

Wyn Williams

List of Publications by Year in descending order

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citations

361413
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37
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43
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43
docs citations

43
times ranked

1360
citing authors

#	ARTICLE	IF	CITATIONS
1	Resolving the Origin of Pseudo-Single Domain Magnetic Behavior. <i>Journal of Geophysical Research: Solid Earth</i> , 2017, 122, 9534-9558.	3.4	145
2	Controlled cobalt doping of magnetosomes in vivo. <i>Nature Nanotechnology</i> , 2008, 3, 158-162.	31.5	142
3	Critical superparamagnetic/single-domain grain sizes in interacting magnetite particles: implications for magnetosome crystals. <i>Journal of the Royal Society Interface</i> , 2009, 6, 1207-1212.	3.4	122
4	Influence of magnetostatic interactions on first-order-reversal-curve (FORC) diagrams: a micromagnetic approach. <i>Geophysical Journal International</i> , 2004, 158, 888-897.	2.4	106
5	Note on temperature dependence of exchange constant in magnetite. <i>Geophysical Research Letters</i> , 1988, 15, 184-187.	4.0	77
6	Stability of equidimensional pseudo-single-domain magnetite over billion-year timescales. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10356-10360.	7.1	58
7	Direct visualization of the thermomagnetic behavior of pseudo-single-domain magnetite particles. <i>Science Advances</i> , 2016, 2, e1501801.	10.3	52
8	Micromagnetic modeling of first-order reversal curve (FORC) diagrams for single-domain and pseudo-single-domain magnetite. <i>Earth and Planetary Science Letters</i> , 2003, 213, 375-390.	4.4	49
9	MERRILL: Micromagnetic Earth Related Robust Interpreted Language Laboratory. <i>Geochemistry, Geophysics, Geosystems</i> , 2018, 19, 1080-1106.	2.5	47
10	Some effects of grain shape and varying external magnetic fields on the magnetic structure of small grains of magnetite. <i>Physics of the Earth and Planetary Interiors</i> , 1990, 65, 1-14.	1.9	44
11	Magnetic force microscopy imaging of domain walls in magnetite. <i>Geophysical Journal International</i> , 1992, 111, 417-423.	2.4	36
12	Multi-scale three-dimensional characterization of iron particles in dusty olivine: Implications for paleomagnetism of chondritic meteorites. <i>American Mineralogist</i> , 2016, 101, 2070-2084.	1.9	35
13	A strong angular dependence of magnetic properties of magnetosome chains: Implications for rock magnetism and paleomagnetism. <i>Geochemistry, Geophysics, Geosystems</i> , 2013, 14, 3887-3907.	2.5	34
14	Effects of the core-shell structure on the magnetic properties of partially oxidized magnetite grains: Experimental and micromagnetic investigations. <i>Geochemistry, Geophysics, Geosystems</i> , 2014, 15, 2021-2038.	2.5	31
15	Critical single-domain grain sizes in elongated iron particles: implications for meteoritic and lunar magnetism. <i>Geophysical Journal International</i> , 2015, 202, 578-583.	2.4	31
16	Direct observation of the thermal demagnetization of magnetic vortex structures in nonideal magnetite recorders. <i>Geophysical Research Letters</i> , 2016, 43, 8426-8434.	4.0	31
17	Observing thermomagnetic stability of nonideal magnetite particles: Good paleomagnetic recorders?. <i>Geophysical Research Letters</i> , 2014, 41, 7041-7047.	4.0	26
18	Correlating biodegradation to magnetization in oil bearing sedimentary rocks. <i>Geochimica Et Cosmochimica Acta</i> , 2013, 112, 146-165.	3.9	25

#	ARTICLE	IF	CITATIONS
19	Secondary magnetite in ancient zircon precludes analysis of a Hadean geodynamo. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 407-412.	7.1	24
20	Magnetic vortex effects on first-order reversal curve (FORC) diagrams for greigite dispersions. Earth and Planetary Science Letters, 2018, 501, 103-111.	4.4	21
21	Thermomagnetic recording fidelity of nanometer-sized iron and implications for planetary magnetism. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 1984-1991.	7.1	21
22	Cooling rate effects in the magnetization of single-domain grains.. Journal of Geomagnetism and Geoelectricity, 1988, 40, 729-737.	0.9	21
23	From Nano to Micro: Evolution of Magnetic Domain Structures in Multidomain Magnetite. Geochemistry, Geophysics, Geosystems, 2019, 20, 2907-2918.	2.5	20
24	Critical single domain grain sizes in chains of interacting greigite particles: Implications for magnetosome crystals. Geochemistry, Geophysics, Geosystems, 2013, 14, 5430-5441.	2.5	19
25	Thermal cleaning of viscous magnetic moments. Geophysical Research Letters, 1988, 15, 1089-1092.	4.0	17
26	The magnetic structure and palaeomagnetic recording fidelity of sub-micron greigite (Fe ₃ S ₄). Earth and Planetary Science Letters, 2018, 483, 76-89.	4.4	15
27	Understanding Nonideal Paleointensity Recording in Igneous Rocks: Insights From Aging Experiments on Lava Samples and the Causes and Consequences of "Fragile" Curvature in Arai Plots. Geochemistry, Geophysics, Geosystems, 2021, 22, .	2.5	15
28	Nanofabrication of two-dimensional arrays of magnetite particles for fundamental rock magnetic studies. Journal of Geophysical Research, 2009, 114, .	3.3	14
29	Very high resolution etching of magnetic nanostructures in organic gases. Microelectronic Engineering, 2008, 85, 988-991.	2.4	12
30	Effect of maghemization on the magnetic properties of nonstoichiometric pseudo-single-domain magnetite particles. Geochemistry, Geophysics, Geosystems, 2015, 16, 2969-2979.	2.5	12
31	A micromagnetic investigation of magnetite grains in the form of Platonic polyhedra with surface roughness. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	11
32	Magnetic characterization of synthetic titanomagnetites: Quantifying the recording fidelity of ideal synthetic analogs. Geochemistry, Geophysics, Geosystems, 2014, 15, 161-175.	2.5	11
33	Low-temperature viscous magnetization of multidomain magnetite: Evidence for disaccommodation contribution. Journal of Magnetism and Magnetic Materials, 2006, 307, 113-119.	2.3	10
34	Room- and low-temperature magnetic properties of 2-D magnetite particle arrays. Geophysical Journal International, 2011, 185, 167-180.	2.4	8
35	Paleomagnetic recording fidelity of nonideal magnetic systems. Geochemistry, Geophysics, Geosystems, 2014, 15, 2254-2261.	2.5	6
36	Magnetic Vortex States in Small Octahedral Particles of Intermediate Titanomagnetite. Geochemistry, Geophysics, Geosystems, 2018, 19, 3071-3083.	2.5	5

#	ARTICLE	IF	CITATIONS
37	Estimating the Effect of Cooling Rate on the Acquisition of Magnetic Remanence. Geophysical Research Letters, 2021, 48, e2021GL095284.	4.0	4
38	Bending and Collapse: Magnetic Recording Fidelity of Magnetofossils From Micromagnetic Simulation. Journal of Geophysical Research: Solid Earth, 2022, 127, .	3.4	4
39	Models of Maghematization: Observational Evidence in Support of a Magnetic Unstable Zone. Geochemistry, Geophysics, Geosystems, 2021, 22, e2020GC009504.	2.5	2