

Christoph Kern

List of Publications by Year in descending order

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Version: 2024-02-01

40
papers

2,335
citations

236925

25
h-index

276875

41
g-index

59
all docs

59
docs citations

59
times ranked

2355
citing authors

#	ARTICLE	IF	CITATIONS
1	A golden era for volcanic gas geochemistry?. <i>Bulletin of Volcanology</i> , 2022, 84, 1.	3.0	14
2	Synoptic analysis of a decade of daily measurements of SO ₂ emission in the troposphere from volcanoes of the global ground-based Network for Observation of Volcanic and Atmospheric Change. <i>Earth System Science Data</i> , 2021, 13, 1167-1188.	9.9	31
3	Rapid metal pollutant deposition from the volcanic plume of K�lauea, Hawai�. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	15
4	Volatile metal emissions from volcanic degassing and lava�seawater interactions at K�lauea Volcano, Hawai�. <i>Communications Earth & Environment</i> , 2021, 2, .	6.8	25
5	Linking Subsurface to Surface Using Gas Emission and Melt Inclusion Data at Mount Cleveland Volcano, Alaska. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2019GC008882.	2.5	16
6	Quantifying gas emissions associated with the 2018 rift eruption of K�lauea Volcano using ground-based DOAS measurements. <i>Bulletin of Volcanology</i> , 2020, 82, 1.	3.0	29
7	The 2018 rift eruption and summit collapse of K�lauea Volcano. <i>Science</i> , 2019, 363, 367-374.	12.6	353
8	Construction of probabilistic event trees for eruption forecasting at Sinabung volcano, Indonesia 2013�14. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 382, 233-252.	2.1	34
9	Gas and ash emissions associated with the 2010�present activity of Sinabung Volcano, Indonesia. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 382, 184-196.	2.1	20
10	Degassing at Sabancaya volcano measured by UV cameras and the NOVAC network. <i>Volcanica</i> , 2019, 2, 239-252.	1.8	18
11	Spatial Distribution of Halogen Oxides in the Plume of Mount Pagan Volcano, Mariana Islands. <i>Geophysical Research Letters</i> , 2018, 45, 9588-9596.	4.0	11
12	New insights into Kawah Ijen's volcanic system from the wet volcano workshop experiment. <i>Geological Society Special Publication</i> , 2017, 437, 35-56.	1.3	24
13	Magmatic degassing, lava dome extrusion, and explosions from Mount Cleveland volcano, Alaska, 2011�2015: Insight into the continuous nature of volcanic activity over multi-year timescales. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 337, 98-110.	2.1	39
14	Remote measurement of high preeruptive water vapor emissions at Sabancaya volcano by passive differential optical absorption spectroscopy. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 3540-3564.	3.4	30
15	A New Sulfur and Carbon Degassing Inventory for the Southern Central American Volcanic Arc: The Importance of Accurate Time�Series Data Sets and Possible Tectonic Processes Responsible for Temporal Variations in Arc�Scale Volatile Emissions. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 4437-4468.	2.5	56
16	The Difficulty of Measuring the Absorption of Scattered Sunlight by H ₂ O and CO ₂ in Volcanic Plumes: A Comment on Pering et al. �A Novel and Inexpensive Method for Measuring Volcanic Plume Water Fluxes at High Temporal Resolution,�. <i>Remote Sens.</i> 2017, 9, 146. <i>Remote Sensing</i> , 2017, 9, 534.	4.0	2
17	Long period seismicity and very long period infrasound driven by shallow magmatic degassing at Mount Pagan, Mariana Islands. <i>Journal of Geophysical Research: Solid Earth</i> , 2016, 121, 188-209.	3.4	26
18	Short-period volcanic gas precursors to phreatic eruptions: Insights from Po�is Volcano, Costa Rica. <i>Earth and Planetary Science Letters</i> , 2016, 442, 218-227.	4.4	105

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19	Using SO ₂ camera imagery and seismicity to examine degassing and gas accumulation at K�lauea Volcano, May 2010. Journal of Volcanology and Geothermal Research, 2015, 300, 70-80.	2.1	35
20	An automated SO ₂ camera system for continuous, real-time monitoring of gas emissions from K�lauea Volcano's summit Overlook Crater. Journal of Volcanology and Geothermal Research, 2015, 300, 81-94.	2.1	41
21	Quantitative imaging of volcanic plumes � Results, needs, and future trends. Journal of Volcanology and Geothermal Research, 2015, 300, 7-21.	2.1	26
22	Intercomparison of SO ₂ camera systems for imaging volcanic gas plumes. Journal of Volcanology and Geothermal Research, 2015, 300, 22-36.	2.1	42
23	Decadal-scale variability of diffuse CO ₂ emissions and seismicity revealed from long-term monitoring (1995�2013) at Mammoth Mountain, California, USA. Journal of Volcanology and Geothermal Research, 2014, 289, 51-63.	2.1	37
24	Estimating the volcanic emission rate and atmospheric lifetime of SO ₂ from space: a case study for K�lauea volcano, Hawai�. Atmospheric Chemistry and Physics, 2014, 14, 8309-8322.	4.9	87
25	Development of a portable active long-path differential optical absorption spectroscopy system for volcanic gas measurements. Journal of Sensors and Sensor Systems, 2014, 3, 355-367.	0.9	12
26	Applying UV cameras for SO ₂ detection to distant or optically thick volcanic plumes. Journal of Volcanology and Geothermal Research, 2013, 262, 80-89.	2.1	56
27	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
28	On the absolute calibration of SO ₂ cameras. Atmospheric Measurement Techniques, 2013, 6, 677-696.	3.1	54
29	Improving the accuracy of SO ₂ column densities and emission rates obtained from upward-looking UV spectroscopic measurements of volcanic plumes by taking realistic radiative transfer into account. Journal of Geophysical Research, 2012, 117, .	3.3	51
30	The Monte Carlo atmospheric radiative transfer model McArtim: Introduction and validation of Jacobians and 3D features. Journal of Quantitative Spectroscopy and Radiative Transfer, 2011, 112, 1119-1137.	2.3	174
31	Early in-flight detection of SO ₂ via Differential Optical Absorption Spectroscopy: a feasible aviation safety measure to prevent potential encounters with volcanic plumes. Atmospheric Measurement Techniques, 2011, 4, 1785-1804.	3.1	18
32	Radiative transfer corrections for accurate spectroscopic measurements of volcanic gas emissions. Bulletin of Volcanology, 2010, 72, 233-247.	3.0	126
33	Theoretical description of functionality, applications, and limitations of SO ₂ cameras for the remote sensing of volcanic plumes. Atmospheric Measurement Techniques, 2010, 3, 733-749.	3.1	78
34	Novel SO ₂ spectral evaluation scheme using the 360�390 nm wavelength range. Atmospheric Measurement Techniques, 2010, 3, 879-891.	3.1	44
35	Halogen oxide measurements at Masaya Volcano, Nicaragua using active long path differential optical absorption spectroscopy. Bulletin of Volcanology, 2009, 71, 659-670.	3.0	59
36	Long-Term Measurements of NO ₃ Radical at a Semiarid Urban Site: 1. Extreme Concentration Events and Their Oxidation Capacity. Environmental Science & Technology, 2009, 43, 9117-9123.	10.0	40

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37	The effects of volcanic eruptions on atmospheric chemistry. <i>Chemical Geology</i> , 2009, 263, 131-142.	3.3	191
38	Applying light-emitting diodes with narrowband emission features in differential spectroscopy. <i>Optics Letters</i> , 2009, 34, 3716.	3.3	18
39	MAX-DOAS detection of glyoxal during ICARTT 2004. <i>Atmospheric Chemistry and Physics</i> , 2007, 7, 1293-1303.	4.9	78
40	Intercomparison of four different in-situ techniques for ambient formaldehyde measurements in urban air. <i>Atmospheric Chemistry and Physics</i> , 2005, 5, 2881-2900.	4.9	148