Michael Sander

List of Publications by Year
in descending order

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87	7,974	47006	49909
papers	citations	47 h-index	87 g-index

90	90	90	7118
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Site-Specific Mineralization of a Polyester Hydrolysis Product in Natural Soil. ACS Sustainable Chemistry and Engineering, 2022, 10, 1373-1378.	6.7	3
2	Thermodynamic controls on rates of iron oxide reduction by extracellular electron shuttles. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	14
3	The Multiple States of Environmental DNA and What Is Known about Their Persistence in Aquatic Environments. Environmental Science & Technology, 2022, 56, 5322-5333.	10.0	67
4	Long-Term Warming Decreases Redox Capacity of Soil Organic Matter. Environmental Science and Technology Letters, 2021, 8, 92-97.	8.7	15
5	Effects of Macrofaunal Recolonization on Biogeochemical Processes and Microbiotaâ€"A Mesocosm Study. Water (Switzerland), 2021, 13, 1599.	2.7	4
6	Redox Properties of Pyrogenic Dissolved Organic Matter (pyDOM) from Biomass-Derived Chars. Environmental Science & Technology, 2021, 55, 11434-11444.	10.0	21
7	Organic Matter from Redoximorphic Soils Accelerates and Sustains Microbial Fe(III) Reduction. Environmental Science & Technology, 2021, 55, 10821-10831.	10.0	22
8	Redox Properties of Peat Particulate Organic Matter: Quantification of Electron Accepting Capacities and Assessment of Electron Transfer Reversibility. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006329.	3.0	8
9	Adsorption of double-stranded ribonucleic acids (dsRNA) to iron (oxyhydr-)oxide surfaces: comparative analysis of model dsRNA molecules and deoxyribonucleic acids (DNA). Environmental Sciences: Processes and Impacts, 2021, 23, 605-620.	3.5	8
10	Effect of Solution pH on the Dual Role of Dissolved Organic Matter in Sensitized Pollutant Photooxidation. Environmental Science & Technology, 2021, 55, 15110-15122.	10.0	22
11	Quantification of Synthetic Polyesters from Biodegradable Mulch Films in Soils. Environmental Science & Technology, 2020, 54, 266-275.	10.0	56
12	What does mediated electrochemistry reveal about regional differences in the redox properties of Boom Clay?. Applied Geochemistry, 2020, 120, 104681.	3.0	2
13	Quantification of the electron donating capacity and UV absorbance of dissolved organic matter during ozonation of secondary wastewater effluent by an assay and an automated analyzer. Water Research, 2020, 185, 116235.	11.3	44
14	Competitive co-adsorption of bacteriophage MS2 and natural organic matter onto multiwalled carbon nanotubes. Water Research X, 2020, 9, 100058.	6.1	13
15	Analysis of RNA Interference (RNAi) Biopesticides: Double-Stranded RNA (dsRNA) Extraction from Agricultural Soils and Quantification by RT-qPCR. Environmental Science & Technology, 2020, 54, 4893-4902.	10.0	17
16	Dos and Do Nots When Assessing the Biodegradation of Plastics. Environmental Science & Technology, 2019, 53, 9967-9969.	10.0	87
17	Effects of eutrophication on sedimentary organic carbon cycling in five temperate lakes. Biogeosciences, 2019, 16, 3725-3746.	3.3	26
18	Biodegradation of Polymeric Mulch Films in Agricultural Soils: Concepts, Knowledge Gaps, and Future Research Directions. Environmental Science & Technology, 2019, 53, 2304-2315.	10.0	169

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19	Environmental Fate of RNA Interference Pesticides: Adsorption and Degradation of Double-Stranded RNA Molecules in Agricultural Soils. Environmental Science & Technology, 2019, 53, 3027-3036.	10.0	89
20	Decreases in Iron Oxide Reducibility during Microbial Reductive Dissolution and Transformation of Ferrihydrite. Environmental Science & Technology, 2019, 53, 8736-8746.	10.0	52
21	Assessing the environmental transformation of nanoplastic through 13C-labelled polymers. Nature Nanotechnology, 2019, 14, 301-303.	31.5	41
22	Photochemical Transformation of Poly(butylene adipate-co-terephthalate) and Its Effects on Enzymatic Hydrolyzability. Environmental Science & Technology, 2019, 53, 2472-2481.	10.0	45
23	Electrochemical Analysis of Changes in Iron Oxide Reducibility during Abiotic Ferrihydrite Transformation into Goethite and Magnetite. Environmental Science & Technology, 2019, 53, 3568-3578.	10.0	60
24	Electron accepting capacity of dissolved and particulate organic matter control CO2 and CH4 formation in peat soils. Geochimica Et Cosmochimica Acta, 2019, 245, 266-277.	3.9	65
25	Sustainable Polyester Elastomers from Lactones: Synthesis, Properties, and Enzymatic Hydrolyzability. Journal of the American Chemical Society, 2018, 140, 963-973.	13.7	102
26	Electron-Donating Phenolic and Electron-Accepting Quinone Moieties in Peat Dissolved Organic Matter: Quantities and Redox Transformations in the Context of Peat Biogeochemistry. Environmental Science & Technology, 2018, 52, 5236-5245.	10.0	110
27	Mediated Electrochemical Reduction of Iron (Oxyhydr-)Oxides under Defined Thermodynamic Boundary Conditions. Environmental Science & Technology, 2018, 52, 560-570.	10.0	35
28	Oxidation of Reduced Peat Particulate Organic Matter by Dissolved Oxygen: Quantification of Apparent Rate Constants in the Field. Environmental Science & Technology, 2018, 52, 11151-11160.	10.0	14
29	Two analytical approaches quantifying the electron donating capacities of dissolved organic matter to monitor its oxidation during chlorination and ozonation. Water Research, 2018, 144, 677-689.	11.3	41
30	Biodegradation of synthetic polymers in soils: Tracking carbon into CO ₂ and microbial biomass. Science Advances, 2018, 4, eaas9024.	10.3	284
31	Plant rhizosphere oxidation reduces methane production and emission in rewetted peatlands. Soil Biology and Biochemistry, 2018, 125, 125-135.	8.8	32
32	High-Throughput Analysis of Enzymatic Hydrolysis of Biodegradable Polyesters by Monitoring Cohydrolysis of a Polyester-Embedded Fluorogenic Probe. Environmental Science & Technology, 2017, 51, 4358-4367.	10.0	35
33	Quantifying the electron donating capacities of sulfide and dissolved organic matter in sediment pore waters of wetlands. Environmental Sciences: Processes and Impacts, 2017, 19, 758-767.	3.5	16
34	Enzymatic Hydrolysis of Polyester Thin Films at the Nanoscale: Effects of Polyester Structure and Enzyme Active-Site Accessibility. Environmental Science & Technology, 2017, 51, 7476-7485.	10.0	89
35	Redox properties of clay-rich sediments as assessed by mediated electrochemical analysis: Separating pyrite, siderite and structural Fe in clay minerals. Chemical Geology, 2017, 457, 149-161.	3.3	25
36	Environmental Fate of Insecticidal Plant-Incorporated Protectants from Genetically Modified Crops: Knowledge Gaps and Research Opportunities. Environmental Science & Technology, 2017, 51, 12049-12057.	10.0	34

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37	Enzymatic surface hydrolysis of poly(ethylene furanoate) thin films of various crystallinities. Green Chemistry, 2017, 19, 5381-5384.	9.0	80
38	Polyol Structure Influences Enzymatic Hydrolysis of Bioâ€Based 2,5â€Furandicarboxylic Acid (FDCA) Polyesters. Biotechnology Journal, 2017, 12, 1600741.	3.5	29
39	Enzymatic Degradation of Aromatic and Aliphatic Polyesters by P. pastoris Expressed Cutinase 1 from Thermobifida cellulosilytica. Frontiers in Microbiology, 2017, 8, 938.	3.5	62
40	Photooxidation of the Antimicrobial, Nonribosomal Peptide Bacitracin A by Singlet Oxygen under Environmentally Relevant Conditions. Environmental Science & Technology, 2016, 50, 8586-8595.	10.0	22
41	Microbial reduction of ferrihydrite-organic matter coprecipitates by Shewanella putrefaciens and Geobacter metallireducens in comparison to mediated electrochemical reduction. Chemical Geology, 2016, 447, 133-147.	3.3	43
42	Thermodynamic Characterization of Iron Oxideâ€“Aqueous Fe²⁺ Redox Couples. Environmental Science & Technology, 2016, 50, 8538-8547.	10.0	106
43	Spatiotemporal redox dynamics in a freshwater lake sediment under alternating oxygen availabilities: combined analyses of dissolved and particulate electron acceptors. Environmental Chemistry, 2016, 13, 826.	1.5	19
44	Quantification of Phenolic Antioxidant Moieties in Dissolved Organic Matter by Flow-Injection Analysis with Electrochemical Detection. Environmental Science & Technology, 2016, 50, 6423-6432.	10.0	75
45	Viruses at Solidâ€“Water Interfaces: A Systematic Assessment of Interactions Driving Adsorption. Environmental Science & Technology, 2016, 50, 732-743.	10.0	199
46	Competitive Coadsorption Dynamics of Viruses and Dissolved Organic Matter to Positively Charged Sorbent Surfaces. Environmental Science & Technology, 2016, 50, 3597-3606.	10.0	29
47	Enzymatic Hydrolysis of Polyester Thin Films: Real-Time Analysis of Film Mass Changes and Dissipation Dynamics. Environmental Science & Technology, 2016, 50, 197-206.	10.0	34
48	Enhanced Indirect Photochemical Transformation of Histidine and Histamine through Association with Chromophoric Dissolved Organic Matter. Environmental Science & Technology, 2015, 49, 5511-5519.	10.0	51
49	Biomimetic Approach to Enhance Enzymatic Hydrolysis of the Synthetic Polyester Poly(1,4-butylene) Tj ETQq1 1 0.784314 rgBT /Over	5.4	21
50	Triplet Photochemistry of Effluent and Natural Organic Matter in Whole Water and Isolates from Effluent-Receiving Rivers. Environmental Science & Technology, 2015, 49, 3453-3463.	10.0	135
51	Photosensitizing and Inhibitory Effects of Ozonated Dissolved Organic Matter on Triplet-Induced Contaminant Transformation. Environmental Science & Technology, 2015, 49, 8541-8549.	10.0	80
52	Solid phases as important electron acceptors in freshwater organic sediments. Biogeochemistry, 2015, 123, 49-61.	3.5	65
53	Electrochemical Analyses of Redox-Active Iron Minerals: A Review of Nonmediated and Mediated Approaches. Environmental Science & Technology, 2015, 49, 5862-5878.	10.0	120
54	Assessing the Indirect Photochemical Transformation of Dissolved Combined Amino Acids through the Use of Systematically Designed Histidine-Containing Oligopeptides. Environmental Science & Technology, 2015, 49, 12798-12807.	10.0	15

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55	Humic substances as fully regenerable electron acceptors in recurrently anoxic environments. Nature Geoscience, 2014, 7, 195-200.	12.9	439
56	Redox Properties of Plant Biomass-Derived Black Carbon (Biochar). Environmental Science & Technology, 2014, 48, 5601-5611.	10.0	791
57	Dissolved Organic Matter Adsorption to Model Surfaces: Adlayer Formation, Properties, and Dynamics at the Nanoscale. Environmental Science & Technology, 2014, 48, 9420-9429.	10.0	54
58	Photooxidation-Induced Changes in Optical, Electrochemical, and Photochemical Properties of Humic Substances. Environmental Science & Technology, 2014, 48, 2688-2696.	10.0	211
59	Chemical Oxidation of Dissolved Organic Matter by Chlorine Dioxide, Chlorine, And Ozone: Effects on Its Optical and Antioxidant Properties. Environmental Science & Technology, 2013, 47, 11147-11156.	10.0	244
60	Redox Properties of Structural Fe in Clay Minerals: 3. Relationships between Smectite Redox and Structural Properties. Environmental Science & Technology, 2013, 47, 13477-13485.	10.0	131
61	Dark Formation of Hydroxyl Radical in Arctic Soil and Surface Waters. Environmental Science & Technology, 2013, 47, 12860-12867.	10.0	198
62	Covalent Binding of Sulfamethazine to Natural and Synthetic Humic Acids: Assessing Laccase Catalysis and Covalent Bond Stability. Environmental Science & Technology, 2013, 47, 6916-6924.	10.0	60
63	Assessing the Effect of Humic Acid Redox State on Organic Pollutant Sorption by Combined Electrochemical Reduction and Sorption Experiments. Environmental Science & Technology, 2012, 46, 3882-3890.	10.0	48
64	Antioxidant Properties of Humic Substances. Environmental Science & Technology, 2012, 46, 4916-4925.	10.0	471
65	Adsorption of Insecticidal Cry1Ab Protein to Humic Substances. 1. Experimental Approach and Mechanistic Aspects. Environmental Science & Technology, 2012, 46, 9923-9931.	10.0	49
66	Redox Properties of Structural Fe in Clay Minerals. 1. Electrochemical Quantification of Electron-Donating and -Accepting Capacities of Smectites. Environmental Science & Technology, 2012, 46, 9360-9368.	10.0	125
67	Adsorption of Insecticidal Cry1Ab Protein to Humic Substances. 2. Influence of Humic and Fulvic Acid Charge and Polarity Characteristics. Environmental Science & Technology, 2012, 46, 9932-9940.	10.0	40
68	Hydroxyl Radical Formation upon Oxidation of Reduced Humic Acids by Oxygen in the Dark. Environmental Science & Technology, 2012, 46, 1590-1597.	10.0	184
69	Redox Properties of Structural Fe in Clay Minerals. 2. Electrochemical and Spectroscopic Characterization of Electron Transfer Irreversibility in Ferruginous Smectite, SWa-1. Environmental Science & Technology, 2012, 46, 9369-9377.	10.0	115
70	Low Molecular Weight Components in an Aquatic Humic Substance As Characterized by Membrane Dialysis and Orbitrap Mass Spectrometry. Environmental Science & Technology, 2012, 46, 9350-9359.	10.0	93
71	Adsorption of Transgenic Insecticidal Cry1Ab Protein to Silica Particles. Effects on Transport and Bioactivity. Environmental Science & Technology, 2011, 45, 4377-4384.	10.0	36
72	Electrochemical Analysis of Proton and Electron Transfer Equilibria of the Reducible Moieties in Humic Acids. Environmental Science & Technology, 2011, 45, 8385-8394.	10.0	208

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73	Protein Encapsulation by Humic Substances. Environmental Science & Technology, 2011, 45, 6003-6010.	10.0	109
74	Redox Properties of Structural Fe in Smectite Clay Minerals. ACS Symposium Series, 2011, , 361-379.	0.5	22
75	Assessing the redox properties of iron-bearing clay minerals using homogeneous electrocatalysis. Applied Geochemistry, 2011, 26, S191-S193.	3.0	6
76	Adsorption of Transgenic Insecticidal Cry1Ab Protein to SiO₂. 2. Patch-Controlled Electrostatic Attraction. Environmental Science & Technology, 2010, 44, 8877-8883.	10.0	45
77	Novel Electrochemical Approach to Assess the Redox Properties of Humic Substances. Environmental Science & Technology, 2010, 44, 87-93.	10.0	490
78	Adsorption of Transgenic Insecticidal Cry1Ab Protein to SiO₂. 1. Forces Driving Adsorption. Environmental Science & Technology, 2010, 44, 8870-8876.	10.0	72
79	Sorption irreversibility of 1,4â€dichlorobenzene in two natural organic matterâ€“rich geosorbents. Environmental Toxicology and Chemistry, 2009, 28, 447-457.	4.3	37
80	Cation Binding of Antimicrobial Sulfathiazole to Leonardite Humic Acid. Environmental Science & Technology, 2009, 43, 6632-6638.	10.0	73
81	Analysis and Sorption of Psychoactive Drugs onto Sediment. Environmental Science & Technology, 2008, 42, 6415-6423.	10.0	130
82	Variability of Nitrogen Isotope Fractionation during the Reduction of Nitroaromatic Compounds with Dissolved Reductants. Environmental Science & Technology, 2008, 42, 8352-8359.	10.0	55
83	On the Reversibility of Sorption to Black Carbon:Â Distinguishing True Hysteresis from Artificial Hysteresis Caused by Dilution of a Competing Adsorbate. Environmental Science & Technology, 2007, 41, 843-849.	10.0	42
84	Conditioning-Annealing Studies of Natural Organic Matter Solids Linking Irreversible Sorption to Irreversible Structural Expansion. Environmental Science & Technology, 2006, 40, 170-178.	10.0	59
85	A Thermodynamically Based Method to Quantify True Sorption Hysteresis. Journal of Environmental Quality, 2005, 34, 1063-1072.	2.0	141
86	An Isotope Exchange Technique to Assess Mechanisms of Sorption Hysteresis Applied to Naphthalene in Kerogenous Organic Matter. Environmental Science & Technology, 2005, 39, 7476-7484.	10.0	57
87	Characterization of Charcoal Adsorption Sites for Aromatic Compounds:â€‰ Insights Drawn from Single-Solute and Bi-Solute Competitive Experiments. Environmental Science & Technology, 2005, 39, 1606-1615.	10.0	180