Mengqiang Zhu

List of Publications by Year
in descending order

54	2,399	159585	206112
papers	citations	30 h-index	48 g-index

58	58	58	2167
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Fate and availability of dust-borne phosphorus in a sub-humid temperate forest. Chemical Geology, 2022, 587, 120628.	3.3	4
2	Long-Range and Short-Range Structures of Multimetallic Layered Double Hydroxides. Journal of Physical Chemistry C, 2022, 126, 5311-5322.	3.1	10
3	Oxidative dissolution of orpiment and realgar induced by dissolved and solid Mn(III) species. Geochimica Et Cosmochimica Acta, 2022, 332, 307-326.	3.9	5
4	Effect and fate of Ni during aging and thermal-induced phyllomanganate-to-tectomanganate transformation. Geochimica Et Cosmochimica Acta, 2022, 333, 200-215.	3.9	2
5	As(<scp>iii</scp>) adsorptionâ€“oxidation behavior and mechanisms on Cr(<scp>vi</scp>)-incorporated schwertmannite. Environmental Science: Nano, 2021, 8, 1593-1602.	4.3	7
6	Inhibition of Oxyanions on Redox-driven Transformation of Layered Manganese Oxides. Environmental Science & Technology, 2021, 55, 3419-3429.	10.0	14
7	Molecular-Scale Understanding of Sulfate Exchange from Schwertmannite by Chromate Versus Arsenate. Environmental Science & Technology, 2021, 55, 5857-5867.	10.0	35
8	A Bioinspired Molybdenum Catalyst for Aqueous Perchlorate Reduction. Journal of the American Chemical Society, 2021, 143, 7891-7896.	13.7	26
9	Macromolecular Characterization of Compound Selectivity for Oxidation and Oxidative Alterations of Dissolved Organic Matter by Manganese Oxide. Environmental Science & Technology, 2021, 55, 7741-7751.	10.0	46
10	Cadmium Isotope Fractionation during Adsorption and Substitution with Iron (Oxyhydr)oxides. Environmental Science & Technology, 2021, 55, 11601-11611.	10.0	58
11	Photocatalytic Oxidation of Dissolved Mn²⁺ by TiO₂ and the Formation of Tunnel Structured Manganese Oxides. ACS Earth and Space Chemistry, 2021, 5, 2105-2114.	2.7	8
12	X-ray Spectroscopic Quantification of Phosphorus Transformation in Saharan Dust during Trans-Atlantic Dust Transport. Environmental Science & Technology, 2021, 55, 12694-12703.	10.0	17
13	Vertical patterns of phosphorus concentration and speciation in three forest soil profiles of contrasting climate. Geochimica Et Cosmochimica Acta, 2021, 310, 1-18.	3.9	10
14	Quantifying Uncertainties in Sequential Chemical Extraction of Soil Phosphorus Using XANES Spectroscopy. Environmental Science & Technology, 2020, 54, 2257-2267.	10.0	61
15	Coupled morphological and structural evolution of Î´-MnO₂ to Î±-MnO₂ through multistage oriented assembly processes: the role of Mn(<scp>iii</scp>). Environmental Science: Nano, 2020, 7, 238-249.	4.3	10
16	Oxidation of Mn(III) Species by Pb(IV) Oxide as a Surrogate Oxidant in Aquatic Systems. Environmental Science & Technology, 2020, 54, 14124-14133.	10.0	17
17	Catalytic Reduction of Aqueous Chlorate With MoO_x Immobilized on Pd/C. ACS Catalysis, 2020, 10, 8201-8211.	11.2	22
18	Process-based modeling of arsenic(III) oxidation by manganese oxides under circumneutral pH conditions. Water Research, 2020, 185, 116195.	11.3	13

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19	Coupled Manganese Redox Cycling and Organic Carbon Degradation on Mineral Surfaces. Environmental Science & Technology, 2020, 54, 8801-8810.	10.0	55
20	Formation and transformation of schwertmannite through direct Fe³⁺ hydrolysis under various geochemical conditions. Environmental Science: Nano, 2020, 7, 2385-2398.	4.3	14
21	Incorporation of Pb(<scp>ii</scp>) into hematite during ferrihydrite transformation. Environmental Science: Nano, 2020, 7, 829-841.	4.3	16
22	Surveying Manganese Oxides as Electrode Materials for Harnessing Salinity Gradient Energy. Environmental Science & Technology, 2020, 54, 5746-5754.	10.0	17
23	The Speciation of Cd in Cdâ€“Fe Coprecipitates: Does Cd Substitute for Fe in Goethite Structure?. ACS Earth and Space Chemistry, 2019, 3, 2225-2236.	2.7	20
24	Aeolian dust deposition and the perturbation of phosphorus transformations during long-term ecosystem development in a cool, semi-arid environment. Geochimica Et Cosmochimica Acta, 2019, 246, 498-514.	3.9	32
25	Effects of metal cations on coupled birnessite structural transformation and natural organic matter adsorption and oxidation. Geochimica Et Cosmochimica Acta, 2019, 250, 292-310.	3.9	47
26	Cd(II) retention and remobilization on Î´-MnO2 and Mn(III)-rich Î´-MnO2 affected by Mn(II). Environment International, 2019, 130, 104932.	10.0	32
27	Metal Adsorption Controls Stability of Layered Manganese Oxides. Environmental Science & Technology, 2019, 53, 7453-7462.	10.0	38
28	Phosphate Sorption Speciation and Precipitation Mechanisms on Amorphous Aluminum Hydroxide. Soil Systems, 2019, 3, 20.	2.6	36
29	Effects of Mn²⁺, Ni²⁺, and Cu²⁺ on the Formation and Transformation of Hydrosulfate Green Rust: Reaction Processes and Underlying Mechanisms. ACS Earth and Space Chemistry, 2019, 3, 519-530.	2.7	14
30	A Quantitative Model for the Coupled Kinetics of Arsenic Adsorption/Desorption and Oxidation on Manganese Oxides. Environmental Science and Technology Letters, 2018, 5, 175-180.	8.7	44
31	Quantification of Coexisting Inner- and Outer-Sphere Complexation of Sulfate on Hematite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 387-398.	2.7	43
32	Phosphorus Speciation and Solubility in Aeolian Dust Deposited in the Interior American West. Environmental Science & Technology, 2018, 52, 2658-2667.	10.0	30
33	Structural Transformation of Birnessite by Fulvic Acid under Anoxic Conditions. Environmental Science & Technology, 2018, 52, 1844-1853.	10.0	81
34	Binding Geometries of Silicate Species on Ferrihydrite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 125-134.	2.7	27
35	Coupled Kinetics of Ferrihydrite Transformation and As(V) Sequestration under the Effect of Humic Acids: A Mechanistic and Quantitative Study. Environmental Science & Technology, 2018, 52, 11632-11641.	10.0	34
36	Effects of Fe(II) on Cd(II) immobilization by Mn(III)-rich Î´-MnO2. Chemical Engineering Journal, 2018, 353, 167-175.	12.7	34

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37	Trivalent manganese on vacancies triggers rapid transformation of layered to tunneled manganese oxides (TMOs): Implications for occurrence of TMOs in low-temperature environment. Geochimica Et Cosmochimica Acta, 2018, 240, 173-190.	3.9	38
38	Effect of Zn coprecipitation on the structure of layered Mn oxides. Chemical Geology, 2018, 493, 234-245.	3.3	23
39	Phosphate and phytate adsorption and precipitation on ferrihydrite surfaces. Environmental Science: Nano, 2017, 4, 2193-2204.	4.3	81
40	X-ray Absorption Spectroscopic Quantification and Speciation Modeling of Sulfate Adsorption on Ferrihydrite Surfaces. Environmental Science & Technology, 2016, 50, 8067-8076.	10.0	96
41	Synthesis of Birnessite in the Presence of Phosphate, Silicate, or Sulfate. Inorganic Chemistry, 2016, 55, 10248-10258.	4.0	31
42	Redox Reactions between Mn(II) and Hexagonal Birnessite Change Its Layer Symmetry. Environmental Science & Technology, 2016, 50, 1750-1758.	10.0	102
43	Effects of crystallite size on the structure and magnetism of ferrihydrite. Environmental Science: Nano, 2016, 3, 190-202.	4.3	77
44	The Presence of Ferrihydrite Promotes Abiotic Formation of Manganese (Oxyhydr)oxides. Soil Science Society of America Journal, 2015, 79, 1297-1305.	2.2	35
45	Sulfate Local Coordination Environment in Schwertmannite. Environmental Science & Technology, 2015, 49, 10440-10448.	10.0	77
46	Formation and secondary mineralization of ferrihydrite in the presence of silicate and Mn(II). Chemical Geology, 2015, 415, 37-46.	3.3	52
47	Effects of phosphate and silicate on the transformation of hydroxycarbonate green rust to ferric oxyhydroxides. Geochimica Et Cosmochimica Acta, 2015, 171, 1-14.	3.9	27
48	Structure of Sulfate Adsorption Complexes on Ferrihydrite. Environmental Science and Technology Letters, 2014, 1, 97-101.	8.7	79
49	Structural study of biotic and abiotic poorly-crystalline manganese oxides using atomic pair distribution function analysis. Geochimica Et Cosmochimica Acta, 2012, 81, 39-55.	3.9	68
50	Arsenite Oxidation by a Poorly Crystalline Manganese-Oxide. 2. Results from X-ray Absorption Spectroscopy and X-ray Diffraction. Environmental Science & Technology, 2010, 44, 8467-8472.	10.0	181
51	Ni(II) Sorption on Biogenic Mn-Oxides with Varying Mn Octahedral Layer Structure. Environmental Science & Technology, 2010, 44, 4472-4478.	10.0	79
52	Formation of nano-crystalline todorokite from biogenic Mn oxides. Geochimica Et Cosmochimica Acta, 2010, 74, 3232-3245.	3.9	93
53	Cation Effects on the Layer Structure of Biogenic Mn-Oxides. Environmental Science & Technology, 2010, 44, 4465-4471.	10.0	126
54	Quantum Chemical Study of Arsenic (III, V) Adsorption on Mn-Oxides: Implications for Arsenic(III) Oxidation. Environmental Science & Technology, 2009, 43, 6655-6661.	10.0	154