Gunther Kletetschka

List of Publications by Year
in descending order

117	2,676	186265	197818
papers	citations	28 h-index	49 g-index

126	126	126	2501
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Tectonic implications of Mars crustal magnetism. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 14970-14975.	7.1	254
2	The global magnetic field of Mars and implications for crustal evolution. Geophysical Research Letters, 2001, 28, 4015-4018.	4.0	248
3	Evidence for deposition of 10 million tonnes of impact spherules across four continents 12,800 y ago. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2088-97.	7.1	113
4	Very high-temperature impact melt products as evidence for cosmic airbursts and impacts 12,900Âyears ago. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, E1903-12.	7.1	97
5	Magnetic stratigraphy of Chinese Loess as a record of natural fires. Geophysical Research Letters, 1995, 22, 1341-1343.	4.0	90
6	Effect of citrate-bicarbonate-dithionite treatment on fine-grained magnetite and maghemite. Earth and Planetary Science Letters, 1995, 130, 87-94.	4.4	88
7	Sandstone landforms shaped by negative feedback between stress and erosion. Nature Geoscience, 2014, 7, 597-601.	12.9	77
8	Determining the ages of comets from the fraction of crystalline dust. Nature, 2000, 406, 275-276.	27.8	75
9	Analysis of telomere length and telomerase activity in tree species of various life-spans, and with age in the bristlecone pine Pinus longaeva. Biogerontology, 2005, 6, 101-111.	3.9	70
10	Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact â^¼12,800 Years Ago. 2. Lake, Marine, and Terrestrial Sediments. Journal of Geology, 2018, 126, 185-205.	1.4	65
11	Hematite vs. magnetite as the signature for planetary magnetic anomalies?. Physics of the Earth and Planetary Interiors, 2000, 119, 259-267.	1.9	61
12	Grain size limit for SD hematite. Physics of the Earth and Planetary Interiors, 2002, 129, 173-179.	1.9	60
13	Lodestone: Natures only permanent magnet-What it is and how it gets charged. Geophysical Research Letters, 1999, 26, 2275-2278.	4.0	58
14	Mineralogy of the sources for magnetic anomalies on Mars. Meteoritics and Planetary Science, 2000, 35, 895-899.	1.6	57
15	Multidomain hematite: A source of planetary magnetic anomalies?. Geophysical Research Letters, 2001, 28, 3345-3348.	4.0	56
16	The effects of small metal additions (Co,Cu,Ga,Mn,Al,Bi,Sn) on the magnetocaloric properties of the Gd5Ge2Si2 alloy. Journal of Applied Physics, 2006, 99, 08K908.	2.5	56
17	Unique thermoremanent magnetization of multidomain sized hematite: Implications for magnetic anomalies. Earth and Planetary Science Letters, 2000, 176, 469-479.	4.4	54
18	An empirical scaling law for acquisition of thermoremanent magnetization. Earth and Planetary Science Letters, 2004, 226, 521-528.	4.4	52

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19	Pressure effects on martian crustal magnetization near large impact basins. Meteoritics and Planetary Science, 2004, 39, 1839-1848.	1.6	45
20	Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact â^¼12,800 Years Ago. 1. Ice Cores and Glaciers. Journal of Geology, 2018, 126, 165-184.	1.4	43
21	NEAR Magnetic Field Observations at 433 Eros: First Measurements from the Surface of an Asteroid. Icarus, 2002, 155, 220-228.	2.5	42
22	Magnetic remanence in the Murchison meteorite. Meteoritics and Planetary Science, 2003, 38, 399-405.	1.6	42
23	The role of hematiteâ€“ilmenite solid solution in the production of magnetic anomalies in ground- and satellite-based data. Tectonophysics, 2002, 347, 167-177.	2.2	39
24	Space weathering simulations through controlled growth of iron nanoparticles on olivine. Icarus, 2014, 237, 75-83.	2.5	38
25	The origin of magnetic anomalies in lower crustal rocks, Labrador. Geophysical Research Letters, 1998, 25, 199-202.	4.0	34
26	Magnetic Anomalies on the Tree Trunks. Studia Geophysica Et Geodaetica, 2003, 47, 371-379.	0.5	33
27	TRM in low magnetic fields: a minimum field that can be recorded by large multidomain grains. Physics of the Earth and Planetary Interiors, 2006, 154, 290-298.	1.9	33
28	Excellent electromagnetic interference shielding characteristics of a unidirectionally oriented thin multiwalled carbon nanotube/polyethylene film. Materials and Design, 2020, 195, 108918.	7.0	32
29	443 Eros: Problems with the meteorite magnetism record in attempting an asteroid match. Meteoritics and Planetary Science, 2002, 37, 937-950.	1.6	27
30	Iron Abundances in Lunar Impact Basin Melt Sheets From Orbital Magnetic Field Data. Journal of Geophysical Research E: Planets, 2017, 122, 2429-2444.	3.6	26
31	Evidence of Cosmic Impact at Abu Hureyra, Syria at the Younger Dryas Onset (~12.8 ka): High-temperature melting at >2200â€‰Â°C. Scientific Reports, 2020, 10, 4185.	3.3	26
32	Fundamental relations of mineral specific magnetic carriers for paleointensity determination. Physics of the Earth and Planetary Interiors, 2017, 272, 44-49.	1.9	25
33	Physical properties of meteoritesâ€”Applications in space missions to asteroids. Meteoritics and Planetary Science, 2008, 43, 1009-1020.	1.6	23
34	Microshutters arrays for the JWST near-infrared spectrometer. , 2004, , .		22
35	Cosmic-Impact Event in Lake Sediments from Central Europe Postdates the Laacher See Eruption and Marks Onset of the Younger Dryas. Journal of Geology, 2018, 126, 561-575.	1.4	21
36	A Tunguska sized airburst destroyed Tall el-Hammam a Middle Bronze Age city in the Jordan Valley near the Dead Sea. Scientific Reports, 2021, 11, 18632.	3.3	20

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37	Microshutter array development for the James Webb space telescope. , 2005, 5650, 9.		19
38	Chicxulub impact ejecta deposits in southern Quintana Roo, Mexico, and central Belize. , 2005, , .		19
39	Magnetic scanning and interpretation of paleomagnetic data from Prague Synformâ€™s volcanics. Studia Geophysica Et Geodaetica, 2013, 57, 103-117.	0.5	19
40	Grain size dependent potential for self generation of magnetic anomalies on Mars via thermoremanent magnetic acquisition and magnetic interaction of hematite and magnetite. Physics of the Earth and Planetary Interiors, 2005, 148, 149-156.	1.9	18
41	Analysis of Telomere Length and Telomerase Activity in Tree Species of Various Lifespans, and with Age in the Bristlecone Pine Pinus longaeva. Rejuvenation Research, 2006, 9, 61-63.	1.8	15
42	Low-temperature magnetic properties of the Neuschwanstein EL6 meteorite. Earth and Planetary Science Letters, 2007, 261, 143-151.	4.4	15
43	Magnetic domains oscillation in the brain with neurodegenerative disease. Scientific Reports, 2021, 11, 714.	3.3	14
44	Sliding stones of Racetrack Playa, Death Valley, USA: The roles of rock thermal conductivity and fluctuating water levels. Geomorphology, 2013, 195, 110-117.	2.6	13
45	Support for two subglacial impact craters in northwest Greenland from Earth gravity model EIGEN 6C4 and other data. Tectonophysics, 2020, 780, 228396.	2.2	13
46	The influence of terrestrial processes on meteorite magnetic records. Physics and Chemistry of the Earth, 2004, 29, 885-897.	2.9	12
47	Magnetic zones of Mars: Deformationâ€controlled origin of magnetic anomalies. Meteoritics and Planetary Science, 2009, 44, 131-140.	1.6	12
48	The Potential of Marine Ferromanganese Nodules From Eastern Pacific as Recorders of Earth's Magnetic Field Changes During the Past 4.7ÂMyr: A Geochronological Study by Magnetic Scanning and Authigenic ¹⁰Be/⁹Be Dating. Journal of Geophysical Research: Solid Earth, 2020, 125, e2019JB018639.	3.4	12
49	Magnetic properties of aggregate polycrystalline diamond: implications for carbonado history. Earth and Planetary Science Letters, 2000, 181, 279-290.	4.4	11
50	Microshutter array system for James Webb Space Telescope. Proceedings of SPIE, 2007, , .	0.8	11
51	Distribution of water phase near the poles of the Moon from gravity aspects. Scientific Reports, 2022, 12, 4501.	3.3	11
52	Mars' crustal magnetization: a window into the past. , 2008, , 242-262.		10
53	Gravity strike angles: A modern approach and tool to estimate the direction of impactors of meteoritic craters. Planetary and Space Science, 2020, 194, 105113.	1.7	10
54	Cryogenic characterization and testing of magnetically-actuated microshutter arrays for the James Webb Space Telescope. Journal of Micromechanics and Microengineering, 2005, 15, 1594-1600.	2.6	9

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55	Possible mineral sources of magnetic anomalies on Mars. The Leading Edge, 2003, 22, 766-768.	0.7	8
56	Identification of magnetic minerals by scanning electron microscope and application of ferrofluid. Studia Geophysica Et Geodaetica, 2005, 49, 153-162.	0.5	8
57	Dissolved Gases and Ice Fracturing During the Freezing of a Multicellular Organism: Lessons from Tardigrades. BioResearch Open Access, 2015, 4, 209-217.	2.6	8
58	A newly isolated Haloalkaliphilic bacterium from middleâ€“late Eocene halite formed in salt lakes in China. Carbonates and Evaporites, 2015, 30, 321-330.	1.0	8
59	Cross-linking multiwall carbon nanotubes using PFPA to build robust, flexible and highly aligned large-scale sheets and yarns. Nanotechnology, 2016, 27, 115701.	2.6	8
60	Late Glacial sediments of the StarÃ¡ JÃ¡mka paleolake and the first finding of Laacher See Tephra in the Czech Republic. International Journal of Earth Sciences, 2019, 108, 357-378.	1.8	8
61	Temperature fluctuations underneath the ice in Diamond Lake, Hennepin County, Minnesota. Water Resources Research, 2013, 49, 3306-3313.	4.2	7
62	Magnetic tunneling with CNT-based metamaterial. Scientific Reports, 2019, 9, 2551.	3.3	7
63	Extraordinary Biomass-Burning Episode and Impact Winter Triggered by the Younger Dryas Cosmic Impact â¼12,800 Years Ago: A Reply. Journal of Geology, 2020, 128, 95-107.	1.4	7
64	A Gravity Search for Oil and Gas and Groundwater in Egypt Using the Strike Angles Derived from EIGEN 6C4. Applied Sciences (Switzerland), 2020, 10, 8950.	2.5	7
65	Conservation targets from the perspective of a palaeoecological reconstruction. Preslia, 2020, 92, .	2.8	7
66	Gravity aspects from recent gravity field model GRGM1200A of the moon and analysis of magnetic data. Icarus, 2022, , 115086.	2.5	7
67	Analysis of the natural remanent magnetization of rocks by measuring the efficiency ratio through alternating field demagnetization spectra. Studia Geophysica Et Geodaetica, 2008, 52, 225-235.	0.5	6
68	Survival Response of Larix Sibirica to the Tunguska Explosion. Tree-Ring Research, 2017, 73, 75-90.	0.6	6
69	Attenuation in West Bohemia: Evidence of High Attenuation in the NovÃ½ Kostel Focal Zone and Temporal Change Consistent with CO2 Degassing. Bulletin of the Seismological Society of America, 2018, 108, 450-458.	2.3	6
70	Environmental record of layers of bubbles in natural pond ice. Journal of Glaciology, 2018, 64, 866-876.	2.2	6
71	Laacher See tephra discovered in the Bohemian Forest, Germany, east of the eruption. Quaternary Geochronology, 2019, 51, 130-139.	1.4	6
72	Electric discharge evidence found in a new class of material in the Chicxulub ejecta. Scientific Reports, 2020, 10, 9035.	3.3	6

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73	Magnetic characterization of reduction in Mount Fuji basaltic tree-mold. Geophysical Research Letters, 2000, 27, 1543-1546.	4.0	5
74	Complex MEMS device: microshutter array system for space applications. , 2007, , .		5
75	Impact-pressure controlled orientation of shatter cone magnetizations in Sierra Madera, Texas, USA. Studia Geophysica Et Geodaetica, 2008, 52, 237-254.	0.5	5
76	Reply to Boslough et al.: Decades of comet research counter their claims. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4171.	7.1	5
77	Reply to Ives and Froese: Regarding the impact-related Younger Dryas boundary layer at Chobot site, Alberta, Canada. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3900.	7.1	5
78	The Tunguska event and Cheko lake origin: dendrochronological analysis. International Journal of Astrobiology, 2015, 14, 345-357.	1.6	5
79	Gd90Co2.5Fe7.5 alloy displaying enhanced magnetocaloric properties. Journal of Alloys and Compounds, 2015, 622, 1061-1067.	5.5	5
80	Localization of the Chelyabinsk Meteorite From Magnetic Field Survey and GPS Data. IEEE Sensors Journal, 2015, 15, 4875-4881.	4.7	5
81	Nanophase iron production through laser irradiation and magnetic detection of space weathering analogs. Icarus, 2016, 268, 204-214.	2.5	5
82	Magnetization of Extraterrestrial Allende material may relate to terrestrial descend. Earth and Planetary Science Letters, 2018, 487, 1-8.	4.4	5
83	A 200â€‰km suspected impact crater Kotuykanskaya near Popigai, Siberia, in the light of new gravity aspects from EIGEN 6C4, and other data. Scientific Reports, 2020, 10, 6093.	3.3	5
84	Stability analysis of invariant points using Euler spheres, with an application to FMAS granulites. Journal of Metamorphic Geology, 1999, 17, 435-448.	3.4	4
85	A microshutter-based field selector for JWST's multi-object near infrared spectrograph. Proceedings of SPIE, 2007, , .	0.8	4
86	Development and operation of the microshutter array system. Proceedings of SPIE, 2008, , .	0.8	4
87	Magnetic, inÂsitu, mineral characterization of Chelyabinsk meteorite thin section. Meteoritics and Planetary Science, 2015, 50, 1112-1121.	1.6	4
88	RAT magnet experiment on the Mars Exploration Rovers: Spirit and Opportunity beyond sol 500. Journal of Geophysical Research, 2011, 116, .	3.3	3
89	The Tunguska event and Cheko lake origin: dendrochronological analysis-Corrigendum. International Journal of Astrobiology, 2016, 15, 33-33.	1.6	3
90	Development of superconducting transition edge sensors based on electron-phonon decoupling. Proceedings of SPIE, 2010, , .	0.8	2

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91	Reply to van Hoesel et al.: Impact-related Younger Dryas boundary nanodiamonds from The Netherlands. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E3897-8.	7.1	2
92	Efficiency of Cellular Growth When Creating Small Pockets of Electric Current Along the Walls of Cells. Rejuvenation Research, 2014, 17, 226-228.	1.8	2
93	Identification of the Younger Dryas onset was confused by the Laacher See volcanic eruption. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	2
94	Evidence of the Matuyama-Brunhes transition in cave sediment in Central Europe. Quaternary International, 2021, 604, 16-27.	1.5	2
95	Lithostratigraphy and age of the Bohemian Forest lake sediments: A first assessment. Geoscience Research Reports, 0, , .	0.0	2
96	Plasma shielding removes prior magnetization record from impacted rocks near Santa Fe, New Mexico. Scientific Reports, 2021, 11, 22466.	3.3	2
97	An autonomous lunar geophysical experiment package (ALGEP) for future space missions. Experimental Astronomy, 2022, 54, 617-640.	3.7	2
98	The Genomics Ageâ€"How DNA Technology Transforms the Way We Live and the Who We AreThe Genomics Ageâ€"How DNA Technology Transforms the Way We Live and the Who We Are. By Gina Smith . AMACOM, New York, 2004, 240 pages, ISBN 0814408435, $24.00 (paperback).. Rejuvenation Research, 2004, 7, 263-266.	1.8	1
99	Comments on the paper â€œGrain size dependent potential for self generation of magnetic anomalies on Mars via thermoremanent magnetic acquisition and magnetic interaction of hematite and magnetiteâ€• by Kletetschka et al. (2005). Physics of the Earth and Planetary Interiors, 2005, 153, 237.	1.9	1
100	Reply to the comment on the paper â€œGrain size dependent potential for self generation of magnetic anomalies on Mars via thermoremanent magnetic acquisition and magnetic interaction of hematite and magnetiteâ€•by Gunther Kletetschka, Norman F. Ness, J.E.P. Connerney, M.H. Acuna, P.J. Wasilewski, Phys. Earth Planet. Inter. 148 (2005) 149â€“156, made by: Jafar Arkani-Hamed. Physics of the Earth and Planetary Interiors, 2005, 153, 238-239.	1.9	1
101	Comment on a paper â€œThe origin of high magnetic remanence in fault pseudotachylites: Theoretical considerations and implication for coseismic electrical currentsâ€•by E.C. FerrÃ©, M.S. Zechmeister, J.W. Geissman, N. Mathana Sekaran, and K. Kocak. Tectonophysics, 2006, 419, 99.	2.2	1
102	Magnetic record associated with tree ring density: Possible climate proxy. Geochemical Transactions, 2007, 8, 2.	0.7	1
103	Materials Characterization and Integration for Background Limited Far-Infrared Bolometric Detector Arrays. , 2009, , .		1
104	Reply to â€œComment on â€˜Attenuation in West Bohemia: Evidence of High Attenuation in the NovÃ½ Kostel Focal Zone and Temporal Change Consistent with CO2 Degassingâ€™ by M. WcisÅ‚o, L. Eisner, J. MÃ¡lek, T. Fischer, J. VlÄ•k, and G. Kletetschkaâ€•by Morozov. Bulletin of the Seismological Society of America, 2020, 110, 375-380.	2.3	1
105	Magnetic Measurements on Maple and Sequoia Trees. , 2011, , 427-441.		1
106	Comparison of the Palaeomagnetic Parameters of Non-Marine Jurassic-Cretaceous Boundary Sediments in Dorset (SW England), Hebei and Liaoning (NE China)â€"A Preliminary Study. Open Journal of Geology, 2019, 09, 654-657.	0.5	1
107	Investigation of the geomagnetic polarity pattern (from the cretaceous to the quaternary). Studia Geophysica Et Geodaetica, 1992, 36, 230-239.	0.5	0
108	Reply to comments by G. Kletetschka on â€œThe origin of high magnetic remanence in fault pseudotachylites: Theoretical considerations and implication for coseismic electrical currentsâ€• Tectonophysics, 2006, 419, 101-102.	2.2	0

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109	Single-Walled Carbon Nanotubes for a Strain-based Magnetometer. , 0, , .		0
110	MEMS microshutter arrays for James Webb Space Telescope. , 2006, 6415, 77.		0
111	Single-Walled Carbon Nanotubes for a Strain-based Magnetometer. , 2006, , .		0
112	An investigation into graphene exfoliation and potential graphene application in MEMS devices. Proceedings of SPIE, 2011, , .	0.8	0
113	Experimental determination of remanent magnetism of dusty ice deposits. Earth and Planetary Science Letters, 2020, 545, 116408.	4.4	0
114	Magnetic, in situ, mineral characterization of Chelyabinsk meteorite thin section. , 2016, , .		0
115	PALEOINTENSITY DETERMINATION FROM IRON, METEORITIC IRON, MAGNETITE, TITANOMAGNETITE, PYRRHOTITE, HEMATITE, TITANOHEMATITE, TROILITE. , 2017, , .		0
116	Magnetization, Thermoremanent, in Minerals. , 2007, , 616-621.		0
117	Suzdalevo Lake (Central Siberia, Russia)â€"A Tunguska Event-Related Impact Crater?. Frontiers in Earth Science, 0, 10, .	1.8	0