RÃ¤lf Kaegi

List of Publications by Year
in descending order

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72 papers	6,565 citations	109264 35 h-index	85498 71 g-index
73 all docs	73 docs citations	73 times ranked	7197 citing authors

#	Article	IF	Citations
1	Toxicity of Silver Nanoparticles to <i>Chlamydomonas reinhardtii</i>. Environmental Science & Technology, 2008, 42, 8959-8964.	4.6	1,333
2	Behavior of Metallic Silver Nanoparticles in a Pilot Wastewater Treatment Plant. Environmental Science & Technology, 2011, 45, 3902-3908.	4.6	684
3	Release of silver nanoparticles from outdoor facades. Environmental Pollution, 2010, 158, 2900-2905.	3.7	478
4	Fate and transformation of silver nanoparticles in urban wastewater systems. Water Research, 2013, 47, 3866-3877.	5.3	384
5	Risks, Release and Concentrations of Engineered Nanomaterial in the Environment. Scientific Reports, 2018, 8, 1565.	1.6	306
6	Sulfur Loading and Speciation Control the Hydrophobicity, Electron Transfer, Reactivity, and Selectivity of Sulfidized Nanoscale Zerovalent Iron. Advanced Materials, 2020, 32, e1906910.	11.1	204
7	Effect of phosphate, silicate, and Ca on Fe(III)-precipitates formed in aerated Fe(II)- and As(III)-containing water studied by X-ray absorption spectroscopy. Geochimica Et Cosmochimica Acta, 2010, 74, 164-186.	1.6	199
8	Activated Carbon, Biochar and Charcoal: Linkages and Synergies across Pyrogenic Carbonâ€™s ABCs. Water (Switzerland), 2018, 10, 182.	1.2	195
9	Reactivity, Selectivity, and Long-Term Performance of Sulfidized Nanoscale Zerovalent Iron with Different Properties. Environmental Science & Technology, 2019, 53, 5936-5945.	4.6	194
10	Contaminant mobilization by metallic copper and metal sulphide colloids in flooded soil. Nature Geoscience, 2009, 2, 267-271.	5.4	167
11	Fate of Ag-NPs in Sewage Sludge after Application on Agricultural Soils. Environmental Science & Technology, 2016, 50, 1759-1768.	4.6	151
12	Single-particle multi-element fingerprinting (spMEF) using inductively-coupled plasma time-of-flight mass spectrometry (ICP-TOFMS) to identify engineered nanoparticles against the elevated natural background in soils. Environmental Science: Nano, 2017, 4, 307-314.	2.2	128
13	Iron and Sulfur Precursors Affect Crystalline Structure, Speciation, and Reactivity of Sulfidized Nanoscale Zerovalent Iron. Environmental Science & Technology, 2020, 54, 13294-13303.	4.6	128
14	Where is the nano? Analytical approaches for the detection and quantification of TiO₂ engineered nanoparticles in surface waters. Environmental Science: Nano, 2018, 5, 313-326.	2.2	101
15	Sulfidation Kinetics of Silver Nanoparticles Reacted with Metal Sulfides. Environmental Science & Technology, 2014, 48, 4885-4892.	4.6	93
16	Size-fractionated characterization and quantification of nanoparticle release rates from a consumer spray product containing engineered nanoparticles. Journal of Nanoparticle Research, 2010, 12, 2481-2494.	0.8	90
17	Long-term assessment of nanoplastic particle and microplastic fiber flux through a pilot wastewater treatment plant using metal-doped plastics. Water Research, 2020, 182, 115860.	5.3	80
18	Effect of citrate on the local Fe coordination in ferrihydrite, arsenate binding, and ternary arsenate complex formation. Geochimica Et Cosmochimica Acta, 2010, 74, 5574-5592.	1.6	79

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19	Cost-effective sol-gel synthesis of porous CuO nanoparticle aggregates with tunable specific surface area. Scientific Reports, 2019, 9, 11758.	1.6	76
20	Effect of phosphate, silicate, and Ca on the morphology, structure and elemental composition of Fe(III)-precipitates formed in aerated Fe(II) and As(III) containing water. Geochimica Et Cosmochimica Acta, 2010, 74, 5798-5816.	1.6	71
21	Temperature-dependent formation of metallic copper and metal sulfide nanoparticles during flooding of a contaminated soil. Geochimica Et Cosmochimica Acta, 2013, 103, 316-332.	1.6	71
22	Ferrihydrite Growth and Transformation in the Presence of Ferrous Iron and Model Organic Ligands. Environmental Science & Technology, 2019, 53, 13636-13647.	4.6	68
23	Transformation of Silver Nanoparticles in Sewage Sludge during Incineration. Environmental Science & Technology, 2016, 50, 3503-3510.	4.6	66
24	Key principles and operational practices for improved nanotechnology environmental exposure assessment. Nature Nanotechnology, 2020, 15, 731-742.	15.6	66
25	Quantification of Element Fluxes in Wastewaters: A Nationwide Survey in Switzerland. Environmental Science & Technology, 2017, 51, 10943-10953.	4.6	62
26	Electrochemical Analysis of Changes in Iron Oxide Reducibility during Abiotic Ferrihydrite Transformation into Goethite and Magnetite. Environmental Science & Technology, 2019, 53, 3568-3578.	4.6	60
27	Effect of humic acid on the kinetics of silver nanoparticle sulfidation. Environmental Science: Nano, 2016, 3, 203-212.	2.2	59
28	Decreases in Iron Oxide Reducibility during Microbial Reductive Dissolution and Transformation of Ferrihydrite. Environmental Science & Technology, 2019, 53, 8736-8746.	4.6	52
29	Silver nanoparticles in sewage sludge: Bioavailability of sulfidized silver to the terrestrial isopod <i>Porcellio scaber</i>. Environmental Toxicology and Chemistry, 2018, 37, 1606-1613.	2.2	49
30	Theoretical and Experimental Evaluation of a Portable Electrostatic TEM Sampler. Aerosol Science and Technology, 2007, 41, 520-528.	1.5	45
31	Exposure and Possible Risks of Engineered Nanomaterials in the Environmentâ€"Current Knowledge and Directions for the Future. Reviews of Geophysics, 2020, 58, e2020RG000710.	9.0	44
32	Evaluation of a TEM based Approach for Size Measurement of Particulate (Nano)materials. Materials, 2019, 12, 2274.	1.3	40
33	Mercury Mobilization in a Flooded Soil by Incorporation into Metallic Copper and Metal Sulfide Nanoparticles. Environmental Science & Technology, 2013, 47, 7739-7746.	4.6	39
34	Release of TiO 2 â€" (Nano) particles from construction and demolition landfills. NanoImpact, 2017, 8, 73-79.	2.4	39
35	Effect of Ozone Treatment on Nano-Sized Silver Sulfide in Wastewater Effluent. Environmental Science & Technology, 2015, 49, 10911-10919.	4.6	38
36	Transformation of AgCl nanoparticles in a sewer system â€" A field study. Science of the Total Environment, 2015, 535, 20-27.	3.9	37

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37	Ozonation of municipal wastewater effluent containing metal sulfides and metal complexes: Kinetics and mechanisms. Water Research, 2018, 134, 170-180.	5.3	35
38	Sulfidation kinetics of copper oxide nanoparticles. Environmental Science: Nano, 2017, 4, 1733-1741.	2.2	33
39	Harmonizing across environmental nanomaterial testing media for increased comparability of nanomaterial datasets. Environmental Science: Nano, 2020, 7, 13-36.	2.2	32
40	Searching for relevant criteria to distinguish natural <i>vs.</i> anthropogenic TiO₂ nanoparticles in soils. Environmental Science: Nano, 2018, 5, 2853-2863.	2.2	30
41	Bioavailability of silver from wastewater and planktonic food borne silver nanoparticles in the rainbow trout Oncorhynchus mykiss. Science of the Total Environment, 2020, 706, 135695.	3.9	26
42	Stabilization of Ferrihydrite and Lepidocrocite by Silicate during Fe(II)-Catalyzed Mineral Transformation: Impact on Particle Morphology and Silicate Distribution. Environmental Science & Technology, 2022, 56, 5929-5938.	4.6	25
43	Organic matter influences transformation products of ferrihydrite exposed to sulfide. Environmental Science: Nano, 2020, 7, 3405-3418.	2.2	23
44	Quantification of individual Rare Earth Elements from industrial sources in sewage sludge. Water Research X, 2021, 11, 100092.	2.8	23
45	AutoEM: a software for automated acquisition and analysis of nanoparticles. Journal of Nanoparticle Research, 2019, 21, 1.	0.8	22
46	Fate of Silver Nanoparticles in Constructed Wetlandsâ€”a Microcosm Study. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	21
47	Toward a comprehensive and realistic risk evaluation of engineered nanomaterials in the urban water system. Frontiers in Chemistry, 2014, 2, 39.	1.8	20
48	Ingested nano- and microsized polystyrene particles surpass the intestinal barrier and accumulate in the body. NanoImpact, 2022, 25, 100374.	2.4	20
49	Transformation of Nanoscale and Ionic Cu and Zn during the Incineration of Digested Sewage Sludge (Biosolids). Environmental Science & Technology, 2019, 53, 11704-11713.	4.6	19
50	Emerging investigator series: automated single-nanoparticle quantification and classification: a holistic study of particles into and out of wastewater treatment plants in Switzerland. Environmental Science: Nano, 2021, 8, 1211-1225.	2.2	19
51	The role of size and protein shells in the toxicity to algal photosynthesis induced by ionic silver delivered from silver nanoparticles. Science of the Total Environment, 2019, 692, 233-239.	3.9	18
52	Mercury Reduction by Nanoparticulate Vivianite. Environmental Science & Technology, 2021, 55, 3399-3407.	4.6	18
53	Influence of organic compounds on the sulfidation of copper oxide nanoparticles. Environmental Science: Nano, 2018, 5, 2560-2569.	2.2	13
54	Transformation of cerium dioxide nanoparticles during sewage sludge incineration. Environmental Science: Nano, 2019, 6, 1765-1776.	2.2	13

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55	Electrophoretic Deposition of Nanoporous Oxide Coatings from Concentrated CuO Nanoparticle Dispersions. Langmuir, 2020, 36, 8075-8085.	1.6	11
56	Effect of NOM on copper sulfide nanoparticle growth, stability, and oxidative dissolution. Environmental Science: Nano, 2020, 7, 1163-1178.	2.2	11
57	Combustion of Sewage Sludge: Kinetics and Speciation of the Combustible. Energy & Fuels, 2018, 32, 10656-10667.	2.5	10
58	Quantification and classification of engineered, incidental, and natural cerium-containing particles by spICP-TOFMS. Environmental Science: Nano, 2022, 9, 1627-1638.	2.2	10
59	Quantification of anthropogenic and geogenic Ce in sewage sludge based on Ce oxidation state and rare earth element patterns. Water Research X, 2020, 9, 100059.	2.8	9
60	Progress towards the responsible application of nanotechnology for water treatment. Water Research, 2013, 47, 3865.	5.3	8
61	The influence of surface coating functionality on the aging of nanoparticles in wastewater. Environmental Science: Nano, 2019, 6, 2470-2483.	2.2	8
62	Ingestion of bivalve droppings by benthic invertebrates may lead to the transfer of nanomaterials in the aquatic food chain. Environmental Sciences Europe, 2021, 33, .	2.6	8
63	Looking at Silver-Based Nanoparticles in Environmental Water Samples: Repetitive Cloud Point Extraction Bridges Gaps in Electron Microscopy for Naturally Occurring Nanoparticles. Environmental Science & Technology, 2020, 54, 12063-12071.	4.6	7
64	Effects of natural organic matter (NOM), metal-to-sulfide ratio and Mn2+on cadmium sulfide nanoparticle growth and colloidal stability. Environmental Science: Nano, 2020, 7, 3385-3404.	2.2	7
65	Synchrotron hard X-ray chemical imaging of trace element speciation in heterogeneous samples: development of criteria for uncertainty analysis. Journal of Analytical Atomic Spectrometry, 2020, 35, 567-579.	1.6	6
66	Transformation of TiO2 (nano)particles during sewage sludge incineration. Journal of Hazardous Materials, 2021, 411, 124932.	6.5	5
67	The use of surrogate standards as a QA/QC tool for routine analysis of microplastics in sewage sludge. Science of the Total Environment, 2022, 835, 155485.	3.9	5
68	Characterization of nanomaterials by transmission electron microscopy: Measurement procedures. , 2020, , 29-48.		4
69	Release of gold (Au), silver (Ag) and cerium dioxide (CeO2) nanoparticles from sewage sludge incineration ash. Environmental Science: Nano, 2021, 8, 3220-3232.	2.2	4
70	Direct analysis of nanoparticles in organic solvents by ICPMS with microdroplet injection. Journal of Analytical Atomic Spectrometry, 2022, 37, 1738-1750.	1.6	3
71	Quantification of Nanoparticles in Dispersions Using Transmission Electron Microscopy. Microscopy and Microanalysis, 2021, 27, 557-565.	0.2	1
72	Quantification and Clustering of Inorganic Nanoparticles in Wastewater Treatment Plants across Switzerland. Chimia, 2021, 75, 642.	0.3	1