David J Sanderson

List of Publications by Year
in descending order

128 papers	8,623 citations	50276 46 h-index	45317 90 g-index
131 all docs	131 docs citations	131 times ranked	4183 citing authors

#	Article	IF	Citations
1	Transpression. Journal of Structural Geology, 1984, 6, 449-458.	2.3	802
2	Displacements, segment linkage and relay ramps in normal fault zones. Journal of Structural Geology, 1991, 13, 721-733.	2.3	754
3	Fault damage zones. Journal of Structural Geology, 2004, 26, 503-517.	2.3	676
4	The relationship between displacement and length of faults: a review. Earth-Science Reviews, 2005, 68, 317-334.	9.1	388
5	Models of strain variation in nappes and thrust sheets: A review. Tectonophysics, 1982, 88, 201-233.	2.2	250
6	Sampling power-law distributions. Tectonophysics, 1995, 248, 1-20.	2.2	226
7	The use of topology in fracture network characterization. Journal of Structural Geology, 2015, 72, 55-66.	2.3	223
8	The development of fold axes oblique to the regional trend. Tectonophysics, 1973, 16, 55-70.	2.2	200
9	Glossary of normal faults. Journal of Structural Geology, 2000, 22, 291-305.	2.3	189
10	Mesoscale strike-slip faults and damage zones at Marsalforn, Gozo Island, Malta. Journal of Structural Geology, 2003, 25, 793-812.	2.3	171
11	Glossary of fault and other fracture networks. Journal of Structural Geology, 2016, 92, 12-29.	2.3	162
12	Effects of layering and anisotropy on fault geometry. Journal of the Geological Society, 1992, 149, 793-802.	2.1	159
13	A Mohr circle construction for the opening of a pre-existing fracture. Journal of Structural Geology, 1997, 19, 887-892.	2.3	132
14	Variation in the form and distribution of dykes in the Mull swarm, Scotland. Journal of Structural Geology, 1995, 17, 1543-1557.	2.3	123
15	Spatial arrangement of faults and opening-mode fractures. Journal of Structural Geology, 2018, 108, 2-15.	2.3	116
16	Strike-slip relay ramps. Journal of Structural Geology, 1995, 17, 1351-1360.	2.3	115
17	Evaluation of the 2-D permeability tensor for fractured rock masses. International Journal of Rock Mechanics and Mining Sciences, 1996, 33, 17-37.	0.0	113
18	A fractal relationship between vein thickness and gold grade in drill core from La Codosera, Spain. Economic Geology, 1994, 89, 168-173.	3.8	110

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19	A broader classification of damage zones. Journal of Structural Geology, 2017, 102, 179-192.	2.3	106
20	Pull-aparts, shear fractures and pressure solution. Tectonophysics, 1995, 241, 1-13.	2.2	102
21	Structural similarity and variety at the tips in a wide range of strikeâ€“slip faults: a review. Terra Nova, 2006, 18, 330-344.	2.1	94
22	Relationships between fractures. Journal of Structural Geology, 2018, 106, 41-53.	2.3	92
23	The transition from upright to recumbent folding in the Variscan fold belt of southwest England: a model based on the kinematics of simple shear. Journal of Structural Geology, 1979, 1, 171-180.	2.3	88
24	Scaling of fault displacements from the Badajoz-CÃ³rdoba shear zone, SW spain. Tectonophysics, 1992, 210, 179-190.	2.2	87
25	Topology, connectivity and percolation in fracture networks. Journal of Structural Geology, 2018, 115, 167-177.	2.3	85
26	Deformation studies in the Irish Caledonides. Journal of the Geological Society, 1980, 137, 289-302.	2.1	84
27	Effects of propagation rate on displacement variations along faults. Journal of Structural Geology, 1996, 18, 311-320.	2.3	82
28	High-resolution record of displacement accumulation on an active normal fault: implications for models of slip accumulation during repeated earthquakes. Journal of Structural Geology, 2006, 28, 1146-1166.	2.3	79
29	Interacting faults. Journal of Structural Geology, 2017, 97, 1-22.	2.3	79
30	Selective reverse-reactivation of normal faults, and deformation around reverse-reactivated faults in the Mesozoic of the Somerset coast. Journal of Structural Geology, 1999, 21, 493-509.	2.3	75
31	Effects of stress on the two-dimensional permeability tensor of natural fracture networks. Geophysical Journal International, 1996, 125, 912-924.	2.4	74
32	Damage zones around strike-slip fault systems and strike-slip fault evolution, Crackington Haven, southwest England. Geosciences Journal, 2000, 4, 53-72.	1.2	73
33	Anisotropic features of geometry and permeability in fractured rock masses. Engineering Geology, 1995, 40, 65-75.	6.3	70
34	Linkage and evolution of conjugate strike-slip fault zones in limestones of Somerset and Northumbria. Journal of Structural Geology, 1998, 20, 1477-1493.	2.3	70
35	Strain and scaling of faults in the chalk at Flamborough Head, U.K.. Journal of Structural Geology, 1994, 16, 97-107.	2.3	69
36	Analysis of the fractal clustering of ore deposits in the Spanish Iberian Pyrite Belt. Ore Geology Reviews, 2010, 38, 307-318.	2.7	69

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37	Reactivated strikeâ€“slip faults: examples from north Cornwall, UK. Tectonophysics, 2001, 340, 173-194.	2.2	68
38	Numerical modelling of the effects of fault slip on fluid flow around extensional faults. Journal of Structural Geology, 1996, 18, 109-119.	2.3	67
39	The superposition of compaction and plane strain. Tectonophysics, 1976, 30, 35-54.	2.2	64
40	NetworkGT: A GIS tool for geometric and topological analysis of two-dimensional fracture networks. , 2018, 14, 1618-1634.		64
41	Fault interactions and reactivation within a normal-fault network at Milne Point, Alaska. AAPG Bulletin, 2014, 98, 2081-2107.	1.5	59
42	Analysis of three-dimensional strain modified uniform distributions: andalusite fabrics from a granite aureole. Journal of Structural Geology, 1981, 3, 109-116.	2.3	58
43	Inferred fluid flow through fault damage zones based on the observation of stalactites in carbonate caves. Journal of Structural Geology, 2010, 32, 1305-1316.	2.3	56
44	Fractal analysis of Sn-W mineralization from central Iberia; insights into the role of fracture connectivity in the formation of an ore deposit. Economic Geology, 1998, 93, 360-365.	3.8	54
45	Structural zones of the Variscan fold belt in SW England, their location and development. Journal of the Geological Society, 1973, 129, 527-536.	2.1	52
46	Critical stress localization of flow associated with deformation of well-fractured rock masses, with implications for mineral deposits. Geological Society Special Publication, 1999, 155, 69-81.	1.3	52
47	Fractal effects of crack propagation on dynamic stress intensity factors and crack velocities. International Journal of Fracture, 1996, 74, 29-42.	2.2	51
48	Quantitative Analysis of Tin- and Tungsten-Bearing Sheeted Vein Systems. Economic Geology, 2008, 103, 1043-1056.	3.8	47
49	Numerical study of critical behaviour of deformation and permeability of fractured rock masses. Marine and Petroleum Geology, 1998, 15, 535-548.	3.3	46
50	Spatial and layer-controlled variability in fracture networks. Journal of Structural Geology, 2018, 108, 52-65.	2.3	44
51	Patterns of folding within nappes and thrust sheets: Examples from the Variscan of southwest England. Tectonophysics, 1982, 88, 247-267.	2.2	43
52	Estimating strain from fault slip using a line sample. Journal of Structural Geology, 1993, 15, 1513-1516.	2.3	43
53	Structural variation across the northern margin of the Variscides in NW Europe. Geological Society Special Publication, 1984, 14, 149-165.	1.3	42
54	A multifractal simulation model for the distribution of VMS deposits in the Spanish segment of the Iberian Pyrite Belt. Computers and Geosciences, 2011, 37, 1917-1927.	4.2	41

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55	Graph theory and the analysis of fracture networks. Journal of Structural Geology, 2019, 125, 155-165.	2.3	41
56	Structural analyses and fracture network characterisation: Seven pillars of wisdom. Earth-Science Reviews, 2018, 184, 13-28.	9.1	39
57	The analysis of finite strain using lines with an initial random orientation. Tectonophysics, 1977, 43, 199-211.	2.2	37
58	Numerical study of fluid flow of deforming fractured rocks using dual permeability model. Geophysical Journal International, 2002, 151, 452-468.	2.4	37
59	Deformation history and basin-controlling faults in the Mesozoic sedimentary rocks of the Somerset coast. Proceedings of the Geologists Association, 1999, 110, 41-52.	1.1	36
60	Spatial distribution of brittle strain in layered sequences. Journal of Structural Geology, 2008, 30, 50-64.	2.3	35
61	Line sampling of fracture swarms and corridors. Journal of Structural Geology, 2019, 122, 27-37.	2.3	35
62	The magnetic susceptibility anisotropy of deformed rocks from North Cornwall, England. Tectonophysics, 1975, 27, 141-153.	2.2	33
63	Reconciling plate kinematic and seismic estimates of lithospheric convergence in the central Indian Ocean. Geology, 2010, 38, 307-310.	4.4	33
64	Deformation within a strike-slip fault network at Westward Ho!, Devon U.K.: Domino vs conjugate faulting. Journal of Structural Geology, 2011, 33, 833-843.	2.3	33
65	Oblique fold axes in the Dalradian rocks of the Southwest Highlands. Scottish Journal of Geology, 1974, 9, 281-296.	0.1	31
66	A new 3D geological model and interpretation of structural evolution of the world-class Rio Tinto VMS deposit, Iberian Pyrite Belt (Spain). Ore Geology Reviews, 2015, 71, 457-476.	2.7	31
67	Thrust geometries in unconsolidated Quaternary sediments and evolution of the Eupchon Fault, southeast Korea. Island Arc, 2004, 13, 403-415.	1.1	30
68	The topology of evolving rift fault networks: Single-phase vs multi-phase rifts. Journal of Structural Geology, 2017, 96, 192-202.	2.3	30
69	The structure of SW Cornwall and its bearing on the emplacement of the Lizard Complex. Journal of the Geological Society, 1984, 141, 87-95.	2.1	29
70	Estimating flow heterogeneity in natural fracture systems. Journal of Volcanology and Geothermal Research, 2005, 148, 116-129.	2.1	28
71	Distribution of faults and extensional strain in fractured carbonates of the North Malta Graben. AAPG Bulletin, 2010, 94, 435-456.	1.5	28
72	Analysis of a strike-slip fault network using high resolution multibeam bathymetry, offshore NW Devon U.K.. Tectonophysics, 2012, 541-543, 69-80.	2.2	28

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73	Models of fracture orientation at oblique spreading centres. Journal of the Geological Society, 1996, 153, 185-189.	2.1	27
74	Hercynian transpressional tectonics at the southern margin of the Central Iberian Zone, west Spain. Journal of the Geological Society, 1991, 148, 893-898.	2.1	26
75	Fractal kinematics of crack propagation in geomaterials. Engineering Fracture Mechanics, 1995, 50, 529-536.	4.3	26
76	Evaluation of instability in fractured rock masses using numerical analysis methods: Effects of fracture geometry and loading direction. Journal of Geophysical Research, 2001, 106, 26671-26687.	3.3	26
77	Slow-spreading ridge-axis tectonics: evidence from the Lizard complex, UK. Earth and Planetary Science Letters, 1993, 116, 101-112.	4.4	25
78	Ore deposit types and tectonic evolution of the Iberian Pyrite Belt: From transtensional basins and magmatism to transpression and inversion tectonics. Ore Geology Reviews, 2016, 79, 254-267.	2.7	24
79	Patterns of Boudinage and Apparent Stretching Lineation Developed in Folded Rocks. Journal of Geology, 1974, 82, 651-661.	1.4	23
80	Fractal analysis and percolation properties of veins. Geological Society Special Publication, 1999, 155, 7-16.	1.3	23
81	Are gold deposits in the crust fractals? A study of gold mines in the Zimbabwe craton. Geological Society Special Publication, 1999, 155, 141-151.	1.3	23
82	Localized vs distributed deformation associated with the linkage history of an active normal fault, Whakatane Graben, New Zealand. Journal of Structural Geology, 2014, 69, 266-280.	2.3	22
83	Fractal analysis of the evolution of a fracture network in a granite outcrop, SE Korea. Geosciences Journal, 2010, 14, 201-215.	1.2	20
84	Making rose diagrams fit-for-purpose. Earth-Science Reviews, 2020, 201, 103055.	9.1	19
85	Major early folds at the southern margin of the Culm synclinorium. Journal of the Geological Society, 1975, 131, 337-352.	2.1	18
86	Spatial distribution of damage and strain within a normal fault relay at Kilve, U.K.. Journal of Structural Geology, 2019, 118, 194-209.	2.3	17
87	Connectivity and network development of carbonate-hosted fault damage zones from western Malta. Journal of Structural Geology, 2020, 141, 104212.	2.3	17
88	Large lateral ramps in the Eocene Valkyr shear zone: extensional ductile faulting controlled by plutonism in southern British Columbia: Discussion. Journal of Structural Geology, 1998, 20, 487-488.	2.3	16
89	Stress-controlled localization of deformation and fluid flow in fractured rocks. Geological Society Special Publication, 2004, 231, 299-314.	1.3	16
90	Morphometric analysis of the submarine arc volcano Monowai (Tofuaâ€“Kermadec Arc) to decipher tectono-magmatic interactions. Journal of Volcanology and Geothermal Research, 2012, 239-240, 69-82.	2.1	15

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91	Comparison of upwards splaying and upwards merging segmented normal faults. Journal of Structural Geology, 2017, 100, 1-11.	2.3	15
92	Quantitative Constraints on Faulting and Fault Slip Rates in the Northern Main Ethiopian Rift. Tectonics, 2020, 39, e2019TC006046.	2.8	15
93	Fractal Structure and Deformation of Fractured Rock Masses. , 1994, , 37-52.		15
94	Reactive transport modelling insights into CO2 migration through sub-vertical fluid flow structures. International Journal of Greenhouse Gas Control, 2019, 86, 82-92.	4.6	14
95	A fractal model and energy dissipation for en echelon fractures. Engineering Fracture Mechanics, 1994, 48, 655-662.	4.3	13
96	Scaling of fault displacements and implications for the estimation of sub-seismic strain. Geological Society Special Publication, 1996, 99, 11-26.	1.3	13
97	Similarities between strike-slip faults at different scales and a simple age determining method for active faults. Island Arc, 2004, 13, 128-143.	1.1	13
98	Field-based structural studies as analogues to sub-surface reservoirs. Geological Society Special Publication, 2016, 436, 207-217.	1.3	13
99	Bathymetric mapping of the coastal and offshore geology and structure of the Jurassic Coast, Weymouth Bay, UK. Journal of the Geological Society, 2017, 174, 498-508.	2.1	12
100	The algebraic evaluation of two-dimensional finite strain rosettes. Mathematical Geosciences, 1977, 9, 483-496.	0.9	11
101	Scale up of two-dimensional conductivity tensor for heterogenous fracture networks. Engineering Geology, 1999, 53, 83-99.	6.3	11
102	The interdisciplinary use of â€œoverpressureâ€• Journal of Volcanology and Geothermal Research, 2017, 341, 1-5.	2.1	11
103	Episodic growth of fold-thrust belts: Insights from Finite Element Modelling. Journal of Structural Geology, 2017, 102, 113-129.	2.3	11
104	Deformation in the Caledonides of England, Ireland and Scotland. Geological Society Special Publication, 1979, 8, 163-186.	1.3	10
105	Fractal Fault Displacements: A Case Study from the Moray Firth, Scotland. , 1994, , 105-119.		10
106	The structural boundary between East and West Falkland: new evidence for movement history and lateral extent. Marine and Petroleum Geology, 2000, 17, 13-26.	3.3	10
107	Polyphase Development of Slaty Cleavage and the Confrontation of Facing Directions in the Devonian Rocks of North Cornwall. Nature: Physical Science, 1971, 230, 87-89.	0.8	9
108	The intrusive form of some basalt dykes showing flow lineation. Geological Magazine, 1971, 108, 489-499.	1.5	9

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109	The distribution of faults and fractures and their importance in accommodating extensional strain at Kimmeridge Bay, Dorset, UK. Geological Society Special Publication, 2008, 299, 97-111.	1.3	9
110	Strain analysis using length-weighting of deformed random line elements. Journal of Structural Geology, 1987, 9, 511-514.	2.3	8
111	Tectonic setting and fluid evolution of auriferous quartz veins from the La Codosera area, western Spain. Economic Geology, 1991, 86, 1012-1022.	3.8	8
112	Spatial variability of the Purbeckâ€“Wight Fault Zoneâ€”a long-lived tectonic element in the southern UK. Proceedings of the Geologists Association, 2018, 129, 436-451.	1.1	8
113	Analysis of deformation bands associated with the Trachyte Mesa intrusion, Henry Mountains, Utah: implications for reservoir connectivity and fluid flow around sill intrusions. Solid Earth, 2021, 12, 95-117.	2.8	8
114	Interpretation of structural domains in discontinuity data from Nirex deep boreholes at Sellafield. Proceedings of the Yorkshire Geological Society, 1998, 52, 177-187.	0.3	6
115	Measurement of geometry and linkage in vein arrays. Journal of Structural Geology, 2019, 118, 104-113.	2.3	6
116	Mechanical control of oceanic plate boundary geometry. Tectonophysics, 1999, 313, 265-270.	2.2	5
117	Brecciation driven by changes in fluid column heights. Terra Nova, 2019, 31, 76-81.	2.1	5
118	Use of Mohr Diagrams to Predict Fracturing in a Potential Geothermal Reservoir. Geosciences (Switzerland), 2021, 11, 501.	2.2	5
119	The use of high-resolution seismic reflection profiles for fault analysis in the near-shore environment, Weymouth Bay, Dorset, England, United Kingdom. Journal of Geophysical Research, 1998, 103, 15409-15422.	3.3	4
120	The Highland Border Ridge of North-east Ireland. Geological Magazine, 1970, 107, 531-538.	1.5	3
121	The determination of compactional strains using quasi-cylindrical objects. Tectonophysics, 1976, 30, T25-T32.	2.2	3
122	Fault size distribution analysis â€” an example from Kimmeridge Bay, Dorset, UK. Geological Society Special Publication, 1998, 133, 299-310.	1.3	3
123	Fault populations and their relationship to the scaling of surface roughness. Journal of Geophysical Research, 1999, 104, 2691-2701.	3.3	3
124	Study of fracture-induced anisotropy from discrete fracture network simulation of well test responses. Geological Society Special Publication, 2007, 270, 117-137.	1.3	3
125	The assumption of constant volume in the extrapolation of 2-dimensional strain data to 3-dimensions: a discussion of Thakur (1972). Geological Magazine, 1975, 112, 94-96.	1.5	2
126	Numerical modelling of the effects of fault slip on fluid flow around extensional faults: Reply. Journal of Structural Geology, 1997, 19, 1427-1428.	2.3	1

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127	Some Inference Problems in Paleocurrent Studies. Journal of Sedimentary Research, 1973, Vol. 43, .	1.6	1
128	Is the Coulomb Wedge Model Applicable to Passive Margin Deformation?. , 2015, , .		0