

Ian J Fairchild

List of Publications by Year in descending order

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97
papers

9,756
citations

41344

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38395

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104
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docs citations

104
times ranked

6073
citing authors

#	ARTICLE	IF	CITATIONS
1	The Anthropocene: Comparing Its Meaning in Geology (Chronostratigraphy) with Conceptual Approaches Arising in Other Disciplines. <i>Earth's Future</i> , 2021, 9, e2020EF001896.	6.3	61
2	ISODRIP, a model to transfer the $\delta^{18}\text{O}$ signal of precipitation to drip water – Implementation of the model for Eagle Cave (central Spain). <i>Science of the Total Environment</i> , 2021, 797, 149188.	8.0	2
3	Hydrological and geochemical responses of fire in a shallow cave system. <i>Science of the Total Environment</i> , 2019, 662, 180-191.	8.0	12
4	A formal Anthropocene is compatible with but distinct from its diachronous anthropogenic counterparts: a response to W.F. Ruddiman's – three flaws in defining a formal Anthropocene™. <i>Progress in Physical Geography</i> , 2019, 43, 319-333.	3.2	28
5	North Iberian temperature and rainfall seasonality over the Younger Dryas and Holocene. <i>Quaternary Science Reviews</i> , 2019, 226, 105998.	3.0	34
6	Stable isotopes of oxygen and hydrogen in meteoric water during the Cryogenian Period. <i>Precambrian Research</i> , 2019, 320, 253-260.	2.7	1
7	Sulphate partitioning into calcite: Experimental verification of pH control and application to seasonality in speleothems. <i>Geochimica Et Cosmochimica Acta</i> , 2018, 226, 69-83.	3.9	22
8	Global Boundary Stratotype Section and Point (GSSP) for the Anthropocene Series: Where and how to look for potential candidates. <i>Earth-Science Reviews</i> , 2018, 178, 379-429.	9.1	153
9	Tonian-Cryogenian boundary sections of Argyll, Scotland. <i>Precambrian Research</i> , 2018, 319, 37-64.	2.7	32
10	Assessing acid rain and climate effects on the temporal variation of dissolved organic matter in the unsaturated zone of a karstic system from southern China. <i>Journal of Hydrology</i> , 2018, 556, 475-487.	5.4	17
11	How to date natural archives of the Anthropocene. <i>Geology Today</i> , 2018, 34, 182-187.	0.9	14
12	The impact of fire on the geochemistry of speleothem-forming drip water in a sub-alpine cave. <i>Science of the Total Environment</i> , 2018, 642, 408-420.	8.0	9
13	Geochemistry of speleothems affected by aragonite to calcite recrystallization – Potential inheritance from the precursor mineral. <i>Geochimica Et Cosmochimica Acta</i> , 2017, 200, 310-329.	3.9	26
14	The Working Group on the Anthropocene: Summary of evidence and interim recommendations. <i>Anthropocene</i> , 2017, 19, 55-60.	3.3	310
15	Snowball Earth climate dynamics and Cryogenian geology-geobiology. <i>Science Advances</i> , 2017, 3, e1600983.	10.3	424
16	Making the case for a formal Anthropocene Epoch: an analysis of ongoing critiques. <i>Newsletters on Stratigraphy</i> , 2017, 50, 205-226.	1.2	100
17	A post-wildfire response in cave dripwater chemistry. <i>Hydrology and Earth System Sciences</i> , 2016, 20, 2745-2758.	4.9	23
18	Stratigraphic and Earth System approaches to defining the Anthropocene. <i>Earth's Future</i> , 2016, 4, 324-345.	6.3	162

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19	Glacitectonism, subglacial and glaciallacustrine processes during a Neoproterozoic panglaciation, north-east Svalbard. <i>Sedimentology</i> , 2016, 63, 411-442.	3.1	19
20	Continental carbonate facies of a Neoproterozoic panglaciation, north-east Svalbard. <i>Sedimentology</i> , 2016, 63, 443-497.	3.1	37
21	Sedimentological perspectives on climatic, atmospheric and environmental change in the Neoproterozoic Era. <i>Sedimentology</i> , 2016, 63, 253-306.	3.1	75
22	The Late Cryogenian Warm Interval, NE Svalbard: Chemostratigraphy and genesis. <i>Precambrian Research</i> , 2016, 281, 128-154.	2.7	29
23	Neoproterozoic glass-bleeding. <i>Nature Geoscience</i> , 2016, 9, 192-193.	12.9	4
24	Effects of wildfire on long-term soil CO ₂ concentration: implications for karst processes. <i>Environmental Earth Sciences</i> , 2016, 75, 1.	2.7	15
25	When did the Anthropocene begin? A mid-twentieth century boundary level is stratigraphically optimal. <i>Quaternary International</i> , 2015, 383, 196-203.	1.5	546
26	Regional temperature, atmospheric circulation, and sea-ice variability within the Younger Dryas Event constrained using a speleothem from northern Iberia. <i>Earth and Planetary Science Letters</i> , 2015, 419, 101-110.	4.4	75
27	Orbitally forced ice sheet fluctuations during the Marinoan Snowball Earth glaciation. <i>Nature Geoscience</i> , 2015, 8, 704-707.	12.9	59
28	Sulphate concentration in cave dripwater and speleothems: long-term trends and overview of its significance as proxy for environmental processes and climate changes. <i>Quaternary Science Reviews</i> , 2015, 127, 48-60.	3.0	19
29	Impacts of cave air ventilation and in-cave prior calcite precipitation on Golgotha Cave dripwater chemistry, southwest Australia. <i>Quaternary Science Reviews</i> , 2015, 127, 61-72.	3.0	52
30	Is global warming affecting cave temperatures? Experimental and model data from a paradigmatic case study. <i>Climate Dynamics</i> , 2015, 45, 569-581.	3.8	49
31	Spatial variability and temporal trends in water-use efficiency of European forests. <i>Global Change Biology</i> , 2014, 20, 3700-3712.	9.5	175
32	Synchrotron X-ray distinction of seasonal hydrological and temperature patterns in speleothem carbonate. <i>Environmental Chemistry</i> , 2014, 11, 28.	1.5	24
33	Definition of the Anthropocene: a view from the underworld. <i>Geological Society Special Publication</i> , 2014, 395, 239-254.	1.3	9
34	Preservation of NOM-metal complexes in a modern hyperalkaline stalagmite: Implications for speleothem trace element geochemistry. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 128, 29-43.	3.9	33
35	Biogeochemical cycling of sulphur in karst and transfer into speleothem archives at Grotta di Ernesto, Italy. <i>Biogeochemistry</i> , 2013, 114, 255-267.	3.5	43
36	Cave aerosols: distribution and contribution to speleothem geochemistry. <i>Quaternary Science Reviews</i> , 2013, 63, 23-41.	3.0	73

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37	Reconstruction of cave air temperature based on surface atmosphere temperature and vegetation changes: Implications for speleothem palaeoclimate records. <i>Earth and Planetary Science Letters</i> , 2013, 369-370, 158-168.	4.4	31
38	An isotopic and modelling study of flow paths and storage in Quaternary calcarenite, SW Australia: implications for speleothem paleoclimate records. <i>Quaternary Science Reviews</i> , 2013, 64, 90-103.	3.0	58
39	Microstructures in metasedimentary rocks from the Neoproterozoic Bonahaven Formation, Scotland: Microconcretions, impact spherules, or microfossils?. <i>Precambrian Research</i> , 2013, 233, 59-72.	2.7	14
40	A method to anchor floating chronologies in annually laminated speleothems with ^{230}Th dates. <i>Quaternary Geochronology</i> , 2012, 14, 57-66.	1.4	24
41	From soil to cave: Transport of trace metals by natural organic matter in karst dripwaters. <i>Chemical Geology</i> , 2012, 304-305, 68-82.	3.3	122
42	Carbon mass-balance modelling and carbon isotope exchange processes in dynamic caves. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 380-400.	3.9	173
43	Size, speciation and lability of NOM-metal complexes in hyperalkaline cave dripwater. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 7533-7551.	3.9	50
44	High resolution $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ records from an annually laminated Scottish stalagmite and relationship with last millennium climate. <i>Global and Planetary Change</i> , 2011, 79, 303-311.	3.5	45
45	A 500 yr speleothem-derived reconstruction of late autumn-winter precipitation, northeast Turkey. <i>Quaternary Research</i> , 2011, 75, 399-405.	1.7	23
46	Chapter 62 The Port Askaig Formation, Dalradian Supergroup, Scotland. <i>Geological Society Memoir</i> , 2011, 36, 635-642.	1.7	3
47	Epikarst hydrology and implications for stalagmite capture of climate changes at Grotta di Ernesto (NE Italy): results from long-term monitoring. <i>Hydrological Processes</i> , 2010, 24, 3101-3114.	2.6	63
48	Petrology and geochemistry of annually laminated stalagmites from an Alpine cave (Obir, Austria): seasonal cave physiology. <i>Geological Society Special Publication</i> , 2010, 336, 295-321.	1.3	41
49	Seasonal microclimate control of calcite fabrics, stable isotopes and trace elements in modern speleothem from St Michaels Cave, Gibraltar. <i>Geological Society Special Publication</i> , 2010, 336, 323-344.	1.3	66
50	Calibration of speleothem $\delta^{18}\text{O}$ with instrumental climate records from Turkey. <i>Global and Planetary Change</i> , 2010, 71, 207-217.	3.5	44
51	High-resolution sulphur isotope analysis of speleothem carbonate by secondary ionisation mass spectrometry. <i>Chemical Geology</i> , 2010, 271, 101-107.	3.3	58
52	Stretching the Envelope of Past Surface Environments: Neoproterozoic Glacial Lakes from Svalbard. <i>Science</i> , 2009, 323, 119-122.	12.6	90
53	The sulphur isotope and hydrochemical characteristics of Skeiðarárírsandur, Iceland: identification of solute sources and implications for weathering processes. <i>Hydrological Processes</i> , 2009, 23, 2212-2224.	2.6	19
54	Trace elements in speleothems as recorders of environmental change. <i>Quaternary Science Reviews</i> , 2009, 28, 449-468.	3.0	422

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55	Sulfur Fixation in Wood Mapped by Synchrotron X-ray Studies: Implications for Environmental Archives. <i>Environmental Science & Technology</i> , 2009, 43, 1310-1315.	10.0	51
56	Chronology building using objective identification of annual signals in trace element profiles of stalagmites. <i>Quaternary Geochronology</i> , 2009, 4, 11-21.	1.4	75
57	Isotopic archives of sulphate in speleothems. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2465-2477.	3.9	54
58	Hydrogeological implications of glacial landscape evolution at Skeiðarárjökull, SE Iceland. <i>Geomorphology</i> , 2008, 97, 218-236.	2.6	28
59	Neoproterozoic glaciation in the Earth System. <i>Journal of the Geological Society</i> , 2007, 164, 895-921.	2.1	196
60	Trace element distribution in annual stalagmite laminae mapped by micrometer-resolution X-ray fluorescence: Implications for incorporation of environmentally significant species. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 1494-1512.	3.9	205
61	Analysis of the climate signal contained within $\delta^{18}O$ and growth rate parameters in two Ethiopian stalagmites. <i>Geochimica Et Cosmochimica Acta</i> , 2007, 71, 2975-2988.	3.9	69
62	Modelling of dripwater hydrology and hydrogeochemistry in a weakly karstified aquifer (Bath, UK): Implications for climate change studies. <i>Journal of Hydrology</i> , 2006, 321, 213-231.	5.4	100
63	Modification and preservation of environmental signals in speleothems. <i>Earth-Science Reviews</i> , 2006, 75, 105-153.	9.1	669
64	Reconstructing hemispheric-scale climates from multiple stalagmite records. <i>International Journal of Climatology</i> , 2006, 26, 1417-1424.	3.5	37
65	Annual trace element cycles in calcite-aragonite speleothems: evidence of drought in the western Mediterranean 1200-1100 yr BP. <i>Journal of Quaternary Science</i> , 2005, 20, 423-433.	2.1	110
66	An experimental study of incongruent dissolution of $CaCO_3$ under analogue glacial conditions. <i>Journal of Glaciology</i> , 2005, 51, 383-390.	2.2	33
67	Relative contributions of silicate and carbonate rocks to riverine Sr fluxes in the headwaters of the Ganges. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2221-2240.	3.9	142
68	Cave air control on dripwater geochemistry, Obir Caves (Austria): Implications for speleothem deposition in dynamically ventilated caves. <i>Geochimica Et Cosmochimica Acta</i> , 2005, 69, 2451-2468.	3.9	345
69	Variations in atmospheric sulphate recorded in stalagmites by synchrotron micro-XRF and XANES analyses. <i>Earth and Planetary Science Letters</i> , 2005, 235, 729-740.	4.4	108
70	Soil and karst aquifer hydrological controls on the geochemical evolution of speleothem-forming drip waters, Crag Cave, southwest Ireland. <i>Journal of Hydrology</i> , 2003, 273, 51-68.	5.4	232
71	Fluxes of Sr into the headwaters of the Ganges. <i>Geochimica Et Cosmochimica Acta</i> , 2003, 67, 2567-2584.	3.9	91
72	Structure of the 8200-Year Cold Event Revealed by a Speleothem Trace Element Record. <i>Science</i> , 2002, 296, 2203-2206.	12.6	179

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73	Partitioning of Sr ²⁺ and Mg ²⁺ into calcite under karst-analogue experimental conditions. <i>Geochimica Et Cosmochimica Acta</i> , 2001, 65, 47-62.	3.9	265
74	Seasonal variations in Sr, Mg and P in modern speleothems (Grotta di Ernesto, Italy). <i>Chemical Geology</i> , 2001, 175, 429-448.	3.3	186
75	Annual to sub-annual resolution of multiple trace-element trends in speleothems. <i>Journal of the Geological Society</i> , 2001, 158, 831-841.	2.1	148
76	Mg, Sr and Sr isotope geochemistry of a Belgian Holocene speleothem: implications for paleoclimate reconstructions. <i>Chemical Geology</i> , 2000, 169, 131-144.	3.3	103
77	Controls on trace element (Sr/Mg) compositions of carbonate cave waters: implications for speleothem climatic records. <i>Chemical Geology</i> , 2000, 166, 255-269.	3.3	470
78	CONTROLS ON Sr AND C ISOTOPE COMPOSITIONS OF NEOPROTEROZOIC Sr-RICH LIMESTONES OF EAST GREENLAND AND NORTH CHINA. , 2000, , 297-313.		29
79	Solute generation and transfer from a chemically reactive alpine glacial-proglacial system. <i>Earth Surface Processes and Landforms</i> , 1999, 24, 1189-1211.	2.5	60
80	Holocene climate variability in Europe: Evidence from $\delta^{18}O$, textural and extension-rate variations in three speleothems. <i>Quaternary Science Reviews</i> , 1999, 18, 1021-1038.	3.0	200
81	Interactions of calcareous suspended sediment with glacial meltwater: a field test of dissolution behaviour. <i>Chemical Geology</i> , 1999, 155, 243-263.	3.3	44
82	Widespread bacterial populations at glacier beds and their relationship to rock weathering and carbon cycling. <i>Geology</i> , 1999, 27, 107.	4.4	236
83	Possible seismic origin of molar tooth structures in Neoproterozoic carbonate ramp deposits, north China. <i>Sedimentology</i> , 1997, 44, 611-636.	3.1	53
84	Hydrochemistry of carbonate terrains in alpine glacial settings. <i>Earth Surface Processes and Landforms</i> , 1994, 19, 33-54.	2.5	77
85	Calcified Microbes in Neoproterozoic Carbonates: Implications for Our Understanding of the Proterozoic/Cambrian Transition. <i>Palaios</i> , 1993, 8, 512.	1.3	108
86	Coastal lithofacies and biofacies associated with syndepositional dolomitization and silicification (Draken Formation, Upper Riphean, Svalbard). <i>Precambrian Research</i> , 1991, 53, 165-197.	2.7	37
87	Origins of carbonate in Neoproterozoic stromatolites and the identification of modern analogues. <i>Precambrian Research</i> , 1991, 53, 281-299.	2.7	54
88	Carbonate minerals in glacial sediments: geochemical clues to palaeoenvironment. <i>Geological Society Special Publication</i> , 1990, 53, 201-216.	1.3	18
89	A tempestite-stromatolite-evaporite association (late Vendian, East Greenland): a shoreface-lagoon model. <i>Precambrian Research</i> , 1989, 43, 101-127.	2.7	41
90	Carbonate shelf and slope facies evolution prior to Vendian glaciation, central East Greenland. , 1989, , 263-273.		11

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91	Dolomitic stromatolite-bearing units with storm deposits from the Vendian of East Greenland and Scotland: a case of facies equivalence. , 1989, , 275-283.		7
92	Mixing zone dolomitization of Devonian carbonates, Guangxi, South China. Geological Society Special Publication, 1987, 36, 157-170.	1.3	7
93	Petrological and isotopic implications of some contrasting Late Precambrian carbonates, NE Spitsbergen. Sedimentology, 1987, 34, 973-989.	3.1	92
94	The Vendian succession of northeastern Spitsbergen: Petrogenesis of a dolomite-tillite association. Precambrian Research, 1984, 26, 111-167.	2.7	105
95	Chemical controls of cathodoluminescence of natural dolomites and calcites: new data and review. Sedimentology, 1983, 30, 579-583.	3.1	90
96	Effects of glacial transport and neomorphism on Precambrian dolomite crystal sizes. Nature, 1983, 304, 714-716.	27.8	29
97	Stages in a Precambrian dolomitization, Scotland: cementing versus replacement textures. Sedimentology, 1980, 27, 631-650.	3.1	23