Kathleen A Schwehr

List of Publications by Year
in descending order

68 papers	3,250 citations	126708 33 h-index	155451 55 g-index
70 all docs	70 docs citations	70 times ranked	2856 citing authors

#	Article	IF	Citations
1	The algal toxicity of silver engineered nanoparticles and detoxification by exopolymeric substances. Environmental Pollution, 2009, 157, 3034-3041.	3.7	362
2	Direct and Indirect Toxic Effects of Engineered Nanoparticles on Algae: Role of Natural Organic Matter. ACS Sustainable Chemistry and Engineering, 2013, 1, 686-702.	3.2	154
3	Sensitive determination of iodine species, including organo-iodine, for freshwater and seawater samples using high performance liquid chromatography and spectrophotometric detection. Analytica Chimica Acta, 2003, 482, 59-71.	2.6	141
4	Aggregation, Dissolution, and Stability of Quantum Dots in Marine Environments: Importance of Extracellular Polymeric Substances. Environmental Science & Technology, 2012, 46, 8764-8772.	4.6	113
5	Radioiodine Biogeochemistry and Prevalence in Groundwater. Critical Reviews in Environmental Science and Technology, 2014, 44, 2287-2335.	6.6	106
6	The role of microbial exopolymers in determining the fate of oil and chemical dispersants in the ocean. Limnology and Oceanography Letters, 2016, 1, 3-26.	1.6	105
7	Chemical composition and relative hydrophobicity of microbial exopolymeric substances (EPS) isolated by anion exchange chromatography and their actinide-binding affinities. Marine Chemistry, 2011, 126, 27-36.	0.9	93
8	Iodine-129 and Iodine-127 Speciation in Groundwater at the Hanford Site, U.S.: Iodate Incorporation into Calcite. Environmental Science & Technology, 2013, 47, 9635-9642.	4.6	86
9	Organo-Iodine Formation in Soils and Aquifer Sediments at Ambient Concentrations. Environmental Science & Technology, 2009, 43, 7258-7264.	4.6	81
10	Effects of Engineered Nanoparticles on the Assembly of Exopolymeric Substances from Phytoplankton. PLoS ONE, 2011, 6, e21865.	1.1	80
11	A Novel Approach for the Simultaneous Determination of Iodide, Iodate and Organo-Iodide for ¹²⁷I and ¹²⁹I in Environmental Samples Using Gas Chromatographyâˆ’Mass Spectrometry. Environmental Science & Technology, 2010, 44, 9042-9048.	4.6	76
12	Sequestration and Remobilization of Radioiodine (¹²⁹I) by Soil Organic Matter and Possible Consequences of the Remedial Action at Savannah River Site. Environmental Science & Technology, 2011, 45, 9975-9983.	4.6	74
13	129I/127I as a new environmental tracer or geochronometer for biogeochemical or hydrodynamic processes in the hydrosphere and geosphere: the central role of organo-iodine. Science of the Total Environment, 2004, 321, 257-271.	3.9	71
14	Is soil natural organic matter a sink or source for mobile radioiodine (129I) at the Savannah River Site?. Geochimica Et Cosmochimica Acta, 2011, 75, 5716-5735.	1.6	68
15	Concentration-Dependent Mobility, Retardation, and Speciation of Iodine in Surface Sediment from the Savannah River Site. Environmental Science & Technology, 2011, 45, 5543-5549.	4.6	67
16	Factors controlling mobility of 127I and 129I species in an acidic groundwater plume at the Savannah River Site. Science of the Total Environment, 2011, 409, 3857-3865.	3.9	66
17	Novel molecular-level evidence of iodine binding to natural organic matter from Fourier transform ion cyclotron resonance mass spectrometry. Science of the Total Environment, 2013, 449, 244-252.	3.9	65
18	Ameliorating effects of extracellular polymeric substances excreted by Thalassiosira pseudonana on algal toxicity of CdSe quantum dots. Aquatic Toxicology, 2013, 126, 214-223.	1.9	64

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19	Can the protein/carbohydrate (P/C) ratio of exopolymeric substances (EPS) be used as a proxy for their â€˜stickinessâ€™ and aggregation propensity?. Marine Chemistry, 2020, 218, 103734.	0.9	63
20	Molecular environment of stable iodine and radioiodine (129I) in natural organic matter: Evidence inferred from NMR and binding experiments at environmentally relevant concentrations. Geochimica Et Cosmochimica Acta, 2012, 97, 166-182.	1.6	59
21	Evaluation of a Radioiodine Plume Increasing in Concentration at the Savannah River Site. Environmental Science & Technology, 2011, 45, 489-495.	4.6	56
22	Bacterial Production of Organic Acids Enhances H₂O₂-Dependent Iodide Oxidation. Environmental Science & Technology, 2012, 46, 4837-4844.	4.6	54
23	Extracellular polymeric substances (EPS) producing and oil degrading bacteria isolated from the northern Gulf of Mexico. PLoS ONE, 2018, 13, e0208406.	1.1	53
24	Comparative evaluation of sediment trap and 234Th-derived POC fluxes from the upper oligotrophic waters of the Gulf of Mexico and the subtropical northwestern Pacific Ocean. Marine Chemistry, 2010, 121, 132-144.	0.9	51
25	The dissolved organic iodine species of the isotopic ratio of ¹²⁹I/¹²⁷I: A novel tool for tracing terrestrial organic carbon in the estuarine surface waters of Galveston Bay, Texas. Limnology and Oceanography: Methods, 2005, 3, 326-337.	1.0	49
26	Radioiodine sorption/desorption and speciation transformation by subsurface sediments from the Hanford Site. Journal of Environmental Radioactivity, 2015, 139, 43-55.	0.9	48
27	Role of natural organic matter on iodine and 239,240Pu distribution and mobility in environmental samples from the northwestern Fukushima Prefecture, Japan. Journal of Environmental Radioactivity, 2016, 153, 156-166.	0.9	46
28	Superoxide Production by a Manganese-Oxidizing Bacterium Facilitates Iodide Oxidation. Applied and Environmental Microbiology, 2014, 80, 2693-2699.	1.4	41
29	Iodine and plutonium association with natural organic matter: A review of recent advances. Applied Geochemistry, 2017, 85, 121-127.	1.4	40
30	Role of Polysaccharides in Diatom Thalassiosira pseudonana and its Associated Bacteria in Hydrocarbon Presence. Plant Physiology, 2019, 180, 1898-1911.	2.3	40
31	Controls of 234Th removal from the oligotrophic ocean by polyuronic acids and modification by microbial activity. Marine Chemistry, 2011, 123, 111-126.	0.9	38
32	Binding of Th, Pa, Pb, Po and Be radionuclides to marine colloidal macromolecular organic matter. Marine Chemistry, 2015, 173, 320-329.	0.9	38
33	Iodide Accumulation by Aerobic Bacteria Isolated from Subsurface Sediments of a ¹²⁹I-Contaminated Aquifer at the Savannah River Site, South Carolina. Applied and Environmental Microbiology, 2011, 77, 2153-2160.	1.4	37
34	Microbial Transformation of Iodine: From Radioisotopes to Iodine Deficiency. Advances in Applied Microbiology, 2017, 101, 83-136.	1.3	36
35	Light-induced aggregation of microbial exopolymeric substances. Chemosphere, 2017, 181, 675-681.	4.2	34
36	Evidence for Hydroxamate Siderophores and Other N-Containing Organic Compounds Controlling ^{239,240}Pu Immobilization and Remobilization in a Wetland Sediment. Environmental Science & Technology, 2015, 49, 11458-11467.	4.6	33

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37	Protein: Polysaccharide ratio in exopolymeric substances controlling the surface tension of seawater in the presence or absence of surrogate Macondo oil with and without Corexit. Marine Chemistry, 2018, 206, 84-92.	0.9	33
38	Recent advances in the detection of specific natural organic compounds as carriers for radionuclides in soil and water environments, with examples of radioiodine and plutonium. Journal of Environmental Radioactivity, 2017, 171, 226-233.	0.9	31
39	Plutonium Immobilization and Remobilization by Soil Mineral and Organic Matter in the Far-Field of the Savannah River Site, U.S.. Environmental Science & Technology, 2014, 48, 3186-3195.	4.6	30
40	Extracellular Enzyme Activity Profile in a Chemically Enhanced Water Accommodated Fraction of Surrogate Oil: Toward Understanding Microbial Activities After the Deepwater Horizon Oil Spill. Frontiers in Microbiology, 2018, 9, 798.	1.5	30
41	Optimized isolation procedure for obtaining strongly actinide binding exopolymeric substances (EPS) from two bacteria (Sagittula stellata and Pseudomonas fluorescens Biovar II). Bioresource Technology, 2009, 100, 6010-6021.	4.8	29
42	Radioiodine concentrated in a wetland. Journal of Environmental Radioactivity, 2014, 131, 57-61.	0.9	28
43	The effects of sunlight on the composition of exopolymeric substances and subsequent aggregate formation during oil spills. Marine Chemistry, 2018, 203, 49-54.	0.9	27
44	The role of microbially-mediated exopolymeric substances (EPS) in regulating Macondo oil transport in a mesocosm experiment. Marine Chemistry, 2018, 206, 52-61.	0.9	26
45	Sunlight induced aggregation of dissolved organic matter: Role of proteins in linking organic carbon and nitrogen cycling in seawater. Science of the Total Environment, 2019, 654, 872-877.	3.9	25
46	Decreased sedimentation efficiency of petro- and non-petro-carbon caused by a dispersant for Macondo surrogate oil in a mesocosm simulating a coastal microbial community. Marine Chemistry, 2018, 206, 34-43.	0.9	24
47	Comparison of microgels, extracellular polymeric substances (EPS) and transparent exopolymeric particles (TEP) determined in seawater with and without oil. Marine Chemistry, 2019, 215, 103667.	0.9	23
48	Geochemical controls of iodine uptake and transport in Savannah River Site subsurface sediments. Applied Geochemistry, 2014, 45, 105-113.	1.4	22
49	Near-conservative behavior of 129I in the orange county aquifer system, California. Applied Geochemistry, 2005, 20, 1461-1472.	1.4	21
50	Rapid Degradation of Oil in Mesocosm Simulations of Marine Oil Snow Events. Environmental Science & Technology, 2019, 53, 3441-3450.	4.6	21
51	Estimates of recovery of the Penobscot River and estuarine system from mercury contamination in the 1960's. Science of the Total Environment, 2017, 596-597, 351-359.	3.9	19
52	Temporal Variation of Iodine Concentration and Speciation (¹²⁷I and ¹²⁹I) in Wetland Groundwater from the Savannah River Site, USA. Environmental Science & Technology, 2014, 48, 11218-11226.	4.6	17
53	Mercury inputs and redistribution in the Penobscot River and estuary, Maine. Science of the Total Environment, 2018, 622-623, 172-183.	3.9	16
54	The interplay of extracellular polymeric substances and oil/Corexit to affect the petroleum incorporation into sinking marine oil snow in four mesocosms. Science of the Total Environment, 2019, 693, 133626.	3.9	15

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55	Speciation of iodine isotopes inside and outside of a contaminant plume at the Savannah River Site. Science of the Total Environment, 2014, 497-498, 671-678.	3.9	14
56	Model of radioiodine speciation and partitioning in organic-rich and organic-poor soils from the SavannahÂRiver Site. Journal of Environmental Chemical Engineering, 2014, 2, 1321-1330.	3.3	14
57	Nagasaki sediments reveal that long-term fate of plutonium is controlled by select organic matter moieties. Science of the Total Environment, 2019, 678, 409-418.	3.9	14
58	Plutonium Partitioning Behavior to Humic Acids from Widely Varying Soils Is Related to Carboxyl-Containing Organic Compounds. Environmental Science & Technology, 2017, 51, 11742-11751.	4.6	13
59	Marine Snow Aggregates are Enriched in Polycyclic Aromatic Hydrocarbons (PAHs) in Oil Contaminated Waters: Insights from a Mesocosm Study. Journal of Marine Science and Engineering, 2020, 8, 781.	1.2	13
60	Radionuclide uptake by colloidal and particulate humic acids obtained from 14 soils collected worldwide. Scientific Reports, 2018, 8, 4795.	1.6	9
61	Sediment accumulation and mixing in the Penobscot River and estuary, Maine. Science of the Total Environment, 2018, 635, 228-239.	3.9	8
62	Molecular Interaction of Aqueous Iodine Species with Humic Acid Studied by I and C K-Edge X-ray Absorption Spectroscopy. Environmental Science & Technology, 2019, 53, 12416-12424.	4.6	8
63	Diagnostic tool to ascertain marine phytoplankton exposure to chemically enhanced water accommodated fraction of oil using Fourier Transform Infrared spectroscopy. Marine Pollution Bulletin, 2018, 130, 170-178.	2.3	7
64	Biogenic Manganese Oxides Facilitate Iodide Oxidation at pH â‰ 5. Geomicrobiology Journal, 2018, 35, 167-173.	1.0	7
65	The Interplay of Phototrophic and Heterotrophic Microbes Under Oil Exposure: A Microcosm Study. Frontiers in Microbiology, 2021, 12, 675328.	1.5	6
66	Importance of coccolithophoreâ€associated organic biopolymers for fractionating particleâ€reactive radionuclides (²³⁴Th, ²³³Pa, ²¹⁰Pb, ²¹⁰Po, and) Tj ETQq0 0 1 rgBT /Overlock 10 T	0.8	5
67	Partitioning of iron and plutonium to exopolymeric substances and intracellular biopolymers: A comparison study between the coccolithophore Emiliania huxleyi and the diatom Skeletonema costatum. Marine Chemistry, 2020, 218, 103735.	0.9	4
68	Response to Comment on â€œIodine-129 and Iodine-127 Speciation in Groundwater at Hanford Site, U.S.: Iodate Incorporation into Calciteâ€ Environmental Science & Technology, 2013, 47, 13205-13206.	4.6	3