# Stephan M Kraemer

List of Publications by Year
in descending order

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|---|---|---|---|
| 55<br>papers | 3,098<br>citations | 172457<br>29<br>h-index | 155660<br>55<br>g-index |
| 57<br>all docs | 57<br>docs citations | 57<br>times ranked | 3119<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Iron oxide dissolution and solubility in the presence of siderophores. Aquatic Sciences, 2004, 66, 3-18. | 1.5 | 522 |
| 2 | Iron Isotope Fractionation during Proton-Promoted, Ligand-Controlled, and Reductive Dissolution of Goethite. Environmental Science & Technology, 2006, 40, 3787-3793. | 10.0 | 235 |
| 3 | Steady-state dissolution kinetics of goethite in the presence of desferrioxamine B and oxalate ligands: implications for the microbial acquisition of iron. Chemical Geology, 2003, 198, 63-75. | 3.3 | 190 |
| 4 | Effect of siderophores on the light-induced dissolution of colloidal iron(III) (hydr)oxides. Marine Chemistry, 2005, 93, 179-193. | 2.3 | 133 |
| 5 | Effect of hydroxamate siderophores on Fe release and Pb(II) adsorption by goethite. Geochimica Et Cosmochimica Acta, 1999, 63, 3003-3008. | 3.9 | 128 |
| 6 | Root exudation of phytosiderophores from soilâ€grown wheat. New Phytologist, 2014, 203, 1161-1174. | 7.3 | 124 |
| 7 | Iron isotope fractionation in oxic soils by mineral weathering and podzolization. Geochimica Et Cosmochimica Acta, 2007, 71, 5821-5833. | 3.9 | 118 |
| 8 | Iron isotope fractionation during proton- and ligand-promoted dissolution of primary phyllosilicates. Geochimica Et Cosmochimica Acta, 2010, 74, 3112-3128. | 3.9 | 90 |
| 9 | Temperature dependence of goethite dissolution promoted by trihydroxamate siderophores. Geochimica Et Cosmochimica Acta, 2002, 66, 431-438. | 3.9 | 86 |
| 10 | Iron Isotope Fractionation during Pedogenesis in Redoximorphic Soils. Soil Science Society of America Journal, 2007, 71, 1840-1850. | 2.2 | 79 |
| 11 | Adsorption of Pb(II) and Eu(III) by Oxide Minerals in the Presence of Natural and Synthetic Hydroxamate Siderophores. Environmental Science & Technology, 2002, 36, 1287-1291. | 10.0 | 77 |
| 12 | Photoreductive Dissolution of Iron(III) (Hydr)oxides in the Absence and Presence of Organic Ligands: Experimental Studies and Kinetic Modeling. Environmental Science & Technology, 2009, 43, 1864-1870. | 10.0 | 76 |
| 13 | Metallophores and Trace Metal Biogeochemistry. Aquatic Geochemistry, 2015, 21, 159-195. | 1.3 | 76 |
| 14 | Iron Isotope Fractionation during Fe Uptake and Translocation in Alpine Plants. Environmental Science & Technology, 2010, 44, 6144-6150. | 10.0 | 72 |
| 15 | Synergistic Effect of Reductive and Ligand-Promoted Dissolution of Goethite. Environmental Science & Technology, 2015, 49, 7236-7244. | 10.0 | 69 |
| 16 | Bacterial Siderophores Promote Dissolution of UO2under Reducing Conditions. Environmental Science & Technology, 2005, 39, 5709-5715. | 10.0 | 65 |
| 17 | Iron speciation and isotope fractionation during silicate weathering and soil formation in an alpine glacier forefield chronosequence. Geochimica Et Cosmochimica Acta, 2011, 75, 5559-5573. | 3.9 | 62 |
| 18 | Influence of pH and Competitive Adsorption on the Kinetics of Ligand-Promoted Dissolution of Aluminum Oxide. Environmental Science & Technology, 1998, 32, 2876-2882. | 10.0 | 59 |

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|---|---|---|---|
| 19 | The influence of pH on iron speciation in podzol extracts: Iron complexes with natural organic matter, and iron mineral nanoparticles. Science of the Total Environment, 2013, 461-462, 108-116. | 8.0 | 55 |
| 20 | Influence of solution saturation state on the kinetics of ligand-controlled dissolution of oxide phases. Geochimica Et Cosmochimica Acta, 1997, 61, 2855-2866. | 3.9 | 54 |
| 21 | Photolysis of Citrate on the Surface of Lepidocrocite:â€‰ An in situ Attenuated Total Reflection Infrared Spectroscopy Study. Journal of Physical Chemistry C, 2007, 111, 10560-10569. | 3.1 | 48 |
| 22 | ATR-FTIR spectroscopic study of the adsorption of desferrioxamine B and aerobactin to the surface of lepidocrocite (Î³-FeOOH). Geochimica Et Cosmochimica Acta, 2009, 73, 4661-4672. | 3.9 | 44 |
| 23 | An assay for screening microbial cultures for chalkophore production. Environmental Microbiology Reports, 2010, 2, 295-303. | 2.4 | 43 |
| 24 | Phytosiderophore-induced mobilization and uptake of Cd, Cu, Fe, Ni, Pb and Zn by wheat plants grown on metal-enriched soils. Environmental and Experimental Botany, 2017, 138, 67-76. | 4.2 | 37 |
| 25 | Structure and reactivity of oxalate surface complexes on lepidocrocite derived from infrared spectroscopy, DFT-calculations, adsorption, dissolution and photochemical experiments. Geochimica Et Cosmochimica Acta, 2018, 226, 244-262. | 3.9 | 37 |
| 26 | Biogeochemical controls on the mobility and bioavailability of metals in soils and groundwater. Aquatic Sciences, 2004, 66, 1-2. | 1.5 | 34 |
| 27 | Low Fe(II) Concentrations Catalyze the Dissolution of Various Fe(III) (hydr)oxide Minerals in the Presence of Diverse Ligands and over a Broad pH Range. Environmental Science & Technology, 2019, 53, 98-107. | 10.0 | 34 |
| 28 | Genome wide transcriptomic analysis of the soil ammonia oxidizing archaeon Nitrososphaera viennensis upon exposure to copper limitation. ISME Journal, 2020, 14, 2659-2674. | 9.8 | 33 |
| 29 | Magnitude and Mechanism of Siderophore-Mediated Competition at Low Iron Solubility in the Pseudomonas aeruginosa Pyochelin System. Frontiers in Microbiology, 2017, 8, 1964. | 3.5 | 32 |
| 30 | Low Concentrations of Surfactants Enhance Siderophore-Promoted Dissolution of Goethite. Environmental Science & Technology, 2007, 41, 3633-3638. | 10.0 | 31 |
| 31 | Photodissolution of lepidocrocite (Î³-FeOOH) in the presence of desferrioxamine B and aerobactin. Geochimica Et Cosmochimica Acta, 2009, 73, 4673-4687. | 3.9 | 31 |
| 32 | Mercury Isotope Fractionation in the Subsurface of a Hg(II) Chloride-Contaminated Industrial Legacy Site. Environmental Science & Technology, 2019, 53, 7296-7305. | 10.0 | 29 |
| 33 | Synergistic Effects between Biogenic Ligands and a Reductant in Fe Acquisition from Calcareous Soil. Environmental Science & Technology, 2016, 50, 6381-6388. | 10.0 | 27 |
| 34 | Fe(II)-Catalyzed Ligand-Controlled Dissolution of Iron(hydr)oxides. Environmental Science & Technology, 2019, 53, 88-97. | 10.0 | 26 |
| 35 | Rate laws of steady-state and non-steady-state ligand-controlled dissolution of goethite. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2007, 306, 22-28. | 4.7 | 20 |
| 36 | Wavelength-Dependence of Photoreductive Dissolution of Lepidocrocite (Î³-FeOOH) in the Absence and Presence of the Siderophore DFOB. Environmental Science & Technology, 2009, 43, 1871-1876. | 10.0 | 20 |

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|---|---|---|---|
| 37 | Microbial decomposition of 13C- labeled phytosiderophores in the rhizosphere of wheat: Mineralization dynamics and key microbial groups involved. Soil Biology and Biochemistry, 2016, 98, 196-207. | 8.8 | 20 |
| 38 | Copper complexation of methanobactin isolated from Methylosinus trichosporium OB3b: pH-dependent speciation and modeling. Journal of Inorganic Biochemistry, 2012, 116, 55-62. | 3.5 | 19 |
| 39 | 4. Siderophores and the Dissolution of Iron-Bearing Minerals in Marine Systems. , 2005, , 53-84. | | 17 |
| 40 | Accurate LCâ€ESIâ€MS/MS quantification of 2â€²â€deoxymugineic acid in soil and root related samples employing porous graphitic carbon as stationary phase and a <sup>13</sup>C<sub>4</sub>â€labeled internal standard. Electrophoresis, 2014, 35, 1375-1385. | 2.4 | 16 |
| 41 | Effects of anionic surfactants on ligand-promoted dissolution of iron and aluminum hydroxides. Journal of Colloid and Interface Science, 2008, 321, 279-287. | 9.4 | 14 |
| 42 | A Simple Assay for Screening Microorganisms for Chalkophore Production. Methods in Enzymology, 2011, 495, 247-258. | 1.0 | 14 |
| 43 | Isolation and purification of Cu-free methanobactin from Methylosinus trichosporiumOB3b. Geochemical Transactions, 2011, 12, 2. | 0.7 | 13 |
| 44 | Importance of oxidation products in coumarin-mediated Fe(hydr)oxide mineral dissolution. BioMetals, 2020, 33, 305-321. | 4.1 | 12 |
| 45 | Copper limiting threshold in the terrestrial ammonia oxidizing archaeon Nitrososphaera viennensis. Research in Microbiology, 2020, 171, 134-142. | 2.1 | 12 |
| 46 | The Effect of pH and Biogenic Ligands on the Weathering of Chrysotile Asbestos: The Pivotal Role of Tetrahedral Fe in Dissolution Kinetics and Radical Formation. Chemistry - A European Journal, 2019, 25, 3286-3300. | 3.3 | 9 |
| 47 | Investigation of Siderophore-Promoted and Reductive Dissolution of Dust in Marine Microenvironments Such as Trichodesmium Colonies. Frontiers in Marine Science, 2020, 7, . | 2.5 | 9 |
| 48 | Ligand-Induced U Mobilization from Chemogenic Uraninite and Biogenic Noncrystalline U(IV) under Anoxic Conditions. Environmental Science & Technology, 2022, 56, 6369-6379. | 10.0 | 8 |
| 49 | Adsorption of hydroxamate siderophores and EDTA on goethite in the presence of the surfactant sodium dodecyl sulfate. Geochemical Transactions, 2009, 10, 5. | 0.7 | 6 |
| 50 | Identifying the reactive sites of hydrogen peroxide decomposition and hydroxyl radical formation on chrysotile asbestos surfaces. Particle and Fibre Toxicology, 2020, 17, 3. | 6.2 | 6 |
| 51 | Linking Isotope Exchange with Fe(II)-Catalyzed Dissolution of Iron(hydr)oxides in the Presence of the Bacterial Siderophore Desferrioxamine-B. Environmental Science & Technology, 2020, 54, 768-777. | 10.0 | 5 |
| 52 | Soil-pH and cement influence the weathering kinetics of chrysotile asbestos in soils and its hydroxyl radical yield. Journal of Hazardous Materials, 2022, 431, 128068. | 12.4 | 5 |
| 53 | Copper mobilisation from Cu sulphide minerals by methanobactin: Effect of <scp>pH</scp>, oxygen and natural organic matter. Geobiology, 2022, 20, 690-706. | 2.4 | 5 |
| 54 | Catalytic effects of photogenerated Fe(II) on the ligand-controlled dissolution of Iron(hydr)oxides by EDTA and DFOB. Chemosphere, 2021, 263, 128188. | 8.2 | 3 |

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|---|---|---|---|
| 55 | Siderophores. Encyclopedia of Earth Sciences Series, 2011, , 793-796. | 0.1 | 3 |