

John Stix

List of Publications by Year in descending order

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96
papers

4,327
citations

71102

41
h-index

114465

63
g-index

98
all docs

98
docs citations

98
times ranked

3261
citing authors

#	ARTICLE	IF	CITATIONS
1	Paleomagnetic Chronology, Fluvial Processes, and Tectonic Implications of the Siwalik Deposits near Chinji Village, Pakistan. <i>Journal of Geology</i> , 1985, 93, 27-40.	1.4	294
2	Sulphide magma as a source of metals in arc-related magmatic hydrothermal ore fluids. <i>Nature Geoscience</i> , 2010, 3, 501-505.	12.9	171
3	Atmospheric dispersion, environmental effects and potential health hazard associated with the low-altitude gas plume of Masaya volcano, Nicaragua. <i>Bulletin of Volcanology</i> , 2002, 64, 423-434.	3.0	163
4	Explosive eruptions at mid-ocean ridges driven by CO ₂ -rich magmas. <i>Nature Geoscience</i> , 2011, 4, 260-263.	12.9	157
5	Pit crater structure and processes governing persistent activity at Masaya Volcano, Nicaragua. <i>Bulletin of Volcanology</i> , 1998, 59, 345-355.	3.0	135
6	Volatile degassing, petrology, and magma dynamics of the Villarrica Lava Lake, Southern Chile. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 134, 303-337.	2.1	122
7	A model of vulcanian eruptions at Galeras volcano, Colombia. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 285-303.	2.1	112
8	Understanding and forecasting phreatic eruptions driven by magmatic degassing. <i>Earth, Planets and Space</i> , 2018, 70, 83.	2.5	102
9	Correlations between SO ₂ flux and long-period seismicity at Galeras volcano. <i>Nature</i> , 1994, 368, 135-137.	27.8	98
10	Depletion rates of sulfur dioxide in tropospheric volcanic plumes. <i>Geophysical Research Letters</i> , 1998, 25, 2671-2674.	4.0	98
11	Mixing in mantle magma reservoirs prior to and during the 2011-2012 eruption at El Hierro, Canary Islands. <i>Geology</i> , 2014, 42, 315-318.	4.4	95
12	Deep intrusions, lateral magma transport and related uplift at ocean island volcanoes. <i>Earth and Planetary Science Letters</i> , 2015, 431, 140-149.	4.4	91
13	The chemical and isotopic composition of fumarolic gases and spring discharges from Galeras Volcano, Colombia. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 229-253.	2.1	81
14	The relationship between degassing and ground deformation at Soufriere Hills Volcano, Montserrat. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 98, 117-126.	2.1	80
15	Controls on caldera structure: Results from analogue sandbox modeling. <i>Bulletin of the Geological Society of America</i> , 2004, 116, 515.	3.3	77
16	A scaling growth model for bubbles in basaltic lava flows. <i>Earth and Planetary Science Letters</i> , 1996, 139, 395-409.	4.4	76
17	Caldera resurgence during magma replenishment and rejuvenation at Valles and Lake City calderas. <i>Bulletin of Volcanology</i> , 2012, 74, 1833-1847.	3.0	75
18	Variations in trace element partition coefficients in sanidine in the Cerro Toledo Rhyolite, Jemez Mountains, New Mexico: Effects of composition, temperature, and volatiles. <i>Geochimica Et Cosmochimica Acta</i> , 1990, 54, 2697-2708.	3.9	72

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19	A model of degassing at Galeras Volcano, Colombia, 1988-1993. <i>Geology</i> , 1993, 21, 963.	4.4	70
20	Mantle to surface degassing of carbon- and sulphur-rich alkaline magma at El Hierro, Canary Islands. <i>Earth and Planetary Science Letters</i> , 2017, 460, 268-280.	4.4	67
21	Scaling effects on vesicle shape, size and heterogeneity of lavas from Mount Etna. <i>Journal of Volcanology and Geothermal Research</i> , 1996, 74, 131-153.	2.1	65
22	Caldera-forming processes and the origin of submarine volcanogenic massive sulfide deposits. <i>Geology</i> , 2003, 31, 375.	4.4	65
23	Early-Middle Miocene paleodrainage and tectonics in the Pakistan Himalaya. <i>Bulletin of the Geological Society of America</i> , 2003, 115, 1265.	3.3	63
24	Magma plumbing beneath collapse caldera volcanic systems. <i>Earth-Science Reviews</i> , 2018, 177, 404-424.	9.1	62
25	Gas saturation and evolution of volatile and light lithophile elements in the Bandelier magma chamber between two caldera-forming eruptions. <i>Journal of Geophysical Research</i> , 1996, 101, 25181-25196.	3.3	60
26	Monitoring SO ₂ emission at the Soufriere Hills Volcano: Implications for changes in eruptive conditions. <i>Geophysical Research Letters</i> , 1998, 25, 3681-3684.	4.0	55
27	Insights on Hydrothermal-Magmatic Interactions and Eruptive Processes at Poás Volcano (Costa Rica) From High-Frequency Gas Monitoring and Drone Measurements. <i>Geophysical Research Letters</i> , 2019, 46, 1293-1302.	4.0	54
28	SO ₂ fluxes from Galeras Volcano, Colombia, 1989-1995: Progressive degassing and conduit obstruction of a Decade Volcano. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 195-208.	2.1	53
29	Intracaldera volcanic activity, Toledo Caldera and Embayment, Jemez Mountains, New Mexico. <i>Journal of Geophysical Research</i> , 1986, 91, 1799-1815.	3.3	52
30	Distal degassing of radon and carbon dioxide on Galeras volcano, Colombia. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 267-283.	2.1	52
31	Caldera subsidence in areas of variable topographic relief: results from analogue modeling. <i>Journal of Volcanology and Geothermal Research</i> , 2004, 129, 219-236.	2.1	52
32	Subaqueous, intermediate to silicic-composition explosive volcanism: a review. <i>Earth-Science Reviews</i> , 1991, 31, 21-53.	9.1	51
33	Magma dynamics and collapse mechanisms during four historic caldera-forming events. <i>Journal of Geophysical Research</i> , 2008, 113, .	3.3	51
34	Rapid extraction of discrete magma batches from a large differentiating magma chamber: the Central Plateau Member rhyolites, Yellowstone Caldera, Wyoming. <i>Contributions To Mineralogy and Petrology</i> , 2010, 160, 441-465.	3.1	50
35	Restoration of compositional zonation in the Bandelier silicic magma chamber between two caldera-forming eruptions: Geochemistry and origin of the Cerro Toledo Rhyolite, Jemez Mountains, New Mexico. <i>Journal of Geophysical Research</i> , 1988, 93, 6129-6147.	3.3	49
36	Magma Recharge and Crystal Mush Rejuvenation Associated with Early Post-collapse Upper Basin Member Rhyolites, Yellowstone Caldera, Wyoming. <i>Journal of Petrology</i> , 2009, 50, 2095-2125.	2.8	49

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37	Origin of the Mount Pinatubo climactic eruption cloud: Implications for volcanic hazards and atmospheric impacts. <i>Geology</i> , 2002, 30, 663.	4.4	47
38	Coupled caldera subsidence and stirring inferred from analogue models. <i>Nature Geoscience</i> , 2008, 1, 385-389.	12.9	45
39	Magmatic processes associated with caldera collapse at Ossipee ring dyke, New Hampshire. <i>Bulletin of the Geological Society of America</i> , 2007, 119, 3-17.	3.3	43
40	A model of degassing and seismicity at Arenal Volcano, Costa Rica. <i>Journal of Volcanology and Geothermal Research</i> , 2001, 108, 121-139.	2.1	42
41	Partitioning of boron among melt, brine and vapor in the system haplogranite-H ₂ O-NaCl at 800 °C and 100 MPa. <i>Chemical Geology</i> , 2004, 210, 135-147.	3.3	42
42	Stability and instability of quiescently active volcanoes: The case of Masaya, Nicaragua. <i>Geology</i> , 2007, 35, 535.	4.4	42
43	Subaqueous calderas in the Archean Abitibi greenstone belt: An overview and new ideas. <i>Ore Geology Reviews</i> , 2009, 35, 4-46.	2.7	42
44	A model of diffuse degassing at three subduction-related volcanoes. <i>Bulletin of Volcanology</i> , 2000, 62, 130-142.	3.0	41
45	Clinopyroxene/Melt Trace Element Partitioning in Sodic Alkaline Magmas. <i>Journal of Petrology</i> , 2019, 60, 1797-1823.	2.8	41
46	Magmatic Recharge during the Formation and Resurgence of the Valles Caldera, New Mexico, USA: Evidence from Quartz Compositional Zoning and Geothermometry. <i>Journal of Petrology</i> , 2013, 54, 635-664.	2.8	38
47	Using Drones and Miniaturized Instrumentation to Study Degassing at Turrialba and Masaya Volcanoes, Central America. <i>Journal of Geophysical Research: Solid Earth</i> , 2018, 123, 6501-6520.	3.4	38
48	ãTornillo™-type seismic signals at Galeras volcano, Colombia, 1992-1993. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 159-171.	2.1	36
49	The behavior of Cu, Zn and Pb during magmatic-hydrothermal activity at Merapi volcano, Indonesia. <i>Chemical Geology</i> , 2013, 342, 167-179.	3.3	34
50	Changes in Silicic Melt Structure Between the Two Bandelier Caldera-Forming Eruptions, New Mexico, USA: Evidence from Zirconium and Light Rare Earth Elements. <i>Journal of Petrology</i> , 1990, 31, 1261-1283.	2.8	33
51	H ₂ S interference on CO ₂ isotopic measurements using a Picarro G1101-i cavity ring-down spectrometer. <i>Atmospheric Measurement Techniques</i> , 2015, 8, 4075-4082.	3.1	32
52	Links between arc volcanoes and porphyry-epithermal ore deposits. <i>Geology</i> , 2016, 44, 11-14.	4.4	32
53	A tale of two magmas, Fuego, Guatemala. <i>Bulletin of Volcanology</i> , 2012, 74, 377-390.	3.0	31
54	The November 2002 eruption at Piton de la Fournaise volcano, La Réunion Island: ground deformation, seismicity, and pit crater collapse. <i>Bulletin of Volcanology</i> , 2007, 69, 511-525.	3.0	30

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55	Mechanisms of degassing at Nevado del Ruiz volcano, Colombia. <i>Journal of the Geological Society</i> , 2003, 160, 507-521.	2.1	29
56	Magmatic hydrothermal evolution and devolatilization beneath Merapi volcano, Indonesia. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 261, 50-68.	2.1	29
57	Melt-rock interaction near the Moho: Evidence from crystal cargo in lavas from near-ridge seamounts. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 191, 139-164.	3.9	29
58	High and highly variable cooling rates during pyroclastic eruptions on Axial Seamount, Juan de Fuca Ridge. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 253, 54-64.	2.1	26
59	Magmatic Processes and Associated Timescales Leading to the January 1835 Eruption of Cosigüina Volcano, Nicaragua. <i>Journal of Petrology</i> , 2014, 55, 1173-1201.	2.8	23
60	Scale invariance of basaltic lava flows and their fractal dimensions. <i>Geophysical Research Letters</i> , 1992, 19, 785-788.	4.0	22
61	Thermal History of the Bandelier Magmatic System: Evidence for Magmatic Injection and Recharge at 1.61 Ma as Revealed by Cathodoluminescence and Titanium Geothermometry. <i>Journal of Geology</i> , 2009, 117, 469-485.	1.4	22
62	Phenocryst-hosted melt inclusions record stalling of magma during ascent in the conduit and upper magma reservoir prior to vulcanian explosions, Soufrière Hills volcano, Montserrat, West Indies. <i>Bulletin of Volcanology</i> , 2013, 75, 1.	3.0	22
63	Structural controls on the emission of magmatic carbon dioxide gas, Long Valley Caldera, USA. <i>Journal of Geophysical Research: Solid Earth</i> , 2015, 120, 2262-2278.	3.4	21
64	Flow Evolution of Experimental Gravity Currents: Implications for Pyroclastic Flows at Volcanoes. <i>Journal of Geology</i> , 2001, 109, 381-398.	1.4	20
65	Galeras volcano, Colombia Interdisciplinary study of a Decade Volcano. <i>Journal of Volcanology and Geothermal Research</i> , 1997, 77, 1-4.	2.1	15
66	Sulfur budget and global climate impact of the A.D. 1835 eruption of Cosigüina volcano, Nicaragua. <i>Geophysical Research Letters</i> , 2014, 41, 6667-6675.	4.0	15
67	Replenishment and crystallization in epicontinental silicic magma chambers: evidence from the Bandelier magmatic system. <i>Journal of Volcanology and Geothermal Research</i> , 1993, 55, 201-215.	2.1	14
68	The Magmatic Architecture of Taney Seamount-A, NE Pacific Ocean. <i>Journal of Petrology</i> , 2015, 56, 1037-1067.	2.8	14
69	MULTIFRACTAL CHARACTERIZATION OF REMOTELY SENSED VOLCANIC FEATURES: A CASE STUDY FROM KILAUEA VOLCANO, HAWAII. <i>Fractals</i> , 2002, 10, 265-274.	3.7	13
70	Magma storage, differentiation, and interaction at Lake City caldera, Colorado, USA. <i>Bulletin of the Geological Society of America</i> , 2016, 128, 764-776.	3.3	13
71	Geochemistry and origins of Ueno and On-take basaltic to andesitic rocks (<3 Ma) produced by distinct contributions of subduction components, central Japan. <i>Journal of Volcanology and Geothermal Research</i> , 2000, 95, 49-64.	2.1	12
72	An analog investigation of magma fragmentation and degassing: Effects of pressure, volatile content, and decompression rate. <i>Journal of Volcanology and Geothermal Research</i> , 2012, 211-212, 12-23.	2.1	11

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73	Water-rich and volatile-undersaturated magmas at Hekla volcano, Iceland. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 3111-3130.	2.5	11
74	Carbon isotope systematics of Turrialba volcano, Costa Rica, using a portable cavity ring-down spectrometer. <i>Geochemistry, Geophysics, Geosystems</i> , 2017, 18, 2769-2784.	2.5	11
75	Understanding Fast and Slow Unrest at Volcanoes and Implications for Eruption Forecasting. <i>Frontiers in Earth Science</i> , 2018, 6, .	1.8	11
76	Hydrothermal alteration and sealing at Turrialba volcano, Costa Rica, as a mechanism for phreatic eruption triggering. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 416, 107297.	2.1	11
77	Phreatic and Hydrothermal Eruptions: From Overlooked to Looking Over. <i>Bulletin of Volcanology</i> , 2022, 84, .	3.0	11
78	Infrared Remote Sensing of CO and COS Gas Emitted by the Galeras Volcano, Colombia, January 8-10, 1993. <i>Canadian Journal of Remote Sensing</i> , 1996, 22, 297-304.	2.4	10
79	Emplacement of unusual rhyolitic to basaltic ignimbrites during collapse of a basalt-dominated caldera: The Halarauur eruption, Krafla (Iceland). <i>Bulletin of the Geological Society of America</i> , 2020, 132, 1881-1902.	3.3	10
80	Halogen activation in the plume of Masaya volcano: field observations and box model investigations. <i>Atmospheric Chemistry and Physics</i> , 2021, 21, 3371-3393.	4.9	10
81	Caldera collapse at near-ridge seamounts: an experimental investigation. <i>Bulletin of Volcanology</i> , 2016, 78, 1.	3.0	9
82	The effect of fluorine on clinopyroxene/melt trace-element partitioning. <i>Contributions To Mineralogy and Petrology</i> , 2020, 175, 1.	3.1	9
83	The degassing character of a young volcanic center: Cerro Negro, Nicaragua. <i>Bulletin of Volcanology</i> , 2014, 76, 1.	3.0	8
84	Carbon and sulfur isotopes in tree rings as a proxy for volcanic degassing. <i>Geology</i> , 2019, 47, 825-828.	4.4	7
85	The behavior of light lithophile and halogen elements in felsic magma: geochemistry of the post-caldera Valles Rhyolites, Jemez Mountains Volcanic Field, New Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 1995, 67, 61-77.	2.1	6
86	Dry deposition and heavy acid loading in the vicinity of Masaya Volcano, a major sulfur and chlorine source in Nicaragua. <i>Environmental Science & Technology</i> , 2001, 35, 1289-93.	10.0	6
87	NATIONAL PARKS AND INUIT RIGHTS IN NORTHERN LABRADOR. <i>Canadian Geographer / Geographie Canadien</i> , 1982, 26, 349-354.	1.5	5
88	Volcanic and Igneous Plumbing Systems of Caldera Volcanoes. , 2018, , 259-284.		5
89	Plutonic record of a caldera-forming silicic eruption: The shatter zone of the Cadillac Mountain granite, coastal Maine. , 2021, 17, 1-22.		5
90	Efficient release of bromine by super-eruptions. <i>Geology</i> , 0, , .	4.4	5

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91	A new Multi-GAS system for continuous monitoring of CO ₂ / CH ₄ ratios at active volcanoes. Journal of Volcanology and Geothermal Research, 2022, 426, 107533.	2.1	5
92	H ₂ O and CO ₂ evolution in the Bandelier Tuff sequence reveals multiple and discrete magma replenishments. Contributions To Mineralogy and Petrology, 2022, 177, 1.	3.1	5
93	Monitoring and forecasting fault development at actively forming calderas: An experimental study. Geology, 2018, 46, 23-26.	4.4	3
94	Multi-university Internet video-conferencing course provides novel approach to student-directed learning. The Leading Edge, 2007, 26, 1320-1321.	0.7	2
95	Near real-time field measurements of $\delta^{13}C$ in CO ₂ from volcanoes. Bulletin of Volcanology, 2017, 79, 1.	3.0	2
96	Communication when it is needed most—the past, present and future of volcano geoheritage. Bulletin of Volcanology, 2022, 84, .	3.0	2