Caroline L Peacock

List of Publications by Year
in descending order

67 papers	4,017 citations	101543 36 h-index	118850 62 g-index
69 all docs	69 docs citations	69 times ranked	4069 citing authors

#	Article	IF	Citations
1	Vanadium(V) adsorption onto goethite (Î±-FeOOH) at pH 1.5 to 12: a surface complexation model based on ab initio molecular geometries and EXAFS spectroscopy. Geochimica Et Cosmochimica Acta, 2004, 68, 1723-1733.	3.9	240
2	Copper(II) sorption onto goethite, hematite and lepidocrocite: a surface complexation model based on ab initio molecular geometries and EXAFS spectroscopy. Geochimica Et Cosmochimica Acta, 2004, 68, 2623-2637.	3.9	194
3	Surface complexation of U(VI) on goethite (Î±-FeOOH). Geochimica Et Cosmochimica Acta, 2008, 72, 298-310.	3.9	186
4	Sorption of Ni by birnessite: Equilibrium controls on Ni in seawater. Chemical Geology, 2007, 238, 94-106.	3.3	165
5	Oxidative scavenging of thallium by birnessite: Explanation for thallium enrichment and stable isotope fractionation in marine ferromanganese precipitates. Geochimica Et Cosmochimica Acta, 2012, 84, 297-313.	3.9	160
6	Caesium incorporation and retention in illite interlayers. Applied Clay Science, 2015, 108, 128-134.	5.2	155
7	Speciation of Arsenic, Chromium, and Vanadium in Red Mud Samples from the Ajka Spill Site, Hungary. Environmental Science & Technology, 2012, 46, 3085-3092.	10.0	138
8	Behavior of Aluminum, Arsenic, and Vanadium during the Neutralization of Red Mud Leachate by HCl, Gypsum, or Seawater. Environmental Science & Technology, 2013, 47, 6527-6535.	10.0	115
9	Binding of Cd by ferrihydrite organo-mineral composites: Implications for Cd mobility and fate in natural and contaminated environments. Chemosphere, 2018, 207, 404-412.	8.2	113
10	Arsenite and arsenate binding to ferrihydrite organo-mineral coprecipitate: Implications for arsenic mobility and fate in natural environments. Chemosphere, 2019, 224, 103-110.	8.2	113
11	Towards a mechanistic understanding of carbon stabilization in manganese oxides. Nature Communications, 2015, 6, 7628.	12.8	102
12	Adsorption of Cu(II) to ferrihydrite and ferrihydriteâ€“bacteria composites: Importance of the carboxyl group for Cu mobility in natural environments. Geochimica Et Cosmochimica Acta, 2012, 92, 203-219.	3.9	100
13	Nucleation and growth of todorokite from birnessite: Implications for trace-metal cycling in marine sediments. Geochimica Et Cosmochimica Acta, 2014, 144, 109-125.	3.9	98
14	Towards an understanding of thallium isotope fractionation during adsorption to manganese oxides. Geochimica Et Cosmochimica Acta, 2013, 117, 252-265.	3.9	95
15	Crystal-chemistry of Ni in marine ferromanganese crusts and nodules. American Mineralogist, 2007, 92, 1087-1092.	1.9	91
16	Surface complexation of Cu on birnessite (Î´-MnO2): Controls on Cu in the deep ocean. Geochimica Et Cosmochimica Acta, 2010, 74, 6721-6730.	3.9	91
17	Physiochemical controls on the crystal-chemistry of Ni in birnessite: Genetic implications for ferromanganese precipitates. Geochimica Et Cosmochimica Acta, 2009, 73, 3568-3578.	3.9	85
18	Surface complexation model for multisite adsorption of copper(II) onto kaolinite. Geochimica Et Cosmochimica Acta, 2005, 69, 3733-3745.	3.9	81

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19	Modelling Cu(II) adsorption to ferrihydrite and ferrihydriteâ€“bacteria composites: Deviation from additive adsorption in the composite sorption system. Geochimica Et Cosmochimica Acta, 2013, 104, 148-164.	3.9	80
20	Soil Functions: Connecting Earth's Critical Zone. Annual Review of Earth and Planetary Sciences, 2019, 47, 333-359.	11.0	78
21	Ionic strength and pH dependent multi-site sorption of Cs onto a micaceous aquifer sediment. Applied Geochemistry, 2014, 40, 32-42.	3.0	76
22	Biogenic precipitation of manganese oxides and enrichment of heavy metals at acidic soil pH. Chemical Geology, 2015, 402, 6-17.	3.3	72
23	In situ arsenic oxidation and sorption by a Fe-Mn binary oxide waste in soil. Journal of Hazardous Materials, 2018, 342, 724-731.	12.4	70
24	Mechanism of Enhanced Strontium Uptake into Calcite via an Amorphous Calcium Carbonate Crystallization Pathway. Crystal Growth and Design, 2017, 17, 1214-1223.	3.0	69
25	The Effects of Inorganic Additives on the Nucleation and Growth Kinetics of Calcium Sulfate Dihydrate Crystals. Crystal Growth and Design, 2017, 17, 582-589.	3.0	60
26	Cadmium Isotope Fractionation during Adsorption and Substitution with Iron (Oxyhydr)oxides. Environmental Science & Technology, 2021, 55, 11601-11611.	10.0	58
27	Carboxylic acids: effective inhibitors for calcium sulfate precipitation?. Mineralogical Magazine, 2014, 78, 1465-1472.	1.4	55
28	The Archean Nickel Famine Revisited. Astrobiology, 2015, 15, 804-815.	3.0	55
29	Release of Ni from birnessite during transformation of birnessite to todorokite: Implications for Ni cycling in marine sediments. Geochimica Et Cosmochimica Acta, 2016, 189, 158-183.	3.9	54
30	Phosphorus cycling in Lake Cadagno, Switzerland: A low sulfate euxinic ocean analogue. Geochimica Et Cosmochimica Acta, 2019, 251, 116-135.	3.9	51
31	Mobilisation of arsenic from bauxite residue (red mud) affected soils: Effect of pH and redox conditions. Applied Geochemistry, 2014, 51, 268-277.	3.0	50
32	Cd(II) Sorption on Montmorillonite-Humic acid-Bacteria Composites. Scientific Reports, 2016, 6, 19499.	3.3	49
33	EXAFS Study of Sr sorption to Illite, Goethite, Chlorite, and Mixed Sediment under Hyperalkaline Conditions. Langmuir, 2016, 32, 2937-2946.	3.5	48
34	Adsorption of Cu(II) to Bacillus subtilis: A pH-dependent EXAFS and thermodynamic modelling study. Geochimica Et Cosmochimica Acta, 2011, 75, 6705-6719.	3.9	44
35	Adsorption of Cr(VI) on Al-substituted hematites and its reduction and retention in the presence of Fe2+ under conditions similar to subsurface soil environments. Journal of Hazardous Materials, 2020, 390, 122014.	12.4	43
36	A universal adsorption behaviour for Cu uptake by iron (hydr)oxide organo-mineral composites. Chemical Geology, 2018, 479, 22-35.	3.3	39

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37	Carboxyl-richness controls organic carbon preservation during coprecipitation with iron (oxyhydr)oxides in the natural environment. Communications Earth & Environment, 2021, 2, .	6.8	39
38	Transformation of Co-containing birnessite to todorokite: Effect of Co on the transformation and implications for Co mobility. Geochimica Et Cosmochimica Acta, 2019, 246, 21-40.	3.9	38
39	Solid-phase phosphorus speciation in Saharan BodÃ©lÃ© Depression dusts and source sediments. Chemical Geology, 2014, 384, 16-26.	3.3	37
40	Outer Membrane c -Type Cytochromes OmcA and MtrC Play Distinct Roles in Enhancing the Attachment of Shewanella oneidensis MR-1 Cells to Goethite. Applied and Environmental Microbiology, 2020, 86, .	3.1	36
41	Effectiveness of Green Additives vs Poly(acrylic acid) in Inhibiting Calcium Sulfate Dihydrate Crystallization. Industrial & Engineering Chemistry Research, 2019, 58, 1561-1569.	3.7	35
42	Understanding amorphous silica scaling under well-constrained conditions inside geothermal pipelines. Geothermics, 2018, 76, 231-241.	3.4	31
43	Natural organic matter decreases uptake of W(VI), and reduces W(VI) to W(V), during adsorption to ferrihydrite. Chemical Geology, 2020, 540, 119567.	3.3	31
44	EPS adsorption to goethite: Molecular level adsorption mechanisms using 2D correlation spectroscopy. Chemical Geology, 2018, 494, 127-135.	3.3	30
45	Extraction of extracellular polymeric substances (EPS) from red soils (Ultisols). Soil Biology and Biochemistry, 2019, 135, 283-285.	8.8	28
46	Competitive binding of Cd, Ni and Cu on goethite organoâ€“mineral composites made with soil bacteria. Environmental Pollution, 2018, 243, 444-452.	7.5	27
47	Selective retention of extracellular polymeric substances induced by adsorption to and coprecipitation with ferrihydrite. Geochimica Et Cosmochimica Acta, 2021, 299, 15-34.	3.9	27
48	A universal uptake mechanism for cobalt(II) on soil constituents: Ferrihydrite, kaolinite, humic acid, and organo-mineral composites. Geochimica Et Cosmochimica Acta, 2018, 238, 270-291.	3.9	26
49	Limited Zn and Ni mobility during simulated iron formation diagenesis. Chemical Geology, 2015, 402, 30-39.	3.3	24
50	Combining local knowledge and soil science for integrated soil health assessments in conservation agriculture systems. Journal of Environmental Management, 2021, 286, 112192.	7.8	24
51	Towards a better understanding of the aggregation mechanisms of iron (hydr)oxide nanoparticles interacting with extracellular polymeric substances: Role of pH and electrolyte solution. Science of the Total Environment, 2018, 645, 372-379.	8.0	22
52	The role and fate of organic carbon during aging of ferrihydrite. Geochimica Et Cosmochimica Acta, 2022, 335, 339-355.	3.9	20
53	Microstructural and chemical variation in silica-rich precipitates at the HellisheiÃ°i geothermal power plant. Mineralogical Magazine, 2014, 78, 1381-1389.	1.4	18
54	Experimental evaluation of the extractability of iron bound organic carbon in sediments as a function of carboxyl content. Chemical Geology, 2020, 556, 119853.	3.3	17

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55	Selenium Speciation in Framboidal and Euhedral Pyrites in Shales. Environmental Science & Technology, 2014, 48, 8972-8979.	10.0	15
56	Investigating Ocean Deoxygenation During the PETM Through the Cr Isotopic Signature of Foraminifera. Paleoceanography and Paleoclimatology, 2019, 34, 917-929.	2.9	14
57	Characteristics and mechanisms of Pb(II) sorption onto Fe-rich waste water treatment residue (WTR): A potential sustainable Pb immobilisation technology for soils. Journal of Hazardous Materials, 2021, 402, 123433.	12.4	14
58	Metagenomic and <scp>¹⁴C</scp> tracing evidence for autotrophic microbial <scp>CO₂</scp> fixation in paddy soils. Environmental Microbiology, 2021, 23, 924-933.	3.8	13
59	Zn stable isotope fractionation during adsorption onto todorokite: A molecular perspective from X-ray absorption spectroscopy and density functional theory. Geochimica Et Cosmochimica Acta, 2022, 327, 116-136.	3.9	12
60	Formation of Silica-Lysozyme Composites Through Co-Precipitation and Adsorption. Frontiers in Materials, 2018, 5, .	2.4	11
61	Investigating the Effectiveness of Phosphonate Additives in Hindering the Calcium Sulfate Dihydrate Scale Formation. Industrial & Engineering Chemistry Research, 2020, 59, 14970-14980.	3.7	11
62	Technical note: Uncovering the influence of methodological variations on the extractability of iron-bound organic carbon. Biogeosciences, 2021, 18, 3409-3419.	3.3	10
63	Impact of the Diamond Light Source on research in Earth and environmental sciences: current work and future perspectives. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2015, 373, 20130151.	3.4	9
64	Mineralogical control on methylotrophic methanogenesis and implications for cryptic methane cycling in marine surface sediment. Nature Communications, 2022, 13, 2722.	12.8	8
65	Effect of solution composition on the recrystallization of kaolinite to feldspathoids in hyperalkaline conditions: limitations of pertechnetate incorporation by ion competition effects. Mineralogical Magazine, 2015, 79, 1379-1388.	1.4	4
66	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
67	Geochemical proxies for biogeochemical cycling and ocean anoxia. , 2007, , 121-172.		0