

# Barbara A Maher

## List of Publications by Year in descending order

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91  
papers

10,590  
citations

46984

47  
h-index

60583

81  
g-index

94  
all docs

94  
docs citations

94  
times ranked

7492  
citing authors

#	ARTICLE	IF	CITATIONS
1	Magnetite pollution nanoparticles in the human brain. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 10797-10801.	3.3	746
2	Magnetic properties of some synthetic sub-micron magnetites. Geophysical Journal International, 1988, 94, 83-96.	1.0	679
3	Magnetic properties of modern soils and Quaternary loessic paleosols: paleoclimatic implications. Palaeogeography, Palaeoclimatology, Palaeoecology, 1998, 137, 25-54.	1.0	630
4	Frequency-dependent susceptibility measurements of environmental materials. Geophysical Journal International, 1996, 124, 228-240.	1.0	621
5	Formation of ultrafine-grained magnetite in soils. Nature, 1988, 336, 368-370.	13.7	536
6	Global connections between aeolian dust, climate and ocean biogeochemistry at the present day and at the last glacial maximum. Earth-Science Reviews, 2010, 99, 61-97.	4.0	484
7	Characterisation of soils by mineral magnetic measurements. Physics of the Earth and Planetary Interiors, 1986, 42, 76-92.	0.7	461
8	Paleorainfall Reconstructions from Pedogenic Magnetic Susceptibility Variations in the Chinese Loess and Paleosols. Quaternary Research, 1995, 44, 383-391.	1.0	399
9	Mineral magnetic record of the Chinese loess and paleosols. Geology, 1991, 19, 3.	2.0	362
10	Early Pleistocene human occupation at the edge of the boreal zone in northwest Europe. Nature, 2010, 466, 229-233.	13.7	327
11	Spatial and temporal reconstructions of changes in the Asian palaeomonsoon: A new mineral magnetic approach. Earth and Planetary Science Letters, 1994, 125, 461-471.	1.8	321
12	Paleoclimatic Significance of the Mineral Magnetic Record of the Chinese Loess and Paleosols. Quaternary Research, 1992, 37, 155-170.	1.0	290
13	Palaeoclimatic records of the loess/palaeosol sequences of the Chinese Loess Plateau. Quaternary Science Reviews, 2016, 154, 23-84.	1.4	211
14	Holocene variability of the East Asian summer monsoon from Chinese cave records: a re-assessment. Holocene, 2008, 18, 861-866.	0.9	209
15	The magnetic properties of Quaternary aeolian dusts and sediments, and their palaeoclimatic significance. Aeolian Research, 2011, 3, 87-144.	1.1	196
16	Oxygen isotopes from Chinese caves: records not of monsoon rainfall but of circulation regime. Journal of Quaternary Science, 2012, 27, 615-624.	1.1	182
17	Magnetic mineralogy of soils across the Russian Steppe: climatic dependence of pedogenic magnetite formation. Palaeogeography, Palaeoclimatology, Palaeoecology, 2003, 201, 321-341.	1.0	181
18	Particulate matter deposited on leaf of five evergreen species in Beijing, China: Source identification and size distribution. Atmospheric Environment, 2015, 105, 53-60.	1.9	172

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19	Rates of particulate pollution deposition onto leaf surfaces: Temporal and inter-species magnetic analyses. <i>Environmental Pollution</i> , 2010, 158, 1472-1478.	3.7	142
20	Particle-size related, mineral magnetic source sediment linkages in the Rhode River catchment, Maryland, USA. <i>Journal of the Geological Society</i> , 1985, 142, 1035-1046.	0.9	134
21	Quantifying grain size distribution of pedogenic magnetic particles in Chinese loess and its significance for pedogenesis. <i>Journal of Geophysical Research</i> , 2005, 110, .	3.3	133
22	Airborne, Vehicle-Derived Fe-Bearing Nanoparticles in the Urban Environment: A Review. <i>Environmental Science &amp; Technology</i> , 2019, 53, 9970-9991.	4.6	130
23	A high-resolution record of Holocene rainfall variations from the western Chinese Loess Plateau: antiphase behaviour of the African/Indian and East Asian summer monsoons. <i>Holocene</i> , 2006, 16, 309-319.	0.9	126
24	Magnetite in soils: I. The synthesis of single-domain and superparamagnetic magnetite. <i>Clay Minerals</i> , 1986, 22, 411-422.	0.2	121
25	Combustion- and friction-derived magnetic air pollution nanoparticles in human hearts. <i>Environmental Research</i> , 2019, 176, 108567.	3.7	117
26	Magnetic monitoring of air- land- and water-pollution. , 1999, , 279-322.		113
27	Quantitative extraction and analysis of carriers of magnetization in sediments. <i>Geophysical Journal International</i> , 1996, 124, 57-74.	1.0	104
28	Holocene loess accumulation and soil development at the western edge of the Chinese Loess Plateau: implications for magnetic proxies of palaeorainfall. <i>Quaternary Science Reviews</i> , 2003, 22, 445-451.	1.4	103
29	Impact of Roadside Tree Lines on Indoor Concentrations of Traffic-Derived Particulate Matter. <i>Environmental Science &amp; Technology</i> , 2013, 47, 13737-13744.	4.6	98
30	Fingerprinting upland sediment sources: particle size-specific magnetic linkages between soils, lake sediments and suspended sediments. <i>Earth Surface Processes and Landforms</i> , 2009, 34, 1359-1373.	1.2	97
31	The spatial-temporal characteristics and health impacts of ambient fine particulate matter in China. <i>Journal of Cleaner Production</i> , 2016, 112, 1312-1318.	4.6	96
32	Mechanism of the magnetic susceptibility enhancements of the Chinese loess. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	89
33	Holocene sediment-accumulation rates in the western Loess Plateau, China, and a 2500-year record of agricultural activity, revealed by OSL dating. <i>Holocene</i> , 2001, 11, 477-483.	0.9	83
34	Magnetic and geochemical characteristics of Gobi Desert surface sediments: Implications for provenance of the Chinese Loess Plateau. <i>Geology</i> , 2009, 37, 279-282.	2.0	83
35	Evidence against dust-mediated control of glacial-interglacial changes in atmospheric CO <sub>2</sub> . <i>Nature</i> , 2001, 411, 176-180.	13.7	80
36	Biomagnetic Monitoring of Atmospheric Pollution: A Review of Magnetic Signatures from Biological Sensors. <i>Environmental Science &amp; Technology</i> , 2017, 51, 6648-6664.	4.6	80

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37	Evidence for the presence of air pollution nanoparticles in placental tissue cells. <i>Science of the Total Environment</i> , 2021, 751, 142235.	3.9	77
38	Iron-rich air pollution nanoparticles: An unrecognised environmental risk factor for myocardial mitochondrial dysfunction and cardiac oxidative stress. <i>Environmental Research</i> , 2020, 188, 109816.	3.7	74
39	Holocene environmental change from magnetic proxies in lake sediments. , 1999, , 231-278.		69
40	Biomagnetic monitoring of industry-derived particulate pollution. <i>Environmental Pollution</i> , 2011, 159, 1673-1681.	3.7	69
41	Sediment provenance in a tropical fluvial and marine context by magnetic "fingerprinting" of transportable sand fractions. <i>Sedimentology</i> , 2009, 56, 841-861.	1.6	67
42	Airborne Magnetite- and Iron-Rich Pollution Nanoparticles: Potential Neurotoxicants and Environmental Risk Factors for Neurodegenerative Disease, Including Alzheimer's Disease. <i>Journal of Alzheimer's Disease</i> , 2019, 71, 361-375.	1.2	65
43	Reduced repressive epigenetic marks, increased DNA damage and Alzheimer's disease hallmarks in the brain of humans and mice exposed to particulate urban air pollution. <i>Environmental Research</i> , 2020, 183, 109226.	3.7	65
44	Identification and paleoclimatic significance of magnetite nanoparticles in soils. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 1736-1741.	3.3	64
45	Environmental magnetism and climate change. <i>Contemporary Physics</i> , 2007, 48, 247-274.	0.8	62
46	Rain and Dust: Magnetic Records of Climate and Pollution. <i>Elements</i> , 2009, 5, 229-234.	0.5	56
47	Efficient Removal of Ultrafine Particles from Diesel Exhaust by Selected Tree Species: Implications for Roadside Planting for Improving the Quality of Urban Air. <i>Environmental Science &amp; Technology</i> , 2019, 53, 6906-6916.	4.6	56
48	Source of the climate signal recorded by magnetic susceptibility variations in Indian Ocean sediments. <i>Journal of Geophysical Research</i> , 1999, 104, 5047-5061.	3.3	51
49	Suspended sediment characterization and tracing using a magnetic fingerprinting technique: Bassenthwaite Lake, Cumbria, UK. <i>Holocene</i> , 2008, 18, 105-115.	0.9	50
50	Quadruple abnormal protein aggregates in brainstem pathology and exogenous metal-rich magnetic nanoparticles (and engineered Ti-rich nanorods). The substantia nigrae is a very early target in young urbanites and the gastrointestinal tract a key brainstem portal. <i>Environmental Research</i> , 2020, 191, 110139.	3.7	50
51	Source apportionment of magnetite particles in roadside airborne particulate matter. <i>Science of the Total Environment</i> , 2021, 752, 141828.	3.9	49
52	Rapid Magnetic Biomonitoring and Differentiation of Atmospheric Particulate Pollutants at the Roadside and around Two Major Industrial Sites in the U.K.. <i>Environmental Science &amp; Technology</i> , 2012, 46, 4403-4410.	4.6	48
53	Grain sizes of susceptibility and anhysteretic remanent magnetization carriers in Chinese loess/paleosol sequences. <i>Journal of Geophysical Research</i> , 2004, 109, .	3.3	47
54	Ocean circulation at the Last Glacial Maximum: A combined modeling and magnetic proxy-based study. <i>Paleoceanography</i> , 2007, 22, .	3.0	47

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55	Age models, sediment fluxes and palaeoclimatic reconstructions for the Chinese loess and palaeosol sequences. <i>Geophysical Journal International</i> , 1995, 123, 611-622.	1.0	42
56	Pedogenesis and paleoclimate: Interpretation of the magnetic susceptibility record of Chinese loess-paleosol sequences: Comments and Reply. <i>Geology</i> , 1994, 22, 857.	2.0	39
57	Sediment source variations and lead-210 inventories in recent Potomac Estuary sediment cores. <i>Journal of Quaternary Science</i> , 2010, 4, 189-200.	1.1	33
58	Incidence and significance of magnetic iron sulphides in Quaternary sediments and soils. , 1999, , 199-230.		32
59	Size-resolved, quantitative evaluation of the magnetic mineralogy of airborne brake-wear particulate emissions. <i>Environmental Pollution</i> , 2021, 288, 117808.	3.7	30
60	Origin, abundance and storage of organic carbon and sulphur in the Holocene Humber Estuary: emphasizing human impact on storage changes. <i>Geological Society Special Publication</i> , 2000, 166, 145-170.	0.8	28
61	Palaeomagnetic correlation and dating of Plio/Pleistocene sediments at the southern margins of the North Sea Basin. <i>Journal of Quaternary Science</i> , 2005, 20, 67-77.	1.1	27
62	The dating and interpretation of a Mode 1 site in the Luangwa Valley, Zambia. <i>Journal of Human Evolution</i> , 2011, 60, 549-570.	1.3	25
63	Indoor particulate air pollution from open fires and the cognitive function of older people. <i>Environmental Research</i> , 2021, 192, 110298.	3.7	25
64	Sediment dynamics in an upland temperate catchment: changing sediment sources, rates and deposition. <i>Journal of Paleolimnology</i> , 2008, 40, 1143-1158.	0.8	23
65	Sedimentary evolution of the north Norfolk barrier coastline in the context of Holocene sea-level change. <i>Geological Society Special Publication</i> , 2000, 166, 219-251.	0.8	20
66	Magnetic carriers and remanence mechanisms in magnetite-poor sediments of Pleistocene age, southern North Sea margin. <i>Journal of Quaternary Science</i> , 2005, 20, 79-94.	1.1	20
67	Holocene sediment dynamics in an upland temperate lake catchment: climatic and land-use impacts in the English Lake District. <i>Holocene</i> , 2009, 19, 427-438.	0.9	20
68	Diagenesis and remobilization of carbon and sulfur in mid-Pleistocene organic-rich freshwater sediment. <i>Journal of Sedimentary Research</i> , 1998, 68, 37-42.	0.8	19
69	Association of <sup>210</sup> Po( <sup>210</sup> Pb), <sup>239+240</sup> Pu and <sup>241</sup> Am with different mineral fractions of a beach sand at Seascale, Cumbria, UK. <i>Science of the Total Environment</i> , 2000, 254, 1-15.	3.9	19
70	Thermal enhancement of natural magnetism as a tool for tracing eroded soil. <i>Earth Surface Processes and Landforms</i> , 2012, 37, 1567-1572.	1.2	17
71	Connection of the proto-Yangtze River to the East China Sea traced by sediment magnetic properties. <i>Geomorphology</i> , 2018, 303, 162-171.	1.1	17
72	Application of a magnetic extraction technique to assess radionuclideâ€“mineral association in Cumbrian shoreline sediments. <i>Journal of Environmental Radioactivity</i> , 2004, 77, 111-131.	0.9	15

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73	Rock Magnetic and Palaeomagnetic Studies of British Speleothems.. Journal of Geomagnetism and Geoelectricity, 1993, 45, 143-153.	0.8	13
74	Bacterial magnetite and the Quaternary record. , 1999, , 163-198.		13
75	Analysis and interpretation of Holocene sedimentary sequences in the Humber Estuary. Geological Society Special Publication, 2000, 166, 9-39.	0.8	13
76	Variation in the concentration and regional distribution of magnetic nanoparticles in human brains, with and without Alzheimer's disease, from the UK. Scientific Reports, 2021, 11, 9363.	1.6	12
77	Magnetic mineralogy of sandstones from the Lunde Formation (late Triassic), northern North Sea, UK: origin of the palaeomagnetic signal. Geological Society Special Publication, 1995, 98, 119-147.	0.8	11
78	A Multi-Proxy Approach to Unravel Late Pleistocene Sediment Flux and Bottom Water Conditions in the Western South Atlantic Ocean. Paleoceanography and Paleoclimatology, 2021, 36, e2020PA004058.	1.3	11
79	Biomagnetic Characterization of Air Pollution Particulates in Lahore, Pakistan. Geochemistry, Geophysics, Geosystems, 2022, 23, .	1.0	11
80	Origin of soil magnetite. Nature, 1989, 340, 106-106.	13.7	10
81	Inorganic Formation of Ultrafine-Grained Magnetite. , 1991, , 179-191.		9
82	Reprint of: The spatial-temporal characteristics and health impacts of ambient fine particulate matter in China. Journal of Cleaner Production, 2017, 163, S352-S358.	4.6	8
83	Magnetic characterisation of London's airborne nanoparticulate matter. Atmospheric Environment, 2022, 287, 119292.	1.9	8
84	Magnetic cyclostratigraphy: high-resolution dating in and beyond the Quaternary and analysis of periodic changes in diagenesis and sedimentary magnetism. , 1999, , 352-382.		7
85	The significance of magnetotactic bacteria for the palaeomagnetic and rock magnetic record of Quaternary sediments and soils. Geological Society Special Publication, 1999, 151, 43-46.	0.8	4
86	Predicting Spatial Variations in Multiple Measures of PM <sub>2.5</sub> Oxidative Potential and Magnetite Nanoparticles in Toronto and Montreal, Canada. Environmental Science & Technology, 2022, 56, 7256-7265.	4.6	4
87	Magnetostratigraphic correlations in two cores from the late Triassic Lunde Formation, Beryl Field, northern North Sea, UK. Geological Society Special Publication, 1995, 98, 163-172.	0.8	3
88	Reply to letter to the editor by Clemens and Prell. Quaternary Research, 1992, 38, 268.	1.0	0
89	Application of a magnetic extraction technique to assess radionuclide-mineral association in Cumbrian shoreline sediments. Journal of Environmental Radioactivity, 2004, 77, 111-111.	0.9	0
90	Mineral Dust and Climate: Working Group on Dust and Climate Joint INQUA/QUEST Workshop; Villefranche-sur-Mer, France, 19-22 October 2008. Eos, 2009, 90, 139.	0.1	0

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91	Prolific shedding of magnetite nanoparticles from banknote surfaces. Science of the Total Environment, 2021, 768, 144490.	3.9	0