Stefan Peiffer

List of Publications by Year
in descending order

106 papers	4,177 citations	117625 34 h-index	123424 61 g-index
124 all docs	124 docs citations	124 times ranked	4180 citing authors

#	Article	IF	Citations
1	Sulfidation of ferric (hydr)oxides and its implication on contaminants transformation: a review. Science of the Total Environment, 2022, 816, 151574.	8.0	18
2	Optimising Operational Reliability and Performance in Aerobic Passive Mine Water Treatment: the Multistage Westfield Pilot Plant. Water, Air, and Soil Pollution, 2022, 233, 1.	2.4	3
3	Sedimentation Kinetics of Hydrous Ferric Oxides in Ferruginous, Circumneutral Mine Water. Environmental Science & Technology, 2022, 56, 6360-6368.	10.0	2
4	The potential of granulated schwertmannite adsorbents to remove oxyanions (SeO32âˆ’, SeO42âˆ’,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5 106708.	3.2	9
5	Comment on â€œFeS colloids â€“ formation and mobilization pathways in natural watersâ€•by NoÃ«l et al., Environ. Sci. Nano, 2020, 7, 2102â€“2116. Environmental Science: Nano, 2021, 8, 1815-1816.	4.3	2
6	Relevance of Iron Oxyhydroxide and Pore Water Chemistry on the Mobility of Nanoplastic Particles in Water-Saturated Porous Media Environments. Water, Air, and Soil Pollution, 2021, 232, 1.	2.4	14
7	The Role of Macrophytes in Constructed Surface-flow Wetlands for Mine Water Treatment: A Review. Mine Water and the Environment, 2021, 40, 587-605.	2.0	15
8	A biogeochemicalâ€“hydrological framework for the role of redox-active compounds in aquatic systems. Nature Geoscience, 2021, 14, 264-272.	12.9	67
9	Application of Single-Particle ICP-MS to Determine the Mass Distribution and Number Concentrations of Environmental Nanoparticles and Colloids. Environmental Science and Technology Letters, 2021, 8, 589-595.	8.7	18
10	Towards a standardized protocol for studying chemolithoautotrophic denitrification with pyrite at circumneutral pH. Applied Geochemistry, 2021, 130, 104995.	3.0	4
11	Competing Sorption of Se(IV) and Se(VI) on Schwertmannite. Minerals (Basel, Switzerland), 2021, 11, 764.	2.0	3
12	Delineating Source Contributions to Stream Dissolved Organic Matter Composition Under Baseflow Conditions in Forested Headwater Catchments. Journal of Geophysical Research G: Biogeosciences, 2021, 126, e2021JG006425.	3.0	6
13	Low hydrological connectivity after summer drought inhibits DOC export in a forested headwater catchment. Hydrology and Earth System Sciences, 2021, 25, 5133-5151.	4.9	19
14	Identification of Mackinawite and Constraints on Its Electronic Configuration Using MÃ¶ssbauer Spectroscopy. Minerals (Basel, Switzerland), 2020, 10, 1090.	2.0	10
15	Quantifying iron removal efficiency of a passive mine water treatment system using turbidity as a proxy for (particulate) iron. Applied Geochemistry, 2020, 122, 104731.	3.0	8
16	Antimony mobility in sulfidic systems: Coupling with sulfide-induced iron oxide transformations. Geochimica Et Cosmochimica Acta, 2020, 282, 276-296.	3.9	37
17	Origin and fate of nitrate runoff in an agricultural catchment: Haean, South Korea â€“ Comparison of two extremely different monsoon seasons. Science of the Total Environment, 2019, 648, 66-79.	8.0	18
18	Controls on iron(II) fluxes into waterways impacted by acid mine drainage: A DamkÃ¶hler analysis of groundwater seepage and iron kinetics. Water Research, 2019, 153, 11-20.	11.3	9

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19	Stratification of reactivity determines nitrate removal in groundwater. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2494-2499.	7.1	77
20	Silicon increases the phosphorus availability of Arctic soils. Scientific Reports, 2019, 9, 449.	3.3	115
21	Effect of Reduced Sulfur Species on Chemolithoautotrophic Pyrite Oxidation with Nitrate. Geomicrobiology Journal, 2019, 36, 19-29.	2.0	32
22	Impacts of Land Use Change and Summer Monsoon on Nutrients and Sediment Exports from an Agricultural Catchment. Water (Switzerland), 2018, 10, 544.	2.7	18
23	Stream water quality affected by interacting hydrological and biogeochemical processes in a riparian wetland. Journal of Hydrology, 2018, 563, 260-272.	5.4	9
24	Schwertmannite stability in anoxic Fe(II)-rich aqueous solution. Geochimica Et Cosmochimica Acta, 2017, 217, 292-305.	3.9	46
25	Fe(III):S(-II) concentration ratio controls the pathway and the kinetics of pyrite formation during sulfidation of ferric hydroxides. Geochimica Et Cosmochimica Acta, 2017, 217, 334-348.	3.9	79
26	One Frog in aÂWell? Many Frogs in Many Wells!. Grundwasser, 2017, 22, 1-1.	1.4	0
27	Extremophile microbiomes in acidic and hypersaline river sediments of <scp>W</scp>estern <scp>A</scp>ustralia. Environmental Microbiology Reports, 2016, 8, 58-67.	2.4	12
28	Reaction time scales for sulphate reduction in sediments of acidic pit lakes and its relation to in-lake acidity neutralisation. Applied Geochemistry, 2016, 73, 8-12.	3.0	6
29	Potential effects of sediment processes on water quality of an artificial reservoir in the Asian monsoon region. Inland Waters, 2016, 6, 423-435.	2.2	6
30	Exposure times rather than residence times control redox transformation efficiencies in riparian wetlands. Journal of Hydrology, 2016, 543, 182-196.	5.4	16
31	Constitution of a catchment virtual observatory for sharing flow and transport models outputs. Journal of Hydrology, 2016, 543, 59-66.	5.4	14
32	Upscaling Nitrogen Removal Capacity from Local Hotspots to Low Stream Ordersâ€™ Drainage Basins. Ecosystems, 2015, 18, 1101-1120.	3.4	104
33	Pyrite formation and mineral transformation pathways upon sulfidation of ferric hydroxides depend on mineral type and sulfide concentration. Chemical Geology, 2015, 400, 44-55.	3.3	83
34	Lepidocrocite Formation Kinetics from Schwertmannite in Fe(II)-Rich Anoxic Alkaline Medium. Mine Water and the Environment, 2015, 34, 213-222.	2.0	11
35	Geochemical processes in a highly acidic pit lake of the Iberian Pyrite Belt (SW Spain). Chemical Geology, 2015, 395, 144-153.	3.3	14
36	Electron Transfer Budgets and Kinetics of Abiotic Oxidation and Incorporation of Aqueous Sulfide by Dissolved Organic Matter. Environmental Science & Technology, 2015, 49, 5441-5449.	10.0	61

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37	Interference of Nitrite with Pyrite under Acidic Conditions: Implications for Studies of Chemolithotrophic Denitrification. Environmental Science & Technology, 2015, 49, 11403-11410.	10.0	15
38	Using the SWAT model to improve process descriptions and define hydrologic partitioning in South Korea. Hydrology and Earth System Sciences, 2014, 18, 539-557.	4.9	33
39	Redox stability of As(III) on schwertmannite surfaces. Journal of Hazardous Materials, 2014, 265, 208-216.	12.4	29
40	Occurrence of Surface Polysulfides during the Interaction between Ferric (Hydr)Oxides and Aqueous Sulfide. Environmental Science & Technology, 2014, 48, 5076-5084.	10.0	96
41	Catchments as heterogeneous and multi-species reactors: An integral approach for identifying biogeochemical hot-spots at the catchment scale. Journal of Hydrology, 2014, 519, 1560-1571.	5.4	19
42	Was HÃnschen nicht kennt, studiert Hans nimmermehr â€" ein PlÃdoyer fÃ¼r mehr Geowissenschaft im Schulunterricht. Grundwasser, 2014, 19, 105-105.	1.4	0
43	River-aquifer exchange fluxes under monsoonal climate conditions. Journal of Hydrology, 2014, 509, 601-614.	5.4	34
44	Monsoonal-type climate or land-use management: Understanding their role in the mobilization of nitrate and DOC in a mountainous catchment. Journal of Hydrology, 2013, 507, 149-162.	5.4	16
45	Fracking â€" Die Rolle der Hydrogeologie. Grundwasser, 2013, 18, 157-158.	1.4	10
46	A weighted, multi-method approach for accurate basin-wide streamflow estimation in an ungauged watershed. Journal of Hydrology, 2013, 494, 72-82.	5.4	17
47	Mineral Trapping of CO2 in Operated Geothermal Reservoirs â€" Numerical Simulations on Various Scales. Energy Procedia, 2013, 40, 454-463.	1.8	1
48	Colloid-associated export of arsenic in stream water during stormflow events. Chemical Geology, 2013, 352, 81-91.	3.3	46
49	Entwicklung und Erprobung eines WÃschersystems zur CO2-Abreinigung aus Rauchgasen mithilfe alkalischer Reststoffe. Chemie-Ingenieur-Technik, 2013, 85, 374-382.	0.8	0
50	Spatial patterns of groundwaterâ€lake exchange â€" implications for acid neutralization processes in an acid mine lake. Hydrological Processes, 2013, 27, 3240-3253.	2.6	12
51	A generalized DamkÃ¶hler number for classifying material processing in hydrological systems. Hydrology and Earth System Sciences, 2013, 17, 1133-1148.	4.9	88
52	Concentrations and fluxes of dissolved organic carbon in runoff from a forested catchment: insights from high frequency measurements. Biogeosciences, 2013, 10, 905-916.	3.3	115
53	Abiotic schwertmannite transformation kinetics and the role of sorbed As(III). Applied Geochemistry, 2012, 27, 590-597.	3.0	28
54	Pathways of ferrous iron mineral formation upon sulfidation of lepidocrocite surfaces. Geochimica Et Cosmochimica Acta, 2012, 81, 69-81.	3.9	81

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55	Surface microâ€topography causes hot spots of biogeochemical activity in wetland systems: A virtual modeling experiment. Journal of Geophysical Research, 2012, 117, .	3.3	97
56	Biotic and Abiotic Schwertmannites as Scavengers for As(III): Mechanisms and Effects. Water, Air, and Soil Pollution, 2012, 223, 2933-2942.	2.4	8
57	As(III) retention kinetics, equilibrium and redox stability on biosynthesized schwertmannite and its fate and control on schwertmannite stability on acidic (pH 3.0) aqueous exposure. Chemosphere, 2012, 86, 557-564.	8.2	26
58	The Role of Transport in Aquatic Redox Chemistry. ACS Symposium Series, 2011, , 559-580.	0.5	4
59	Sequestration of CO2 after reaction with alkaline earth metal oxides CaO and MgO. Applied Geochemistry, 2011, 26, 1097-1107.	3.0	43
60	Carbonation of lignite fly ash at ambient T and P in a semi-dry reaction system for CO2 sequestration. Applied Geochemistry, 2011, 26, 1502-1512.	3.0	53
61	Removal of As(III) from acidic waters using schwertmannite: Surface speciation and effect of synthesis pathway. Chemical Geology, 2011, 283, 134-142.	3.3	90
62	Distribution of Pb, As, Cd, Sn and Hg in soil, sediment and surface water of the tropical river watershed, Terengganu (Malaysia). Journal of Hydro-Environment Research, 2011, 5, 169-176.	2.2	31
63	Dissolution Kinetics of Sulfate from Schwertmannite Under Variable pH Conditions. Mine Water and the Environment, 2010, 29, 263-269.	2.0	34
64	Ammoniakstrippung an einer etablierten, thermophilen Biogasanlage - technische und wirtschaftliche Evaluierung. Chemie-Ingenieur-Technik, 2009, 81, 921-932.	0.8	1
65	Investigation of factors influencing biogas production in a large-scale thermophilic municipal biogas plant. Applied Microbiology and Biotechnology, 2009, 84, 987-1001.	3.6	33
66	Does Iron Cycling Trigger Generation of Acidity in Groundwaters of Western Australia?. Environmental Science & Technology, 2009, 43, 6548-6552.	10.0	8
67	Hydraulic Parameters of Coastal Aquifer Systems by Direct Methods and an Extended Tideâ€"Aquifer Interaction Technique. Water Resources Management, 2008, 22, 1899-1923.	3.9	45
68	Reactivity of Alkaline Lignite Fly Ashes Towards CO2in Water. Environmental Science & Technology, 2008, 42, 4520-4526.	10.0	71
69	Arsenic and Chromium Partitioning in a Podzolic Soil Contaminated by Chromated Copper Arsenate. Environmental Science & Technology, 2008, 42, 6481-6486.	10.0	33
70	Reactivity of Ferric Oxides toward H2S at Low pH. Environmental Science & Technology, 2007, 41, 3159-3164.	10.0	33
71	Support for an anaerobic sulfur cycle in two Canadian peatland soils. Journal of Geophysical Research, 2007, 112, .	3.3	57
72	Groundwater management and development by integrated remote sensing and geographic information systems: prospects and constraints. Water Resources Management, 2007, 21, 427-467.	3.9	384

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73	Spatial variability of arsenic and chromium in the soil water at a former wood preserving site. Journal of Contaminant Hydrology, 2006, 85, 159-178.	3.3	23
74	Arsenate and chromate incorporation in schwertmannite. Applied Geochemistry, 2005, 20, 1226-1239.	3.0	236
75	Formation and stability of schwertmannite in acidic mining lakes 1 1Associate editor: C. M. Eggleston. Geochimica Et Cosmochimica Acta, 2004, 68, 1185-1197.	3.9	342
76	Simulation of chromium transport in the unsaturated zone for predicting contaminant entries into the groundwater. Journal of Plant Nutrition and Soil Science, 2004, 167, 284-292.	1.9	13
77	New organic matter degradation proxies: Valid in lake systems?. Limnology and Oceanography, 2004, 49, 2023-2033.	3.1	39
78	Optimization of the Sampling Technique for the Determination of Dissolved Hydrogen in Groundwater. Clean - Soil, Air, Water, 2003, 31, 491-500.	0.6	5
79	Thermodynamics and organic matter: constraints on neutralization processes in sediments of highly acidic waters. Applied Geochemistry, 2003, 18, 25-36.	3.0	32
80	Organic Matter Preservation in the Sediment of an Acidic Mining Lake. Environmental Science & Technology, 2002, 36, 4218-4223.	10.0	44
81	Effect of pH on the anaerobic microbial cycling of sulfur in mining-impacted freshwater lake sediments. Environmental and Experimental Botany, 2001, 46, 213-223.	4.2	66
82	Electron flow in an ironâ€rich acidic sedimentâ€"evidence for an acidityâ€driven iron cycle. Limnology and Oceanography, 2000, 45, 1077-1087.	3.1	153
83	Organic Matter Diagenesis in Acidic Mine Lakes. Clean - Soil, Air, Water, 2000, 28, 123-135.	0.6	32
84	Verringerung der Schwermetall- und Sulfatbelastung in sauren bergbaubelasteten GewÃssern durch AluminiumprÃzipitate. Clean - Soil, Air, Water, 2000, 28, 136-144.	0.6	10
85	Characterisation of the Redox State of Aqueous Systems: Towards a Problem-Oriented Approach. , 2000, , 24-41.		8
86	Title is missing!. Aquatic Geochemistry, 1999, 5, 207-223.	1.3	37
87	Parameter uncertainty in chemical equilibrium calculations using fuzzy set theory. Journal of Hydrology, 1999, 217, 119-134.	5.4	21
88	The oxidation of pyrite at pH 7 in the presence of reducing and nonreducing Fe(III)-chelators. Geochimica Et Cosmochimica Acta, 1999, 63, 3171-3182.	3.9	48
89	Slope deposits and water paths in a spring catchment, Frankenwald, Bavaria, Germany. Nutrient Cycling in Agroecosystems, 1998, 50, 119-126.	2.2	19
90	Title is missing!. Water, Air, and Soil Pollution, 1998, 102, 117-138.	2.4	4

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91	Title is missing!. Water, Air, and Soil Pollution, 1998, 108, 249-270.	2.4	55
92	Title is missing!. Water, Air, and Soil Pollution, 1998, 108, 227-229.	2.4	8
93	Isolation and Characterization of Burkholderia norimbergensis sp. nov., a Mildly Alkaliphilic Sulfur Oxidizer. Systematic and Applied Microbiology, 1997, 20, 549-553.	2.8	21
94	Heavy-metal ion complexation by particulate matter in the leachate of solid waste: a multi-method approach. Journal of Contaminant Hydrology, 1997, 24, 313-344.	3.3	14
95	Title is missing!. Water, Air, and Soil Pollution, 1997, 94, 401-416.	2.4	1
96	Reaction of H₂S with Ferric Oxides. Advances in Chemistry Series, 1994, , 371-390.	0.6	11
97	Predicting trace-metal speciation in sulphidic leachates from anaerobic solid-waste digestors by use of the pH2S-value as a master variable. Journal of Contaminant Hydrology, 1994, 16, 289-313.	3.3	6
98	Kinetics and mechanism of the reaction of hydrogen sulfide with lepidocrocite. Environmental Science & Technology, 1992, 26, 2408-2413.	10.0	112
99	Redox measurements in aqueous solutions â€" A theoretical approach to data interpretation, based on electrode kinetics. Journal of Contaminant Hydrology, 1992, 10, 1-18.	3.3	53
100	How does landfill leachate affect the chemical processes in a lake system downgradient from a landfill site?. Aquatic Sciences, 1991, 53, 346-366.	1.5	4
101	The Use of Silver Ion Buffers for Calibrating a pH₂S Electrode Cell. International Journal of Environmental Analytical Chemistry, 1991, 45, 245-255.	3.3	2
102	Phosphorus mobility in interstitial waters of sediments in Lake Kinneret, Israel. Hydrobiologia, 1990, 207, 167-177.	2.0	28
103	Chemodynamics of Chlorophenols during Sequential Degradation of Solid Municipal Wastes. , 1990, , 449-456.		3
104	Survival of E. coli and Enterococci in sediment-water systems of lake kinneret under (feedback) controlled concentrations of hydrogen sulfide. Water Research, 1988, 22, 233-240.	11.3	5
105	Potentiometric-determination of heavy metal sulphide solubilities using a pH2S (glass | AgÂ°, Ag2S) electrode cell. Analyst, The, 1987, 112, 951-954.	3.5	23
106	Microbial Production of Schwertmannite: Development from Microbial Fundamentals to Marketable Products. Solid State Phenomena, 0, 262, 568-572.	0.3	3