

# Steven Micklethwaite

## List of Publications by Year in descending order

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Version: 2024-02-01

37  
papers

2,213  
citations

331670

21  
h-index

345221

36  
g-index

39  
all docs

39  
docs citations

39  
times ranked

2617  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ground-based and UAV-Based photogrammetry: A multi-scale, high-resolution mapping tool for structural geology and paleoseismology. <i>Journal of Structural Geology</i> , 2014, 69, 163-178.	2.3	529
2	Semi-automatic mapping of geological Structures using UAV-based photogrammetric data: An image analysis approach. <i>Computers and Geosciences</i> , 2014, 69, 22-32.	4.2	205
3	Gold remobilisation and formation of high grade ore shoots driven by dissolution-reprecipitation replacement and Ni substitution into auriferous arsenopyrite. <i>Geochimica Et Cosmochimica Acta</i> , 2016, 178, 143-159.	3.9	146
4	Magma Plumbing Systems: A Geophysical Perspective. <i>Journal of Petrology</i> , 2018, 59, 1217-1251.	2.8	134
5	Rapid, semi-automatic fracture and contact mapping for point clouds, images and geophysical data. <i>Solid Earth</i> , 2017, 8, 1241-1253.	2.8	129
6	Fault-segment rupture, aftershock-zone fluid flow, and mineralization. <i>Geology</i> , 2004, 32, 813.	4.4	124
7	Active fault and shear processes and their implications for mineral deposit formation and discovery. <i>Journal of Structural Geology</i> , 2010, 32, 151-165.	2.3	94
8	Nanoscale gold clusters in arsenopyrite controlled by growth rate not concentration: Evidence from atom probe microscopy. <i>American Mineralogist</i> , 2016, 101, 1916-1919.	1.9	94
9	Progressive fault triggering and fluid flow in aftershock domains: Examples from mineralized Archaean fault systems. <i>Earth and Planetary Science Letters</i> , 2006, 250, 318-330.	4.4	68
10	The where and how of faults, fluids and permeability – insights from fault stepovers, scaling properties and gold mineralisation. <i>Geofluids</i> , 2015, 15, 240-251.	0.7	65
11	Review of drones, photogrammetry and emerging sensor technology for the study of dykes: Best practises and future potential. <i>Journal of Volcanology and Geothermal Research</i> , 2019, 373, 148-166.	2.1	64
12	Evidence for Two Stages of Mineralization in West Africa’s Largest Gold Deposit: Obuasi, Ghana. <i>Economic Geology</i> , 2017, 112, 3-22.	3.8	55
13	Damage and permeability around faults: Implications for mineralization. <i>Geology</i> , 2007, 35, 903.	4.4	50
14	Quantified, multi-scale X-ray fluorescence element mapping using the Maia detector array: application to mineral deposit studies. <i>Mineralium Deposita</i> , 2015, 50, 665-674.	4.1	48
15	Mechanisms of faulting and permeability enhancement during epithermal mineralisation: Cracow goldfield, Australia. <i>Journal of Structural Geology</i> , 2009, 31, 288-300.	2.3	43
16	Regional volcanism of northern Zealandia: post-Gondwana break-up magmatism on an extended, submerged continent. <i>Geological Society Special Publication</i> , 2018, 463, 199-226.	1.3	39
17	Aseismic Refinement of Orogenic Gold Systems. <i>Economic Geology</i> , 2020, 115, 33-50.	3.8	38
18	An interactive image segmentation method for lithological boundary detection: A rapid mapping tool for geologists. <i>Computers and Geosciences</i> , 2017, 100, 27-40.	4.2	35

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19	Melanesian back-arc basin and arc development: Constraints from the eastern Coral Sea. <i>Gondwana Research</i> , 2016, 39, 77-95.	6.0	34
20	The golden ark: arsenopyrite crystal plasticity and the retention of gold through high strain and metamorphism. <i>Terra Nova</i> , 2016, 28, 181-187.	2.1	28
21	Changes in Crystallinity and Tracer-Isotope Distribution of Goethite during Fe(II)-Accelerated Recrystallization. <i>ACS Earth and Space Chemistry</i> , 2018, 2, 1271-1282.	2.7	28
22	Insights into the mechanics of en-Å@chelon sigmoidal vein formation using ultra-high resolution photogrammetry and computed tomography. <i>Journal of Structural Geology</i> , 2015, 77, 27-44.	2.3	21
23	Extraction of high-resolution structural orientations from digital data: A Bayesian approach. <i>Journal of Structural Geology</i> , 2019, 122, 106-115.	2.3	19
24	Evidence for dyke-parallel shear during syn-intrusion fracturing. <i>Earth and Planetary Science Letters</i> , 2019, 507, 119-130.	4.4	17
25	Scale matters: The influence of structural inheritance on fracture patterns. <i>Journal of Structural Geology</i> , 2020, 130, 103896.	2.3	16
26	The influence of basement faults on local extension directions: Insights from potential field geophysics and field observations. <i>Basin Research</i> , 2019, 31, 782-807.	2.7	13
27	High Spatial Resolution Mapping of Dykes Using Unmanned Aerial Vehicle (UAV) Photogrammetry: New Insights On Emplacement Processes. <i>Acta Geologica Sinica</i> , 2016, 90, 52-53.	1.4	12
28	Magma production along the Lord Howe Seamount Chain, northern Zealandia. <i>Geological Magazine</i> , 2019, 156, 1605-1617.	1.5	11
29	Dyke apertures record stress accumulation during sustained volcanism. <i>Scientific Reports</i> , 2020, 10, 17335.	3.3	10
30	A Geological Structure Mapping Tool using Photogrammetric Data. <i>ASEG Extended Abstracts</i> , 2013, 2013, 1-4.	0.1	8
31	Formation of Mg-carbonates and Mg-hydroxides via calcite replacement controlled by fluid pressure. <i>Contributions To Mineralogy and Petrology</i> , 2021, 176, 1.	3.1	8
32	Reactivation of Magma Pathways: Insights From Field Observations, Geochronology, Geomechanical Tests, and Numerical Models. <i>Journal of Geophysical Research: Solid Earth</i> , 2021, 126, e2020JB021477.	3.4	8
33	An Elevated Perspective: Dyke-Related Fracture Networks Analysed with Uav Photogrammetry. <i>Acta Geologica Sinica</i> , 2016, 90, 54-55.	1.4	6
34	Interpreting geology from geophysics in poly-deformed and mineralised terranes; the Otago Schist and the Hyde-Macraes Shear Zone. <i>New Zealand Journal of Geology, and Geophysics</i> , 2019, 62, 550-572.	1.8	6
35	Ore shoots in folded and fractured rocks â€“ Insights from 3D modelling of the Fosterville gold deposit (Victoria, Australia). <i>Ore Geology Reviews</i> , 2020, 118, 103272.	2.7	3
36	Distinguishing between local versus regional extension as a control on orogenic gold mineralisation: The new 2.4Moz Castle Hill Camp, WA. <i>Precambrian Research</i> , 2015, 269, 242-260.	2.7	1

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37	Geophysical and geological characterisation of dredge locations from RV Southern Surveyor voyage ss2012_v06 (ECOSATI): hotspot activity in northern Zealandia. ASEG Extended Abstracts, 2018, 2018, 1-8.	0.1	0