Rupert Sutherland

List of Publications by Year in descending order

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88630 57758 5,638 131 44 70 citations h-index g-index papers 140 140 140 3451 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Prediction of Emperor-Hawaii seamount locations from a revised model of global plate motion and mantle flow. Nature, 2004, 430, 167-173.	27.8	324
2	The Australia-Pacific boundary and Cenozoic plate motions in the SW Pacific: Some constraints from Geosat data. Tectonics, 1995, 14, 819-831.	2.8	245
3	Basement geology and tectonic development of the greater New Zealand region: an interpretation from regional magnetic data. Tectonophysics, 1999, 308, 341-362.	2.2	232
4	Zealandia: Earth's Hidden Continent. GSA Today, 2017, , 27-35.	2.0	216
5	Revised Interface Geometry for the Hikurangi Subduction Zone, New Zealand. Seismological Research Letters, 2013, 84, 1066-1073.	1.9	163
6	Seismic reflection character of the Hikurangi subduction interface, New Zealand, in the region of repeated Gisborne slow slip events. Geophysical Journal International, 2010, 180, 34-48.	2.4	160
7	A model of active faulting in New Zealand. New Zealand Journal of Geology, and Geophysics, 2014, 57, 32-56.	1.8	147
8	Plate boundary deformation in South Island, New Zealand, is related to inherited lithospheric structure. Earth and Planetary Science Letters, 2000, 177, 141-151.	4.4	144
9	Characterizing the seismogenic zone of a major plate boundary subduction thrust: Hikurangi Margin, New Zealand. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	142
10	Cenozoic bending of New Zealand basement terranes and Alpine Fault displacement: A brief review. New Zealand Journal of Geology, and Geophysics, 1999, 42, 295-301.	1.8	127
11	Drilling reveals fluid control on architecture and rupture of the Alpine fault, New Zealand. Geology, 2012, 40, 1143-1146.	4.4	121
12	Quaternary slip rate and geomorphology of the Alpine fault: Implications for kinematics and seismic hazard in southwest New Zealand. Bulletin of the Geological Society of America, 2006, 118, 464-474.	3.3	120
13	Geometry of the Hikurangi subduction thrust and upper plate, North Island, New Zealand. Geochemistry, Geophysics, Geosystems, 2009, 10, .	2.5	108
14	A seismic reflection image for the base of a tectonic plate. Nature, 2015, 518, 85-88.	27.8	100
15	Transpressional development of the Australiaâ€Pacific boundary through southern South Island, New Zealand: Constraints from Mioceneâ€Pliocene sediments, Waihoâ€1 borehole, South Westland. New Zealand Journal of Geology, and Geophysics, 1996, 39, 251-264.	1.8	88
16	Do great earthquakes occur on the Alpine Fault in central South Island, New Zealand?. Geophysical Monograph Series, 2007, , 235-251.	0.1	84
17	Extreme hydrothermal conditions at an active plate-bounding fault. Nature, 2017, 546, 137-140.	27.8	84
18	Late Quaternary displacement rate, paleoseismicity, and geomorphic evolution of the Alpine Fault: Evidence from Hokuri Creek, South Westland, New Zealand. New Zealand Journal of Geology, and Geophysics, 1995, 38, 419-430.	1.8	79

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19	The Oligocene-Miocene Pacific-Australia plate boundary, south of New Zealand: Evolution from oceanic spreading to strike-slip faulting. Earth and Planetary Science Letters, 1997, 148, 129-139.	4.4	78
20	Lithosphere delamination with foundering of lower crust and mantle caused permanent subsidence of New Caledonia Trough and transient uplift of Lord Howe Rise during Eocene and Oligocene initiation of Tonga-Kermadec subduction, western Pacific. Tectonics, 2010, 29, n/a-n/a.	2.8	76
21	Slow wavespeeds and fluid overpressure in a region of shallow geodetic locking and slow slip, Hikurangi subduction margin, New Zealand. Earth and Planetary Science Letters, 2014, 389, 1-13.	4.4	74
22	Dinosaur sanctuary on the Chatham Islands, Southwest Pacific: First record of theropods from the K–T boundary Takatika Grit. Palaeogeography, Palaeoclimatology, Palaeoecology, 2006, 230, 243-250.	2.3	73
23	Widespread compression associated with Eocene Tonga-Kermadec subduction initiation. Geology, 2017, 45, 355-358.	4.4	73
24	Seismic stratigraphic record of transition from Mesozoic subduction to continental breakup in the Zealandia sector of eastern Gondwana. Gondwana Research, 2014, 26, 1060-1078.	6.0	72
25	Strike-slip structure and sedimentary basins of the southern Alpine Fault, Fiordland, New Zealand. Bulletin of the Geological Society of America, 2005, 117, 411.	3.3	70
26	Fault rock lithologies and architecture of the central Alpine fault, New Zealand, revealed by DFDP-1 drilling. Lithosphere, 2015, 7, 155-173.	1.4	70
27	Continental-scale geographic change across Zealandia during Paleogene subduction initiation. Geology, 2020, 48, 419-424.	4.4	69
28	Uplift in the Fiordland Region, New Zealand: Implications for Incipient Subduction. Science, 2002, 297, 2038-2041.	12.6	65
29	Frictional properties of exhumed fault gouges in DFDP†cores, Alpine Fault, New Zealand. Geophysical Research Letters, 2014, 41, 356-362.	4.0	65
30	Displacement since the Pliocene along the southern section of the Alpine fault, New Zealand. Geology, 1994, 22, 327-330.	4.4	64
31	Changes in hot spring temperature and hydrogeology of the <scp>A</scp> lpine <scp>F</scp> ault hanging wall, <scp>N</scp> ew <scp>Z</scp> ealand, induced by distal <scp>S</scp> outh <scp>I</scp> sland earthquakes. Geofluids, 2015, 15, 216-239.	0.7	62
32	Regional geological framework of South Island, New Zealand, and its significance for understanding the active plate boundary. Geophysical Monograph Series, 2007, , 19-46.	0.1	60
33	Oblique slip on the Puysegur subduction interface in the 2009 July MW 7.8 Dusky Sound earthquake from GPS and InSAR observations: implications for the tectonics of southwestern New Zealand. Geophysical Journal International, 2010, 183, 1265-1286.	2.4	54
34	Stratigraphy of the southern Norfolk Ridge and the Reinga Basin: A record of initiation of Tongaâ€'Kermadecâ€'Northland subduction in the southwest Pacific. Earth and Planetary Science Letters, 2012, 321-322, 41-53.	4.4	54
35	Cretaceous demise of the Moa plate and strike-slip motion at the Gondwana margin. Geology, 2001, 29, 279.	4.4	53
36	Mioceneâ€Recent deformation, surface elevation, and volcanic intrusion of the overriding plate during subduction initiation, offshore southern Fiordland, Puysegur margin, southwest New Zealand. New Zealand Journal of Geology, and Geophysics, 2006, 49, 131-149.	1.8	53

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37	SAHKE geophysical transect reveals crustal and subduction zone structure at the southern Hikurangi margin, New Zealand. Geochemistry, Geophysics, Geosystems, 2013, 14, 2063-2083.	2.5	52
38	Mantle upwellings above slab graveyards linked to the global geoid lows. Nature Geoscience, 2010, 3, 435-438.	12.9	50
39	Hydraulic and acoustic properties of the active Alpine Fault, New Zealand: Laboratory measurements on DFDP-1 drill core. Earth and Planetary Science Letters, 2014, 390, 45-51.	4.4	50
40	Mantle upwelling after Gondwana subduction death explains anomalous topography and subsidence histories of eastern New Zealand and West Antarctica. Geology, 2010, 38, 155-158.	4.4	49
41	Threeâ€dimensional velocity structure of the northern Hikurangi margin, Raukumara, New Zealand: Implications for the growth of continental crust by subduction erosion and tectonic underplating. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	48
42	High-velocity frictional properties of Alpine Fault rocks: Mechanical data, microstructural analysis, and implications for rupture propagation. Journal of Structural Geology, 2017, 97, 71-92.	2.3	48
43	From strike-slip faulting to oblique subduction: A survey of the Alpine Fault-Puysegur Trench transition, New Zealand, results of cruise Geodynz-sud leg 2. Marine Geophysical Researches, 1996, 18, 383-399.	1.2	45
44	Late Holocene Rupture History of the Alpine Fault in South Westland, New Zealand. Bulletin of the Seismological Society of America, 2012, 102, 620-638.	2.3	45
45	Orbital forcing of mid-latitude Southern Hemisphere glaciation since 100 ka inferred from cosmogenic nuclide ages of moraine boulders from the Cascade Plateau, southwest New Zealand. Bulletin of the Geological Society of America, 2007, 119, 443-451.	3.3	43
46	Structure and breakup history of the rifted margin of West Antarctica in relation to Cretaceous separation from Zealandia and Bellingshausen plate motion. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	43
47	Lateâ€interseismic state of a continental plateâ€bounding fault: Petrophysical results from DFDPâ€1 wireline logging and core analysis, Alpine Fault, New Zealand. Geochemistry, Geophysics, Geosystems, 2013, 14, 3801-3820.	2.5	43
48	Deep Fault Drilling Project & Drilling, 0, 8, 75-82.	0.6	43
49	Rapid creation and destruction of sedimentary basins on mature strike-slip faults: an example from the offshore Alpine Fault, New Zealand. Journal of Structural Geology, 2001, 23, 1727-1739.	2.3	41
50	How to Create New Subduction Zones: A Global Perspective. Oceanography, 2019, 32, 160-174.	1.0	41
51	Anomalous passive subsidence of deepâ€water sedimentary basins: a prearc basin example, southern New Caledonia Trough and Taranaki Basin, New Zealand. Basin Research, 2014, 26, 242-268.	2.7	40
52	Largeâ€displacement, hydrothermal frictional properties of DFDPâ€1 fault rocks, Alpine Fault, New Zealand: Implications for deep rupture propagation. Journal of Geophysical Research: Solid Earth, 2016, 121, 624-647.	3.4	40
53	Regional volcanism of northern Zealandia: post-Gondwana break-up magmatism on an extended, submerged continent. Geological Society Special Publication, 2018, 463, 199-226.	1.3	39
54	Spatiotemporal clustering of great earthquakes on a transform fault controlled by geometry. Nature Geoscience, 2021, 14, 314-320.	12.9	38

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55	Paleoceanographic significance of Late Paleocene dysaerobia at the shelf/slope break around New Zealand. Palaeogeography, Palaeoclimatology, Palaeoecology, 2000, 156, 51-70.	2.3	37
56	Crustal structure and neotectonics of the Puysegur oblique subduction zone, New Zealand. Tectonophysics, 1999, 313, 335-362.	2.2	36
57	Reactivation of tectonics, crustal underplating, and uplift after 60 Myr of passive subsidence, Raukumara Basin, Hikurangiâ€Kermadec fore arc, New Zealand: Implications for global growth and recycling of continents. Tectonics, 2009, 28, .	2.8	35
58	Incipient subduction at the contact with stretched continental crust: The Puysegur Trench. Earth and Planetary Science Letters, 2019, 520, 212-219.	4.4	34
59	Petrophysical, Geochemical, and Hydrological Evidence for Extensive Fractureâ€Mediated Fluid and Heat Transport in the Alpine Fault's Hangingâ€Wall Damage Zone. Geochemistry, Geophysics, Geosystems, 2017, 18, 4709-4732.	2.5	31
60	Regional exhumation history of brittle crust during subduction initiation, Fiordland, southwest New Zealand, and implications for thermochronologic sampling and analysis strategies., 2009, 5, 409-425.		30
61	Crustal structure of the Kermadec arc from MANGO seismic refraction profiles. Journal of Geophysical Research: Solid Earth, 2016, 121, 7514-7546.	3.4	29
62	Fault Zone Guided Wave generation on the locked, late interseismic Alpine Fault, New Zealand. Geophysical Research Letters, 2015, 42, 5736-5743.	4.0	28
63	Clay mineral formation and fabric development in the DFDP-1B borehole, central Alpine Fault, New Zealand. New Zealand Journal of Geology, and Geophysics, 2015, 58, 13-21.	1.8	27
64	Uplift rate and landscape development in southwest Fiordland, New Zealand, determined using 10Be and 26Al exposure dating of marine terraces. Geochimica Et Cosmochimica Acta, 2004, 68, 2313-2319.	3.9	26
65	Foreâ€arc deformation and underplating at the northern Hikurangi margin, New Zealand. Journal of Geophysical Research, 2010, 115, .	3.3	26
66	Bedrock geology of DFDP-2B, central Alpine Fault, New Zealand. New Zealand Journal of Geology, and Geophysics, 2017, 60, 497-518.	1.8	24
67	Frontal accretion and thrust wedge evolution under very oblique plate convergence: Fiordland Basin, New Zealand. Basin Research, 2002, 14, 439-466.	2.7	23
68	Inferring mantle properties with an evolving dynamic model of the Antarcticaâ€New Zealand region from the Late Cretaceous. Journal of Geophysical Research, 2010, 115, .	3.3	21
69	Recycling of depleted continental mantle by subduction and plumes at the Hikurangi Plateau large igneous province, southwestern Pacific Ocean. Geology, 2019, 47, 795-798.	4.4	21
70	Seismic stratigraphy and paleogeographic evolution of Fairway Basin, Northern Zealandia, Southwest Pacific: from Cretaceous Gondwana breakup to Cenozoic Tonga–Kermadec subduction. Basin Research, 2017, 29, 189-212.	2.7	20
71	Geochemical and microstructural evidence for interseismic changes in fault zone permeability and strength, <scp>A</scp> lpine <scp>F</scp> ault, <scp>N</scp> ew <scp>Z</scp> ealand. Geochemistry, Geophysics, Geosystems, 2017, 18, 238-265.	2.5	20
72	Chapter 2â€fGeodynamics of the SW Pacific: a brief review and relations with New Caledonian geology. Geological Society Memoir, 2020, 51, 13-26.	1.7	20

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73	New Zealand Geology. Episodes, 2012, 35, 57-71.	1.2	20
74	Stress transition from horizontal to vertical forces during subduction initiation. Nature Geoscience, 2022, 15, 149-155.	12.9	20
75	Formation and evolution of the Solander Basin, southwestern South Island, New Zealand, controlled by a major fault in continental crust and upper mantle. Tectonics, 2000, 19, 44-61.	2.8	19
76	Patterns of Late Cenozoic exhumation deduced from apatite and zircon U-He ages from Fiordland, New Zealand. Geochemistry, Geophysics, Geosystems, 2005, 6, n/a-n/a.	2.5	19
77	Textural changes of graphitic carbon by tectonic and hydrothermal processes in an active plate boundary fault zone, Alpine Fault, New Zealand. Geological Society Special Publication, 2018, 453, 205-223.	1.3	19
78	Plioceneâ€Quaternary sedimentation and Alpine Fault related tectonics in the lower Cascade valley, South Westland, New Zealand. New Zealand Journal of Geology, and Geophysics, 1995, 38, 431-450.	1.8	18
79	Rifting and subduction initiation history of the New Caledonia Trough, southwest Pacific, constrained by process-oriented gravity models. Geophysical Journal International, 2012, 189, 1293-1305.	2.4	17
80	Orogenic paleofluid flow recorded by discordant detrital zircons in the Caledonian foreland basin of northern Greenland. Lithosphere, 2015, 7, 138-143.	1.4	17
81	Stratigraphy of Reinga and Aotea basins, NW New Zealand: constraints from dredge samples on regional correlations and reservoir character. New Zealand Journal of Geology, and Geophysics, 2016, 59, 396-415.	1.8	17
82	Strikeâ€Slip Enables Subduction Initiation Beneath a Failed Rift: New Seismic Constraints From Puysegur Margin, New Zealand. Tectonics, 2021, 40, e2020TC006436.	2.8	17
83	Cretaceousâ€Tertiary tectonic history of the Fiordland margin, New Zealand. New Zealand Journal of Geology, and Geophysics, 2000, 43, 289-302.	1.8	16
84	Eocene (46–44ÂMa) Onset of Australiaâ€Pacific Plate Motion in the Southwest Pacific Inferred From Stratigraphy in New Caledonia and New Zealand. Geochemistry, Geophysics, Geosystems, 2020, 21, e2019GC008699.	2.5	15
85	The Alpine Fault Hangingwall Viewed From Within: Structural Analysis of Ultrasonic Image Logs in the DFDPâ€⊋B Borehole, New Zealand. Geochemistry, Geophysics, Geosystems, 2018, 19, 2492-2515.	2.5	14
86	Expedition 371 methods. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	14
87	Torlesse greywacke and Haast Schist source for Pliocene conglomerates near Reefton, New Zealand. New Zealand Journal of Geology, and Geophysics, 2001, 44, 105-111.	1.8	12
88	High permeability and low temperature correlates with proximity to brittle failure within mountains at an active tectonic boundary, Manapouri tunnel, Fiordland, New Zealand. Earth and Planetary Science Letters, 2014, 389, 176-187.	4.4	12
89	Deepwater sedimentation and Cenozoic deformation in the Southern New Caledonia Trough (Northern Zealandia, SW Pacific). Marine and Petroleum Geology, 2018, 92, 764-779.	3.3	12
90	PETROLEUM POTENTIAL OF THE GREAT SOUTH BASIN, NEW ZEALAND—NEW SEISMIC DATA IMPROVES IMAGING. APPEA Journal, 2007, 47, 145.	0.2	12

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91	Upper Plate Heterogeneity Along the Southern Hikurangi Margin, New Zealand. Geophysical Research Letters, 2020, 47, e2019GL085511.	4.0	11
92	Pleistocene glaciomarine sediments of the Kisbee Formation, Wilson River, southwest Fiordland, and some tectonic and paleoclimatic implications. New Zealand Journal of Geology, and Geophysics, 2007, 50, 193-204.	1.8	10
93	Use of ancient wave-ravinement surfaces to determine palaeogeography and vertical crustal movements around New Zealand. New Zealand Journal of Geology, and Geophysics, 2014, 57, 459-467.	1.8	10
94	Expedition 371 summary. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	10
95	Deep Fault Drilling Project—Alpine Fault, New Zealand. Scientific Drilling, 2009, , .	0.6	10
96	Frontal fault location and most recent earthquake timing for the Alpine Fault at Whataroa, Westland, New Zealand. New Zealand Journal of Geology, and Geophysics, 2018, 61, 329-340.	1.8	9
97	Neogene Mass Accumulation Rate of Carbonate Sediment Across Northern Zealandia, Tasman Sea, Southwest Pacific. Paleoceanography and Paleoclimatology, 2022, 37, e2021PA004294.	2.9	8
98	Fluid Flux in Fractured Rock of the Alpine Fault Hangingâ€Wall Determined from Temperature Logs in the DFDPâ€2B Borehole, New Zealand. Geochemistry, Geophysics, Geosystems, 2018, 19, 2631-2646.	2.5	7
99	Eocene to Miocene Subduction Initiation Recorded in Stratigraphy of Reinga Basin, Northwest New Zealand. Tectonics, 2020, 39, e2019TC005899.	2.8	7
100	Stratigraphic architecture of Solander Basin records Southern Ocean currents and subduction initiation beneath southwest New Zealand. Basin Research, 2021, 33, 403-426.	2.7	7
101	Transform and rift structure of Paleogene crust near Resolution Ridge, Tasman Sea, southwest New Zealand. Geochemistry, Geophysics, Geosystems, 2008, 9, .	2.5	6
102	SAHKE seismicâ€scatter imaging of subduction beneath Wellington, North Island, New Zealand. Geophysical Research Letters, 2015, 42, 3240-3247.	4.0	6
103	The Significance of Heat Transport by Shallow Fluid Flow at an Active Plate Boundary: The Southern Alps, New Zealand. Geophysical Research Letters, 2018, 45, 10,323.	4.0	6
104	Crustal Thermal Structure and Exhumation Rates in the Southern Alps Near the Central Alpine Fault, New Zealand. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC008972.	2.5	6
105	Age of Jackson Formation proves late Cenozoic allochthony in South Westland, New Zealand. New Zealand Journal of Geology, and Geophysics, 1996, 39, 559-563.	1.8	5
106	Subduction Systems Revealed: Studies of the Hikurangi Margin. Eos, 2010, 91, 417-418.	0.1	5
107	Physical properties and seismic-reflection interpretation of bathyal marine sediments affected by carbonate and silica diagenesis in the Tasman Sea. New Zealand Journal of Geology, and Geophysics, 2018, 61, 96-111.	1.8	5
108	Site U1508. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	5

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109	Reconstructing the southwest Pacific. Eos, 1997, 78, 21.	0.1	4
110	Biotic Response to Early Eocene Warming Events: Integrated Record From Offshore Zealandia, North Tasman Sea. Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004179.	2.9	4
111	The discovery of a new sedimentary basin: offshore Raukumara, East Coast, North Island, New Zealand. APPEA Journal, 2008, 48, 53.	0.2	4
112	Site U1507. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	4
113	Site U1509. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	4
114	Cretaceous Riftâ€Drift Tectonics Then Paleogene Prearc Subsidence Related to Subduction Initiation: Aotea Basin, Zealandia, Southwest Pacific. Tectonics, 2022, 41, .	2.8	4
115	A Faulted Thinâ€Sheet Model of Plate Boundary Deformation That Fits Observations. Journal of Geophysical Research: Solid Earth, 2018, 123, 9162-9185.	3.4	3
116	Seismic Stratigraphy of the Reinga Basin, Northwest New Zealand: Tectonic and Petroleum Implications., 2013,, 221-252.		3
117	Realâ€Time Earthquake Monitoring during the Second Phase of the Deep Fault Drilling Project, Alpine Fault, New Zealand. Seismological Research Letters, 2017, 88, 1443-1454.	1.9	2
118	Petroleum implications of stacked deltas in the Fairway Basin, offshore New Caledonia, Northern Tasman Frontier. APPEA Journal, 2014, 54, 537.	0.2	2
119	Site U1510. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	2
120	Site U1511. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	2
121	Site U1506. Proceedings of the International Ocean Discovery Program, 0, , .	0.0	2
122	Latest Cretaceous and Paleocene biostratigraphy and paleogeography of northern Zealandia, IODP Site U1509, New Caledonia Trough, southwest Pacific. New Zealand Journal of Geology, and Geophysics, 2024, 67, 20-44.	1.8	2
123	GEOLOGICAL DRAUGHTING WITH COREL DRAW. Terra Nova, 1991, 3, 555-558.	2.1	1
124	Displacement since the Pliocene along the southern section of the Alpine fault, New Zealand: Comment and Reply. Geology, 1995, 23, 475.	4.4	1
125	Gravity survey of the central Alpine Fault near the DFDP-2 drill site, Whataroa, South Island, New Zealand. New Zealand Journal of Geology, and Geophysics, 2020, 63, 128-144.	1.8	1
126	Wide-angle OBS velocity structure and gravity modeling along the SAHKE transect, southern North Island, New Zealand. , $2013, \dots$		1

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127	SEX EDUCATION AND GUIDANCE : AN EDUCATIONAL PROBLEM. Nature, 1943, 151, 356-357.	27.8	O
128	Lidar reveals uniform Alpine fault offsets and bimodal plate boundary rupture behavior, New Zealand: COMMENT. Geology, 2014, 42, e351-e351.	4.4	0
129	Thermal properties of the hanging wall of the central Alpine Fault, New Zealand. New Zealand Journal of Geology, and Geophysics, 2020, , 1-12.	1.8	0
130	Capel and Faust basins—integrated geoscientific assessment of Australia's remote offshore eastern frontier. APPEA Journal, 2009, 49, 586.	0.2	0
131	Petroleum Prospectivity of the Tasman Frontier. APPEA Journal, 2014, 54, 520.	0.2	0