

Tobias Fischer

List of Publications by Year in descending order

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77
papers

4,599
citations

76326

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106344

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79
all docs

79
docs citations

79
times ranked

3081
citing authors

#	ARTICLE	IF	CITATIONS
1	Constraints on the sulfur subduction cycle in Central America from sulfur isotope compositions of volcanic gases. <i>Chemical Geology</i> , 2022, 588, 120627.	3.3	7
2	Aerial Survey Robotics in Extreme Environments: Mapping Volcanic CO ₂ Emissions With Flocking UAVs. <i>Frontiers in Control Engineering</i> , 2022, 3, .	0.6	2
3	Volcanic activity and gas emissions along the South Sandwich Arc. <i>Bulletin of Volcanology</i> , 2021, 83, 1.	3.0	14
4	A multi-purpose, multi-rotor drone system for long-range and high-altitude volcanic gas plume measurements. <i>Atmospheric Measurement Techniques</i> , 2021, 14, 4255-4277.	3.1	14
5	Sulfur sequestration and redox equilibria in volcanic gases. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 414, 107181.	2.1	16
6	Quantifying Eruptive and Background Seismicity, Deformation, Degassing, and Thermal Emissions at Volcanoes in the United States During 1978â€”2020. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2021JB021684.	3.4	1
7	Helium-carbon systematics of groundwaters in the Lassen Peak Region. <i>Chemical Geology</i> , 2021, 584, 120535.	3.3	3
8	High ³ He/ ⁴ He in central Panama reveals a distal connection to the GalÃ¡pagos plume. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	12
9	Volcanic activity and hazard in the East African Rift Zone. <i>Nature Communications</i> , 2021, 12, 6881.	12.8	21
10	Gas Emissions From the Western Aleutians Volcanic Arc. <i>Frontiers in Earth Science</i> , 2021, 9, .	1.8	3
11	Aerial strategies advance volcanic gas measurements at inaccessible, strongly degassing volcanoes. <i>Science Advances</i> , 2020, 6, .	10.3	24
12	Displaced cratonic mantle concentrates deep carbon during continental rifting. <i>Nature</i> , 2020, 582, 67-72.	27.8	50
13	AGU Centennial Grand Challenge: Volcanoes and Deep Carbon Global CO ₂ Emissions From Subaerial Volcanismâ€”Recent Progress and Future Challenges. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2019GC008690.	2.5	36
14	Hydrothermal ¹⁵ N/ ¹⁵ N abundances constrain the origins of mantle nitrogen. <i>Nature</i> , 2020, 580, 367-371.	27.8	50
15	The crater lake of Ilamatepec (Santa Ana) volcano, El Salvador: insights into lake gas composition and implications for monitoring. <i>Bulletin of Volcanology</i> , 2019, 81, 1.	3.0	4
16	Carbon Dioxide Emissions from Subaerial Volcanic Regions. , 2019, , 188-236.		53
17	Insights on Hydrothermalâ€”Magmatic Interactions and Eruptive Processes at PoÃ¡s Volcano (Costa Rica) From Highâ€”Frequency Gas Monitoring and Drone Measurements. <i>Geophysical Research Letters</i> , 2019, 46, 1293-1302.	4.0	54
18	VGAM: Compact and Lowâ€”Power Mass Spectrometerâ€”Based Instrumentation for Volcanic Gas Monitoring. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 3782-3798.	2.5	4

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19	Spatial and Depth-Dependent Variations in Magma Volume Addition and Addition Rates to Continental Arcs: Application to Global CO ₂ Fluxes since 750 Ma. <i>Geochemistry, Geophysics, Geosystems</i> , 2019, 20, 2997-3018.	2.5	19
20	Forearc carbon sink reduces long-term volatile recycling into the mantle. <i>Nature</i> , 2019, 568, 487-492.	27.8	97
21	The Last Eighteen Years (1998-2014) of Fumarolic Degassing at the Poás Volcano (Costa Rica) and Renewal Activity. <i>Active Volcanoes of the World</i> , 2019, , 235-260.	1.4	2
22	CO ₂ flux emissions from the Earth's most actively degassing volcanoes, 2005-2015. <i>Scientific Reports</i> , 2019, 9, 5442.	3.3	84
23	The emissions of CO ₂ and other volatiles from the world's subaerial volcanoes. <i>Scientific Reports</i> , 2019, 9, 18716.	3.3	109
24	Atmospheric helium isotope composition as a tracer of volcanic emissions: A case study of Erta Ale volcano, Ethiopia. <i>Chemical Geology</i> , 2018, 480, 3-11.	3.3	4
25	New insights into the magmatic-hydrothermal system and volatile budget of Lastarria volcano, Chile: Integrated results from the 2014 IAVCEI CCGV 12th Volcanic Gas Workshop. , 2018, 14, 983-1007.		23
26	Gas Emissions From Volcanoes of the Kuril Island Arc (NW Pacific): Geochemistry and Fluxes. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 1859-1880.	2.5	30
27	Element flux to the environment of the passively degassing crater lake-hosting Kawah Ijen volcano, Indonesia, and implications for estimates of the global volcanic flux. <i>Geological Society Special Publication</i> , 2017, 437, 9-34.	1.3	18
28	Incipient rifting accompanied by the release of subcontinental lithospheric mantle volatiles in the Magadi and Natron basin, East Africa. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 346, 118-133.	2.1	39
29	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. <i>Earth-Science Reviews</i> , 2017, 168, 24-47.	9.1	131
30	Nitrogen recycling at the Costa Rican subduction zone: The role of incoming plate structure. <i>Scientific Reports</i> , 2017, 7, 13933.	3.3	6
31	Fault-magma interactions during early continental rifting: Seismicity of the Magadi and Natron basins, Africa. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 3662-3686.	2.5	47
32	Extreme enrichment in atmospheric ¹⁵ N. <i>Science Advances</i> , 2017, 3, eaao6741.	10.3	31
33	An essential role for continental rifts and lithosphere in the deep carbon cycle. <i>Nature Geoscience</i> , 2017, 10, 897-902.	12.9	150
34	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
35	Diffuse degassing at Longonot volcano, Kenya: Implications for CO ₂ flux in continental rifts. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 327, 208-222.	2.1	23
36	First airborne samples of a volcanic plume for ¹³ C of CO ₂ determinations. <i>Geophysical Research Letters</i> , 2016, 43, 3272-3279.	4.0	33

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37	Causes of unrest at silicic calderas in the East African Rift: New constraints from InSAR and soil gas chemistry at Aluto volcano, Ethiopia. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 3008-3030.	2.5	68
38	Massive and prolonged deep carbon emissions associated with continental rifting. <i>Nature Geoscience</i> , 2016, 9, 145-149.	12.9	178
39	Sulphur geodynamic cycle. <i>Scientific Reports</i> , 2015, 5, 8330.	3.3	64
40	Volcanic, Magmatic and Hydrothermal Gases. , 2015, , 779-797.		53
41	Kinetic nitrogen isotope fractionation between air and dissolved N ₂ in water: Implications for hydrothermal systems. <i>Geochemical Journal</i> , 2015, 49, 571-573.	1.0	7
42	Volatile-rich silicate melts from Oldoinyo Lengai volcano (Tanzania): Implications for carbonatite genesis and eruptive behavior. <i>Earth and Planetary Science Letters</i> , 2013, 361, 379-390.	4.4	53
43	Resolving volatile sources along the western Sunda arc, Indonesia. <i>Chemical Geology</i> , 2013, 339, 263-282.	3.3	30
44	The Analysis and Interpretation of Noble Gases in Modern Hydrothermal Systems. <i>Advances in Isotope Geochemistry</i> , 2013, , 249-317.	1.4	60
45	Trace elements in the gas emissions from the Erta Ale volcano, Afar, Ethiopia. <i>Chemical Geology</i> , 2013, 357, 95-116.	3.3	89
46	Sulfur degassing at Erta Ale (Ethiopia) and Masaya (Nicaragua) volcanoes: Implications for degassing processes and oxygen fugacities of basaltic systems. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 4076-4108.	2.5	100
47	Helium isotopes at Rungwe Volcanic Province, Tanzania, and the origin of East African Plateaux. <i>Geophysical Research Letters</i> , 2011, 38, n/a-n/a.	4.0	67
48	Gas and water geochemistry of geothermal systems in Dominica, Lesser Antilles island arc. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 206, 1-14.	2.1	43
49	Geochemistry of volcanic fluids. <i>Bulletin of Volcanology</i> , 2011, 73, 369-371.	3.0	3
50	Monitoring of temporal and spatial variations in fumarole helium and carbon dioxide characteristics at Poás and Turrialba volcanoes, Costa Rica (2001-2009). <i>Geochemical Journal</i> , 2010, 44, 431-440.	1.0	43
51	Nitrogen sources and recycling at subduction zones: Insights from the Izu-Bonin-Mariana arc. <i>Geochemistry, Geophysics, Geosystems</i> , 2010, 11, .	2.5	54
52	Upper-mantle volatile chemistry at Oldoinyo Lengai volcano and the origin of carbonatites. <i>Nature</i> , 2009, 459, 77-80.	27.8	129
53	The effects of volatile recycling, degassing and crustal contamination on the helium and carbon geochemistry of hydrothermal fluids from the Southern Volcanic Zone of Chile. <i>Chemical Geology</i> , 2009, 266, 38-49.	3.3	81
54	Chlorine isotope variations along the Central American volcanic front and back arc. <i>Geochemistry, Geophysics, Geosystems</i> , 2009, 10, .	2.5	57

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55	Aqueous and isotope geochemistry of mineral springs along the southern margin of the Tibetan plateau: Implications for fluid sources and regional degassing of CO ₂ . <i>Geochemistry, Geophysics, Geosystems</i> , 2008, 9, .	2.5	48
56	Fluxes of volatiles (H ₂ O, CO ₂ , N ₂ , Cl, F) from arc volcanoes. <i>Geochemical Journal</i> , 2008, 42, 21-38.	1.0	172
57	Variable SO ₂ emission rates for Anatahan volcano, the Commonwealth of the Northern Mariana Islands: Implications for deriving arc-wide volatile fluxes from erupting volcanoes. <i>Geophysical Research Letters</i> , 2007, 34, .	4.0	13
58	Gas geochemistry of volcanic and hydrothermal fluids. , 2007, , .		0
59	Nitrogen isotopes of the mantle: Insights from mineral separates. <i>Geophysical Research Letters</i> , 2005, 32, .	4.0	46
60	Volatile abundances in the sub-arc mantle: insights from volcanic and hydrothermal gas discharges. <i>Journal of Volcanology and Geothermal Research</i> , 2005, 140, 205-216.	2.1	65
61	Volatile and N isotope chemistry of the Molucca Sea collision zone: Tracing source components along the Sangihe Arc, Indonesia. <i>Geochemistry, Geophysics, Geosystems</i> , 2005, 6, n/a-n/a.	2.5	30
62	Continental-scale links between the mantle and groundwater systems of the western United States: Evidence from travertine springs and regional He isotope data. <i>GSA Today</i> , 2005, 15, 4.	2.0	49
63	Nitrogen systematics and gas fluxes of subduction zones: Insights from Costa Rica arc volatiles. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	81
64	Tracing magma sources in an arc-arc collision zone: Helium and carbon isotope and relative abundance systematics of the Sangihe Arc, Indonesia. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	33
65	Contrasting He-C relationships in Nicaragua and Costa Rica: insights into C cycling through subduction zones. <i>Earth and Planetary Science Letters</i> , 2003, 214, 499-513.	4.4	161
66	Subduction and Recycling of Nitrogen Along the Central American Margin. <i>Science</i> , 2002, 297, 1154-1157.	12.6	178
67	Noble Gases and Volatile Recycling at Subduction Zones. <i>Reviews in Mineralogy and Geochemistry</i> , 2002, 47, 319-370.	4.8	389
68	9. Noble Gases and Volatile Recycling at Subduction Zones. , 2002, , 319-370.		85
69	Volcanic flux of nitrogen from the Earth. <i>Chemical Geology</i> , 2001, 171, 263-271.	3.3	168
70	Geochemistry of the volcano-hydrothermal system of El Chichón Volcano, Chiapas, Mexico. <i>Bulletin of Volcanology</i> , 1998, 59, 436-449.	3.0	107
71	Geochemical and isotopic evidence for seawater contamination of the hydrothermal system of Taal Volcano, Luzon, the Philippines. <i>Bulletin of Volcanology</i> , 1998, 59, 562-576.	3.0	38
72	Determination of trace and platinum-group elements in high ionic-strength volcanic fluids by sector-field inductively coupled plasma mass spectrometry (ICP-MS). <i>Fresenius' Journal of Analytical Chemistry</i> , 1998, 362, 457-464.	1.5	21

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73	Fluxes and sources of volatiles discharged from Kudryavy, a subduction zone volcano, Kurile Islands. Earth and Planetary Science Letters, 1998, 160, 81-96.	4.4	127
74	Geochemical surveillance of magmatic volatiles at Popocatepetl volcano, Mexico. Bulletin of the Geological Society of America, 1998, 110, 0695.	3.3	89
75	The chemical and isotopic composition of fumarolic gases and spring discharges from Galeras Volcano, Colombia. Journal of Volcanology and Geothermal Research, 1997, 77, 229-253.	2.1	81
76	The relationship between fumarole gas composition and eruptive activity at Galeras Volcano, Colombia. Geology, 1996, 24, 531.	4.4	70
77	Correlations between SO ₂ flux and long-period seismicity at Galeras volcano. Nature, 1994, 368, 135-137.	27.8	98