Dirk Merten

List of Publications by Year
in descending order

56 papers	2,008 citations	304743 22 h-index	243625 44 g-index
56 all docs	56 docs citations	56 times ranked	2497 citing authors

#	Article	IF	Citations
1	Siderophores mediate reduced and increased uptake of cadmium byStreptomyces tendaeF4 and sunflower (Helianthus annuus), respectively. Journal of Applied Microbiology, 2009, 107, 1687-1696.	3.1	326
2	Metal-induced oxidative stress impacting plant growth in contaminated soil is alleviated by microbial siderophores. Soil Biology and Biochemistry, 2009, 41, 154-162.	8.8	238
3	Hydroxamate siderophores produced by Streptomyces acidiscabies E13 bind nickel and promote growth in cowpea (Vigna unguiculata L.) under nickel stress. Canadian Journal of Microbiology, 2008, 54, 163-172.	1.7	216
4	Heavy metal resistance mechanisms in actinobacteria for survival in AMD contaminated soils. Chemie Der Erde, 2005, 65, 131-144.	2.0	107
5	Identification of Mn(II)-Oxidizing Bacteria from a Low-pH Contaminated Former Uranium Mine. Applied and Environmental Microbiology, 2014, 80, 5086-5097.	3.1	91
6	Origin of middle rare earth element enrichment in acid mine drainage-impacted areas. Environmental Science and Pollution Research, 2014, 21, 6812-6823.	5.3	89
7	Biogenic precipitation of manganese oxides and enrichment of heavy metals at acidic soil pH. Chemical Geology, 2015, 402, 6-17.	3.3	72
8	Geochemical and isotope characterization of geothermal spring waters in Sri Lanka: Evidence for steeper than expected geothermal gradients. Journal of Hydrology, 2013, 476, 360-369.	5.4	66
9	Rare earth element patterns: A tool for understanding processes in remediation of acid mine drainage. Chemie Der Erde, 2005, 65, 97-114.	2.0	55
10	Microbially assisted phytoremediation approaches for two multi-element contaminated sites. Environmental Science and Pollution Research, 2014, 21, 6845-6858.	5.3	54
11	Biosorption of metal and salt tolerant microbial isolates from a former uranium mining area. Their impact on changes in rare earth element patterns in acid mine drainage. Journal of Basic Microbiology, 2007, 47, 474-484.	3.3	51
12	Heavy metal resistance to the extreme: Streptomyces strains from a former uranium mining area. Chemie Der Erde, 2009, 69, 35-44.	2.0	49
13	Regio- and Chemoselective Enzymatic N-Oxygenation In Vivo, In Vitro, and in Flow. Angewandte Chemie - International Edition, 2006, 45, 8016-8018.	13.8	45
14	Influence of microorganisms on biotite dissolution: An experimental approach. Chemie Der Erde, 2009, 69, 45-56.	2.0	42
15	Growth of streptomycetes in soil and their impact on bioremediation. Journal of Hazardous Materials, 2014, 267, 128-135.	12.4	37
16	Phytoremediation using microbially mediated metal accumulation in Sorghum bicolor. Environmental Science and Pollution Research, 2015, 22, 19408-19416.	5.3	34
17	Mapping of macro and micro elements in the leaves of sunflower (Helianthus annuus) by Laser Ablationâ€“ICPâ€“MS. Microchemical Journal, 2013, 110, 783-789.	4.5	32
18	Determination of Rare Earth Elements in Acid Mine Drainage by Inductively Coupled Plasma Mass Spectrometry. Mikrochimica Acta, 2004, 148, 163-170.	5.0	26

#	Article	IF	Citations
19	Microbes adapted to acid mine drainage as source for strains active in retention of aluminum or uranium. Journal of Geochemical Exploration, 2007, 92, 196-204.	3.2	25
20	Lake deposits of moderate salinity as sensitive indicators of lake level fluctuations: Example from the Upper Rotliegend saline lake (Middleâ€“Late Permian, Northeast Germany). Sedimentary Geology, 2011, 234, 56-69.	2.1	23
21	Heavy metal retention and microbial activities in geochemical barriers formed in glacial sediments subjacent to a former uranium mining leaching heap. Chemie Der Erde, 2009, 69, 21-34.	2.0	22
22	Raman spectroscopic detection of Nickel impact on single Streptomyces cells â€“ possible bioindicators for heavy metal contamination. Journal of Raman Spectroscopy, 2012, 43, 1058-1064.	2.5	22
23	Analysis of ZrO2 powders by microwave assisted digestion at high pressure and ICP atomic spectrometry. Journal of Analytical Atomic Spectrometry, 1999, 14, 1093-1098.	3.0	21
24	Sunflower (Helianthus annuus): phytoextraction capacity for heavy metals on a mining-influenced area in Thuringia, Germany. Environmental Earth Sciences, 2014, 72, 2023.	2.7	20
25	Taking nature into lab: biomineralization by heavy metal-resistant streptomycetes in soil. Biogeosciences, 2013, 10, 3605-3614.	3.3	18
26	Aquifer community structure in dependence of lithostratigraphy in groundwater reservoirs. Environmental Science and Pollution Research, 2015, 22, 19342-19351.	5.3	18
27	Modelling the temporal intensity distribution in laser ablation-inductively coupled plasma-mass spectrometry (LA-ICP-MS) using scanning and drilling mode. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2005, 60, 1517-1530.	2.9	14
28	Comparison of Spider Web and Moss Bag Biomonitoring to Detect Sources of Airborne Trace Elements. Water, Air, and Soil Pollution, 2020, 231, 1.	2.4	14
29	Modelling the temporal intensity distribution of laser ablation inductively coupled plasma mass spectrometry in single shot mode. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2004, 59, 1893-1905.	2.9	12
30	The dendroanalysis of oak trees as a method of biomonitoring past and recent contamination in an area influenced by uranium mining. Environmental Science and Pollution Research, 2015, 22, 19417-19425.	5.3	12
31	Siderophore production by streptomycetesâ€”stability and alteration of ferrihydroxamates in heavy metal-contaminated soil. Environmental Science and Pollution Research, 2015, 22, 19376-19383.	5.3	12
32	Modelling of the evaporation behaviour of particulate material for slurry nebulization inductively coupled plasma atomic emission spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1997, 52, 1905-1922.	2.9	11
33	Fast formation of supergene Mn oxides/hydroxides under acidic conditions in the oxic/anoxic transition zone of a shallow aquifer. Environmental Science and Pollution Research, 2015, 22, 19362-19375.	5.3	11
34	Microbiomes in an acidic rockâ€“water cave system. FEMS Microbiology Letters, 2019, 366, .	1.8	11
35	Rare earth elements as a tool for studying the formation of cemented layers in an area affected by acid mine drainage. Applied Geochemistry, 2015, 54, 100-110.	3.0	10
36	Changes in element availability induced by sterilization in heavy metal contaminated substrates: A comprehensive study. Journal of Hazardous Materials, 2019, 370, 70-79.	12.4	10

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37	Microbial communities in carbonate rocksâ€"from soil via groundwater to rocks. Journal of Basic Microbiology, 2017, 57, 752-761.	3.3	9
38	Effects of the presence of pyrite and carbonate minerals on the kinetics of the uranium release from a natural rock. Journal of Radioanalytical and Nuclear Chemistry, 2006, 270, 325-333.	1.5	8
39	Rare Earth Elements in Acidic Systems â€“ Biotic and Abiotic Impacts. Soil Biology, 2012, , 81-97.	0.8	8
40	Element pattern recognition and classification in sunflowers (Helianthus annuus) grown on contaminated and non-contaminated soil. Microchemical Journal, 2014, 114, 164-174.	4.5	7
41	Adaptation of a Rare Earth Element Pre-concentration Method for Water Enriched in Al, Ca, Fe, and Mg. Mine Water and the Environment, 2017, 36, 363-370.	2.0	7
42	Rare earth element patterns as process indicators at the waterâ€"solid interface of a postâ€"mining area. Applied Geochemistry, 2018, 96, 138-154.	3.0	7
43	Rare earth element sequestration by Aspergillus oryzae biomass. Environmental Technology (United Kingdom), 2021, 42, 3725-3735.	2.2	7
44	Phytoremediation as an Alternative Way for the Treatment of Large, Low Heavy Metal Contaminated Sites: Application at a Former Uranium Mining Area. Advanced Materials Research, 2009, 71-73, 705-708.	0.3	6
45	Metal release and sequestration from black slate mediated by a laccase of Schizophyllum commune. Environmental Science and Pollution Research, 2019, 26, 5-13.	5.3	6
46	Live and death of streptomyces in soil-what happens to the biomass?. Journal of Plant Nutrition and Soil Science, 2013, 176, 665-673.	1.9	5
47	Application of a Rapid Sequential Inductively Coupled Plasma Optical Emission Spectrometric Method for the Analysis of Materials With Linerich Emission Spectra by Different Means of Sample Introduction. Journal of Analytical Atomic Spectrometry, 1997, 12, 1387-1390.	3.0	4
48	Study of plasma parameters influencing fractionation in laser ablation-inductively coupled plasma-mass spectrometry. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2010, 65, 991-1001.	2.9	4
49	Spectrum stripping in rapid sequential atomic emission spectrometry with the inductively coupled plasma. Spectrochimica Acta, Part B: Atomic Spectroscopy, 1999, 54, 1377-1382.	2.9	3
50	Geo-Bio-Interactions at heavy-metal-contaminated sites. Chemie Der Erde, 2009, 69, 1-3.	2.0	3
51	Flow dynamics of groundwater and soil water in the former heap Gessenhalde at the uranium mining area of Ronneburg: a stable isotope approach. Hydrological Processes, 2011, 25, 861-872.	2.6	3
52	Laboratory Investigations on the Interactions of Soil, Water and Microorganisms with Manganese. Advanced Materials Research, 2007, 20-21, 311-314.	0.3	1
53	Field Scale Phytoremediation Experiments on a Former U Mining Site and Further Processing of the Plant Material. Advanced Materials Research, 0, 825, 516-519.	0.3	1
54	Rare earth elements in Permian salts and brines, Thuringia, Germany. Chemie Der Erde, 2017, 77, 633-636.	2.0	1

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55	Geomicrobial Manganese Redox Reactions in Metal-Contaminated Soil Substrates. Soil Biology, 2012, , 99-112.	0.8	1
56	Characterizing Uranium Solubilization Under Natural Near Oxic Conditions. , 2006, , 425-435.		1