

# Frank McDermott

## List of Publications by Year in descending order

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107  
papers

10,111  
citations

50566

48  
h-index

39744

98  
g-index

108  
all docs

108  
docs citations

108  
times ranked

8420  
citing authors

#	ARTICLE	IF	CITATIONS
1	Climate change impacts on wind energy generation in Ireland. <i>Wind Energy</i> , 2022, 25, 300-312.	1.9	11
2	Uranium in groundwaters: Insights from the Leinster granite, SE Ireland. <i>Applied Geochemistry</i> , 2022, 139, 105236.	1.4	10
3	Utilising CoDA methods for the spatio-temporal geochemical characterisation of groundwater; a case study from Lisheen Mine, south central Ireland. <i>Applied Geochemistry</i> , 2021, 127, 104912.	1.4	7
4	As <sup>III</sup> -Co <sup>II</sup> -Ni sulfarsenides in Palaeogene basaltic cone sheets as sources of groundwater arsenic contamination in co. Louth, Ireland. <i>Applied Geochemistry</i> , 2021, 127, 104914.	1.4	3
5	Which Reanalysis Dataset Should We Use for Renewable Energy Analysis in Ireland?. <i>Atmosphere</i> , 2021, 12, 624.	1.0	18
6	Strong links between Saharan dust fluxes, monsoon strength, and North Atlantic climate during the last 5000 years. <i>Science Advances</i> , 2021, 7, .	4.7	15
7	Quaternary deformation and uplift of coral reef terraces produced by oblique subduction and underthrusting of the Bahama Platform below the northern Hispaniola forearc. <i>Tectonophysics</i> , 2020, 796, 228631.	0.9	7
8	Inter-hemispheric synchronicity of Holocene precipitation anomalies controlled by Earth's latitudinal insolation gradients. <i>Nature Communications</i> , 2020, 11, 5447.	5.8	22
9	Dating the skull from Broken Hill, Zambia, and its position in human evolution. <i>Nature</i> , 2020, 580, 372-375.	13.7	63
10	Engineered silver nanoparticle (Ag-NP) behaviour in domestic on-site wastewater treatment plants and in sewage sludge amended-soils. <i>Science of the Total Environment</i> , 2020, 722, 137794.	3.9	17
11	Water quality perceptions and private well management: The role of perceived risks, worry and control. <i>Journal of Environmental Management</i> , 2020, 267, 110654.	3.8	17
12	An investigation of the regional correlation gradients between Euro-Atlantic atmospheric teleconnections and winter solar short wave radiation in northwest Europe. <i>Meteorological Applications</i> , 2020, 27, e1892.	0.9	4
13	Ancient Mammalian and Plant DNA from Late Quaternary Stalagmite Layers at Solkoto Cave, Georgia. <i>Scientific Reports</i> , 2019, 9, 6628.	1.6	31
14	Risk Perceptions Toward Drinking Water Quality Among Private Well Owners in Ireland: The Illusion of Control. <i>Risk Analysis</i> , 2019, 39, 1741-1754.	1.5	19
15	North Iberian temperature and rainfall seasonality over the Younger Dryas and Holocene. <i>Quaternary Science Reviews</i> , 2019, 226, 105998.	1.4	34
16	Release of plant-available silicon from various silicon-rich amendments into soil solutions and leachates. <i>Journal of Soils and Sediments</i> , 2019, 19, 1272-1285.	1.5	7
17	Effects of silicon-rich soil amendments on growth, mortality and bark feeding damage of Sitka spruce ( <i>Picea sitchensis</i> ) seedlings under field conditions. <i>Scandinavian Journal of Forest Research</i> , 2018, 33, 550-559.	0.5	2
18	Silicon concentrations in soil and bark in Irish Sitka spruce forests. <i>Journal of Plant Nutrition and Soil Science</i> , 2018, 181, 231-239.	1.1	3

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19	A weather regime characterisation of Irish wind generation and electricity demand in winters 2009–11. <i>Environmental Research Letters</i> , 2018, 13, 054022.	2.2	6
20	The SISAL database: a global resource to document oxygen and carbon isotope records from speleothems. <i>Earth System Science Data</i> , 2018, 10, 1687-1713.	3.7	62
21	A 34-year simulation of wind generation potential for Ireland and the impact of large-scale atmospheric pressure patterns. <i>Renewable Energy</i> , 2017, 106, 165-176.	4.3	25
22	Spatial variability in winter NAO–wind speed relationships in western Europe linked to concomitant states of the East Atlantic and Scandinavian patterns. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2017, 143, 552-562.	1.0	58
23	Electrification of residential space heating considering coincidental weather events and building thermal inertia: A system-wide planning analysis. <i>Energy</i> , 2017, 127, 136-154.	4.5	43
24	Coherency of late Holocene European speleothem $\delta^{18}O$ records linked to North Atlantic Ocean circulation. <i>Climate Dynamics</i> , 2017, 49, 595-618.	1.7	39
25	Molecular biosignatures reveal common benthic microbial sources of organic matter in ooids and grapestones from Pigeon Cay, The Bahamas. <i>Geobiology</i> , 2017, 15, 112-130.	1.1	58
26	North Atlantic Oscillation controls on oxygen and hydrogen isotope gradients in winter precipitation across Europe; implications for palaeoclimate studies. <i>Climate of the Past</i> , 2016, 12, 2127-2143.	1.3	21
27	Episodic speleothem deposition tracks the terrestrial impact of millennial-scale last glacial climate variability in SW Ireland. <i>Quaternary Science Reviews</i> , 2016, 152, 104-117.	1.4	22
28	The effect of the East Atlantic pattern on the precipitation $\delta^{18}O$ -NAO relationship in Europe. <i>Climate Dynamics</i> , 2016, 47, 2059-2069.	1.7	42
29	Data-model comparison of soil–water $\delta^{18}O$ at a temperate site in N. Spain with implications for interpreting speleothem $\delta^{18}O$ . <i>Journal of Hydrology</i> , 2015, 530, 216-224.	2.3	18
30	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.	1.8	75
31	Reconstructing high-resolution climate using CT scanning of unsectioned stalagmites: A case study identifying the mid-Holocene onset of the Mediterranean climate in southern Iberia. <i>Quaternary Science Reviews</i> , 2015, 127, 117-128.	1.4	41
32	Potential seasonal calibration for palaeoenvironmental reconstruction using skeletal microstructures and strontium measurements from the cold-water coral <i>Lophelia pertusa</i> . <i>Journal of Quaternary Science</i> , 2014, 29, 803-814.	1.1	8
33	Impacts of the EA and SCA patterns on the European twentieth century NAO–winter climate relationship. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2014, 140, 354-363.	1.0	145
34	Inverse modelling of the $^{14}C$ bomb pulse in stalagmites to constrain the dynamics of soil carbon cycling at selected European cave sites. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 112, 32-51.	1.6	20
35	Centennial-scale climate change in Ireland during the Holocene. <i>Earth-Science Reviews</i> , 2013, 126, 300-320.	4.0	79
36	Identifying short-term and seasonal trends in cave drip water trace element concentrations based on a daily-scale automatically collected drip water dataset. <i>Chemical Geology</i> , 2012, 330-331, 1-16.	1.4	27

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37	A late Holocene climate record in stalagmites from ModriÄ-Cave (Croatia). <i>Journal of Quaternary Science</i> , 2012, 27, 585-596.	1.1	28
38	The coupled $\delta^{13}\text{C}$ -radiocarbon systematics of three Late Glacial/early Holocene speleothems; insights into soil and cave processes at climatic transitions. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4321-4339.	1.6	66
39	A first evaluation of the spatial gradients in $\delta^{18}\text{O}$ recorded by European Holocene speleothems. <i>Global and Planetary Change</i> , 2011, 79, 275-287.	1.6	97
40	Microbial Community Diversity of Moonmilk Deposits at Ballynamindra Cave, Co. Waterford, Ireland. <i>Microbial Ecology</i> , 2010, 60, 753-761.	1.4	26
41	An investigation of the controls on Irish precipitation $\delta^{18}\text{O}$ values on monthly and event timescales. <i>Climate Dynamics</i> , 2010, 35, 977-993.	1.7	47
42	Molecular Characterization of Fungal Communities in Sandstone. <i>Geomicrobiology Journal</i> , 2010, 27, 559-571.	1.0	25
43	A radiocarbon dated bat guano deposit from N.W. Romania: Implications for the timing of the Little Ice Age and Medieval Climate Anomaly. <i>Palaeogeography, Palaeoclimatology, Palaeoecology</i> , 2010, 291, 217-227.	1.0	21
44	Meter-Scale Diversity of Microbial Communities on a Weathered Pegmatite Granite Outcrop in the Wicklow Mountains, Ireland; Evidence for Mineral Induced Selection?. <i>Geomicrobiology Journal</i> , 2010, 27, 1-14.	1.0	48
45	Cosmogenic $^{36}\text{Cl}$ in karst waters: Quantifying contributions from atmospheric and bedrock sources. <i>Geophysical Research Letters</i> , 2009, 36, .	1.5	3
46	Spatial variability in the European winter precipitation $\delta^{18}\text{O}$ –NAO relationship: Implications for reconstructing NAO–mode climate variability in the Holocene. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	97
47	Late Holocene climate oscillations and solar fluctuations from speleothem STALÄHÄ1, Sauerland, Germany: A numerical perspective. <i>Geophysical Research Letters</i> , 2008, 35, .	1.5	6
48	Very high-frequency and seasonal cave atmosphere $\text{PCO}_2$ variability: Implications for stalagmite growth and oxygen isotope-based paleoclimate records. <i>Earth and Planetary Science Letters</i> , 2008, 272, 118-129.	1.8	141
49	The distribution of meteoric $\text{Cl-36}$ in precipitation across Europe in spring 2007. <i>Earth and Planetary Science Letters</i> , 2008, 275, 154-164.	1.8	18
50	Isotopic archives of sulphate in speleothems. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 2465-2477.	1.6	54
51	Multi-proxy evidence for Holocene lake-level and salinity changes at An Loch MÄ³r, a coastal lake on the Aran Islands, Western Ireland. <i>Quaternary Science Reviews</i> , 2007, 26, 2438-2462.	1.4	32
52	Understanding Microbially Active Biogeochemical Environments. <i>Advances in Applied Microbiology</i> , 2007, 62, 81-104.	1.3	21
53	ISOTOPES IN SPELEOTHEMS. , 2006, , 185-225.		73
54	Spatial variability in cave drip water hydrochemistry: Implications for stalagmite paleoclimate records. <i>Chemical Geology</i> , 2006, 235, 390-404.	1.4	124

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55	Structural diversity of bacterial communities in a heavy metal mineralized granite outcrop. <i>Environmental Microbiology</i> , 2006, 8, 383-393.	1.8	24
56	Characterization of Bacterial Community Structure on a Weathered Pegmatitic Granite. <i>Microbial Ecology</i> , 2006, 51, 526-534.	1.4	114
57	Modification and preservation of environmental signals in speleothems. <i>Earth-Science Reviews</i> , 2006, 75, 105-153.	4.0	669
58	U-series and ESR analyses of bones and teeth relating to the human burials from Skhul. <i>Journal of Human Evolution</i> , 2005, 49, 316-334.	1.3	282
59	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.	1.1	110
60	Characterization of Fungal Community Structure on a Weathered Pegmatitic Granite. <i>Microbial Ecology</i> , 2005, 50, 360-368.	1.4	114
61	The petrogenesis of volcanics from Mt. Bulusan and Mt. Mayon in the Bicol arc, the Philippines. <i>Contributions To Mineralogy and Petrology</i> , 2005, 150, 652-670.	1.2	49
62	Cenozoic K-rich adakitic volcanic rocks in the Hohxil area, northern Tibet: Lower-crustal melting in an intracontinental setting. <i>Geology</i> , 2005, 33, 465.	2.0	394
63	Biomass effects on stalagmite growth and isotope ratios: A 20th century analogue from Wiltshire, England. <i>Earth and Planetary Science Letters</i> , 2005, 240, 486-494.	1.8	110
64	Palaeo-climate reconstruction from stable isotope variations in speleothems: a review. <i>Quaternary Science Reviews</i> , 2004, 23, 901-918.	1.4	793
65	Numerical investigations of passive and reactive flow through generic single fractures with heterogeneous permeability. <i>Earth and Planetary Science Letters</i> , 2003, 213, 271-284.	1.8	31
66	A numerical study of passive transport through fault zones. <i>Earth and Planetary Science Letters</i> , 2003, 214, 633-643.	1.8	20
67	Late Holocene annual growth in three Alpine stalagmites records the influence of solar activity and the North Atlantic Oscillation on winter climate. <i>Earth and Planetary Science Letters</i> , 2003, 216, 411-424.	1.8	168
68	Structure of the 8200-Year Cold Event Revealed by a Speleothem Trace Element Record. <i>Science</i> , 2002, 296, 2203-2206.	6.0	179
69	A comparison of published experimental data with a coupled lattice Boltzmann-analytic advection-diffusion method for reactive transport in porous media. <i>Journal of Hydrology</i> , 2002, 268, 143-157.	2.3	19
70	Aragonite-Calcite Relationships in Speleothems (Grotte De Clamouse, France): Environment, Fabrics, and Carbonate Geochemistry. <i>Journal of Sedimentary Research</i> , 2002, 72, 687-699.	0.8	182
71	Centennial-Scale Holocene Climate Variability Revealed by a High-Resolution Speleothem $\delta^{18}O$ Record from SW Ireland. <i>Science</i> , 2001, 294, 1328-1331.	6.0	373
72	Seasonal variations in Sr, Mg and P in modern speleothems (Grotta di Ernesto, Italy). <i>Chemical Geology</i> , 2001, 175, 429-448.	1.4	186

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73	Annual to sub-annual resolution of multiple trace-element trends in speleothems. <i>Journal of the Geological Society</i> , 2001, 158, 831-841.	0.9	148
74	Numerical and experimental modelling of fluid-rock interactions with heterogeneous porosity. <i>Journal of Geochemical Exploration</i> , 2000, 69-70, 119-125.	1.5	0
75	Mg, Sr and Sr isotope geochemistry of a Belgian Holocene speleothem: implications for paleoclimate reconstructions. <i>Chemical Geology</i> , 2000, 169, 131-144.	1.4	103
76	Controls on trace element (Sr-Mg) compositions of carbonate cave waters: implications for speleothem climatic records. <i>Chemical Geology</i> , 2000, 166, 255-269.	1.4	470
77	Calcite Fabrics, Growth Mechanisms, and Environments of Formation in Speleothems from the Italian Alps and Southwestern Ireland. <i>Journal of Sedimentary Research</i> , 2000, 70, 1183-1196.	0.8	304
78	Visualisation of luminescence excitation-emission timeseries: Palaeoclimate implications from a 10,000 year stalagmite record from Ireland. <i>Geophysical Research Letters</i> , 2000, 27, 2145-2148.	1.5	6
79	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.	1.4	200
80	ESR and U-series analyses of teeth from the palaeoanthropological site of Hexian, Anhui Province, China. <i>Journal of Human Evolution</i> , 1998, 34, 555-564.	1.3	78
81	A U-series study of lavas from Kamchatka and the Aleutians: constraints on source composition and melting processes. <i>Contributions To Mineralogy and Petrology</i> , 1998, 133, 217-234.	1.2	94
82	Aeolian contribution to strontium and strontium isotope variations in a Tasmanian speleothem. <i>Chemical Geology</i> , 1998, 149, 37-50.	1.4	95
83	U-Th Isotopes in Arc Magmas: Implications for Element Transfer from the Subducted Crust. <i>Science</i> , 1997, 276, 551-555.	6.0	806
84	Trace element and Sr-Nd-Pb isotopic constraints on a three-component model of Kamchatka Arc petrogenesis. <i>Geochimica Et Cosmochimica Acta</i> , 1997, 61, 577-600.	1.6	501
85	Elemental U and Th variations in island arc rocks: implications for U-series isotopes. <i>Chemical Geology</i> , 1997, 139, 207-221.	1.4	190
86	ESR and mass-spectrometric uranium-series dating studies of a mammoth tooth from Stanton Harcourt, Oxfordshire, England. <i>Quaternary Science Reviews</i> , 1997, 16, 445-454.	1.4	10
87	New Late-Pleistocene uranium-thorium and ESR dates for the Singa hominid (Sudan). <i>Journal of Human Evolution</i> , 1996, 31, 507-516.	1.3	107
88	Geochemical constraints on crustal anatexis: a case study from the Pan-African Damara granitoids of Namibia. <i>Contributions To Mineralogy and Petrology</i> , 1996, 123, 406-423.	1.2	97
89	Evidence of Younger Dryas and Neoglacial cooling in a Late Quaternary palaeotemperature record from a speleothem in eastern Victoria, Australia. <i>Journal of Quaternary Science</i> , 1996, 11, 1-7.	1.1	29
90	Geochemical characteristics and origin of the Jacupiranga carbonatites, Brazil. <i>Chemical Geology</i> , 1995, 119, 79-99.	1.4	59

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91	Destructive plate margin magmatism: Geochemistry and melt generation. <i>Lithos</i> , 1994, 33, 169-188.	0.6	110
92	Open system modelling for U-series and ESR dating of teeth. <i>Quaternary Science Reviews</i> , 1994, 13, 121-125.	1.4	61
93	Mantle metasomatic enrichment versus arc crust contamination in the Philippines: Oxygen isotope study of Batan ultramafic nodules and northern Luzon arc lavas. <i>Chemical Geology</i> , 1994, 114, 199-215.	1.4	25
94	Isotope and trace element evidence for three component mixing in the genesis of the North Luzon arc lavas (Philippines). <i>Contributions To Mineralogy and Petrology</i> , 1993, 113, 9-23.	1.2	117
95	Mass-spectrometric U-series dates for Israeli Neanderthal/early modern hominid sites. <i>Nature</i> , 1993, 363, 252-255.	13.7	161
96	Measurement of $^{230}\text{Th}/^{232}\text{Th}$ ratios in young volcanic rocks by single-sector thermal ionisation mass spectrometry. <i>Chemical Geology</i> , 1993, 103, 283-292.	1.4	19
97	Th, Pb, and Sr isotope variations in young island arc volcanics and oceanic sediments. <i>Earth and Planetary Science Letters</i> , 1991, 104, 1-15.	1.8	127
98	Destructive margin magmatism and the contributions from the mantle wedge and subducted crust. <i>Australian Journal of Earth Sciences</i> , 1991, 38, 577-594.	0.4	68
99	The evolution of strontium isotopes in the upper continental crust. <i>Nature</i> , 1990, 344, 850-853.	13.7	17
100	Correlation of lead isotopes in Lower Jurassic rocks of South Wales. <i>Proceedings of the Geologists Association</i> , 1990, 101, 341-343.	0.6	2
101	Pb isotope data from late Proterozoic subduction-related rocks: Implications for crust-mantle evolution. <i>Chemical Geology</i> , 1990, 83, 165-181.	1.4	21
102	Intracrustal recycling and upper-crustal evolution: A case study from the Pan-African Damara mobile belt, central Namibia. <i>Chemical Geology</i> , 1990, 83, 263-280.	1.4	49
103	Petrology and geochemistry of volcanic rocks of the Cerro Galan caldera, northwest Argentina. <i>Geological Magazine</i> , 1989, 126, 515-547.	0.9	132
104	Crustal reworking in southern Africa: constraints from Sr-Nd isotope studies in Archaean to Pan-African terrains. <i>Tectonophysics</i> , 1989, 161, 257-270.	0.9	19
105	High precision measurement of $^{234}\text{U}/^{238}\text{U}$ and $^{230}\text{Th}/^{232}\text{Th}$ ratios in young volcanic rocks using multi-collector mass spectrometry. <i>Chemical Geology</i> , 1988, 70, 128.	1.4	2
106	Evolution of continental crust in southern Africa. <i>Earth and Planetary Science Letters</i> , 1987, 83, 85-93.	1.8	48
107	Th/U and U series systematics of saprolite: importance for the oceanic $^{234}\text{U}$ excess. <i>Geochemical Perspectives Letters</i> , 0, , 17-22.	1.0	9