

# Nick R Varley

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2215596/publications.pdf>

Version: 2024-02-01

60  
papers

2,357  
citations

172457

29  
h-index

214800

47  
g-index

62  
all docs

62  
docs citations

62  
times ranked

1783  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructural controls on the physical and mechanical properties of edifice-forming andesites at Volc��n de Colima, Mexico. <i>Journal of Geophysical Research: Solid Earth</i> , 2014, 119, 2925-2963.	3.4	155
2	Permeability and porosity relationships of edifice-forming andesites: A combined field and laboratory study. <i>Journal of Volcanology and Geothermal Research</i> , 2015, 297, 52-68.	2.1	146
3	Identification of structural controls in an active lava dome with high resolution DEMs: Volc��n de Colima, Mexico. <i>Geophysical Research Letters</i> , 2012, 39, .	4.0	106
4	Comparative soil CO <sub>2</sub> flux measurements and geostatistical estimation methods on Masaya volcano, Nicaragua. <i>Bulletin of Volcanology</i> , 2005, 68, 76-90.	3.0	90
5	Long-period earthquakes and co-eruptive dome inflation seen with particle image velocimetry. <i>Nature</i> , 2008, 456, 377-381.	27.8	87
6	Magmatic architecture of dome-building eruptions at Volc��n de Colima, Mexico. <i>Bulletin of Volcanology</i> , 2012, 74, 249-260.	3.0	85
7	CO <sub>2</sub> and He degassing at El Chich��n volcano, Chiapas, Mexico: gas flux, origin and relationship with local and regional tectonics. <i>Bulletin of Volcanology</i> , 2011, 73, 423-441.	3.0	81
8	Recent lahars at Volc��n de Colima (Mexico): Drainage variation and spectral classification. <i>Journal of Volcanology and Geothermal Research</i> , 2007, 165, 127-141.	2.1	79
9	Blowing Off Steam: Tuffisite Formation As a Regulator for Lava Dome Eruptions. <i>Frontiers in Earth Science</i> , 2016, 4, .	1.8	70
10	Rainfall-triggered lahars at Volc��n de Colima, Mexico: Surface hydro-repency as initiation process. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 189, 105-117.	2.1	69
11	Evidence for the development of permeability anisotropy in lava domes and volcanic conduits. <i>Journal of Volcanology and Geothermal Research</i> , 2016, 323, 163-185.	2.1	69
12	Long-period seismicity during magma movement at Volc��n de Colima. <i>Bulletin of Volcanology</i> , 2010, 72, 1093-1107.	3.0	64
13	Predicting the block-and-ash flow inundation areas at Volc��n de Colima (Colima, Mexico) based on the present day (February 2010) status. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 193, 49-66.	2.1	63
14	Geochemistry of H <sub>2</sub> and CH <sub>4</sub> -enriched hydrothermal fluids of Socorro Island, Revillagigedo Archipelago, Mexico. Evidence for serpentinization and abiogenic methane. <i>Geofluids</i> , 2010, 10, 542-555.	0.7	62
15	Fumarole monitoring with a handheld infrared camera: Volc��n de Colima, Mexico, 2006-2007. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 911-924.	2.1	59
16	Generation of Vulcanian activity and long-period seismicity at Volc��n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 198, 45-56.	2.1	57
17	Rapid and slow: Varying magma ascent rates as a mechanism for Vulcanian explosions. <i>Earth and Planetary Science Letters</i> , 2015, 420, 73-84.	4.4	55
18	Hydrochemical dynamics of the "lake" spring system in the crater of El Chich��n volcano (Chiapas,) Tj ETQq0,0 0 rgBI/Overlock	2.1	54

#	ARTICLE	IF	CITATIONS
19	Thermal Remote Sensing for Global Volcano Monitoring: Experiences From the MIROVA System. <i>Frontiers in Earth Science</i> , 2020, 7, .	1.8	52
20	Seismic activity that accompanied the effusive and explosive eruptions during the 2004–2005 period at Volc��n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 205, 30-46.	2.1	49
21	Exploring the factors that influence the perception of risk: The case of Volc��n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2009, 186, 238-252.	2.1	44
22	Thermal photogrammetric imaging: A new technique for monitoring dome eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 337, 140-145.	2.1	39
23	Volatiles contents, degassing and crystallisation of intermediate magmas at Volcan de Colima, Mexico, inferred from melt inclusions. <i>Contributions To Mineralogy and Petrology</i> , 2013, 165, 1087-1106.	3.1	38
24	Indoor Radon Prediction from Soil Gas Measurements. <i>Health Physics</i> , 1998, 74, 714-718.	0.5	37
25	Monitoring the 2004 andesitic block-lava extrusion at Volc��n de Colima, M��xico from seismic activity and SO2 emission. <i>Journal of Volcanology and Geothermal Research</i> , 2008, 177, 367-377.	2.1	37
26	Pore pressure embrittlement in a volcanic edifice. <i>Bulletin of Volcanology</i> , 2016, 78, 1.	3.0	35
27	The absence of diffuse degassing at Popocatepetl volcano, Mexico. <i>Chemical Geology</i> , 2001, 177, 157-173.	3.3	33
28	Chemical and isotopic compositions of thermal springs, fumaroles and bubbling gases at Tacan��j Volcano (Mexico–Guatemala): implications for volcanic surveillance. <i>Bulletin of Volcanology</i> , 2009, 71, 319-335.	3.0	31
29	Airborne thermal remote sensing of the Volc��n de Colima (Mexico) lava dome from 2007 to 2010. <i>Geological Society Special Publication</i> , 2013, 380, 203-228.	1.3	31
30	Stratigraphy, sedimentology and inferred flow dynamics from the July 2015 block-and-ash flow deposits at Volc��n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 349, 99-116.	2.1	31
31	Quantification of magma ascent rate through rockfall monitoring at the growing/collapsing lava dome of Volc��n de Colima, Mexico. <i>Solid Earth</i> , 2013, 4, 201-213.	2.8	30
32	Degassing processes of Popocatepetl and Volc��n de Colima, Mexico. <i>Geological Society Special Publication</i> , 2003, 213, 263-280.	1.3	28
33	Evaluating links between deformation, topography and surface temperature at volcanic domes: Results from a multi-sensor study at Volc��n de Colima, Mexico. <i>Earth and Planetary Science Letters</i> , 2017, 479, 354-365.	4.4	25
34	Open-vent volcanism and related hazards: Overview. , 2013, , .		25
35	Multiple timescales of cyclical behaviour observed at two dome-forming eruptions. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 284, 106-121.	2.1	24
36	Seismic and experimental insights into eruption precursors at Volc��n de Colima. <i>Geophysical Research Letters</i> , 2017, 44, 6092-6100.	4.0	23

#	ARTICLE	IF	CITATIONS
37	Imaging the 2013 explosive crater excavation and new dome formation at Volc�n de Colima with TerraSAR-X, time-lapse cameras and modelling. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 369, 224-237.	2.1	23
38	Nitrogen isotopes in thermal fluids of a forearc region (Jalisco Block, Mexico): Evidence for heavy nitrogen from continental crust. <i>Geochemistry, Geophysics, Geosystems</i> , 2004, 5, n/a-n/a.	2.5	22
39	Particle sizes of andesitic ash fallout from vertical eruptions and co-pyroclastic flow clouds, Volc�n de Colima, Mexico. <i>Geology</i> , 2009, 37, 935-938.	4.4	21
40	Geochemistry of thermal springs and geodynamics of the convergent Mexican Pacific margin. <i>Chemical Geology</i> , 2013, 339, 251-262.	3.3	21
41	Crystal plasticity as an indicator of the viscous-brittle transition in magmas. <i>Nature Communications</i> , 2017, 8, 1926.	12.8	21
42	Thermal resilience of microcracked andesitic dome rocks. <i>Journal of Volcanology and Geothermal Research</i> , 2018, 367, 20-30.	2.1	21
43	Localized and distributed erosion triggered by the 2015 Hurricane Patricia investigated by repeated drone surveys and time lapse cameras at Volc�n de Colima, Mexico. <i>Geomorphology</i> , 2018, 319, 186-198.	2.6	21
44	Radon in soil gas and its relationship with some major faults of SW England. <i>Environmental Geochemistry and Health</i> , 1993, 15, 145-151.	3.4	17
45	Pulsed Vulcanian explosions: A characterization of eruption dynamics using Doppler radar. <i>Geology</i> , 2015, 43, 995-998.	4.4	17
46	Characterizing complex eruptive activity at Santiaguito, Guatemala using infrasound semblance in networked arrays. <i>Journal of Volcanology and Geothermal Research</i> , 2011, 199, 1-14.	2.1	16
47	Geophysical characterization of hydrothermal systems and intrusive bodies, El Chich�n volcano (Mexico). <i>Journal of Geophysical Research</i> , 2011, 116, .	3.3	15
48	Load Stress Controls on Directional Lava Dome Growth at Volc�n de Colima, Mexico. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	15
49	Thermal imaging and analysis of short-lived Vulcanian explosions at Volc�n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2014, 278-279, 132-145.	2.1	14
50	First in-situ observation of a moving natural pyroclastic density current using Doppler radar. <i>Scientific Reports</i> , 2019, 9, 7386.	3.3	13
51	Rhyolite lava dome growth styles at Chait�n Volcano, Chile (2008-2009): Interpretation of thermal imagery. <i>Andean Geology</i> , 2013, 40, .	0.5	13
52	Long-range correlations identified in time-series of volcano seismicity during dome-forming eruptions using detrended fluctuation analysis. <i>Journal of Volcanology and Geothermal Research</i> , 2013, 264, 197-209.	2.1	12
53	Mush remobilisation and mafic recharge: A study of the crystal cargo of the 2013�17 eruption at Volc�n de Colima, Mexico. <i>Journal of Volcanology and Geothermal Research</i> , 2021, 416, 107296.	2.1	8
54	Monitoring the Recent Activity: Understanding a Complex System. <i>Active Volcanoes of the World</i> , 2019, , 159-193.	1.4	3

#	ARTICLE	IF	CITATIONS
55	Crustal structure and magmatic system of Isla Socorro (Eastern Pacific Ocean), derived from the interpretation of geological and geophysical data. <i>Acta Geophysica</i> , 2021, 69, 2051-2067.	2.0	1
56	Rockfall Seismicity Accompanying Dome-Building Eruptions. , 2015, , 2381-2395.		0
57	Comment on "Field and seismic evaluation of the block-and-ash flows emplaced from eruption columns of the 2005 Vulcanian explosions at Volc�n de Colima, Mexico" by Zobin et al. <i>Bull Volcanol</i> (2016) 78:27. <i>Bulletin of Volcanology</i> , 2016, 78, 1.	3.0	0
58	Rockfall Seismicity Accompanying Dome-Building Eruptions. , 2014, , 1-16.		0
59	Volcanoes of Mexico. , 2018, , 1-24.		0
60	Volcanoes of Mexico. , 2019, , 439-462.		0