	Hydrogen in the gas plume of an open-vent volcano, Mount Etna, Italy. Journal of Geophysical Research, 2011, 116, .	3.3	70
28	Prodigious emission rates and magma degassing budget of major, trace and radioactive volatile species from Ambrym basaltic volcano, Vanuatu island Arc. Journal of Volcanology and Geothermal Research, 2016, 322, 119-143.	2.1	67
29	A <scp>CO</scp> ₂ â€gas precursor to the <scp>M</scp> arch 2015 <scp>V</scp> illarrica volcano eruption. Geochemistry, Geophysics, Geosystems, 2017, 18, 2120-2132.	2.5	66
30	Rapid chemical evolution of tropospheric volcanic emissions from Redoubt Volcano, Alaska, based on observations of ozone and halogen-containing gases. Journal of Volcanology and Geothermal Research, 2013, 259, 317-333.	2.1	58
31	First observational evidence for the CO ₂ -driven origin of Stromboli's major explosions. Solid Earth, 2011, 2, 135-142.	2.8	56
32	Steam and gas emission rate from La Soufriere volcano, Guadeloupe (Lesser Antilles): Implications for the magmatic supply during degassing unrest. Chemical Geology, 2014, 384, 76-93.	3.3	56
33	A New Sulfur and Carbon Degassing Inventory for the Southern Central American Volcanic Arc: The Importance of Accurate Timeâ€Series Data Sets and Possible Tectonic Processes Responsible for Temporal Variations in Arcâ€Scale Volatile Emissions. Geochemistry, Geophysics, Geosystems, 2017, 18, 4437-4468.	2.5	56
34	Gas measurements from the Costa Rica–Nicaragua volcanic segment suggest possible along-arc variations in volcanic gas chemistry. Earth and Planetary Science Letters, 2014, 407, 134-147.	4.4	55
35	Insights on Hydrothermalâ€Magmatic Interactions and Eruptive Processes at Poás Volcano (Costa Rica) From Highâ€Frequency Gas Monitoring and Drone Measurements. Geophysical Research Letters, 2019, 46, 1293-1302.	4.0	54
36	Periodic volcanic degassing behavior: The Mount Etna example. Geophysical Research Letters, 2013, 40, 4818-4822.	4.0	53

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37	Carbon Dioxide Emissions from Subaerial Volcanic Regions. , 2019, , 188-236.		53
38	First 13C/12C isotopic characterisation of volcanic plume CO2. Bulletin of Volcanology, 2011, 73, 531-542.	3.0	52
39	First volatile inventory for Gorely volcano, Kamchatka. Geophysical Research Letters, 2012, 39, .	4.0	52
40	Tracking Formation of a Lava Lake From Ground and Space: Masaya Volcano (Nicaragua), 2014–2017. Geochemistry, Geophysics, Geosystems, 2018, 19, 496-515.	2.5	52
41	New ground-based lidar enables volcanic CO2 flux measurements. Scientific Reports, 2015, 5, 13614.	3.3	51
42	Intense magmatic degassing through the lake of Copahue volcano, 2013–2014. Journal of Geophysical Research: Solid Earth, 2015, 120, 6071-6084.	3.4	50
43	Sustaining persistent lava lakes: Observations from high-resolution gas measurements at Villarrica volcano, Chile. Earth and Planetary Science Letters, 2016, 454, 237-247.	4.4	50
44	Shallow system rejuvenation and magma discharge trends at Piton de la Fournaise volcano (La) Tj ETQq0 0 0 rgBT	/Qyerlock	10 Tf 50 46 48
45	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. Chemical Geology, 2018, 482, 1-17.	3.3	43
46	Escalating CO2 degassing at the Pisciarelli fumarolic system, and implications for the ongoing Campi Flegrei unrest. Journal of Volcanology and Geothermal Research, 2019, 384, 151-157.	2.1	43
47	UV camera measurements of fumarole field degassing (La Fossa crater, Vulcano Island). Journal of Volcanology and Geothermal Research, 2011, 199, 47-52.	2.1	41
48	Dynamics of Outgassing and Plume Transport Revealed by Proximal Unmanned Aerial System (UAS) Measurements at VolcAin Villarrica, Chile. Geochemistry, Geophysics, Geosystems, 2019, 20, 730-750.	2.5	41
49	High time resolution fluctuations in volcanic carbon dioxide degassing from Mount Etna. Journal of Volcanology and Geothermal Research, 2014, 270, 115-121.	2.1	40
50	Hydrothermal pressure-temperature control on CO2 emissions and seismicity at Campi Flegrei (Italy). Journal of Volcanology and Geothermal Research, 2021, 414, 107245.	2.1	38
51	Volcanic CO2 flux measurement at Campi Flegrei by tunable diode laser absorption spectroscopy. Bulletin of Volcanology, 2014, 76, 1.	3.0	36
52	AGU Centennial Grand Challenge: Volcanoes and Deep Carbon Global CO ₂ Emissions From Subaerial Volcanism—Recent Progress and Future Challenges. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008690.	2.5	36
53	Ground-Based Measurements of the 2014–2015 Holuhraun Volcanic Cloud (Iceland). Geosciences (Switzerland), 2018, 8, 29.	2.2	35

54First determination of magma-derived gas emissions from Bromo volcano, eastern Java (Indonesia).2.134Journal of Volcanology and Geothermal Research, 2015, 304, 206-213.34

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55	Spatially resolved SO ₂ flux emissions from Mt Etna. Geophysical Research Letters, 2016, 43, 7511-7519.	4.0	34
56	Ultraviolet Imaging of Volcanic Plumes: A New Paradigm in Volcanology. Geosciences (Switzerland), 2017, 7, 68.	2.2	34
57	Fumarolic tremor and geochemical signals during a volcanic unrest. Geology, 2017, 45, 1131-1134.	4.4	34
58	Gas mass derived by infrasound and UV cameras: Implications for mass flow rate. Journal of Volcanology and Geothermal Research, 2016, 325, 169-178.	2.1	32
59	Gas emissions from five volcanoes in northern Chile and implications for the volatiles budget of the Central Volcanic Zone. Geophysical Research Letters, 2014, 41, 4961-4969.	4.0	31
60	Volcanic CO2 seep geochemistry and use in understanding ocean acidification. Biogeochemistry, 2021, 152, 93-115.	3.5	31
61	Volcanic gas emissions and degassing dynamics at Ubinas and Sabancaya volcanoes; implications for the volatile budget of the central volcanic zone. Journal of Volcanology and Geothermal Research, 2017, 343, 181-191.	2.1	30
62	The role of melt composition on aqueous fluid vs. silicate melt partitioning of bromine in magmas. Earth and Planetary Science Letters, 2018, 498, 450-463.	4.4	29
63	Carbon concentration increases with depth of melting in Earth's upper mantle. Nature Geoscience, 2021, 14, 697-703.	12.9	29
64	Mercury gas emissions from La Soufrière Volcano, Guadeloupe Island (Lesser Antilles). Chemical Geology, 2009, 266, 267-273.	3.3	27
65	Hydrothermal fluid venting in the offshore sector of <scp>C</scp> ampi <scp>F</scp> legrei caldera: A geochemical, geophysical, and volcanological study. Geochemistry, Geophysics, Geosystems, 2016, 17, 4153-4178.	2.5	27
66	Combined ground and aerial measurements resolve vent-specific gas fluxes from a multi-vent volcano. Nature Communications, 2020, 11, 3039.	12.8	27
67	Spectroscopic capture of 1 Hz volcanic SO ₂ fluxes and integration with volcano geophysical data. Geophysical Research Letters, 2009, 36, .	4.0	26
68	Dynamics of mild strombolian activity on Mt. Etna. Journal of Volcanology and Geothermal Research, 2015, 300, 103-111.	2.1	26
69	Volatile contents of mafic-to-intermediate magmas at San CristÃ ³ bal volcano in Nicaragua. Lithos, 2017, 272-273, 147-163.	1.4	26
70	The Magmatic Gas Signature of Pacaya Volcano, With Implications for the Volcanic CO ₂ Flux From Guatemala. Geochemistry, Geophysics, Geosystems, 2018, 19, 667-692.	2.5	26
71	Ground deformation reveals the scale-invariant conduit dynamics driving explosive basaltic eruptions. Nature Communications, 2021, 12, 1683.	12.8	26
72	Quantification of the depletion of ozone in the plume of Mount Etna. Atmospheric Chemistry and Physics, 2015, 15, 2613-2628.	4.9	25

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73	Volcanic CO ₂ tracks the incubation period of basaltic paroxysms. Science Advances, 2021, 7, eabh0191.	10.3	25
74	Degassing regime of Hekla volcano 2012–2013. Geochimica Et Cosmochimica Acta, 2015, 159, 80-99.	3.9	24
75	Aerial strategies advance volcanic gas measurements at inaccessible, strongly degassing volcanoes. Science Advances, 2020, 6, .	10.3	24
76	Magma Degassing at Piton de la Fournaise Volcano. Active Volcanoes of the World, 2016, , 203-222.	1.4	23
77	Correlation of oscillatory behaviour in Matlab using wavelets. Computers and Geosciences, 2014, 70, 206-212.	4.2	22
78	Exploring the explosiveâ€effusive transition using permanent ultraviolet cameras. Journal of Geophysical Research: Solid Earth, 2017, 122, 4377-4394.	3.4	22
79	Volcanic CO_2 detection with a DFM/OPA-based lidar. Optics Letters, 2015, 40, 1034.	3.3	21
80	Conduit dynamics and post explosion degassing on Stromboli: A combined UV camera and numerical modeling treatment. Geophysical Research Letters, 2016, 43, 5009-5016.	4.0	21
81	First results of the Piton de la Fournaise STRAP 2015 experiment: multidisciplinary tracking of a volcanic gas and aerosol plume. Atmospheric Chemistry and Physics, 2017, 17, 5355-5378.	4.9	21
82	Volcanic-gas monitoring. , 2015, , 81-96.		20
83	Total (fumarolic + diffuse soil) CO2 output from Furnas volcano. Earth, Planets and Space, 2015, 67, 17	4.2.5	20
84	Changes in SO2 Flux Regime at Mt. Etna Captured by Automatically Processed Ultraviolet Camera Data. Remote Sensing, 2019, 11, 1201.	4.0	20
85	Measurements of volcanic SO2 and CO2 fluxes by combined DOAS, Multi-GAS and FTIR observations: a case study from Turrialba and Telica volcanoes. International Journal of Earth Sciences, 2014, 103, 2335-2347.	1.8	19
86	Strombolian eruptions and dynamics of magma degassing at Yasur Volcano (Vanuatu). Journal of Volcanology and Geothermal Research, 2020, 398, 106869.	2.1	19
87	First-time lidar measurement of water vapor flux in a volcanic plume. Optics Communications, 2011, 284, 1295-1298.	2.1	18
88	Magmatic gas percolation through the old lava dome of El Misti volcano. Bulletin of Volcanology, 2017, 79, 46.	3.0	18
89	The composition of fluids stored in the central Mexican lithospheric mantle: Inferences from noble gases and CO2 in mantle xenoliths. Chemical Geology, 2021, 576, 120270.	3.3	17
90	Fluid geochemistry of the San Vicente geothermal field (El Salvador). Geothermics, 1997, 26, 83-97.	3.4	16

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91	Validation of a novel Multi-Gas sensor for volcanic HCl alongside H2S and SO2 at Mt. Etna. Bulletin of Volcanology, 2017, 79, 36.	3.0	16
92	Dukono, the predominant source of volcanic degassing in Indonesia, sustained by a depleted Indian-MORB. Bulletin of Volcanology, 2018, 80, 1.	3.0	16
93	First study of the heat and gas budget for Sirung volcano, Indonesia. Bulletin of Volcanology, 2017, 79, 1.	3.0	15
94	Halogen (Cl, F) release during explosive, effusive, and intrusive phases of the 2011 rhyolitic eruption at Cordųn Caulle volcano (Chile). Volcanica, 2019, 2, 73-90.	1.8	15
95	Volcanic activity and gas emissions along the South Sandwich Arc. Bulletin of Volcanology, 2021, 83, 1.	3.0	14
96	A golden era for volcanic gas geochemistry?. Bulletin of Volcanology, 2022, 84, 1.	3.0	14
97	Characterisation of the magmatic signature in gas emissions from Turrialba Volcano, Costa Rica. Solid Earth, 2014, 5, 1341-1350.	2.8	13
98	Geochemical constraints on volatile sources and subsurface conditions at Mount Martin, Mount Mageik, and Trident Volcanoes, Katmai Volcanic Cluster, Alaska. Journal of Volcanology and Geothermal Research, 2017, 347, 64-81.	2.1	12
99	Insights Into the Mechanisms of Phreatic Eruptions From Continuous High Frequency Volcanic Gas Monitoring: Rincón de la Vieja Volcano, Costa Rica. Frontiers in Earth Science, 2019, 6, .	1.8	12
100	Unrest at the Nevados de Chillán volcanic complex: a failed or yet to unfold magmatic eruption?. Volcanica, 2018, 1, 19-32.	1.8	12
101	The dynamics of slug trains in volcanic conduits: Evidence for expansion driven slug coalescence. Journal of Volcanology and Geothermal Research, 2017, 348, 26-35.	2.1	11
102	Terminal Strombolian activity at Etna's central craters during summer 2012: The most CO ₂ -rich volcanic gas ever recorded at Mount Etna. Geochemical Journal, 2016, 50, 123-138.	1.0	11
103	Active Degassing of Deeply Sourced Fluids in Central Europe: New Evidences From a Geochemical Study in Serbia. Geochemistry, Geophysics, Geosystems, 2021, 22, e2021GC010017.	2.5	11
104	Understanding the SO2 Degassing Budget of Mt Etna's Paroxysms: First Clues From the December 2015 Sequence. Frontiers in Earth Science, 2019, 6, .	1.8	10
105	BVLOS UAS Operations in Highly-Turbulent Volcanic Plumes. Frontiers in Robotics and AI, 2020, 7, 549716.	3.2	10
106	Tunable diode laser measurements of hydrothermal/volcanic CO ₂ and implications for the global CO ₂ budget. Solid Earth, 2014, 5, 1209-1221.	2.8	9
107	Volcanic Plume CO2 Flux Measurements at Mount Etna by Mobile Differential Absorption Lidar. Geosciences (Switzerland), 2017, 7, 9.	2.2	9
108	Gas emissions and crustal deformation from the KrýsuvÃk high temperature geothermal system, Iceland. Journal of Volcanology and Geothermal Research, 2020, 391, 106350.	2.1	9

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109	Recycled crustal carbon in the depleted mantle source of El Hierro volcano, Canary Islands. Lithos, 2021, 400-401, 106414.	1.4	9
110	Vulcamera: a program for measuring volcanic SO2 using UV cameras. Annals of Geophysics, 2011, 54, .	1.0	9
111	In situ Volcano Monitoring. , 2015, , 169-202.		8
112	Early detection of volcanic hazard by lidar measurement of carbon dioxide. Natural Hazards, 2016, 83, 21-29.	3.4	8
113	New Advances in Dial-Lidar-Based Remote Sensing of the Volcanic CO2 Flux. Frontiers in Earth Science, 2017, 5, .	1.8	8
114	Geochemistry and isotope composition (Sr, Pb, δ66Zn) of Vulcano fumaroles (Aeolian Islands, Italy). Chemical Geology, 2018, 493, 153-171.	3.3	8
115	Petrological and noble gas features of Lascar and Lastarria volcanoes (Chile): Inferences on plumbing systems and mantle characteristics. Lithos, 2020, 370-371, 105615.	1.4	8
116	Noble gas magmatic signature of the Andean Northern Volcanic Zone from fluid inclusions in minerals. Chemical Geology, 2021, 559, 119966.	3.3	8
117	Reaction path models of magmatic gas scrubbing. Chemical Geology, 2016, 420, 251-269.	3.3	7
118	A Novel and Inexpensive Method for Measuring Volcanic Plume Water Fluxes at High Temporal Resolution. Remote Sensing, 2017, 9, 146.	4.0	7
119	Sulfur Degassing From Steamâ€Heated Crater Lakes: El Chichón (Chiapas, Mexico) and VÃŧi (Iceland). Geophysical Research Letters, 2018, 45, 7504-7513.	4.0	7
120	First characterization of Gamkonora gas emission, North Maluku, East Indonesia. Bulletin of Volcanology, 2020, 82, 1.	3.0	6
121	Crustal controls on light noble gas isotope variability along the Andean Volcanic Arc. Geochemical Perspectives Letters, 0, 19, 45-49.	5.0	6
122	Geochemistry and volatile content of magmas feeding explosive eruptions at Telica volcano (Nicaragua). Journal of Volcanology and Geothermal Research, 2017, 341, 131-148.	2.1	5
123	Volcanic Gas Emissions Along the Colombian Arc Segment of the Northern Volcanic Zone (CASâ€NVZ): Implications for volcano monitoring and volatile budget of the Andean Volcanic Belt. Geochemistry, Geophysics, Geosystems, 2019, 20, 5057-5081.	2.5	5
124	Ultraviolet Camera Measurements of Passive and Explosive (Strombolian) Sulphur Dioxide Emissions at Yasur Volcano, Vanuatu. Remote Sensing, 2020, 12, 2703.	4.0	5
125	The crater lake of llamatepec (Santa Ana) volcano, El Salvador: insights into lake gas composition and implications for monitoring. Bulletin of Volcanology, 2019, 81, 1.	3.0	4
126	First gas and thermal measurements at the frequently erupting Gamalama volcano (Indonesia) reveal a hydrothermally dominated magmatic system. Journal of Volcanology and Geothermal Research, 2020, 407, 107096.	2.1	4

#	Article	IF	CITATIONS
127	First In-Situ Measurements of Plume Chemistry at Mount Garet Volcano, Island of Gaua (Vanuatu). Applied Sciences (Switzerland), 2020, 10, 7293.	2.5	4

128 Gas Leakage From Shallow Ponding Magma and Trapdoor Faulting at Sierra Negra Volcano (Isabela) Tj ETQq0 0 0 rgBJ /Overlqck 10 Tf 5

129	Lidar sounding of volcanic plumes. , 2013, , .		3
130	Heterogeneity of volatile sources along the Halmahera arc, Indonesia. Journal of Volcanology and Geothermal Research, 2021, 418, 107342.	2.1	3
131	Gas Emissions From the Western Aleutians Volcanic Arc. Frontiers in Earth Science, 2021, 9, .	1.8	3
132	Lidar detection of carbon dioxide in volcanic plumes. , 2015, , .		2
133	Elevated CO2 Emissions during Magmatic-Hydrothermal Degassing at Awu Volcano, Sangihe Arc, Indonesia. Geosciences (Switzerland), 2020, 10, 470.	2.2	2
134	3He/4He Signature of Magmatic Fluids from Telica (Nicaragua) and Baru (Panama) Volcanoes, Central American Volcanic Arc. Applied Sciences (Switzerland), 2022, 12, 4241.	2.5	2
135	End-Triassic Extinction in a Carbonate Platform From Western Tethys: A Comparison Between Extinction Trends and Geochemical Variations. Frontiers in Earth Science, 2022, 10, .	1.8	2
136	Fast tracking of wind speed with a differential absorption LiDAR system: first results of an experimental campaign at Stromboli volcano. Optical Engineering, 2017, 56, 044104.	1.0	1
137	The BrIdge voLcanic LIdar—BILLI: A Review of Data Collection and Processing Techniques in the Italian Most Hazardous Volcanic Areas. Applied Sciences (Switzerland), 2020, 10, 6402.	2.5	1