

Jean-Francois Boily

List of Publications by Year in descending order

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Silicate surface coverage controls quinolone transport in saturated porous media. <i>Journal of Colloid and Interface Science</i> , 2022, 607, 347-356.	9.4	11
2	Oxygen Interactions with Covalently Grafted 2D Nanometric Carboxyphenyl Thin Films—An Experimental and DFT Study. <i>Coatings</i> , 2022, 12, 49.	2.6	7
3	Sodium hypochlorite as an oxidizing agent for removal of soil organic matter before microplastics analyses. <i>Journal of Environmental Quality</i> , 2022, 51, 112-122.	2.0	5
4	Interactions of Anti-Inflammatory and Antibiotic Drugs at Mineral Surfaces Can Control Environmental Fate and Transport. <i>Environmental Science & Technology</i> , 2022, 56, 2378-2385.	10.0	8
5	Water film-driven Mn (oxy)(hydr)oxide nanocoating growth on rhodochrosite. <i>Geochimica Et Cosmochimica Acta</i> , 2022, 329, 87-105.	3.9	4
6	Nanoscale Hydration in Layered Manganese Oxides. <i>Langmuir</i> , 2021, 37, 666-674.	3.5	16
7	A gateway for ion transport on gas bubbles pinned onto solids. <i>Communications Chemistry</i> , 2021, 4, .	4.5	4
8	Effects of Inorganic Acids and Organic Solutes on the Ice Nucleating Ability and Surface Properties of Potassium-Rich Feldspar. <i>ACS Earth and Space Chemistry</i> , 2021, 5, 1212-1222.	2.7	16
9	Acid-Induced Phosphorus Release from Hydrothermally Carbonized Sewage Sludge. <i>Waste and Biomass Valorization</i> , 2021, 12, 6555-6568.	3.4	28
10	Competitive Carboxylate—Silicate Binding at Iron Oxyhydroxide Surfaces. <i>Langmuir</i> , 2021, 37, 13107-13115.	3.5	5
11	Carbon dioxide binding in supercooled water nanofilms on nanominerals. <i>Environmental Science: Nano</i> , 2020, 7, 437-442.	4.3	1
12	Direct observation of anisotropic growth of water films on minerals driven by defects and surface tension. <i>Science Advances</i> , 2020, 6, eaaz9708.	10.3	27
13	Effects of organic matter—goethite interactions on reactive transport of nalidixic acid: Column study and modeling. <i>Environmental Research</i> , 2020, 191, 110187.	7.5	11
14	The impact of hydrothermal carbonization on the surface functionalities of wet waste materials for water treatment applications. <i>Environmental Science and Pollution Research</i> , 2020, 27, 24369-24379.	5.3	39
15	Influence of water matrix and hydrochar properties on removal of organic and inorganic contaminants. <i>Environmental Science and Pollution Research</i> , 2020, 27, 30333-30341.	5.3	10
16	Direct identification of reaction sites on ferrihydrite. <i>Communications Chemistry</i> , 2020, 3, .	4.5	26
17	Surface Composition Dependence on the Ice Nucleating Ability of Potassium-Rich Feldspar. <i>ACS Earth and Space Chemistry</i> , 2020, 4, 873-881.	2.7	16
18	Water Flow Variability Affects Adsorption and Oxidation of Ciprofloxacin onto Hematite. <i>Environmental Science & Technology</i> , 2019, 53, 10102-10109.	10.0	21

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19	Deconvolution of Smectite Hydration Isotherms. ACS Earth and Space Chemistry, 2019, 3, 2490-2498.	2.7	13
20	Hydrogen bonding and molecular orientations across thin water films on sapphire. Journal of Colloid and Interface Science, 2019, 555, 810-817.	9.4	12
21	Residence times of nanoconfined CO ₂ in layered aluminosilicates. Environmental Science: Nano, 2019, 6, 146-151.	4.3	8
22	Phosphate Sorption Speciation and Precipitation Mechanisms on Amorphous Aluminum Hydroxide. Soil Systems, 2019, 3, 20.	2.6	36
23	Improved in vivo measurement of alternative oxidase respiration in field-collected pine roots. Physiologia Plantarum, 2019, 167, 34-47.	5.2	5
24	Water Vapor Binding on Organic Matter-Coated Minerals. Environmental Science & Technology, 2019, 53, 1252-1257.	10.0	15
25	Ice and Cryosalt Formation in Saline Microporous Clay Gels. ACS Earth and Space Chemistry, 2018, 2, 314-319.	2.7	5
26	Influence of Sb ⁵⁺ as a Double Donor on Hematite (Fe ³⁺) Photoanodes for Surface-Enhanced Photoelectrochemical Water Oxidation. ACS Applied Materials & Interfaces, 2018, 10, 16467-16473.	8.0	50
27	Binding Geometries of Silicate Species on Ferrihydrite Surfaces. ACS Earth and Space Chemistry, 2018, 2, 125-134.	2.7	27
28	Silicate Binding and Precipitation on Iron Oxyhydroxides. Environmental Science & Technology, 2018, 52, 1827-1833.	10.0	26
29	Cohesive Vibrational and Structural Depiction of Intercalated Water in Montmorillonite. ACS Earth and Space Chemistry, 2018, 2, 38-47.	2.7	26
30	X-ray Photoelectron Spectroscopy of Fast-Frozen Hematite Colloids in Aqueous Solutions. 6. Sodium Halide (F ⁻ , Cl ⁻ , Br ⁻ , I ⁻) Ion Binding on Microparticles. Langmuir, 2018, 34, 13497-13504.	3.5	1
31	Cobinding of Pharmaceutical Compounds at Mineral Surfaces: Mechanistic Modeling of Binding and Cobinding of Nalidixic Acid and Niflumic Acid at Goethite Surfaces. Environmental Science & Technology, 2017, 51, 11617-11624.	10.0	24
32	Electrochemical Response of Bound Electrolyte Ions at Oriented Hematite Surfaces: A Local Electrochemical Impedance Spectroscopy Study. Journal of Physical Chemistry C, 2017, 121, 27976-27982.	3.1	10
33	Co-Binding of Pharmaceutical Compounds at Mineral Surfaces: Molecular Investigations of Dimer Formation at Goethite/Water Interfaces. Environmental Science & Technology, 2017, 51, 8343-8349.	10.0	25
34	Thin Ice Films at Mineral Surfaces. Journal of Physical Chemistry Letters, 2016, 7, 2849-2855.	4.6	17
35	Influence of chelation strength and bacterial uptake of gallium salicylidene acylhydrazide on biofilm formation and virulence of Pseudomonas aeruginosa. Journal of Inorganic Biochemistry, 2016, 160, 24-32.	3.5	9
36	Surface chemistry of carbon dioxide revisited. Surface Science Reports, 2016, 71, 595-671.	7.2	132

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37	Thermal decomposition of municipal solid waste fly ash and desorption of polychlorinated dibenzo-p-dioxins and furans from fly ash surfaces. <i>Environmental Science and Pollution Research</i> , 2016, 23, 22843-22851.	5.3	17
38	Surface and Bulk Thermal Dehydroxylation of FeOOH Polymorphs. <i>Journal of Physical Chemistry A</i> , 2016, 120, 6249-6257.	2.5	37
39	Particle Size Controls on Water Adsorption and Condensation Regimes at Mineral Surfaces. <i>Scientific Reports</i> , 2016, 6, 32136.	3.3	52
40	Millennia-old organic carbon in a boreal paleosol: chemical properties and their link to mineralizable carbon fraction. <i>Journal of Soils and Sediments</i> , 2016, 16, 85-94.	3.0	6
41	Oxolinic Acid Binding at Goethite and Akaganite Surfaces: Experimental Study and Modeling. <i>Environmental Science & Technology</i> , 2016, 50, 660-668.	10.0	39
42	Bifluoride ($[\text{HF}]_2^+$) formation at the fluoridated aluminium hydroxide/water interface. <i>Dalton Transactions</i> , 2016, 45, 9045-9050.	3.3	12
43	Mapping Electrochemical Heterogeneity at Iron Oxide Surfaces: A Local Electrochemical Impedance Study. <i>Langmuir</i> , 2015, 31, 13618-13624.	3.5	21
44	Thermal Stability of Goethite-Bound Natural Organic Matter Is Impacted by Carbon Loading. <i>Journal of Physical Chemistry A</i> , 2015, 119, 12790-12796.	2.5	7
45	Electrochemical Signatures of Crystallographic Orientation and Counterion Binding at the Hematite/Water Interface. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5988-5994.	3.1	16
46	High-throughput characterization of sediment organic matter by pyrolysis-gas chromatography/mass spectrometry and multivariate curve resolution: A promising analytical tool in (paleo)limnology. <i>Analytica Chimica Acta</i> , 2015, 880, 93-102.	5.4	41
47	Electrolyte ion adsorption and charge blocking effect at the hematite/aqueous solution interface: an electrochemical impedance study using multivariate data analysis. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 11560-11568.	2.8	11
48	Kinetics and Mechanisms of Ciprofloxacin Oxidation on Hematite Surfaces. <i>Environmental Science & Technology</i> , 2015, 49, 12197-12205.	10.0	29
49	Thin Water Films at Multifaceted Hematite Particle Surfaces. <i>Langmuir</i> , 2015, 31, 13127-13137.	3.5	24
50	Proton and gallium(III) binding properties of a biologically active salicylidene acylhydrazide. <i>Journal of Inorganic Biochemistry</i> , 2014, 138, 9-15.	3.5	12
51	The gallium(III) salicylidene acylhydrazide complex shows synergistic anti-biofilm effect and inhibits toxin production by <i>Pseudomonas aeruginosa</i> . <i>Journal of Inorganic Biochemistry</i> , 2014, 138, 1-8.	3.5	20
52	Oriented Aggregation of Lepidocrocite and Impact on Surface Charge Development. <i>Langmuir</i> , 2014, 30, 9017-9021.	3.5	20
53	Sorption of Phthalic Acid at Goethite Surfaces under Flow-Through Conditions. <i>Langmuir</i> , 2014, 30, 6800-6807.	3.5	26
54	Electrochemical Properties and Relaxation Times of the Hematite/Water Interface. <i>Langmuir</i> , 2014, 30, 9591-9598.	3.5	32

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55	The Variable Capacitance Model: A Strategy for Treating Contrasting Charge-Neutralizing Capabilities of Counterions at the Mineral/Water Interface. <i>Langmuir</i> , 2014, 30, 2009-2018.	3.5	14
56	Particle morphological and roughness controls on mineral surface charge development. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 141, 567-578.	3.9	21
57	Link between Fly Ash Properties and Polychlorinated Organic Pollutants Formed during Simulated Municipal Solid Waste Incineration. <i>Energy & Fuels</i> , 2014, 28, 2761-2769.	5.1	7
58	Mineral surface charge development in mixed electrolyte solutions. <i>Journal of Colloid and Interface Science</i> , 2014, 418, 246-253.	9.4	12
59	Carbon Dioxide Binding at Dry FeOOH Mineral Surfaces: Evidence for Structure-Controlled Speciation. <i>Environmental Science & Technology</i> , 2013, 47, 9241-9248.	10.0	21
60	Proton Binding and Ion Exchange at the Akaganite/Water Interface. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6409-6419.	3.1	31
61	Electrolyte Ion Binding at Iron Oxyhydroxide Mineral Surfaces. <i>Langmuir</i> , 2013, 29, 12129-12137.	3.5	24
62	X-ray Photoelectron Spectroscopy of Fast-Frozen Hematite Colloids in Aqueous Solutions. 5. Halide Ion (F ⁻ , Cl ⁻ , Br ⁻ , I ⁻) Adsorption. <i>Langmuir</i> , 2013, 29, 2623-2630.	3.5	32
63	Water vapor interactions with FeOOH particle surfaces. <i>Chemical Physics Letters</i> , 2013, 560, 1-9.	2.6	22
64	Water Vapor Adsorption on Goethite. <i>Environmental Science & Technology</i> , 2013, 47, 7171-7177.	10.0	35
65	Water Vapor Diffusion into a Nanostructured Iron Oxyhydroxide. <i>Inorganic Chemistry</i> , 2013, 52, 7107-7113.	4.0	11
66	Identification of Fluoride and Phosphate Binding Sites at FeOOH Surfaces. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21939-21947.	3.1	44
67	Structural controls on OH site availability and reactivity at iron oxyhydroxide particle surfaces. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 2579.	2.8	46
68	Water Structure and Hydrogen Bonding at Goethite/Water Interfaces: Implications for Proton Affinities. <i>Journal of Physical Chemistry C</i> , 2012, 116, 4714-4724.	3.1	59
69	X-ray photoelectron spectroscopy of fast-frozen hematite colloids in aqueous solutions. 4. Coexistence of alkali metal (Na ⁺ , K ⁺ , Rb ⁺ , Cs ⁺) and chloride ions. <i>Surface Science</i> , 2012, 606, 1005-1009.	1.9	30
70	Variable Hydrogen Bond Strength in Akaganite. <i>Journal of Physical Chemistry C</i> , 2012, 116, 2303-2312.	3.1	32
71	Electrochemical Impedance Study of the Hematite/Water Interface. <i>Langmuir</i> , 2012, 28, 7914-7920.	3.5	73
72	The Effect of pH and Time on the Extractability and Speciation of Uranium(VI) Sorbed to SiO ₂ . <i>Environmental Science & Technology</i> , 2012, 46, 6604-6611.	10.0	38

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73	Competitive ligand exchange on akaganite surfaces enriches bulk chloride loadings. <i>Journal of Colloid and Interface Science</i> , 2012, 376, 331-333.	9.4	24
74	Crystallographic controls on uranyl binding at the quartz/water interface. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 7845.	2.8	14
75	X-ray Photoelectron Spectroscopy of Fast-Frozen Hematite Colloids in Aqueous Solutions. 3. Stabilization of Ammonium Species by Surface (Hydr)oxo Groups. <i>Journal of Physical Chemistry C</i> , 2011, 115, 6796-6801.	3.1	34
76	Surface Hydroxyl Identity and Reactivity in Akaganite. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17036-17045.	3.1	30
77	Determining individual mineral contributions to U(VI) adsorption in a contaminated aquifer sediment: A fluorescence spectroscopy study. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 2965-2979.	3.9	35
78	Inner-Helmholtz potential development at the hematite (α -Fe ₂ O ₃) (001) surface. <i>Geochimica Et Cosmochimica Acta</i> , 2011, 75, 4113-4124.	3.9	35
79	Density functional calculation of the infrared spectrum of surface hydroxyl groups on goethite (α -FeOOH). <i>American Mineralogist</i> , 2010, 95, 414-417.	1.9	34
80	Sorption of Two Naphthoic Acids to Goethite Surface under Flow through Conditions. <i>Environmental Science & Technology</i> , 2010, 44, 8863-8869.	10.0	30
81	Ordered ferrimagnetic form of ferrihydrite reveals links among structure, composition, and magnetism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 2787-2792.	7.1	312
82	FTIR Spectral Components of Schwertmannite. <i>Environmental Science & Technology</i> , 2010, 44, 1185-1190.	10.0	75
83	X-ray Photoelectron Spectroscopy of Fast-Frozen Hematite Colloids in Aqueous Solutions. 2. Tracing the Relationship between Surface Charge and Electrolyte Adsorption. <i>Journal of Physical Chemistry C</i> , 2010, 114, 2613-2616.	3.1	25
84	Mineralogical transformations controlling acid mine drainage chemistry. <i>Chemical Geology</i> , 2009, 262, 169-178.	3.3	83
85	Electrostatic Cooperativity of Hydroxyl Groups at Metal Oxide Surfaces. <i>Journal of Physical Chemistry C</i> , 2009, 113, 16568-16570.	3.1	6
86	Elucidation of oxyanion coordination geometries at solid surfaces of varied electric field strengths. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 8133.	2.8	11
87	An independent confirmation of the correlation of Uf ₄ primary peaks and satellite structures of UVI, UV and UIV in mixed valence uranium oxides by two-dimensional correlation spectroscopy. <i>Surface Science</i> , 2008, 602, 3637-3646.	1.9	19
88	XPS study of the hematite-aqueous solution interface. <i>Surface and Interface Analysis</i> , 2008, 40, 349-353.	1.8	26
89	On the protonation of oxo- and hydroxo-groups of the goethite (α -FeOOH) surface: A FTIR spectroscopic investigation of surface O-H stretching vibrations. <i>Geochimica Et Cosmochimica Acta</i> , 2008, 72, 3338-3357.	3.9	79
90	Charge Localization in Cation-Sulfate Complexes: Implications for Thermodynamic Surface Complexation Models of the Mineral/Water Interface. <i>Journal of Physical Chemistry C</i> , 2007, 111, 1299-1306.	3.1	6

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91	Effects of Surface Coordination on the Temperature-Programmed Desorption of Oxalate from Goethite. <i>Journal of Physical Chemistry C</i> , 2007, 111, 17072-17081.	3.1	12
92	XPS of Fast-Frozen Hematite Colloids in NaCl Aqueous Solutions: I. Evidence for the Formation of Multiple Layers of Hydrated Sodium and Chloride Ions Induced by the {001} Basal Plane. <i>Journal of Physical Chemistry C</i> , 2007, 111, 18307-18316.	3.1	44
93	A combined FTIR and TPD study on the bulk and surface dehydroxylation and decarbonation of synthetic goethite. <i>Geochimica Et Cosmochimica Acta</i> , 2006, 70, 3613-3624.	3.9	43
94	Dissociation of Fumaric Acid: Spectrophotometric Investigation in Aqueous Solutions from 10 to 90 °C and Theoretical Considerations. <i>Journal of Solution Chemistry</i> , 2005, 34, 1167-1190.	1.2	11
95	On the Dissociation of Methyl Orange: Spectrophotometric Investigation in Aqueous Solutions from 10 to 90 °C and Theoretical Evidence for Intramolecular Dihydrogen Bonding. <i>Journal of Solution Chemistry</i> , 2005, 34, 1387-1406.	1.2	26
96	AIM and ELF Analyses and Gas-Phase Acidities of Some Main-Group Oxyacids (H ₂ XO ₄ , X = Cl, S, P, Si and Tl, Pb, Bi, Sb, Sn, Ge, As, Se, Te, Br, I, At). <i>Journal of Physical Chemistry A</i> , 2002, 106, 4718-4724.	2.5	23
97	Intramolecular Bonding and Charge Distributions in XO ₄ (X = Si, P, S, Cl and Ge, As, Se, Br) Oxyanions from Topological Analyses of the Electron Density. <i>Journal of Physical Chemistry A</i> , 2002, 106, 4718-4724.	2.5	13
98	Benzenecarboxylate Surface Complexation at the Goethite (̂±-FeOOH)/Water Interface. <i>Journal of Colloid and Interface Science</i> , 2000, 227, 132-140.	9.4	34
99	Benzenecarboxylate surface complexation at the goethite (̂±-FeOOH)/water interface: II. Linking IR spectroscopic observations to mechanistic surface complexation models for phthalate, trimellitate, and pyromellitate. <i>Geochimica Et Cosmochimica Acta</i> , 2000, 64, 3453-3470.	3.9	104