Xiaoming Wang

List of Publications by Year in descending order

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74 papers	2,809 citations	147566 31 h-index	197535 49 g-index
74 all docs	74 docs citations	74 times ranked	2786 citing authors

#	Article	IF	Citations
1	Co-sorption of metal ions and inorganic anions/organic ligands on environmental minerals: A review. Science of the Total Environment, 2022, 803, 149918.	3.9	44
2	Long-Range and Short-Range Structures of Multimetallic Layered Double Hydroxides. Journal of Physical Chemistry C, 2022, 126, 5311-5322.	1.5	10
3	The effect of citric acid on the catalytic oxidation of Mn(II) on ferrihydrite surface. Applied Geochemistry, 2022, 139, 105262.	1.4	4
4	The impacts of aging pH and time of acid mine drainage solutions on Fe mineralogy and chemical fractions of heavy metals in the sediments. Chemosphere, 2022, 303, 135077.	4.2	12
5	As(<scp>iii</scp>) adsorptionâ€“oxidation behavior and mechanisms on Cr(<scp>vi</scp>)-incorporated schwertmannite. Environmental Science: Nano, 2021, 8, 1593-1602.	2.2	7
6	Inhibition of Oxyanions on Redox-driven Transformation of Layered Manganese Oxides. Environmental Science & Technology, 2021, 55, 3419-3429.	4.6	14
7	Molecular-Scale Understanding of Sulfate Exchange from Schwertmannite by Chromate Versus Arsenate. Environmental Science & Technology, 2021, 55, 5857-5867.	4.6	35
8	A Bioinspired Molybdenum Catalyst for Aqueous Perchlorate Reduction. Journal of the American Chemical Society, 2021, 143, 7891-7896.	6.6	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.	4.6	46
10	Iron oxides catalyze the hydrolysis of polyphosphate and precipitation of calcium phosphate minerals. Geochimica Et Cosmochimica Acta, 2021, 305, 49-65.	1.6	18
11	Fraction distribution of heavy metals and its relationship with iron in polluted farmland soils around distinct mining areas. Applied Geochemistry, 2021, 130, 104969.	1.4	29
12	Cadmium Isotope Fractionation during Adsorption and Substitution with Iron (Oxyhydr)oxides. Environmental Science & Technology, 2021, 55, 11601-11611.	4.6	58
13	X-ray Spectroscopic Quantification of Phosphorus Transformation in Saharan Dust during Trans-Atlantic Dust Transport. Environmental Science & Technology, 2021, 55, 12694-12703.	4.6	17
14	Kinetics of Mn(II) adsorption and catalytic oxidation on the surface of ferrihydrite. Science of the Total Environment, 2021, 791, 148225.	3.9	18
15	Vertical patterns of phosphorus concentration and speciation in three forest soil profiles of contrasting climate. Geochimica Et Cosmochimica Acta, 2021, 310, 1-18.	1.6	10
16	Adsorption and precipitation of myoâ€inositol hexakisphosphate onto kaolinite. European Journal of Soil Science, 2020, 71, 226-235.	1.8	16
17	Quantifying Uncertainties in Sequential Chemical Extraction of Soil Phosphorus Using XANES Spectroscopy. Environmental Science & Technology, 2020, 54, 2257-2267.	4.6	61
18	Transformation of Ni-containing birnessite to tectomanganate: Influence and fate of weakly bound Ni(II) species. Geochimica Et Cosmochimica Acta, 2020, 271, 96-115.	1.6	11

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19	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.	2.2	10
20	Oxidation of Mn(III) Species by Pb(IV) Oxide as a Surrogate Oxidant in Aquatic Systems. Environmental Science & Technology, 2020, 54, 14124-14133.	4.6	17
21	Catalytic Reduction of Aqueous Chlorate With MoO_x Immobilized on Pd/C. ACS Catalysis, 2020, 10, 8201-8211.	5.5	22
22	Process-based modeling of arsenic(III) oxidation by manganese oxides under circumneutral pH conditions. Water Research, 2020, 185, 116195.	5.3	13
23	Highly enhanced oxidation of arsenite at the surface of birnessite in the presence of pyrophosphate and the underlying reaction mechanisms. Water Research, 2020, 187, 116420.	5.3	17
24	Coupled Manganese Redox Cycling and Organic Carbon Degradation on Mineral Surfaces. Environmental Science & Technology, 2020, 54, 8801-8810.	4.6	55
25	Molecular Mechanisms of Lead Binding to Ferrihydriteâ€“Bacteria Composites: ITC, XAFS, and Î¼-XRF Investigations. Environmental Science & Technology, 2020, 54, 4016-4025.	4.6	26
26	Effects of Al substitution on local structure and morphology of lepidocrocite and its phosphate adsorption kinetics. Geochimica Et Cosmochimica Acta, 2020, 276, 109-121.	1.6	27
27	Formation and transformation of schwertmannite through direct Fe³⁺ hydrolysis under various geochemical conditions. Environmental Science: Nano, 2020, 7, 2385-2398.	2.2	14
28	Incorporation of Pb(<scp>ii</scp>) into hematite during ferrihydrite transformation. Environmental Science: Nano, 2020, 7, 829-841.	2.2	16
29	Surveying Manganese Oxides as Electrode Materials for Harnessing Salinity Gradient Energy. Environmental Science & Technology, 2020, 54, 5746-5754.	4.6	17
30	Frontiers and advances in environmental soil chemistry: a special issue in honor of Prof. Donald L. Sparks. Geochemical Transactions, 2020, 21, 6.	1.8	0
31	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.	1.2	20
32	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.	1.6	32
33	Cd(II) retention and remobilization on Î´-MnO2 and Mn(III)-rich Î´-MnO2 affected by Mn(II). Environment International, 2019, 130, 104932.	4.8	32
34	Metal Adsorption Controls Stability of Layered Manganese Oxides. Environmental Science & Technology, 2019, 53, 7453-7462.	4.6	38
35	Effects of myo-inositol hexakisphosphate, ferrihydrite coating, ionic strength and pH on the transport of TiO2 nanoparticles in quartz sand. Environmental Pollution, 2019, 252, 1193-1201.	3.7	11
36	Phosphate Sorption Speciation and Precipitation Mechanisms on Amorphous Aluminum Hydroxide. Soil Systems, 2019, 3, 20.	1.0	36

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37	Al-substitution-induced defect sites enhance adsorption of Pb²⁺ on hematite. Environmental Science: Nano, 2019, 6, 1323-1331.	2.2	26
38	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.	1.2	14
39	Formation and Morphology Evolution from Ferrihydrite to Hematite in the Presence of Tartaric Acid. ACS Earth and Space Chemistry, 2019, 3, 562-570.	1.2	9
40	Formation of Cd precipitates on Î³-Al2O3: Implications for Cd sequestration in the environment. Environment International, 2019, 126, 234-241.	4.8	31
41	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.	3.9	44
42	Quantification of Coexisting Inner- and Outer-Sphere Complexation of Sulfate on Hematite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 387-398.	1.2	43
43	Identification of Fe and Zr oxide phases in an iron-zirconium binary oxide and arsenate complexes adsorbed onto their surfaces. Journal of Hazardous Materials, 2018, 353, 340-347.	6.5	26
44	Phosphorus Speciation and Solubility in Aeolian Dust Deposited in the Interior American West. Environmental Science & Technology, 2018, 52, 2658-2667.	4.6	30
45	Structural Transformation of Birnessite by Fulvic Acid under Anoxic Conditions. Environmental Science & Technology, 2018, 52, 1844-1853.	4.6	81
46	Binding Geometries of Silicate Species on Ferrihydrite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 125-134.	1.2	27
47	Efficient catalytic As(III) oxidation on the surface of ferrihydrite in the presence of aqueous Mn(II). Water Research, 2018, 128, 92-101.	5.3	66
48	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.	4.6	34
49	Effects of Myo-inositol Hexakisphosphate on Zn(II) Sorption on Î³-Alumina: A Mechanistic Study. ACS Earth and Space Chemistry, 2018, 2, 787-796.	1.2	15
50	The preferential retention of VIZn over IVZn on birnessite during dissolution/desorption. Applied Clay Science, 2018, 161, 169-175.	2.6	8
51	Effects of Fe(II) on Cd(II) immobilization by Mn(III)-rich Î´-MnO2. Chemical Engineering Journal, 2018, 353, 167-175.	6.6	34
52	Catalytic oxidation of arsenite and reaction pathways on the surface of CuO nanoparticles at a wide range of pHs. Geochemical Transactions, 2018, 19, 12.	1.8	14
53	Siderophore and Organic Acid Promoted Dissolution and Transformation of Cr(III)-Fe(III)-(oxy)hydroxides. Environmental Science & Technology, 2017, 51, 3223-3232.	4.6	53
54	Mechanisms of Mn(II) catalytic oxidation on ferrihydrite surfaces and the formation of manganese (oxyhydr)oxides. Geochimica Et Cosmochimica Acta, 2017, 211, 79-96.	1.6	100

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55	Self-assembly of birnessite nanoflowers by staged three-dimensional oriented attachment. Environmental Science: Nano, 2017, 4, 1656-1669.	2.2	24
56	Phosphate and phytate adsorption and precipitation on ferrihydrite surfaces. Environmental Science: Nano, 2017, 4, 2193-2204.	2.2	81
57	Influences and Mechanisms of As(V) Concentration and Environmental Factors on Hydrosulfate Green Rust Transformation. Acta Chimica Sinica, 2017, 75, 608.	0.5	4
58	Identification of Pathogenic Fusarium spp. Causing Maize Ear Rot and Potential Mycotoxin Production in China. Toxins, 2016, 8, 186.	1.5	68
59	X-ray Absorption Spectroscopic Quantification and Speciation Modeling of Sulfate Adsorption on Ferrihydrite Surfaces. Environmental Science & Technology, 2016, 50, 8067-8076.	4.6	96
60	Synthesis of Birnessite in the Presence of Phosphate, Silicate, or Sulfate. Inorganic Chemistry, 2016, 55, 10248-10258.	1.9	31
61	Redox Reactions between Mn(II) and Hexagonal Birnessite Change Its Layer Symmetry. Environmental Science & Technology, 2016, 50, 1750-1758.	4.6	102
62	Effects of crystallite size on the structure and magnetism of ferrihydrite. Environmental Science: Nano, 2016, 3, 190-202.	2.2	77
63	The Presence of Ferrihydrite Promotes Abiotic Formation of Manganese (Oxyhydr)oxides. Soil Science Society of America Journal, 2015, 79, 1297-1305.	1.2	35
64	Structure and properties of Co-doped cryptomelane and its enhanced removal of Pb 2+ and Cr 3+ from wastewater. Journal of Environmental Sciences, 2015, 34, 77-85.	3.2	30
65	Structure and properties of vanadium(V)-doped hexagonal turbostratic birnessite and its enhanced scavenging of Pb2+ from solutions. Journal of Hazardous Materials, 2015, 288, 80-88.	6.5	30
66	Sulfate Local Coordination Environment in Schwertmannite. Environmental Science & Technology, 2015, 49, 10440-10448.	4.6	77
67	Fe-doped cryptomelane synthesized by refluxing at atmosphere: Structure, properties and photocatalytic degradation of phenol. Journal of Hazardous Materials, 2015, 296, 221-229.	6.5	46
68	Formation and secondary mineralization of ferrihydrite in the presence of silicate and Mn(II). Chemical Geology, 2015, 415, 37-46.	1.4	52
69	Effects of phosphate and silicate on the transformation of hydroxycarbonate green rust to ferric oxyhydroxides. Geochimica Et Cosmochimica Acta, 2015, 171, 1-14.	1.6	27
70	Structure of Sulfate Adsorption Complexes on Ferrihydrite. Environmental Science and Technology Letters, 2014, 1, 97-101.	3.9	79
71	Transformation of hydroxycarbonate green rust into crystalline iron (hydr)oxides: Influences of reaction conditions and underlying mechanisms. Chemical Geology, 2013, 351, 57-65.	1.4	36
72	Effect of Ferrihydrite Crystallite Size on Phosphate Adsorption Reactivity. Environmental Science & Technology, 2013, 47, 10322-10331.	4.6	191

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73	Characteristics of Phosphate Adsorption-Desorption Onto Ferrihydrite. Soil Science, 2013, 178, 1-11.	0.9	155
74	Early Stage Formation of Iron Oxyhydroxides during Neutralization of Simulated Acid Mine Drainage Solutions. Environmental Science & Technology, 2012, 46, 8140-8147.	4.6	74