Xiaoming Wang

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5021468/publications.pdf

Version: 2024-02-01

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	Effect of Ferrihydrite Crystallite Size on Phosphate Adsorption Reactivity. Environmental Science & Technology, 2013, 47, 10322-10331.	4.6	191
2	Characteristics of Phosphate Adsorption-Desorption Onto Ferrihydrite. Soil Science, 2013, 178, 1-11.	0.9	155
3	Redox Reactions between Mn(II) and Hexagonal Birnessite Change Its Layer Symmetry. Environmental Science & Technology, 2016, 50, 1750-1758.	4.6	102
4	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
5	X-ray Absorption Spectroscopic Quantification and Speciation Modeling of Sulfate Adsorption on Ferrihydrite Surfaces. Environmental Science & Technology, 2016, 50, 8067-8076.	4.6	96
6	Phosphate and phytate adsorption and precipitation on ferrihydrite surfaces. Environmental Science: Nano, 2017, 4, 2193-2204.	2.2	81
7	Structural Transformation of Birnessite by Fulvic Acid under Anoxic Conditions. Environmental Science & Technology, 2018, 52, 1844-1853.	4.6	81
8	Structure of Sulfate Adsorption Complexes on Ferrihydrite. Environmental Science and Technology Letters, 2014, 1, 97-101.	3.9	79
9	Sulfate Local Coordination Environment in Schwertmannite. Environmental Science & Technology, 2015, 49, 10440-10448.	4.6	77
10	Effects of crystallite size on the structure and magnetism of ferrihydrite. Environmental Science: Nano, 2016, 3, 190-202.	2.2	77
11	Early Stage Formation of Iron Oxyhydroxides during Neutralization of Simulated Acid Mine Drainage Solutions. Environmental Science & Technology, 2012, 46, 8140-8147.	4.6	74
12	Identification of Pathogenic Fusarium spp. Causing Maize Ear Rot and Potential Mycotoxin Production in China. Toxins, 2016, 8, 186.	1.5	68
13	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
14	Quantifying Uncertainties in Sequential Chemical Extraction of Soil Phosphorus Using XANES Spectroscopy. Environmental Science & Technology, 2020, 54, 2257-2267.	4.6	61
15	Cadmium Isotope Fractionation during Adsorption and Substitution with Iron (Oxyhydr)oxides. Environmental Science & Technology, 2021, 55, 11601-11611.	4.6	58
16	Coupled Manganese Redox Cycling and Organic Carbon Degradation on Mineral Surfaces. Environmental Science & Technology, 2020, 54, 8801-8810.	4.6	55
17	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
18	Formation and secondary mineralization of ferrihydrite in the presence of silicate and Mn(II). Chemical Geology, 2015, 415, 37-46.	1.4	52

#	Article	IF	Citations
19	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
20	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
21	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
22	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
23	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
24	Metal Adsorption Controls Stability of Layered Manganese Oxides. Environmental Science & Technology, 2019, 53, 7453-7462.	4.6	38
25	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
26	Phosphate Sorption Speciation and Precipitation Mechanisms on Amorphous Aluminum Hydroxide. Soil Systems, 2019, 3, 20.	1.0	36
27	The Presence of Ferrihydrite Promotes Abiotic Formation of Manganese (Oxyhydr)oxides. Soil Science Society of America Journal, 2015, 79, 1297-1305.	1.2	35
28	Molecular-Scale Understanding of Sulfate Exchange from Schwertmannite by Chromate Versus Arsenate. Environmental Science & Technology, 2021, 55, 5857-5867.	4.6	35
29	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
30	Effects of Fe(II) on Cd(II) immobilization by Mn(III)-rich Î´-MnO2. Chemical Engineering Journal, 2018, 353, 167-175.	6.6	34
31	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
32	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
33	Synthesis of Birnessite in the Presence of Phosphate, Silicate, or Sulfate. Inorganic Chemistry, 2016, 55, 10248-10258.	1.9	31
34	Formation of Cd precipitates on Î³-Al2O3: Implications for Cd sequestration in the environment. Environment International, 2019, 126, 234-241.	4.8	31
35	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
36	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

#	Article	IF	Citations
37	Phosphorus Speciation and Solubility in Aeolian Dust Deposited in the Interior American West. Environmental Science & Technology, 2018, 52, 2658-2667.	4.6	30
38	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
39	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
40	Binding Geometries of Silicate Species on Ferrihydrite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 125-134.	1.2	27
41	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
42	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
43	Al-substitution-induced defect sites enhance adsorption of Pb²⁺ on hematite. Environmental Science: Nano, 2019, 6, 1323-1331.	2.2	26
44	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
45	A Bioinspired Molybdenum Catalyst for Aqueous Perchlorate Reduction. Journal of the American Chemical Society, 2021, 143, 7891-7896.	6.6	26
46	Self-assembly of birnessite nanoflowers by staged three-dimensional oriented attachment. Environmental Science: Nano, 2017, 4, 1656-1669.	2.2	24
47	Catalytic Reduction of Aqueous Chlorate With MoO_x Immobilized on Pd/C. ACS Catalysis, 2020, 10, 8201-8211.	5.5	22
48	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
49	Iron oxides catalyze the hydrolysis of polyphosphate and precipitation of calcium phosphate minerals. Geochimica Et Cosmochimica Acta, 2021, 305, 49-65.	1.6	18
50	Kinetics of Mn(II) adsorption and catalytic oxidation on the surface of ferrihydrite. Science of the Total Environment, 2021, 791, 148225.	3.9	18
51	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
52	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
53	Surveying Manganese Oxides as Electrode Materials for Harnessing Salinity Gradient Energy. Environmental Science & Technology, 2020, 54, 5746-5754.	4.6	17
54	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

#	Article	IF	Citations
55	Adsorption and precipitation of myoâ€inositol hexakisphosphate onto kaolinite. European Journal of Soil Science, 2020, 71, 226-235.	1.8	16
56	Incorporation of Pb(<scp>ii</scp>) into hematite during ferrihydrite transformation. Environmental Science: Nano, 2020, 7, 829-841.	2.2	16
57	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
58	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
59	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
60	Formation and transformation of schwertmannite through direct Fe³⁺ hydrolysis under various geochemical conditions. Environmental Science: Nano, 2020, 7, 2385-2398.	2.2	14
61	Inhibition of Oxyanions on Redox-driven Transformation of Layered Manganese Oxides. Environmental Science & Technology, 2021, 55, 3419-3429.	4.6	14
62	Process-based modeling of arsenic(III) oxidation by manganese oxides under circumneutral pH conditions. Water Research, 2020, 185, 116195.	5.3	13
63	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
64	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
65	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
66	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
67	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
68	Long-Range and Short-Range Structures of Multimetallic Layered Double Hydroxides. Journal of Physical Chemistry C, 2022, 126, 5311-5322.	1.5	10
69	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
70	The preferential retention of VIZn over IVZn on birnessite during dissolution/desorption. Applied Clay Science, 2018, 161, 169-175.	2.6	8
71	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
72	Influences and Mechanisms of As(V) Concentration and Environmental Factors on Hydrosulfate Green Rust Transformation. Acta Chimica Sinica, 2017, 75, 608.	0.5	4

#	Article	IF	Citations
73	The effect of citric acid on the catalytic oxidation of Mn(II) on ferrihydrite surface. Applied Geochemistry, 2022, 139, 105262.	1.4	4
74	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