

Andrew Nicol

List of Publications by Year in descending order

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92
papers

5,710
citations

81900

39
h-index

79698

73
g-index

100
all docs

100
docs citations

100
times ranked

3381
citing authors

#	ARTICLE	IF	CITATIONS
1	Complex multifault rupture during the 2016 <i>M_w</i> 7.8 Kaik�ura earthquake, New Zealand. <i>Science</i> , 2017, 356, .	12.6	457
2	A geometric model of fault zone and fault rock thickness variations. <i>Journal of Structural Geology</i> , 2009, 31, 117-127.	2.3	371
3	National Seismic Hazard Model for New Zealand: 2010 Update. <i>Bulletin of the Seismological Society of America</i> , 2012, 102, 1514-1542.	2.3	359
4	An alternative model for the growth of faults. <i>Journal of Structural Geology</i> , 2002, 24, 1669-1675.	2.3	332
5	The New Zealand Active Faults Database. <i>New Zealand Journal of Geology, and Geophysics</i> , 2016, 59, 86-96.	1.8	201
6	Growth of vertically segmented normal faults. <i>Journal of Structural Geology</i> , 1996, 18, 1389-1397.	2.3	200
7	The growth and propagation of synsedimentary faults. <i>Journal of Structural Geology</i> , 2003, 25, 633-648.	2.3	194
8	Segmentation and growth of an obliquely reactivated normal fault. <i>Journal of Structural Geology</i> , 2012, 39, 253-267.	2.3	193
9	Growth of a normal fault by the accumulation of slip over millions of years. <i>Journal of Structural Geology</i> , 2005, 27, 327-342.	2.3	173
10	Tectonic evolution of the active Hikurangi subduction margin, New Zealand, since the Oligocene. <i>Tectonics</i> , 2007, 26, .	2.8	162
11	A model of active faulting in New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2014, 57, 32-56.	1.8	147
12	Late Cenozoic evolution and earthquake potential of an active listric thrust complex above the Hikurangi subduction zone, New Zealand. <i>Bulletin of the Geological Society of America</i> , 2002, 114, 1379-1405.	3.3	126
13	Surface Rupture of Multiple Crustal Faults in the 2016 <i>M_w</i> 7.8 Kaik�ura, New Zealand, Earthquake. <i>Bulletin of the Seismological Society of America</i> , 2018, 108, 1496-1520.	2.3	125
14	Progressive localisation of strain during the evolution of a normal fault population. <i>Journal of Structural Geology</i> , 2002, 24, 1215-1231.	2.3	121
15	Fault displacement rates on a range of timescales. <i>Earth and Planetary Science Letters</i> , 2009, 278, 186-197.	4.4	111
16	Normal fault interactions, paleoearthquakes and growth in an active rift. <i>Journal of Structural Geology</i> , 2010, 32, 1101-1113.	2.3	105
17	Displacement rates of normal faults. <i>Nature</i> , 1997, 390, 157-159.	27.8	104
18	Evolution of faulting and volcanism in a back-arc basin and its implications for subduction processes. <i>Tectonics</i> , 2010, 29, n/a-n/a.	2.8	92

#	ARTICLE	IF	CITATIONS
19	Interdependence of fault displacement rates and paleoearthquakes in an active rift. <i>Geology</i> , 2006, 34, 865.	4.4	88
20	Three-dimensional geometry and growth of conjugate normal faults. <i>Journal of Structural Geology</i> , 1995, 17, 847-862.	2.3	83
21	Fault size distributions “are they really power-law?”. <i>Journal of Structural Geology</i> , 1996, 18, 191-197.	2.3	80
22	Two-phase Cretaceous–Paleocene rifting in the Taranaki Basin region, New Zealand; implications for Gondwana break-up. <i>Journal of the Geological Society</i> , 2017, 174, 929-946.	2.1	77
23	Seismic stratigraphic record of transition from Mesozoic subduction to continental breakup in the Zealandia sector of eastern Gondwana. <i>Gondwana Research</i> , 2014, 26, 1060-1078.	6.0	72
24	Growth of contractional structures during the last 10 m.y. at the southern end of the emergent Hikurangi forearc basin, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2002, 45, 365-385.	1.8	68
25	Structure and kinematics of the Taupo Rift, New Zealand. <i>Tectonics</i> , 2014, 33, 1178-1199.	2.8	64
26	Evolution of faulting and plate boundary deformation in the Southern Taranaki Basin, New Zealand. <i>Tectonophysics</i> , 2015, 651-652, 1-18.	2.2	62
27	Displacement loss on growth faults due to sediment compaction. <i>Journal of Structural Geology</i> , 2008, 30, 394-405.	2.3	61
28	Fault controls on the geometry and location of the Okataina Caldera, Taupo Volcanic Zone, New Zealand. <i>Journal of Volcanology and Geothermal Research</i> , 2010, 190, 136-151.	2.1	60
29	Geometry of the subducting Pacific plate since 20 Ma, Hikurangi margin, New Zealand. <i>Journal of the Geological Society</i> , 2014, 171, 131-143.	2.1	60
30	Paleogeography of the Taranaki Basin region during the latest Eocene–Early Miocene and implications for the “total drowning” of Zealandia. <i>New Zealand Journal of Geology, and Geophysics</i> , 2014, 57, 110-127.	1.8	56
31	Earthquake histories and Holocene acceleration of fault displacement rates. <i>Geology</i> , 2009, 37, 911-914.	4.4	52
32	Stratigraphy of architectural elements in a buried volcanic system and implications for hydrocarbon exploration. <i>Interpretation</i> , 2017, 5, SK141-SK159.	1.1	51
33	Preliminary Geometry, Displacement, and Kinematics of Fault Ruptures in the Epicentral Region of the 2016 Mw 7.8 Kaikōura, New Zealand, Earthquake. <i>Bulletin of the Seismological Society of America</i> , 2018, 108, 1521-1539.	2.3	50
34	A geometric model for the formation of deformation band clusters. <i>Journal of Structural Geology</i> , 2013, 55, 21-33.	2.3	49
35	Paleoseismology of the 2010 Mw 7.1 Darfield (Canterbury) earthquake source, Greendale Fault, New Zealand. <i>Tectonophysics</i> , 2014, 637, 178-190.	2.2	45
36	Formation of an active thrust triangle zone associated with structural inversion in a subduction setting, eastern New Zealand. <i>Tectonics</i> , 2004, 23, n/a-n/a.	2.8	43

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37	Investigation of the spatio-temporal relationship between normal faulting and arc volcanism on million-year time scales. <i>Journal of the Geological Society</i> , 2013, 170, 951-962.	2.1	42
38	Holocene paleoearthquakes on the strike-slip Porters Pass Fault, Canterbury, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2005, 48, 59-74.	1.8	39
39	Fault-slip accumulation in an active rift over thousands to millions of years and the importance of paleoearthquake sampling. <i>Journal of Structural Geology</i> , 2012, 36, 71-80.	2.3	39
40	Displacement rates and average earthquake recurrence intervals on normal faults. <i>Journal of Structural Geology</i> , 2005, 27, 541-551.	2.3	38
41	Neogene evolution of lower trench-slope basins and wedge development in the central Hikurangi subduction margin, New Zealand. <i>Tectonophysics</i> , 2013, 591, 152-174.	2.2	38
42	Completeness of the Paleoseismic Active-Fault Record in New Zealand. <i>Seismological Research Letters</i> , 2016, 87, 1299-1310.	1.9	36
43	Breaking a subduction-termination from top to bottom: The large 2016 Kaik�ura Earthquake, New Zealand. <i>Earth and Planetary Science Letters</i> , 2019, 506, 221-230.	4.4	36
44	Tectonic controls on Miocene sedimentation in the Southern Taranaki Basin and implications for New Zealand plate boundary deformation. <i>Basin Research</i> , 2019, 31, 253-273.	2.7	36
45	Fluid flow in fault zones from an active rift. <i>Journal of Structural Geology</i> , 2014, 62, 52-64.	2.3	34
46	Rates of deformation, uplift, and landscape development associated with active folding in the Waipara area of North Canterbury, New Zealand. <i>Tectonics</i> , 1994, 13, 1327-1344.	2.8	33
47	Formation of Late Quaternary paleoshorelines in Crete, Eastern Mediterranean. <i>Earth and Planetary Science Letters</i> , 2015, 431, 294-307.	4.4	32
48	Uplift rate transients at subduction margins due to earthquake clustering. <i>Tectonics</i> , 2016, 35, 2370-2384.	2.8	31
49	Volcanoes buried in Te Riu-a-M�ui/Zealandia sedimentary basins. <i>New Zealand Journal of Geology, and Geophysics</i> , 2020, 63, 378-401.	1.8	31
50	Variability of recurrence interval and single-event slip for surface-rupturing earthquakes in New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2016, 59, 97-116.	1.8	30
51	Landscape history of the Marlborough Sounds, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2011, 54, 195-208.	1.8	29
52	Clusters of megaeearthquakes on upper plate faults control the Eastern Mediterranean hazard. <i>Geophysical Research Letters</i> , 2015, 42, 10,282.	4.0	29
53	Displacement accumulation from earthquakes on isolated normal faults. <i>Journal of Structural Geology</i> , 2006, 28, 1685-1693.	2.3	25
54	Mid-late Holocene paleoseismicity of the eastern Clarence Fault, Marlborough, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2009, 52, 195-208.	1.8	24

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55	Stratigraphy of Architectural Elements of a Buried Monogenetic Volcanic System. <i>Open Geosciences</i> , 2019, 11, 581-616.	1.7	24
56	Statistical methods of fracture characterization using acoustic borehole televiewer log interpretation. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6836-6852.	3.4	23
57	Late Cenozoic thrust tectonics, Picton, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 1990, 33, 485-494.	1.8	19
58	Haumurian (c. 66–80 Ma) half-graben development and deformation, mid Waipara, North Canterbury, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 1993, 36, 127-130.	1.8	19
59	Features of earthquake occurrence in a complex normal fault network: Results from a synthetic seismicity model of the Taupo Rift, New Zealand. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	19
60	Palaeoearthquake histories across a normal fault system in the southwest Taranaki Peninsula, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2010, 53, 375-394.	1.8	16
61	Displacement Accumulation and Sampling of Paleearthquakes on Active Normal Faults of Crete in the Eastern Mediterranean. <i>Geochemistry, Geophysics, Geosystems</i> , 2020, 21, e2020GC009265.	2.5	16
62	Evidence for tectonic, lithologic, and thermal controls on fracture system geometries in an andesitic high-temperature geothermal field. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 6853-6874.	3.4	14
63	Monocline formation during growth of segmented faults in the Taranaki Basin, offshore New Zealand. <i>Tectonophysics</i> , 2017, 721, 310-321.	2.2	14
64	Paleogeography and volcanic morphology reconstruction of a buried monogenetic volcanic field (part 2). <i>Bulletin of Volcanology</i> , 2019, 81, 1.	3.0	14
65	The growth of faults. , 2020, , 221-255.		14
66	Late Cretaceous coeval multi-directional extension in South Zealandia: Implications for eastern Gondwana breakup. <i>Marine and Petroleum Geology</i> , 2020, 118, 104383.	3.3	13
67	An Earthquake Simulator for New Zealand. <i>Bulletin of the Seismological Society of America</i> , 2022, 112, 763-778.	2.3	13
68	Uplift and fault slip during the 2016 Kaik�ura Earthquake and Late Quaternary, Kaik�ura Peninsula, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2023, 66, 263-278.	1.8	12
69	A 6000-year record of surface-rupturing paleoearthquakes on the Wairau Fault, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2018, 61, 341-358.	1.8	11
70	Evolution of a Normal Fault System Along Eastern Gondwana, New Zealand. <i>Tectonics</i> , 2020, 39, e2020TC006181.	2.8	11
71	Elastic Fault Interactions and Earthquake Rupture Along the Southern Hellenic Subduction Plate Interface Zone in Greece. <i>Geophysical Research Letters</i> , 2020, 47, e2019GL086604.	4.0	11
72	Quantitative geometric description of fracture systems in an andesite lava flow using terrestrial laser scanner data. <i>Journal of Volcanology and Geothermal Research</i> , 2017, 341, 315-331.	2.1	11

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73	Tectonic structures developed in Oligocene limestones: Implications for New Zealand plate boundary deformation in North Canterbury. <i>New Zealand Journal of Geology, and Geophysics</i> , 1992, 35, 353-362.	1.8	10
74	Temporal slip-rate stability and variations on the Hope Fault, New Zealand, during the late Quaternary. <i>Tectonophysics</i> , 2018, 738-739, 112-123.	2.2	10
75	Seismic reflection and petrographic interpretation of a buried monogenetic volcanic field (part 1). <i>Bulletin of Volcanology</i> , 2019, 81, 1.	3.0	10
76	Stratigraphic constraints on the late Miocene–Pleistocene evolution of the North Island Fault System and axial ranges in the central Hikurangi subduction margin, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2019, 62, 248-272.	1.8	10
77	Seismic Geomorphology, Architecture and Stratigraphy of Volcanoes Buried in Sedimentary Basins. , ,		10
78	Quaternary Tectonics of New Zealand. , 2017, , 1-34.		10
79	Relationships between volcanism and plate tectonics: A case-study from the Canterbury Basin, New Zealand. <i>Marine Geology</i> , 2021, 433, 106397.	2.1	9
80	Millennial to million year normal-fault interactions in the forearc of a subduction margin, Crete, Greece. <i>Journal of Structural Geology</i> , 2018, 113, 225-241.	2.3	8
81	Cataclasis and silt smear on normal faults in weakly lithified turbidites. <i>Journal of Structural Geology</i> , 2018, 117, 44-57.	2.3	8
82	Evolution of syn- to early post-rift facies in rift basins: insights from the Cretaceous–Paleocene of the Great South Basin, New Zealand. <i>Basin Research</i> , 2022, 34, 1113-1142.	2.7	7
83	Effects of regional and local stresses on fault slip tendency in the southern Taranaki Basin, New Zealand. <i>Marine and Petroleum Geology</i> , 2019, 107, 467-483.	3.3	6
84	Sedimentary architecture of a Late Cretaceous underfilled rift basin, Canterbury Basin, New Zealand. <i>Basin Research</i> , 2022, 34, 342-365.	2.7	6
85	Paleoseismicity of the western Humps fault on the Emu Plain, North Canterbury, New Zealand. <i>New Zealand Journal of Geology, and Geophysics</i> , 2023, 66, 279-292.	1.8	6
86	Palaeoearthquake surface rupture in a transition zone from strike-slip to oblique-normal slip and its implications to seismic hazard, North Island Fault System, New Zealand. <i>Geological Society Special Publication</i> , 2009, 316, 269-292.	1.3	5
87	Early Oligocene marine canyon-channel systems: Implications for regional paleogeography in the Canterbury Basin, New Zealand. <i>Marine Geology</i> , 2019, 418, 106037.	2.1	5
88	Using a calibrated upper living position of marine biota to calculate coseismic uplift: a case study of the 2016 Kaikōura earthquake, New Zealand. <i>Earth Surface Dynamics</i> , 2020, 8, 351-366.	2.4	5
89	Impacts of surface fault rupture on residential structures during the 2016 Mw 7.8 Kaikōura earthquake, New Zealand. <i>Bulletin of the New Zealand Society for Earthquake Engineering</i> , 2019, 52, 1-22.	0.5	4
90	Normal Faulting Along the Kythira-Antikythira Strait, Southwest Hellenic Forearc, Greece. <i>Frontiers in Earth Science</i> , 2022, 9, .	1.8	3

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91	Petroleum systems in a buried stratovolcano: Maturation, migration and leakage. <i>Marine and Petroleum Geology</i> , 2022, 141, 105682.	3.3	3
92	Processes controlling volcanic and epiclastic reservoir formation in a buried polygenetic stratocone. <i>Geological Society Special Publication</i> , 2023, 520, 285-310.	1.3	1