Michael J Jackson

List of Publications by Year
in descending order

131 papers	6,306 citations	61984 43 h-index	71685 76 g-index
135 all docs	135 docs citations	135 times ranked	3254 citing authors

#	Article	IF	Citations
1	Rock magnetism and the interpretation of anisotropy of magnetic susceptibility. Reviews of Geophysics, 1992, 30, 209-226.	23.0	779
2	Temperature dependence of magnetic susceptibility in an argon environment: implications for pedogenesis of Chinese loess/palaeosols. Geophysical Journal International, 2005, 161, 102-112.	2.4	270
3	Anisotropy of magnetic remanence: A brief review of mineralogical sources, physical origins, and geological applications, and comparison with susceptibility anisotropy. Pure and Applied Geophysics, 1991, 136, 1-28.	1.9	247
4	Structural geology, petrofabrics and magnetic fabrics (AMS, AARM, AIRM). Journal of Structural Geology, 2010, 32, 1519-1551.	2.3	236
5	Low-temperature magnetic behavior of titanomagnetites. Earth and Planetary Science Letters, 1998, 157, 141-149.	4.4	220
6	Magnetic anisotropy in the Trenton Limestone: Results of a new technique, anisotropy of anhysteretic susceptibility. Geophysical Research Letters, 1985, 12, 333-336.	4.0	194
7	Variability of the temperature-dependent susceptibility of the Holocene eolian deposits in the Chinese loess plateau: A pedogenesis indicator. Physics and Chemistry of the Earth, 2001, 26, 873-878.	0.6	175
8	Partial anhysteretic remanence and its anisotropy: Applications and grainsizeâ€dependence. Geophysical Research Letters, 1988, 15, 440-443.	4.0	161
9	Anisotropy of magnetic susceptibility (AMS): magnetic petrofabrics of deformed rocks. Geological Society Special Publication, 2004, 238, 299-360.	1.3	158
10	Diagenetic sources of stable remanence in remagnetized paleozoic cratonic carbonates: A rock magnetic study. Journal of Geophysical Research, 1990, 95, 2753-2761.	3.3	156
11	Detrital Remanence, Inclination Errors, and Anhysteretic Remanence Anisotropy: Quantitative Model and Experimental Results. Geophysical Journal International, 1991, 104, 95-103.	2.4	140
12	The superparamagnetism of Yucca Mountain Tuff. Journal of Geophysical Research, 1999, 104, 25415-25425.	3.3	123
13	Paleoenvironmental significance of the magnetic fabrics in Chinese loess-paleosols since the last interglacial (<130 ka). Earth and Planetary Science Letters, 2004, 221, 55-69.	4.4	102
14	Field-dependence of AC susceptibility in titanomagnetites. Earth and Planetary Science Letters, 1998, 157, 129-139.	4.4	98
15	Magnetite authigenesis and diagenetic paleotemperatures across the northern Appalachian basin. Geology, 1988, 16, 592.	4.4	92
16	Mechanism of the magnetic susceptibility enhancements of the Chinese loess. Journal of Geophysical Research, 2004, 109, .	3.3	89
17	Anisotropy of Magnetic Susceptibility and Remanence: Developments in the Characterization of Tectonic, Sedimentary and Igneous Fabric. Reviews of Geophysics, 1991, 29, 371-376.	23.0	85
18	On the quantitative analysis and evaluation of magnetic hysteresis data. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	79

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19	Fourier analysis of digital hysteresis data: rock magnetic applications. Physics of the Earth and Planetary Interiors, 1990, 65, 78-87.	1.9	78
20	An integrated study of the grain-size-dependent magnetic mineralogy of the Chinese loess/paleosol and its environmental significance. Journal of Geophysical Research, 2003, 108, .	3.3	76
21	Rock magnetism of remagnetized Paleozoic carbonates: Lowâ€temperature behavior and susceptibility characteristics. Journal of Geophysical Research, 1993, 98, 6217-6225.	3.3	73
22	Grain size distribution of pedogenic magnetic particles in Chinese loess/paleosols. Geophysical Research Letters, 2004, 31, .	4.0	72
23	Regional shortening fabrics in eastern North America: Farâ€field stress transmission from the Appalachianâ€Ouachita Orogenic Belt. Tectonics, 1993, 12, 257-264.	2.8	70
24	Experimental deformation of synthetic magnetiteâ€bearing calcite sandstones: Effects on remanence, bulk magnetic properties, and magnetic anisotropy. Journal of Geophysical Research, 1993, 98, 383-401.	3.3	65
25	Thermal demagnetization of partial thermoremanent magnetization. Journal of Geophysical Research, 1988, 93, 12196-12204.	3.3	64
26	Measuring, Processing, and Analyzing Hysteresis Data. Geochemistry, Geophysics, Geosystems, 2018, 19, 1925-1945.	2.5	64
27	Unmixing magnetic assemblages and the magnetic behavior of bimodal mixtures. Journal of Geophysical Research, 2001, 106, 26397-26411.	3.3	62
28	Inter-laboratory calibration of low-field magnetic and anhysteretic susceptibility measurements. Physics of the Earth and Planetary Interiors, 2003, 138, 25-38.	1.9	60
29	Paramagnetic and ferromagnetic anisotropy of magnetic susceptibility in migmatites: measurements in high and low fields and kinematic implications. Geophysical Journal International, 2004, 157, 1119-1129.	2.4	59
30	Inter-profile correlation of the Chinese loess/paleosol sequences during Marine Oxygen Isotope Stage 5 and indications of pedogenesis. Quaternary Science Reviews, 2005, 24, 195-210.	3.0	57
31	Rock magnetism of remagnetized carbonate rocks: another look. Geological Society Special Publication, 2012, 371, 229-251.	1.3	57
32	Low-temperature magnetic behavior of multidomain titanomagnetites: TM0, TM16, and TM35. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	55
33	Shock-induced metallic iron nanoparticles in olivine-rich Martian meteorites. Earth and Planetary Science Letters, 2007, 262, 37-49.	4.4	53
34	Evidence for abundant isolated magnetic nanoparticles at the Paleoceneâ€"Eocene boundary. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 425-430.	7.1	52
35	Inferred time- and temperature-dependent cation ordering in natural titanomagnetites. Nature Communications, 2013, 4, 1916.	12.8	50
36	Determining the climatic boundary between the Chinese loess and palaeosol: evidence from aeolian coarse-grained magnetite. Geophysical Journal International, 2004, 156, 267-274.	2.4	49

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37	Anisotropies of partial anhysteretic remanence and susceptibility in compacted black shales: Grainsizeâ€• and compositionâ€dependent magnetic fabric. Geophysical Research Letters, 1989, 16, 1063-1066.	4.0	48
38	New insights into partial oxidation model of magnetites and thermal alteration of magnetic mineralogy of the Chinese loess in air. Geophysical Journal International, 2004, 158, 506-514.	2.4	48
39	Grain sizes of susceptibility and anhysteretic remanent magnetization carriers in Chinese loess/paleosol sequences. Journal of Geophysical Research, 2004, 109, .	3.3	47
40	Remagnetization of the Paleogene Tibetan Himalayan carbonate rocks in the Gamba area: Implications for reconstructing the lower plate in the Indiaâ€Asia collision. Journal of Geophysical Research: Solid Earth, 2017, 122, 808-825.	3.4	47
41	Paleomagnetic record of Martian meteorite ALH84001. Journal of Geophysical Research, 2003, 108, .	3.3	45
42	A new method for the separation of paramagnetic and ferromagnetic susceptibility anisotropy using low field and high field methods. Geophysical Journal International, 2002, 151, 345-359.	2.4	44
43	A new method in mineral magnetism for the separation of weak antiferromagnetic signal from a strong ferrimagnetic background. Geophysical Research Letters, 2002, 29, 6-1.	4.0	43
44	The magnetic properties of natural and synthetic (Fe , Mg1â^')2 SiO4 olivines. Earth and Planetary Science Letters, 2009, 284, 516-526.	4.4	41
45	Magnetic susceptibility anisotropy: A new petrofabric tool in migmatites. Journal of Geophysical Research, 2003, 108, .	3.3	40
46	The magnetism of a glacial aeolianite sequence from Lanzarote (Canary Islands): coupling between luvic calcisol formation and Saharan dust trapping processes during wet deposition events off northwestern Sahara. Geophysical Journal International, 2004, 157, 1090-1104.	2.4	40
47	Low-temperature remanence in stable single domain magnetite. Geophysical Research Letters, 2002, 29, 33-1.	4.0	39
48	Magnetic signatures of hydrological change in a tropical maar-lake (Lake Massoko, Tanzania): Preliminary results. Physics and Chemistry of the Earth, 1999, 24, 799-803.	0.6	38
49	Remagnetization of carbonate rocks in southern Tibet: Perspectives from rock magnetic and petrographic investigations. Journal of Geophysical Research: Solid Earth, 2017, 122, 2434-2456.	3.4	37
50	On the sensitivity of parameterized convection to the rate of decay of internal heat sources. Journal of Geophysical Research, 1984, 89, 10103-10108.	3.3	36
51	Magnetic fabric: methods and applications â€" an introduction. Geological Society Special Publication, 2004, 238, 1-7.	1.3	33
52	Characterizing the superparamagnetic grain distributionf(V,Hk) by thermal fluctuation tomography. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	33
53	Magnetic properties in an ash flow tuff with continuous grain size variation: A natural reference for magnetic particle granulometry. Geochemistry, Geophysics, Geosystems, 2011, 12, n/a-n/a.	2.5	32
54	Drilling-induced remanence in carbonate rocks: occurrence, stability and grain-size dependence. Geophysical Journal International, 1985, 81, 75-87.	2.4	31

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55	The rock magnetic fingerprint of chemical remagnetization in midcontinental Paleozoic carbonates. Geophysical Research Letters, 1992, 19, 781-784.	4.0	31
56	Scanning electron microscopy and rock magnetic studies of magnetic carriers in remagnetized early Paleozoic carbonates from Missouri. Journal of Geophysical Research, 1994, 99, 2935-2942.	3.3	31
57	Thermally activated viscous remanence in some magnetiteâ€•and hematiteâ€bearing dolomites. Geophysical Research Letters, 1986, 13, 1434-1437.	4.0	29
58	Anhysteretic remanent magnetic anisotropy and calcite strains in Devonian carbonates from the Appalachian Plateau, New York. Tectonophysics, 1989, 161, 43-53.	2.2	29
59	Millennial-scale climatic change during the Last Interglacial Period: Superparamagnetic sediment proxy from Paleosol S1, western Chinese Loess Plateau. Geophysical Research Letters, 1999, 26, 2485-2488.	4.0	29
60	Magnetic properties of the Old Crow tephra: Identification of a complex iron titanium oxide mineralogy. Journal of Geophysical Research, 2004, 109, .	3.3	28
61	A Lower Ordovician paleomagnetic pole from the Oneota dolomite, Upper Mississippi River Valley. Journal of Geophysical Research, 1985, 90, 10449-10461.	3.3	27
62	3-D tomographic imaging of anomalous conditions in a deep silver mine. Journal of Applied Geophysics, 1995, 34, 1-21.	2.1	27
63	More on the low-temperature magnetism of stable single domain magnetite: Reversibility and non-stoichiometry. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	27
64	AC magnetic susceptibility studies of Chinese red clay sediments between 4.8 and 4.1 Ma: Paleoceanographic and paleoclimatic implications. Journal of Geophysical Research, 2008, 113, .	3.3	27
65	The magnetic anisotropy of mantle peridotites: Example from the Twin Sisters dunite, Washington. Tectonophysics, 2005, 398, 141-166.	2.2	25
66	A comparative study of magnetic anisotropy measurement techniques in relation to rock-magnetic properties. Tectonophysics, 2014, 629, 39-54.	2.2	25
67	On the distribution of Verwey transition temperatures in natural magnetites. Geophysical Journal International, 2020, 224, 1314-1325.	2.4	23
68	Remanence stability and magnetic fabric development in synthetic shear zones deformed at 500Â°C. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	22
69	Changes in magnetic remanence during simulated deep sedimentary burial. Physics of the Earth and Planetary Interiors, 1993, 77, 315-327.	1.9	21
70	Deconvolution of u channel magnetometer data: Experimental study of accuracy, resolution, and stability of different inversion methods. Geochemistry, Geophysics, Geosystems, 2010, 11, .	2.5	21
71	Mantle devolatilization and convection: Implications for the thermal history of the Earth. Geophysical Research Letters, 1987, 14, 737-740.	4.0	20
72	A magnetic investigation along a NW-SE transect of the Chinese loess plateau and its implications. Physics and Chemistry of the Earth, 2001, 26, 867-872.	0.6	20

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73	Anisotropy of magnetic susceptibility studies in Tertiary ridge-parallel dykes (Iceland), Tertiary margin-normal Aishihik dykes (Yukon), and Proterozoic Kenoraâ€“Kabetogama composite dykes (Minnesota and Ontario). Tectonophysics, 2008, 448, 115-124.	2.2	20
74	Curie temperatures of titanomagnetite in ignimbrites: Effects of emplacement temperatures, cooling rates, exsolution, and cation ordering. Geochemistry, Geophysics, Geosystems, 2014, 15, 4343-4368.	2.5	20
75	Relationship between remagnetization, magnetic fabric and deformation in Paleozoic carbonates. Tectonophysics, 1993, 221, 361-366.	2.2	19
76	Determination of magnetic carriers of the characteristic remanent magnetization of Chinese loess by low-temperature demagnetization. Earth and Planetary Science Letters, 2003, 216, 175-186.	4.4	19
77	Theoretical timeâ€temperature relationships of magnetization for distributions of single domain magnetite grains. Geophysical Research Letters, 1988, 15, 1093-1096.	4.0	18
78	Anomalous unblocking temperatures, viscosity and frequency-dependent susceptibility in the chemically-remagnetized Trenton limestone. Physics of the Earth and Planetary Interiors, 2001, 126, 27-42.	1.9	18
79	Low-temperature magnetic behavior related to thermal alteration of siderite. Geophysical Research Letters, 2002, 29, 2-1-2-4.	4.0	17
80	Lamellar magnetism: effects of interface versus exchange interactions of nanoscale exsolutions in the ilmenite-hematite system. Journal of Physics: Conference Series, 2005, 17, 154-167.	0.4	16
81	Characterizing the superparamagnetic grain distribution of Chinese red-clay sequences by thermal fluctuation tomography. Global and Planetary Change, 2013, 110, 364-367.	3.5	16
82	Low-temperature magnetic properties of the Neuschwanstein EL6 meteorite. Earth and Planetary Science Letters, 2007, 261, 143-151.	4.4	15
83	Frequency and field dependent susceptibility of magnetite at low temperature. Earth, Planets and Space, 2009, 61, 125-131.	2.5	15
84	Importance of titanohematite in detrital remanent magnetizations of strata spanning the <scp>C</scp>retaceousâ€<scp>P</scp>aleogene boundary, <scp>H</scp>ell <scp>C</scp>reek region, <scp>M</scp>ontana. Geochemistry, Geophysics, Geosystems, 2016, 17, 660-678.	2.5	15
85	Revised age constraints for Late Cretaceous to early Paleocene terrestrial strata from the Dawson Creek section, Big Bend National Park, west Texas. Bulletin of the Geological Society of America, 2018, 130, 1143-1163.	3.3	15
86	A Paleomagnetic Estimate of the Age and Thermal History of the Kentland, Indiana Cryptoexplosion Structure. Journal of Geology, 1986, 94, 713-723.	1.4	14
87	Magnetic anisotropy of the Trenton limestone revisited. Geophysical Research Letters, 1990, 17, 1121-1124.	4.0	14
88	On the origin of the magnetic fabric in purple Cambrian slates of North Wales. Tectonophysics, 1991, 194, 49-58.	2.2	14
89	Full vector lowâ€temperature magnetic measurements of geologic materials. Geochemistry, Geophysics, Geosystems, 2015, 16, 301-314.	2.5	14
90	Remagnetization of Red Beds on the Tibetan Plateau: Mechanism and Diagnosis. Journal of Geophysical Research: Solid Earth, 2020, 125, e2020JB020068.	3.4	14

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91	3-D tomographic imaging of anomalous stress conditions in a deep US gold mine. Journal of Applied Geophysics, 1996, 36, 1-17.	2.1	13
92	Geophysical Properties of the Near-Surface Earth: Magnetic Properties. , 2015, , 139-174.		13
93	Malleable Curie Temperatures of Natural Titanomagnetites: Occurrences, Modes, and Mechanisms. Journal of Geophysical Research: Solid Earth, 2018, 123, 921-940.	3.4	13
94	Challenges in isolating primary remanent magnetization from Tethyan carbonate rocks on the Tibetan Plateau: Insight from remagnetized Upper Triassic limestones in the eastern Qiangtang block. Earth and Planetary Science Letters, 2019, 523, 115695.	4.4	13
95	Paleomagnetism of Latest Cambrianâ€Early Ordovician and Latest Cretaceousâ€Early Tertiary rocks of the Florida Mountains, southwest New Mexico. Journal of Geophysical Research, 1991, 96, 6053-6071.	3.3	12
96	Magnetic fabric and microstructure of a mylonite: example from the Bitterroot shear zone, western Montana. Geological Society Special Publication, 2005, 245, 143-163.	1.3	12
97	High-temperature magnetic fabric development from plastically deformed magnetite in experimental shear zones. Geophysical Journal International, 2012, 189, 229-239.	2.4	12
98	Geomagnetic paleointensity in historical pyroclastic density currents: Testing the effects of emplacement temperature and postemplacement alteration. Geochemistry, Geophysics, Geosystems, 2015, 16, 3607-3625.	2.5	12
99	Grain-size-dependent remanence anisotropy and its implications for paleodirections and paleointensities â€" Proposing a new approach to anisotropy corrections. Earth and Planetary Science Letters, 2019, 512, 111-123.	4.4	12
100	Compositional control of anisotropy of remanent and induced magnetization in synthetic samples. Geophysical Research Letters, 1991, 18, 1293-1296.	4.0	11
101	Compositional control of magnetic anisotropy in the Thomson formation, east-central Minnesota. Tectonophysics, 1992, 210, 45-58.	2.2	11
102	Magnetiteâ€out and pyrrhotiteâ€in temperatures in shales and slates. Terra Nova, 2019, 31, 534-539.	2.1	11
103	Magnetic viscosity of single domain magnetite particles. Journal of Applied Physics, 1991, 70, 5533-5537.	2.5	9
104	Magnetic fabrics in the Bjerkreim Sokndal Layered Intrusion, Rogaland, southern Norway: Mineral sources and geological significance. Tectonophysics, 2016, 688, 101-118.	2.2	9
105	Magnetic and petrofabric studies in the multiply deformed Thomson Formation, east-central Minnesota. Tectonophysics, 1995, 249, 109-124.	2.2	8
106	Effects of low-temperature oxidation on natural remanent magnetization of Chinese loess. Science Bulletin, 2002, 47, 2100.	1.7	8
107	Effects of titanomagnetite reordering processes on thermal demagnetization and paleointensity experiments. Geochemistry, Geophysics, Geosystems, 2016, 17, 4848-4858.	2.5	8
108	Paleointensity Estimates From Ignimbrites: The Bishop Tuff Revisited. Geochemistry, Geophysics, Geosystems, 2018, 19, 3811-3831.	2.5	8

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109	Paleomagnetism of Ordovician alkalic intrusives and host rocks from the Pedernal Hills, New Mexico: positive contact test in remagnetized rocks?. Tectonophysics, 1988, 147, 313-323.	2.2	7
110	Correction to â€œLow-temperature remanence in stable single domain magnetiteâ€. Geophysical Research Letters, 2003, 30, .	4.0	7
111	Curie Temperature Enhancement and Cation Ordering in Titanomagnetites: Evidence From Magnetic Properties, XMCD, and MÃ¶ssbauer Spectroscopy. Geochemistry, Geophysics, Geosystems, 2019, 20, 2272-2289.	2.5	7
112	Spherical harmonic representation of the gravitational potential of discrete spherical mass elements. Geophysical Journal International, 1991, 107, 77-82.	2.4	6
113	On the distribution of anomalous mass within the Earth: forward models of the gravitational potential spectrum using ensembles of discrete mass elements. Geophysical Journal International, 1991, 107, 83-94.	2.4	6
114	Reply to comment by Z. Yi et al. on â€œRemagnetization of the Paleogene Tibetan Himalayan carbonate rocks in the Gamba area: Implications for reconstructing the lower plate in the Indiaâ€Asia collisionâ€. Journal of Geophysical Research: Solid Earth, 2017, 122, 4859-4863.	3.4	6
115	Nanogoethite as a Potential Indicator of Remagnetization in Red Beds. Geophysical Research Letters, 2019, 46, 12841-12850.	4.0	6
116	Effect of magnetic anisotropy on the natural remanent magnetization in the MCU IVe' layer of the Bjerkreim Sokndal Layered Intrusion, Rogaland, Southern Norway. Journal of Geophysical Research: Solid Earth, 2017, 122, 790-807.	3.4	5
117	Influence of static alternating field demagnetization on anisotropy of magnetic susceptibility: Experiments and implications. Geochemistry, Geophysics, Geosystems, 2017, 18, 3292-3308.	2.5	5
118	Assessing New and Old Methods in Paleomagnetic Paleothermometry: A Test Case at Mt. St. Helens, USA. Geochemistry, Geophysics, Geosystems, 2018, 19, 1714-1730.	2.5	5
119	Evaluating deciduous tree leaves as biomonitors for ambient particulate matter pollution in Pittsburgh, PA, USA. Environmental Monitoring and Assessment, 2019, 191, 711.	2.7	5
120	Beyond the second-order magnetic anisotropy tensor: higher-order components due to oriented magnetite exsolutions in pyroxenes, and implications for palaeomagnetic and structural interpretations. Geophysical Journal International, 2020, 223, 915-933.	2.4	5
121	Anisotropy of (partial) isothermal remanent magnetization: DC-field-dependence and additivity. Geophysical Journal International, 2019, 218, 1428-1441.	2.4	4
122	Anisotropy of Full and Partial Anhysteretic Remanence Across Different Rock Types: 2â€"Coercivity Dependence of Remanence Anisotropy. Tectonics, 2020, 39, e2018TC005285.	2.8	4
123	Lamellar magnetism and exchange bias in billion-year-old metamorphic titanohematite with nanoscale ilmenite exsolution lamellae â€" II: exchange-bias at 5ÂK after field-free cooling of NRM and after cooling in a +5 T field. Geophysical Journal International, 2017, 208, 895-917.	2.4	3
124	Magnetic domains and magnetic stability of cohenite from the Morasko iron meteorite. Journal of Magnetism and Magnetic Materials, 2017, 426, 594-603.	2.3	3
125	Magnetic mineral assemblage as a potential indicator of depositional environment in gas-bearing Silurian shales from Northern Poland. Geophysical Journal International, 2019, 218, 1442-1455.	2.4	3
126	Anisotropy of Full and Partial Anhysteretic Remanence Across Different Rock Types: 1â€"Are Partial Anhysteretic Remanence Anisotropy Tensors Additive?. Tectonics, 2020, 39, e2018TC005284.	2.8	3

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127	Conference on Rock Magnetism Looks to the Future and the Past. Eos, 1996, 77, 491-494.	0.1	2
128	Lamellar magnetism and exchange bias in billion-year-old metamorphic titanohematite with nanoscale ilmenite exsolution lamellae â€“ III. Atomic-magnetic basis for experimental results. Geophysical Journal International, 2021, 226, 1348-1367.	2.4	2
129	Introduction to the special section on Fundamental and Frontier Research in Rock Magnetism. Journal of Geophysical Research, 2006, 111, n/a-n/a.	3.3	1
130	AF demagnetization and ARM acquisition at elevated temperatures in natural titanomagnetite bearing rocks. Geophysical Journal International, 2019, 219, 290-296.	2.4	0
131	Rock Magnetic Study of Sediments from Site 808, Leg 131. , 0, , .		0