Carolyn Boulton

List of Publications by Year
in descending order

30	998	394421	501196
papers	citations	19 h-index	28 g-index

36	36	36	850
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Drilling reveals fluid control on architecture and rupture of the Alpine fault, New Zealand. Geology, 2012, 40, 1143-1146.	4.4	121
2	Extreme hydrothermal conditions at an active plate-bounding fault. Nature, 2017, 546, 137-140.	27.8	84
3	Pore Fluid Pressure Development in Compacting Fault Gouge in Theory, Experiments, and Nature. Journal of Geophysical Research: Solid Earth, 2018, 123, 226-241.	3.4	84
4	Physical properties of surface outcrop cataclastic fault rocks, Alpine Fault, New Zealand. Geochemistry, Geophysics, Geosystems, 2012, 13, .	2.5	71
5	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
6	Frictional properties of exhumed fault gouges in DFDPâ€1 cores, Alpine Fault, New Zealand. Geophysical Research Letters, 2014, 41, 356-362.	4.0	65
7	Slip localization on the southern Alpine Fault, New Zealand. Tectonics, 2013, 32, 620-640.	2.8	55
8	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
9	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
10	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
11	Elastic strain energy release from fragmenting grains: Effects on fault rupture. Journal of Structural Geology, 2012, 38, 265-277.	2.3	31
12	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
13	Evolution of a rapidly slipping, active low-angle normal fault, Suckling-Dayman metamorphic core complex, SE Papua New Guinea. Bulletin of the Geological Society of America, 2019, 131, 1333-1363.	3.3	26
14	Temperature-dependent frictional properties of heterogeneous Hikurangi Subduction Zone input sediments, ODP Site 1124. Tectonophysics, 2019, 757, 123-139.	2.2	26
15	Bedrock geology of DFDP-2B, central Alpine Fault, New Zealand. New Zealand Journal of Geology, and Geophysics, 2017, 60, 497-518.	1.8	24
16	Fracturing, fluid-rock interaction and mineralisation during the seismic cycle along the Alpine Fault. Journal of Structural Geology, 2017, 103, 151-166.	2.3	22
17	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
18	How phyllosilicate mineral structure affects fault strength in Mgâ€rich fault systems. Geophysical Research Letters, 2017, 44, 5457-5467.	4.0	20

#	Article	IF	Citations
19	Permeability and seismic velocity and their anisotropy across the Alpine Fault, New Zealand: An insight from laboratory measurements on core from the Deep Fault Drilling Project phase 1 (DFDPâ€1). Journal of Geophysical Research: Solid Earth, 2017, 122, 6160-6179.	3.4	19
20	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
21	Frictional properties and 3-D stress analysis of the southern Alpine Fault, New Zealand. Journal of Structural Geology, 2018, 114, 43-54.	2.3	17
22	Mechanical Implications of Creep and Partial Coupling on the World's Fastest Slipping Lowâ€Angle Normal Fault in Southeastern Papua New Guinea. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020117.	3.4	15
23	Slowâ€toâ€Fast Deformation in Mafic Fault Rocks on an Active Lowâ€Angle Normal Fault, Woodlark Rift, SE Papua New Guinea. Geochemistry, Geophysics, Geosystems, 2020, 21, e2020GC009171.	2.5	11
24	Hydration of the crust and upper mantle of the Hikurangi Plateau as it subducts at the southern Hikurangi margin. Earth and Planetary Science Letters, 2020, 541, 116271.	4.4	11
25	The frictional strength of granular fault gouge: application of theory to the mechanics of low-angle normal faults. Geological Society Special Publication, 2009, 321, 9-31.	1.3	6
26	The contemporary force balance in a wide accretionary wedge: numerical models of the southcentral Hikurangi margin of New Zealand. Geophysical Journal International, 2019, 219, 776-795.	2.4	6
27	Using Syntectonic Calcite Veins to Reconstruct the Strength Evolution of an Active Lowâ€Angle Normal Fault, Woodlark Rift, SE Papua New Guinea. Journal of Geophysical Research: Solid Earth, 2021, 126, e2021JB021916.	3.4	4
28	Temporal velocity variations in the northern Hikurangi margin and the relation to slow slip. Earth and Planetary Science Letters, 2022, 584, 117443.	4.4	4
29	Mylonites as shales? Experimental observations of P-wave anisotropy dependence on mineralogy, layering and scale. , 2016, , .		1
30	Regionalâ€Scale Lowâ€Angle Normal Fault Friction and Cohesion Constrained From Mohrâ€Coulomb Models of Active and Abandoned Rangeâ€Front Faults in Papua New Guinea. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	0