Patrick BachÃ¨lery

List of Publications by Year
in descending order

64	2,231	172457	223800
papers	citations	29 h-index	46 g-index

64	64	64	1566
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Magma transport and storage at Piton de La Fournaise (La RÃ©union) between 1972 and 2007: A review of geophysical and geochemical data. Journal of Volcanology and Geothermal Research, 2009, 184, 93-108.	2.1	170
2	Dendritic Crystallization: A Single Process for all the Textures of Olivine in Basalts?. Journal of Petrology, 2013, 54, 539-574.	2.8	143
3	The off-shore continuation of an active basaltic volcano: Piton de la Fournaise (RÃ©union Island, Indian) Tj ETQq1 1 0.784314 rgBT /Ove Volcanology and Geothermal Research, 1989, 36, 1-36.	2.1	133
4	April 2007 collapse of Piton de la Fournaise: A new example of caldera formation. Geophysical Research Letters, 2007, 34, .	4.0	104
5	Cyclic magma storages and transfers at Piton de La Fournaise volcano (La RÃ©union hotspot) inferred from deformation and geochemical data. Earth and Planetary Science Letters, 2008, 270, 180-188.	4.4	102
6	Formation of the April 2007 caldera collapse at Piton de La Fournaise volcano: Insights from GPS data. Journal of Volcanology and Geothermal Research, 2009, 184, 152-163.	2.1	73
7	Magma crystallization and viscosity: A study of molten basalts from the Piton de la Fournaise volcano (La RÃ©union island). Chemical Geology, 2008, 256, 242-251.	3.3	63
8	Birth of a large volcanic edifice offshore Mayotte via lithosphere-scale dyke intrusion. Nature Geoscience, 2021, 14, 787-795.	12.9	59
9	Structures and evolution of the plumbing system of Piton de la Fournaise volcano inferred from clustering of 2007 eruptive cycle seismicity. Journal of Volcanology and Geothermal Research, 2011, 202, 96-106.	2.1	55
10	Petrology of 1977 to 1998 eruptions of Piton de la Fournaise, La RÃ©union Island. Journal of Volcanology and Geothermal Research, 2009, 184, 109-125.	2.1	54
11	Magma residence time beneath the Piton de la Fournaise Volcano, Reunion Island, from U-series disequilibria. Earth and Planetary Science Letters, 2005, 234, 223-234.	4.4	52
12	Anatomy of Piton de la Fournaise volcano (La RÃ©union, Indian Ocean). Bulletin of Volcanology, 2012, 74, 1945-1961.	3.0	52
13	The extreme mobility of debris avalanches: A new model of transport mechanism. Journal of Geophysical Research: Solid Earth, 2015, 120, 8110-8119.	3.4	50
14	Role of the structural inheritance of the oceanic lithosphere in the magmato-tectonic evolution of Piton de la Fournaise volcano (La RÃ©union Island). Journal of Geophysical Research, 2007, 112, .	3.3	49
15	Melilite-bearing lavas in Mayotte (France): An insight into the mantle source below the Comores. Lithos, 2014, 208-209, 281-297.	1.4	48
16	Dynamic dyke propagation deduced from tilt variations preceding the March 9, 1998, eruption of the Piton de la Fournaise volcano. Journal of Volcanology and Geothermal Research, 2003, 120, 289-310.	2.1	47
17	The beginning of the 1985â€“1987 eruptive cycle at Piton de la Fournaise (La Reunion); new insights in the magmatic and volcano-tectonic systems. Journal of Volcanology and Geothermal Research, 1989, 36, 209-232.	2.1	44
18	Pits, rifts and slumps: the summit structure of Piton de la Fournaise. Bulletin of Volcanology, 2007, 69, 741-756.	3.0	43

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19	Three differentiation stages of a single magma at Piton de la Fournaise volcano (Reunion hot spot). Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	42
20	Pb isotope geochemistry of Piton de la Fournaise historical lavas. Journal of Volcanology and Geothermal Research, 2009, 184, 63-78.	2.1	41
21	Real time monitoring of vertical ground deformations during eruptions at Piton de la Fournaise. Geophysical Research Letters, 1992, 19, 553-556.	4.0	40
22	A new model for the evolution of La RÃ©union volcanic complex from complete marine geophysical surveys. Geophysical Research Letters, 2011, 38, .	4.0	39
23	Calderas, landslides and paleo-canyons on Piton de la Fournaise volcano (La RÃ©union Island, Indian) Tj ETQq1 1 0.784314 rgBT /Ove	2.1	37
24	The December 4, 1983 to February 18, 1984 eruption of Piton de la Fournaise (La Reunion, Indian Ocean): Description and interpretation. Journal of Volcanology and Geothermal Research, 1989, 36, 87-112.	2.1	36
25	The 2018-ongoing Mayotte submarine eruption: Magma migration imaged by petrological monitoring. Earth and Planetary Science Letters, 2021, 571, 117085.	4.4	36
26	Integrating field, textural, and geochemical monitoring to track eruption triggers and dynamics: a case study from Piton de la Fournaise. Solid Earth, 2018, 9, 431-455.	2.8	35
27	Morphology and sedimentary architecture of a modern volcaniclastic turbidite system: The Cilaos fan, offshore La RÃ©union Island. Marine Geology, 2011, 288, 1-17.	2.1	34
28	Deposits related to degradation processes on Piton des Neiges Volcano (Reunion Island): overview and geological hazard. Journal of Volcanology and Geothermal Research, 2003, 123, 25-41.	2.1	32
29	New behaviour of the Piton de La Fournaise volcano feeding system (La RÃ©union Island) deduced from GPS data: Influence of the 2007 Dolomieu caldera collapse. Journal of Volcanology and Geothermal Research, 2010, 192, 48-56.	2.1	32
30	Internal structure and building of basaltic shield volcanoes: the example of the Piton de La Fournaise terminal cone (La RÃ©union). Bulletin of Volcanology, 2012, 74, 1881-1897.	3.0	30
31	A comparison of coolingâ€limited and volumeâ€limited flow systems: Examples from channels in the <scp>P</scp>iton de la <scp>F</scp>ournaise <scp>A</scp>pril 2007 lavaâ€flow field. Geochemistry, Geophysics, Geosystems, 2017, 18, 3270-3291.	2.5	30
32	The interplay between collapse structures, hydrothermal systems, and magma intrusions: the case of the central area of Piton de la Fournaise volcano. Bulletin of Volcanology, 2012, 74, 407-421.	3.0	28
33	Explosive eruptions from the interaction of magmatic and hydrothermal systems during flank extension: the Bellecombe Tephra of Piton de La Fournaise (La RÃ©union Island). Bulletin of Volcanology, 2016, 78, 1.	3.0	24
34	Volcaniclastic sedimentation on the submarine slopes of a basaltic hotspot volcano: Piton de la Fournaise volcano (La RÃ©union Island, Indian Ocean). Marine Geology, 2013, 337, 35-52.	2.1	23
35	Mantle xenolith-bearing phonolites and basanites feed the active volcanic ridge of Mayotte (Comoros) Tj ETQq1 1 0.784314 rgBT /Ov	3.1	23
36	Hydrothermal system mapped by CSAMT on Karthala volcano, Grande Comore Island, Indian Ocean. Journal of Applied Geophysics, 2001, 48, 143-152.	2.1	22

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37	A volcaniclastic deep-sea fan off La RÃ©union Island (Indian Ocean): Gradualism versus catastrophism. Geology, 2011, 39, 271-274.	4.4	22
38	Archeomagnetism of Piton de la Fournaise: Bearing on volcanic activity at La RÃ©union Island and geomagnetic secular variation in Southern Indian Ocean. Earth and Planetary Science Letters, 2011, 303, 361-368.	4.4	22
39	Inversion of coeval shear and normal stress of Piton de la Fournaise flank displacement. Journal of Geophysical Research: Solid Earth, 2016, 121, 7846-7866.	3.4	22
40	Revue de la typologie des Ã©ruptions au Piton de La Fournaise, processus et risques volcaniques associÃ©s. CyberGeo, 0, , .	0.0	22
41	Structure and Eruptive History of Karthala Volcano. Active Volcanoes of the World, 2016, , 345-366.	1.4	19
42	Seismic signature of a phreatic explosion: hydrofracturing damage at Karthala volcano, Grande Comore Island, Indian Ocean. Bulletin of Volcanology, 2005, 67, 717-731.	3.0	17
43	Processes controlling a volcaniclastic turbiditic system during the last climatic cycle: Example of the Cilaos deep-sea fan, offshore La RÃ©union Island. Sedimentary Geology, 2012, 281, 180-193.	2.1	17
44	The Petrogenesis of Plagioclase-ultraphyric Basalts from La RÃ©union Island. Journal of Petrology, 2017, 58, 675-698.	2.8	17
45	Age and nature of deposits on the submarine flanks of Piton de la Fournaise (Reunion Island). Journal of Volcanology and Geothermal Research, 2009, 184, 199-207.	2.1	16
46	Genese du champ de lave de l'Enclos Fouque; une eruption d'envergure exceptionnelle du Piton de la Fournaise (Reunion) au 18 e siecle. Bulletin - Societie Geologique De France, 2001, 172, 177-188.	2.2	15
47	Early detection of large eruptions at Piton de La Fournaise volcano (La RÃ©union Island): Contribution of a distant tiltmeter station. Journal of Volcanology and Geothermal Research, 2011, 199, 96-104.	2.1	13
48	Pre-historic (<5Âkiloyear) Explosive Activity at Piton de la Fournaise Volcano. Active Volcanoes of the World, 2016, , 107-138.	1.4	13
49	Geochemical characteristics of the La RÃ©union mantle plume source inferred from olivine-hosted melt inclusions from the adventive cones of Piton de la Fournaise volcano (La RÃ©union Island). Contributions To Mineralogy and Petrology, 2017, 172, 1.	3.1	12
50	Turbidity current activity along the flanks of a volcanic edifice: The Mafate volcaniclastic complex, La RÃ©union Island, Indian Ocean. Sedimentary Geology, 2016, 335, 34-50.	2.1	11
51	Exploring the links between volcano flank collapse and the magmatic evolution of an ocean island volcano: Fogo, Cape Verde. Scientific Reports, 2021, 11, 17478.	3.3	11
52	Caldera rim collapse: A hidden volcanic hazard. Journal of Volcanology and Geothermal Research, 2008, 177, 525-530.	2.1	10
53	Untangling the complex origin of turbidite activity on the Calabrian Arc (Ionian Sea) over the last 60ka. Marine Geology, 2016, 373, 11-25.	2.1	10
54	Geochemical and Petrological Aspects of Karthala Volcano. Active Volcanoes of the World, 2016, , 367-384.	1.4	9

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55	Geology and Morphostructural Evolution of Piton de la Fournaise. Active Volcanoes of the World, 2016, , 45-59.	1.4	7
56	Un grand Ã©pisode Ã©rosionnel dans l'histoire ancienne du Piton de la Fournaise (Ã®le de la RÃ©union). Comptes Rendus De L'AcadÃ©mie Des Sciences Earth & Planetary Sciences SÃ©rie II, Sciences De La Terre Et Des PlanÃ¨tes =, 1997, 325, 243-249.	0.2	4
57	Magmatic and phreatomagmatic contributions on the ash-dominated basaltic eruptions: Insights from the April and Novemberâ€“December 2005 paroxysmal events at Karthala volcano, Comoros. Journal of Volcanology and Geothermal Research, 2022, 424, 107500.	2.1	4
58	Ã‰tude de la zone sommitale du volcan Karthala (Grande Comore) par polarisation spontanÃ©e. Comptes Rendus De L'AcadÃ©mie Des Sciences Earth & Planetary Sciences SÃ©rie II, Sciences De La Terre Et Des PlanÃ¨tes =, 1998, 327, 781-788.	0.2	3
59	La RÃ©union Island dunites as analogs of the Martian chassignites: Tracking trapped melts with incompatible trace elements. Lithos, 2019, 344-345, 452-463.	1.4	3
60	Gravityâ€Driven Deposits in an Active Margin (Ionian Sea) Over the Last 330,000 Years. Geochemistry, Geophysics, Geosystems, 2017, 18, 4186-4210.	2.5	2
61	La RÃ©union Island: A Typical Example of a Basaltic Shield Volcano with Rapid Evolution. World Geomorphological Landscapes, 2014, , 261-270.	0.3	2
62	Structured elicitation of expert judgement in real-time eruption scenarios: an exercise for Piton de la Fournaise volcano, La RÃ©union island. Volcanica, 2022, 5, 105-131.	1.8	2
63	Erosion and Volcaniclastic Sedimentation at Piton de la Fournaise: From Source to Deep Marine Environment. Active Volcanoes of the World, 2016, , 71-90.	1.4	1
64	Integration of European Volcano Infrastructures. , 2015, , 419-443.		0