

Ken J W Mccaffrey

List of Publications by Year in descending order

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124
papers

5,224
citations

81900

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98798

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138
all docs

138
docs citations

138
times ranked

4260
citing authors

#	ARTICLE	IF	CITATIONS
1	Granite magma formation, transport and emplacement in the Earth's crust. <i>Nature</i> , 2000, 408, 669-673.	27.8	714
2	Unlocking the spatial dimension: digital technologies and the future of geoscience fieldwork. <i>Journal of the Geological Society</i> , 2005, 162, 927-938.	2.1	210
3	Are granitic intrusions scale invariant?. <i>Journal of the Geological Society</i> , 1997, 154, 1-4.	2.1	197
4	Inclined transpression. <i>Journal of Structural Geology</i> , 2004, 26, 1531-1548.	2.3	191
5	Growth of plutons by floor subsidence: implications for rates of emplacement, intrusion spacing and melt-extraction mechanisms. <i>Physics and Chemistry of the Earth</i> , 2001, 26, 303-315.	0.6	152
6	Integration of regional to outcrop digital data: 3D visualisation of multi-scale geological models. <i>Computers and Geosciences</i> , 2009, 35, 4-18.	4.2	134
7	Surface ruptures following the 30 October 2016 <i>M</i> _w 6.5 Norcia earthquake, central Italy. <i>Journal of Maps</i> , 2018, 14, 151-160.	2.0	121
8	The Ketilidian orogen of South Greenland: geochronology, tectonics, magmatism, and fore-arc accretion during Palaeoproterozoic oblique convergence. <i>Canadian Journal of Earth Sciences</i> , 2002, 39, 765-793.	1.3	120
9	Igneous emplacement in a transpressive shear zone: Ox Mountains igneous complex. <i>Journal of the Geological Society</i> , 1992, 149, 221-235.	2.1	108
10	Dual control of fault intersections on stop-start rupture in the 2016 Central Italy seismic sequence. <i>Earth and Planetary Science Letters</i> , 2018, 500, 1-14.	4.4	100
11	Fractal geometries of vein systems and the variation of scaling relationships with mechanism. <i>Journal of Structural Geology</i> , 1996, 18, 349-358.	2.3	91
12	Orogen-scale uplift in the central Italian Apennines drives episodic behaviour of earthquake faults. <i>Scientific Reports</i> , 2017, 7, 44858.	3.3	90
13	A database of the coseismic effects following the 30 October 2016 Norcia earthquake in Central Italy. <i>Scientific Data</i> , 2018, 5, 180049.	5.3	89
14	Partitioned transtension: an alternative to basin inversion models. <i>Journal of Structural Geology</i> , 2005, 27, 607-625.	2.3	76
15	Domainal deformation patterns and strain partitioning during transpression: an example from the Southern Uplands terrane, Scotland. <i>Journal of the Geological Society</i> , 2002, 159, 401-415.	2.1	70
16	The role of pre-existing structures during rifting, continental breakup and transform system development, offshore West Greenland. <i>Basin Research</i> , 2018, 30, 373-394.	2.7	67
17	Slip distributions on active normal faults measured from LiDAR and field mapping of geomorphic offsets: an example from L'Aquila, Italy, and implications for modelling seismic moment release. <i>Geomorphology</i> , 2015, 237, 130-141.	2.6	66
18	A comparison of terrestrial laser scanning and structure-from-motion photogrammetry as methods for digital outcrop acquisition. , 2016, 12, 1865-1880.		65

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19	Surface Faulting of the 6 April 2009 Mw 6.3 L'Aquila Earthquake in Central Italy. <i>Bulletin of the Seismological Society of America</i> , 2011, 101, 1507-1530.	2.3	64
20	Near-field fault slip of the 2016 Vettore Mw 6.6 earthquake (Central Italy) measured using low-cost GNSS. <i>Scientific Reports</i> , 2017, 7, 4612.	3.3	63
21	Influence of layering on vein systematics in line samples. <i>Geological Society Special Publication</i> , 1999, 155, 35-56.	1.3	62
22	Madagascar's escape from Africa: A high-resolution plate reconstruction for the Western Somali Basin and implications for supercontinent dispersal. <i>Geochemistry, Geophysics, Geosystems</i> , 2016, 17, 5036-5055.	2.5	60
23	Fifty years of the Wilson Cycle concept in plate tectonics: an overview. <i>Geological Society Special Publication</i> , 2019, 470, 1-17.	1.3	60
24	Scale invariant sheath folds in salt, sediments and shear zones. <i>Journal of Structural Geology</i> , 2007, 29, 1585-1604.	2.3	59
25	Relationship between topography, rates of extension and mantle dynamics in the actively-extending Italian Apennines. <i>Earth and Planetary Science Letters</i> , 2012, 325-326, 76-84.	4.4	58
26	Mapping and analysing virtual outcrops. <i>Visual Geosciences</i> , 2005, 10, 13-19.	0.5	57
27	Deformation structures associated with the Trachyte Mesa intrusion, Henry Mountains, Utah: Implications for sill and laccolith emplacement mechanisms. <i>Journal of Structural Geology</i> , 2016, 87, 30-46.	2.3	54
28	Natural fracture propping and earthquake-induced oil migration in fractured basement reservoirs. <i>Geology</i> , 2019, 47, 700-704.	4.4	54
29	Digital field data acquisition: towards increased quantification of uncertainty during geological mapping. <i>Geological Society Special Publication</i> , 2004, 239, 43-56.	1.3	51
30	Partitioned postseismic deformation associated with the 2009 Mw 6.3 L'Aquila earthquake surface rupture measured using a terrestrial laser scanner. <i>Geophysical Research Letters</i> , 2010, 37, .	4.0	50
31	The tectonic geomorphology of bedrock scarps on active normal faults in the Italian Apennines mapped using combined ground penetrating radar and terrestrial laser scanning. <i>Geomorphology</i> , 2015, 237, 38-51.	2.6	50
32	The anatomy and evolution of a transpressional imbricate zone, Southern Uplands, Scotland. <i>Journal of Structural Geology</i> , 2004, 26, 1341-1360.	2.3	49
33	The onset of the North Atlantic Igneous Province in a rifting perspective. <i>Geological Magazine</i> , 2009, 146, 309-325.	1.5	49
34	Fractal analysis of a mineralised vein deposit: Curraghinalt gold deposit, County Tyrone. <i>Mineralium Deposita</i> , 1996, 31, 52.	4.1	46
35	A 667-year record of coseismic and interseismic Coulomb stress changes in central Italy reveals the role of fault interaction in controlling irregular earthquake recurrence intervals. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 5691-5711.	3.4	46
36	Scale dependence, strain compatibility and heterogeneity of three-dimensional deformation during mountain building: a discussion. <i>Journal of Structural Geology</i> , 2005, 27, 1190-1204.	2.3	44

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37	Hydrocarbons in crystalline rocks: an introduction. Geological Society Special Publication, 2003, 214, 1-5.	1.3	42
38	The Iceland Microcontinent and a continental Greenland-Iceland-Faroe Ridge. Earth-Science Reviews, 2020, 206, 102926.	9.1	42
39	Numerical analysis of fold curvature using data acquired by high-precision GPS. Journal of Structural Geology, 2006, 28, 1640-1646.	2.3	41
40	Basement-influenced rifting and basin development: a reappraisal of post-Caledonian faulting patterns from the North Coast Transfer Zone, Scotland. Geological Society Special Publication, 2010, 335, 795-826.	1.3	41
41	Segmentation of Rifts Through Structural Inheritance: Creation of the Davis Strait. Tectonics, 2019, 38, 2411-2430.	2.8	41
42	The influence of lithology and pre-existing structures on reservoir-scale faulting patterns in transtensional rift zones. Journal of the Geological Society, 2005, 162, 471-480.	2.1	39
43	Complex fault patterns, transtension and structural segmentation of the Lofoten Ridge, Norwegian margin: Using digital mapping to link onshore and offshore geology. Tectonics, 2006, 25, n/a-n/a.	2.8	37
44	Early Cenozoic saucer-shaped sills of the Faroe Islands: an example of intrusive styles in basaltic lava piles. Journal of the Geological Society, 2011, 168, 159-178.	2.1	37
45	Three-dimensional (3D) visualisation: the application of terrestrial laser scanning in the investigation of historical Scottish farming townships. Journal of Archaeological Science, 2009, 36, 860-866.	2.4	36
46	Igneous sills record far-field and near-field stress interactions during volcano construction: Isle of Mull, Scotland. Earth and Planetary Science Letters, 2017, 478, 159-174.	4.4	36
47	Quantification of fold curvature and fracturing using terrestrial laser scanning. AAPG Bulletin, 2011, 95, 771-794.	1.5	35
48	Geostatistical and multi-elemental analysis of soils to interpret land-use history in the Hebrides, Scotland. Geoarchaeology - an International Journal, 2007, 22, 391-415.	1.5	34
49	Andean surface uplift constrained by radiogenic isotopes of arc lavas. Nature Communications, 2018, 9, 969.	12.8	34
50	Synmagmatic deformation patterns in the Old Woman Mountains, SE California. Journal of Structural Geology, 1999, 21, 335-349.	2.3	33
51	Mid-crustal partitioning and attachment during oblique convergence in an arc system, Palaeoproterozoic Ketilidian orogen, southern Greenland. Journal of the Geological Society, 2002, 159, 247-261.	2.1	32
52	Shallow subsurface structure of the 2009 April 6 Mw 6.3 Lâ€™™Aquila earthquake surface rupture at Paganica, investigated with ground-penetrating radar. Geophysical Journal International, 2010, 183, 774-790.	2.4	32
53	An evaluation of Mesozoic rift-related magmatism on the margins of the Labrador Sea: Implications for rifting and passive margin asymmetry. , 2016, 12, 1701-1724.		32
54	Quantifying the influence of sill intrusion on the thermal evolution of organicâ€™rich sedimentary rocks in nonvolcanic passive margins: an example from <scp>ODP</scp> 210â€™1276, offshore Newfoundland, Canada. Basin Research, 2017, 29, 249-265.	2.7	31

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55	Basin evolution and destruction in an Early Proterozoic continental margin: the Rinkian fold-thrust belt of central West Greenland. <i>Journal of the Geological Society</i> , 2017, 174, 453-467.	2.1	31
56	Visualization of folding in marble outcrops, Connemara, western Ireland: An application of virtual outcrop technology. , 2008, 4, 588.		28
57	Geometric Scaling of Tabular Igneous Intrusions: Implications for Emplacement and Growth. <i>Advances in Volcanology</i> , 2017, , 11-38.	1.1	28
58	Natural fractures in a United Kingdom shale reservoir analog, Cleveland Basin, northeast England. <i>AAPG Bulletin</i> , 2014, 98, 2411-2437.	1.5	26
59	New structural and Re-Os geochronological evidence constraining the age of faulting and associated mineralization in the Devonian Orcadian Basin, Scotland. <i>Journal of the Geological Society</i> , 2016, 173, 457-473.	2.1	26
60	Evaluating roughness scaling properties of natural active fault surfaces by means of multi-view photogrammetry. <i>Tectonophysics</i> , 2017, 717, 599-606.	2.2	26
61	The nature and age of basement host rocks and fissure fills in the Lancaster field fractured reservoir, West of Shetland. <i>Journal of the Geological Society</i> , 2020, 177, 1057-1073.	2.1	26
62	Quantitative analysis and visualization of nonplanar fault surfaces using terrestrial laser scanning (LIDAR)-The Arkitsa fault, central Greece, as a case study. , 2009, 5, 465-482.		25
63	Active normal faulting during the 1997 seismic sequence in Colfiorito, Umbria: Did slip propagate to the surface?. <i>Journal of Structural Geology</i> , 2016, 91, 102-113.	2.3	25
64	Evolution of Labrador Sea-Baffin Bay: Plate or Plume Processes?. <i>Geoscience Canada</i> , 2017, 44, 91-102.	0.8	25
65	Terrane Boundary Reactivation, Barriers to Lateral Fault Propagation and Reactivated Fabrics: Rifting Across the Median Batholith Zone, Great South Basin, New Zealand. <i>Tectonics</i> , 2019, 38, 4027-4053.	2.8	24
66	Calibration and validation of reservoir models: the importance of high resolution, quantitative outcrop analogues. <i>Geological Society Special Publication</i> , 2008, 309, 87-98.	1.3	23
67	Evidence for Basement Reactivation during the Opening of the Labrador Sea from the Makkovik Province, Labrador, Canada: Insights from Field Data and Numerical Models. <i>Geosciences (Switzerland)</i> , 2018, 8, 308.	2.2	22
68	A quantitative study of the influence of pre-existing compositional and fabric heterogeneities upon fracture-zone development during basement reactivation. <i>Geological Society Special Publication</i> , 2001, 186, 195-211.	1.3	21
69	Occurrence and development of folding related to normal faulting within a mechanically heterogeneous sedimentary sequence: a case study from Inner Moray Firth, UK. <i>Geological Society Special Publication</i> , 2017, 439, 373-394.	1.3	20
70	Basement reservoir plumbing: fracture aperture, length and topology analysis of the Lewisian Complex, NW Scotland. <i>Journal of the Geological Society</i> , 2020, 177, 1281-1293.	2.1	20
71	Melt infiltration and advection in microdioritic enclaves. <i>European Journal of Mineralogy</i> , 1996, 8, 405-412.	1.3	20
72	Magmatic and solid state deformation partitioning in the Ox Mountains granodiorite. <i>Geological Magazine</i> , 1994, 131, 639-652.	1.5	18

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73	Faults and fractures in central West Greenland: onshore expression of continental break-up and sea-floor spreading in the Labrador â€” Baffin Bay Sea. Geological Survey of Denmark and Greenland Bulletin, 0, 11, 185-204.	2.0	18
74	Surface faulting during the August 24, 2016, Central Italy earthquake (Mw 6.0): preliminary results. Annals of Geophysics, 2016, 59, .	1.0	18
75	The role of solution in the formation of boudinage and transverse veins in carbonate rocks at Rheems, Pennsylvania. Bulletin of the Geological Society of America, 1991, 103, 1552-1563.	3.3	17
76	Describing the dimensionality of geospatial data in the earth sciencesâ€”Recommendations for nomenclature. , 2008, 4, 354.		17
77	Rift architecture and evolution: The Sirt Basin, Libya: The influence of basement fabrics and oblique tectonics. Journal of African Earth Sciences, 2014, 100, 203-226.	2.0	17
78	Complex geometry and kinematics of subsidiary faults within a carbonate-hosted relay ramp. Journal of Structural Geology, 2020, 130, 103915.	2.3	17
79	Determining Histories of Slip on Normal Faults With Bedrock Scarps Using Cosmogenic Nuclide Exposure Data. Tectonics, 2021, 40, e2020TC006457.	2.8	17
80	Fracture formation and evolution in crystalline rocks: Insights from attribute analysis. Geological Society Special Publication, 2003, 214, 109-124.	1.3	16
81	Linear volcanic segments in the central Sunda Arc, Indonesia, identified using Hough Transform analysis: Implications for arc lithosphere control upon volcano distribution. Earth and Planetary Science Letters, 2013, 369-370, 24-33.	4.4	16
82	Tectonic history and structural development of the Zallah-Dur al Abd Sub-basin, western Sirt Basin, Libya. Journal of Structural Geology, 2015, 73, 33-48.	2.3	16
83	Early Tertiary sinistral transpression and fault reactivation in the western VÃ¡ring Basin, Norwegian Sea: Implications for hydrocarbon exploration and pre-breakup deformation in ocean margin basins. AAPG Bulletin, 2005, 89, 1043-1069.	1.5	15
84	Fault and fracture patterns in low porosity chalk and their potential influence on sub-surface fluid flowâ€”A case study from Flamborough Head, UK. Tectonophysics, 2016, 690, 35-51.	2.2	15
85	Analogue Modeling of Plate Rotation Effects in Transform Margins and Riftâ€”Transform Intersections. Tectonics, 2019, 38, 823-841.	2.8	15
86	The structural evolution of pullâ€”apart basins in response to changes in plate motion. Basin Research, 2021, 33, 1603-1625.	2.7	14
87	Fracture attribute scaling and connectivity in the Devonian Orcadian Basin with implications for geologically equivalent sub-surface fractured reservoirs. Solid Earth, 2020, 11, 2221-2244.	2.8	14
88	Controls on reactivation of a major fault zone: the Fair Headâ€”Clew Bay line in Ireland. Journal of the Geological Society, 1997, 154, 129-133.	2.1	13
89	Partitioned Offâ€”Fault Deformation in the 2016 Norcia Earthquake Captured by Differential Terrestrial Laser Scanning. Geophysical Research Letters, 2019, 46, 3199-3205.	4.0	13
90	Vertical coupling and decoupling in the lithosphere. Geological Society Special Publication, 2004, 227, 1-7.	1.3	12

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91	The structural evolution of dilational stepovers in regional transtensional zones. Geological Society Special Publication, 2007, 290, 433-445.	1.3	12
92	The spatial heterogeneity of structures in high porosity sandstones: Variations and granularity effects in orientation data. Journal of Structural Geology, 2009, 31, 628-636.	2.3	11
93	Fractures, fluid flow and mineralization: an introduction. Geological Society Special Publication, 1999, 155, 1-6.	1.3	10
94	The impact of oblique inheritance and changes in relative plate motion on the development of rift-transform systems. Earth and Planetary Science Letters, 2020, 541, 116277.	4.4	10
95	Lithological and structural control on fracture frequency distribution within a carbonate-hosted relay ramp. Journal of Structural Geology, 2020, 137, 104085.	2.3	10
96	Jurassic thrusting of Precambrian basement over Paleozoic cover in the Clipper Mountains, southeastern California. Special Paper of the Geological Society of America, 1995, , 375-392.	0.5	9
97	Upper Plate Stress Controls the Distribution of Mariana Arc Volcanoes. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB017391.	3.4	9
98	Virtual fieldtrips for petroleum geoscientists. Petroleum Geology Conference Proceedings, 2010, 7, 19-26.	0.7	8
99	3D characterization of fracture systems using Terrestrial Laser Scanning: an example from the Lewisian basement of NW Scotland. Geological Society Special Publication, 2015, 421, 125-141.	1.3	8
100	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
101	New insights on the north-eastern part of the Ketilidian orogen in South-East Greenland. Geological Survey of Denmark and Greenland Bulletin, 0, 183, 23-33.	0.0	8
102	New onshore insights into the role of structural inheritance during Mesozoic opening of the Inner Moray Firth Basin, Scotland. Journal of the Geological Society, 2022, 179, .	2.1	8
103	Correlating deformation events onshore and offshore in superimposed rift basins: The Lossiemouth Fault Zone, Inner Moray Firth Basin, Scotland. Basin Research, 2022, 34, 1314-1340.	2.7	8
104	Attachment formation during partitioning of oblique convergence in the Ketilidian orogen, south Greenland. Geological Society Special Publication, 2004, 227, 231-248.	1.3	7
105	Putting the geology back into Earth models. Eos, 2005, 86, 461.	0.1	7
106	Morphostructural patterns and landform generations in a glaciated passive margin: the Kobberminebugt-Qaqortoq region of South Greenland. Geodinamica Acta, 2011, 24, 1-19.	2.2	7
107	Distribution and magnitude of post-seismic deformation of the 2009 Lâ€™Aquila earthquake (M6.3) surface rupture measured using repeat terrestrial laser scanning. Geophysical Journal International, 2012, 189, 911-922.	2.4	7
108	A new structural interpretation relating NW Libya to the Hun Graben, western Sirt Basin based on a new paleostress inversion. Journal of Earth System Science, 2015, 124, 1745-1763.	1.3	7

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109	Fracture attribute and topology characteristics of a geothermal reservoir: Southern Negros, Philippines. <i>Journal of the Geological Society</i> , 2020, 177, 1092-1106.	2.1	7
110	Outcrop-scale manifestations of reactivation during multiple superimposed rifting and basin inversion events: the Devonian Orcadian Basin, northern Scotland. <i>Journal of the Geological Society</i> , 2021, 178, jgs2020-089.	2.1	7
111	Extending Digital Outcrop Geology into the Subsurface. , 2011, , 31-50.		7
112	Ketilidian structure and the rapakivi suite between Lindenow Fjord and Kap Farvel, South-East Greenland. <i>Geological Survey of Denmark and Greenland Bulletin</i> , 0, 186, 50-59.	0.0	7
113	Recording and analyzing geospatially accurate structural data through "digital mapping" technique: A case study from the Canisp Shear Zone, NW Scotland. <i>Journal of the Geological Society of India</i> , 2010, 75, 43-59.	1.1	6
114	Introduction: Unlocking 3D earth systems" Harnessing new digital technologies to revolutionize multi-scale geological models. , 2007, 3, 406.		5
115	Styles, origins and implications of syndepositional deformation structures in Ediacaran microbial carbonates (Nama Basin, Namibia). <i>Geological Society Special Publication</i> , 2015, 418, 87-109.	1.3	4
116	Igneous sills as a record of horizontal shortening: The San Rafael subvolcanic field, Utah. <i>Bulletin of the Geological Society of America</i> , 0, , B31671.1.	3.3	4
117	Magma-driven accommodation structures formed during sill emplacement at shallow crustal depths: The Maiden Creek sill, Henry Mountains, Utah. , 2019, 15, 1368-1392.		4
118	Tectonic Evolution of the Southern Negros Geothermal Field and Implications for the Development of Fractured Geothermal Systems. <i>Geofluids</i> , 2018, 2018, 1-20.	0.7	3
119	The Humbly Grove, Herriard and Hester's Copse fields, UK Onshore. <i>Geological Society Memoir</i> , 2020, 52, 74-81.	1.7	3
120	Dave Johnston: an appreciation and bibliography. <i>Geological Society Special Publication</i> , 1999, 155, vii-viii.	1.3	1
121	Polyphase deformation and metamorphism in the Llyn Ogwen area of Snowdonia, North Wales. <i>Journal of the Geological Society</i> , 1999, 156, 11-14.	2.1	1
122	Geometric Scaling of Tabular Igneous Intrusions: Implications for and. <i>Advances in Volcanology</i> , 2018, , 11-38.	1.1	1
123	Unlocking Three-Dimensional Earth Systems" Harnessing New Digital Technologies to Revolutionize Multi-Scale Geologic Models. <i>GSA Today</i> , 2006, 16, 58.	2.0	0
124	Unlocking 3-D earth systems" Harnessing new digital technologies to revolutionize multiscale geologic models. <i>GSA Today</i> , 2007, 17, 55.	2.0	0