Santiago Arellano

List of Publications by Year
in descending order

37 papers	1,450 citations	393982 19 h-index	344852 36 g-index
47 all docs	47 docs citations	47 times ranked	1435 citing authors

#	Article	IF	Citations
1	Network for Observation of Volcanic and Atmospheric Change (NOVAC)â€"A global network for volcanic gas monitoring: Network layout and instrument description. Journal of Geophysical Research, 2010, 115, .	3.3	234
2	Global monitoring of volcanic SO2 degassing with unprecedented resolution from TROPOMI onboard Sentinel-5 Precursor. Scientific Reports, 2019, 9, 2643.	1.6	126
3	Daily monitoring of Ecuadorian volcanic degassing from space. Journal of Volcanology and Geothermal Research, 2008, 176, 141-150.	0.8	113
4	The emissions of CO2 and other volatiles from the worldâ€™s subaerial volcanoes. Scientific Reports, 2019, 9, 18716.	1.6	109
5	Next article >> << Previous article Environmental pressure from the 2014â€"15 eruption of BÃ¡rÃ°arbunga volcano, Iceland. Geochemical Perspectives Letters, 2015, , 84-93.	1.0	90
6	Degassing patterns of Tungurahua volcano (Ecuador) during the 1999â€"2006 eruptive period, inferred from remote spectroscopic measurements of SO2 emissions. Journal of Volcanology and Geothermal Research, 2008, 176, 151-162.	0.8	79
7	Tracking Formation of a Lava Lake From Ground and Space: Masaya Volcano (Nicaragua), 2014â€"2017. Geochemistry, Geophysics, Geosystems, 2018, 19, 496-515.	1.0	52
8	BrO/SO₂ molar ratios from scanning DOAS measurements in the NOVAC network. Solid Earth, 2014, 5, 409-424.	1.2	50
9	Shallow system rejuvenation and magma discharge trends at Piton de la Fournaise volcano (La) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.8	48
10	SO2 degassing at Tungurahua volcano (Ecuador) between 2007 and 2013: Transition from continuous to episodic activity. Journal of Volcanology and Geothermal Research, 2015, 298, 1-14.	0.8	41
11	Ground-Based Measurements of the 2014â€"2015 Holuhraun Volcanic Cloud (Iceland). Geosciences (Switzerland), 2018, 8, 29.	1.0	35
12	Effusive crises at Piton de la Fournaise 2014â€"2015: a review of a multi-national response model. Journal of Applied Volcanology, 2017, 6, .	0.7	34
13	Evolution of the 2015 Cotopaxi Eruption Revealed by Combined Geochemical and Seismic Observations. Geochemistry, Geophysics, Geosystems, 2018, 19, 2087-2108.	1.0	33
14	Detailed multidisciplinary monitoring reveals pre- and co-eruptive signals at Nyamulagira volcano (North Kivu, Democratic Republic of Congo). Bulletin of Volcanology, 2014, 76, 1.	1.1	31
15	Synoptic analysis of a decade of daily measurements of SO₂ emission in the troposphere from volcanoes of the global ground-based Network for Observation of Volcanic and Atmospheric Change. Earth System Science Data, 2021, 13, 1167-1188.	3.7	31
16	Gas emission strength and evolution of the molar ratio of BrO/SO₂ in the plume of Nyiragongo in comparison to Etna. Journal of Geophysical Research D: Atmospheres, 2015, 120, 277-291.	1.2	27
17	Periodicity in the BrOâˆ•SO₂ molar ratios in the volcanic gas plume of Cotopaxi and its correlation with the Earth tides during the eruption in 2015. Solid Earth, 2018, 9, 247-266.	1.2	27
18	Aerial strategies advance volcanic gas measurements at inaccessible, strongly degassing volcanoes. Science Advances, 2020, 6, .	4.7	24

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19	Plume composition and volatile flux of Nyamulagira volcano, Democratic Republic of Congo, during birth and evolution of the lava lake, 2014â€“2015. Bulletin of Volcanology, 2017, 79, 1.	1.1	22
20	Evidences of Plug Pressurization Enhancing Magma Fragmentation During the September 2016 Basaltic Eruption at Piton de la Fournaise (La RÃ©union Island, France). Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008611.	1.0	22
21	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.	1.9	21
22	Early in-flight detection of SO₂ via Differential Optical Absorption Spectroscopy: a feasible aviation safety measure to prevent potential encounters with volcanic plumes. Atmospheric Measurement Techniques, 2011, 4, 1785-1804.	1.2	18
23	Long-term monitoring of SO2 quiescent degassing from Nyiragongoâ€™s lava lake. Journal of African Earth Sciences, 2017, 134, 866-873.	0.9	18
24	Multi-component gas emission measurements of the active lava lake of Nyiragongo, DR Congo. Journal of African Earth Sciences, 2017, 134, 856-865.	0.9	18
25	Autopsy of an eruptive phase of Tungurahua volcano (Ecuador) through coupling of seismo-acoustic and SO2 recordings with ash characteristics. Earth and Planetary Science Letters, 2019, 511, 223-232.	1.8	18
26	Variation of the BrO/SO2 Molar Ratio in the Plume of Tungurahua Volcano Between 2007 and 2017 and Its Relationship to Volcanic Activity. Frontiers in Earth Science, 2019, 7, .	0.8	17
27	Mechanisms of Unrest and Eruption at Persistently Restless Volcanoes: Insights From the 2015 Eruption of Telica Volcano, Nicaragua. Geochemistry, Geophysics, Geosystems, 2019, 20, 4162-4183.	1.0	15
28	Balloon-borne measurement of the aerosol size distribution from an Icelandic flood basalt eruption. Earth and Planetary Science Letters, 2016, 453, 252-259.	1.8	14
29	A multi-purpose, multi-rotor drone system for long-range and high-altitude volcanic gas plume measurements. Atmospheric Measurement Techniques, 2021, 14, 4255-4277.	1.2	14
30	Volcano Crisis Management at Piton de la Fournaise (La RÃ©union) during the COVID-19 Lockdown. Seismological Research Letters, 2021, 92, 38-52.	0.8	12
31	Retrieval of absolute SO₂ column amounts from scattered-light spectra: implications for the evaluation of data from automated DOAS networks. Atmospheric Measurement Techniques, 2016, 9, 5677-5698.	1.2	10
32	Seasonal and diurnal patterns in the dispersion of SO2 from Mt. Nyiragongo. Atmospheric Environment, 2016, 132, 19-29.	1.9	10
33	On the link between Earth tides and volcanic degassing. Solid Earth, 2019, 10, 725-740.	1.2	7
34	Extended SO2 outgassing from the 2014â€“2015 Holuhraun lava flow field, Iceland. Bulletin of Volcanology, 2017, 79, 1.	1.1	6
35	Linking ground-based data and satellite monitoring to understand the last two decades of eruptive activity at Sangay volcano, Ecuador. Bulletin of Volcanology, 2022, 84, 1.	1.1	6
36	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.	1.0	5

#	Article	IF	Citations
37	Lava Volume from Remote Sensing Data: Comparisons with Reverse Petrological Approaches for Two Types of Effusive Eruption. Remote Sensing, 2022, 14, 323.	1.8	3