Heileen Hsu-Kim

List of Publications by Year
in descending order

114 papers	7,192 citations	61984 43 h-index	58581 82 g-index
117 all docs	117 docs citations	117 times ranked	7667 citing authors

#	Article	IF	Citations
1	Influence of Dissolved Organic Matter on the Environmental Fate of Metals, Nanoparticles, and Colloids. Environmental Science & Technology, 2011, 45, 3196-3201.	10.0	678
2	Mechanisms Regulating Mercury Bioavailability for Methylating Microorganisms in the Aquatic Environment: A Critical Review. Environmental Science & Technology, 2013, 47, 2441-2456.	10.0	539
3	Mechanism of Silver Nanoparticle Toxicity Is Dependent on Dissolved Silver and Surface Coating in <i>Caenorhabditis elegans</i>. Environmental Science & Technology, 2012, 46, 1119-1127.	10.0	535
4	Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. Environmental Science & Technology, 2012, 46, 7027-7036.	10.0	351
5	Methylation of Mercury by Bacteria Exposed to Dissolved, Nanoparticulate, and Microparticulate Mercuric Sulfides. Environmental Science & Technology, 2012, 46, 6950-6958.	10.0	208
6	Cysteine-Induced Modifications of Zero-valent Silver Nanomaterials: Implications for Particle Surface Chemistry, Aggregation, Dissolution, and Silver Speciation. Environmental Science & Technology, 2012, 46, 7037-7045.	10.0	208
7	Trends in the Rare Earth Element Content of U.S.-Based Coal Combustion Fly Ashes. Environmental Science & Technology, 2016, 50, 5919-5926.	10.0	208
8	Challenges and opportunities for managing aquatic mercury pollution in altered landscapes. Ambio, 2018, 47, 141-169.	5.5	183
9	Photolytic degradation of methylmercury enhanced by binding to natural organic ligands. Nature Geoscience, 2010, 3, 473-476.	12.9	171
10	Precipitation of Mercuric Sulfide Nanoparticles in NOM-Containing Water: Implications for the Natural Environment. Environmental Science & Technology, 2009, 43, 2368-2373.	10.0	158
11	Survey of the Potential Environmental and Health Impacts in the Immediate Aftermath of the Coal Ash Spill in Kingston, Tennessee. Environmental Science & Technology, 2009, 43, 6326-6333.	10.0	157
12	Environmental Impacts of the Coal Ash Spill in Kingston, Tennessee: An 18-Month Survey. Environmental Science & Technology, 2010, 44, 9272-9278.	10.0	137
13	Silver Nanoparticle Behavior, Uptake, and Toxicity in <i>Caenorhabditis elegans</i>: Effects of Natural Organic Matter. Environmental Science & Technology, 2014, 48, 3486-3495.	10.0	135
14	Effects of Humic Substances on Precipitation and Aggregation of Zinc Sulfide Nanoparticles. Environmental Science & Technology, 2011, 45, 3217-3223.	10.0	131
15	Aqueous acid and alkaline extraction of rare earth elements from coal combustion ash. International Journal of Coal Geology, 2018, 195, 75-83.	5.0	103
16	Effects of roasting additives and leaching parameters on the extraction of rare earth elements from coal fly ash. International Journal of Coal Geology, 2018, 196, 106-114.	5.0	103
17	Effects of Natural Organic Matter Properties on the Dissolution Kinetics of Zinc Oxide Nanoparticles. Environmental Science & Technology, 2015, 49, 11476-11484.	10.0	100
18	Net Methylation of Mercury in Estuarine Sediment Microcosms Amended with Dissolved, Nanoparticulate, and Microparticulate Mercuric Sulfides. Environmental Science & Technology, 2014, 48, 9133-9141.	10.0	97

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19	River transport of mercury from artisanal and small-scale gold mining and risks for dietary mercury exposure in Madre de Dios, Peru. Environmental Sciences: Processes and Impacts, 2015, 17, 478-487.	3.5	97
20	A Critical Time for Mercury Science to Inform Global Policy. Environmental Science & Technology, 2018, 52, 9556-9561.	10.0	90
21	Selective Recovery of Rare Earth Elements from Coal Fly Ash Leachates Using Liquid Membrane Processes. Environmental Science & Technology, 2019, 53, 4490-4499.	10.0	88
22	The Impact of Coal Combustion Residue Effluent on Water Resources: A North Carolina Example. Environmental Science & Technology, 2012, 46, 12226-12233.	10.0	85
23	Strong Hg(II) Complexation in Municipal Wastewater Effluent and Surface Waters. Environmental Science & Technology, 2003, 37, 2743-2749.	10.0	80
24	Observations and Assessment of Fly Ashes from High-Sulfur Bituminous Coals and Blends of High-Sulfur Bituminous and Subbituminous Coals: Environmental Processes Recorded at the Macro- and Nanometer Scale. Energy & Fuels, 2015, 29, 7168-7177.	5.1	79
25	Application of nanofiltration for Rare Earth Elements recovery from coal fly ash leachate: Performance and cost evaluation. Chemical Engineering Journal, 2018, 349, 309-317.	12.7	72
26	Naturally Occurring Radioactive Materials in Coals and Coal Combustion Residuals in the United States. Environmental Science & Technology, 2015, 49, 11227-11233.	10.0	71
27	Solving the problem at the source: Controlling Mn release at the sediment-water interface via hypolimnetic oxygenation. Water Research, 2011, 45, 6381-6392.	11.3	70
28	Environmental Impacts of the Tennessee Valley Authority Kingston Coal Ash Spill. 1. Source Apportionment Using Mercury Stable Isotopes. Environmental Science & Technology, 2013, 47, 2092-2099.	10.0	69
29	Precipitation of nanoscale mercuric sulfides in the presence of natural organic matter: Structural properties, aggregation, and biotransformation. Geochimica Et Cosmochimica Acta, 2014, 133, 204-215.	3.9	67
30	Amazon forests capture high levels of atmospheric mercury pollution from artisanal gold mining. Nature Communications, 2022, 13, 559.	12.8	67
31	<i>In situ</i>remediation of subsurface contamination: opportunities and challenges for nanotechnology and advanced materials. Environmental Science: Nano, 2019, 6, 1283-1302.	4.3	65
32	A biosorption-based approach for selective extraction of rare earth elements from coal byproducts. Separation and Purification Technology, 2020, 241, 116726.	7.9	55
33	Precipitation and Growth of Zinc Sulfide Nanoparticles in the Presence of Thiol-Containing Natural Organic Ligands. Environmental Science & Technology, 2008, 42, 7236-7241.	10.0	54
34	Stability of Metalâˆ’Glutathione Complexes during Oxidation by Hydrogen Peroxide and Cu(II)-Catalysis. Environmental Science & Technology, 2007, 41, 2338-2342.	10.0	52
35	Size-Based Differential Transport, Uptake, and Mass Distribution of Ceria (CeO₂) Nanoparticles in Wetland Mesocosms. Environmental Science & Technology, 2018, 52, 9768-9776.	10.0	52
36	Quantification of Mercury Bioavailability for Methylation Using Diffusive Gradient in Thin-Film Samplers. Environmental Science & Technology, 2018, 52, 8521-8529.	10.0	49

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37	Intracellular trafficking pathways in silver nanoparticle uptake and toxicity in <i>Caenorhabditis elegans</i>. Nanotoxicology, 2016, 10, 831-835.	3.0	48
38	Biochar and activated carbon act as promising amendments for promoting the microbial debromination of tetrabromobisphenol A. Water Research, 2018, 128, 102-110.	11.3	48
39	Boron and Strontium Isotopic Characterization of Coal Combustion Residuals: Validation of New Environmental Tracers. Environmental Science & Technology, 2014, 48, 14790-14798.	10.0	47
40	Mobility of Four Common Mercury Species in Model and Natural Unsaturated Soils. Environmental Science & Technology, 2016, 50, 3342-3351.	10.0	46
41	Influence of amino acids cysteine and serine on aggregation kinetics of zinc and mercury sulfide colloids. Journal of Colloid and Interface Science, 2010, 347, 167-171.	9.4	45
42	Formation of Zn- and Fe-sulfides near hydrothermal vents at the Eastern Lau Spreading Center: implications for sulfide bioavailability to chemoautotrophs. Geochemical Transactions, 2008, 9, 6.	0.7	44
43	Selenium Speciation in Coal Ash Spilled at the Tennessee Valley Authority Kingston Site. Environmental Science & Technology, 2013, 47, 14001-14009.	10.0	43
44	Leaching potential and redox transformations of arsenic and selenium in sediment microcosms with fly ash. Applied Geochemistry, 2016, 67, 177-185.	3.0	43
45	Rare Earth Element Distribution in Fly Ash Derived from the Fire Clay Coal, Kentucky. Coal Combustion and Gasification Products, 2017, 9, 22-33.	1.0	43
46	Similarities between Inorganic Sulfide and the Strong Hg(II)-Complexing Ligands in Municipal Wastewater Effluent. Environmental Science & Technology, 2005, 39, 4035-4041.	10.0	42
47	Spatial, Temporal, and Dietary Variables Associated with Elevated Mercury Exposure in Peruvian Riverine Communities Upstream and Downstream of Artisanal and Small-Scale Gold Mining. International Journal of Environmental Research and Public Health, 2017, 14, 1582.	2.6	41
48	Rare earth element associations in the Kentucky State University stoker ash. International Journal of Coal Geology, 2018, 189, 75-82.	5.0	41
49	Direct in situ measurement of dissolved zinc in the presence of zinc oxide nanoparticles using anodic stripping voltammetry. Environmental Sciences: Processes and Impacts, 2014, 16, 2536-2544.	3.5	40
50	Bioaccumulation and speciation of selenium in fish and insects collected from a mountaintop removal coal mining-impacted stream in West Virginia. Ecotoxicology, 2014, 23, 929-938.	2.4	40
51	Hair Mercury Level is Associated with Anemia and Micronutrient Status in Children Living Near Artisanal and Small-Scale Gold Mining in the Peruvian Amazon. American Journal of Tropical Medicine and Hygiene, 2017, 97, 1886-1897.	1.4	40
52	Relative Contributions of Copper Oxide Nanoparticles and Dissolved Copper to Cu Uptake Kinetics of Gulf Killifish (<i>Fundulus grandis</i>) Embryos. Environmental Science & Technology, 2017, 51, 1395-1404.	10.0	37
53	Deforestation Due to Artisanal and Small-Scale Gold Mining Exacerbates Soil and Mercury Mobilization in Madre de Dios, Peru. Environmental Science & Technology, 2020, 54, 286-296.	10.0	36
54	Estimating historical atmospheric mercury concentrations from silver mining and their legacies in present-day surface soil in PotosÃ; Bolivia. Atmospheric Environment, 2011, 45, 7619-7626.	4.1	35

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55	Ranking Coal Ash Materials for Their Potential to Leach Arsenic and Selenium: Relative Importance of Ash Chemistry and Site Biogeochemistry. Environmental Engineering Science, 2018, 35, 728-738.	1.6	35
56	Environmental Impacts of the Tennessee Valley Authority Kingston Coal Ash Spill. 2. Effect of Coal Ash on Methylmercury in Historically Contaminated River Sediments. Environmental Science & Technology, 2013, 47, 2100-2108.	10.0	34
57	A new framework for approaching precision bioremediation of PAH contaminated soils. Journal of Hazardous Materials, 2019, 378, 120859.	12.4	34
58	Elevated Hair Mercury Levels Are Associated With Neurodevelopmental Deficits in Children Living Near Artisanal and Smallâ€Scale Gold Mining in Peru. GeoHealth, 2020, 4, e2019GH000222.	4.0	34
59	Major element composition controls rare earth element solubility during leaching of coal fly ash and coal by-products. International Journal of Coal Geology, 2020, 227, 103532.	5.0	32
60	Biogeochemical transformations of mercury in solid waste landfills and pathways for release. Environmental Sciences: Processes and Impacts, 2016, 18, 176-189.	3.5	31
61	Caveats to the use of MTT, neutral red, Hoechst and Resazurin to measure silver nanoparticle cytotoxicity. Chemico-Biological Interactions, 2020, 315, 108868.	4.0	30
62	Techno-Economic and Life Cycle Assessments for Sustainable Rare Earth Recovery from Coal Byproducts using Biosorption. ACS Sustainable Chemistry and Engineering, 2020, 8, 17914-17922.	6.7	30
63	Population-based dietary exposure to mercury through fish consumption in the Southern Peruvian Amazon. Environmental Research, 2020, 183, 108720.	7.5	29
64	Differential Reactivity of Copper- and Gold-Based Nanomaterials Controls Their Seasonal Biogeochemical Cycling and Fate in a Freshwater Wetland Mesocosm. Environmental Science & Technology, 2020, 54, 1533-1544.	10.0	29
65	Senegalese artisanal gold mining leads to elevated total mercury and methylmercury concentrations in soils, sediments, and rivers. Elementa, 2018, 6, .	3.2	28
66	Speciation of Mercury in Selected Areas of the Petroleum Value Chain. Environmental Science & Technology, 2018, 52, 1655-1664.	10.0	26
67	Differences in bulk and microscale yttrium speciation in coal combustion fly ash. Environmental Sciences: Processes and Impacts, 2018, 20, 1390-1403.	3.5	26
68	Relative Reactivity and Bioavailability of Mercury Sorbed to or Coprecipitated with Aged Iron Sulfides. Environmental Science & Technology, 2019, 53, 7391-7399.	10.0	25
69	Variation in Sulfur Speciation with Shellfish Presence at a Lau Basin Diffuse Flow Vent Site. Journal of Shellfish Research, 2008, 27, 163-168.	0.9	24
70	Pseudopolarographic Determination of Cd2+Complexation in Freshwater. Environmental Science & Technology, 2006, 40, 5388-5394.	10.0	21
71	Relative contributions of mercury bioavailability and microbial growth rate on net methylmercury production by anaerobic mixed cultures. Environmental Sciences: Processes and Impacts, 2015, 17, 1568-1577.	3.5	21
72	Influence of Sulfide Nanoparticles on Dissolved Mercury and Zinc Quantification by Diffusive Gradient in Thin-Film Passive Samplers. Environmental Science & Technology, 2015, 49, 12897-12903.	10.0	21

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73	Antagonistic Growth Effects of Mercury and Selenium in <i>Caenorhabditis elegans</i> Are Chemical-Species-Dependent and Do Not Depend on Internal Hg/Se Ratios. Environmental Science & Technology, 2016, 50, 3256-3264.	10.0	21
74	Nano-Scale Rare Earth Distribution in Fly Ash Derived from the Combustion of the Fire Clay Coal, Kentucky. Minerals (Basel, Switzerland), 2019, 9, 206.	2.0	21
75	Plastic pellets trigger feeding responses in sea anemones. Aquatic Toxicology, 2020, 222, 105447.	4.0	21
76	Early-stage precipitation kinetics of zinc sulfide nanoclusters forming in the presence of cysteine. Chemical Geology, 2012, 329, 10-17.	3.3	20
77	A population-based mercury exposure assessment near an artisanal and small-scale gold mining site in the Peruvian Amazon. Journal of Exposure Science and Environmental Epidemiology, 2021, 31, 126-136.	3.9	19
78	Distribution of rare earth elements in fly ash derived from the combustion of Illinois Basin coals. Fuel, 2021, 289, 119990.	6.4	19
79	A robust framework to predict mercury speciation in combustion flue gases. Journal of Hazardous Materials, 2014, 264, 380-385.	12.4	18
80	Estimations of historical atmospheric mercury concentrations from mercury refining and present-day soil concentrations of total mercury in Huancavelica, Peru. Science of the Total Environment, 2012, 426, 146-154.	8.0	16
81	Thiol-Based Selective Extraction Assay to Comparatively Assess Bioavailable Mercury in Sediments. Environmental Engineering Science, 2015, 32, 564-573.	1.6	15
82	Chemistry and petrology of paired feed coal and combustion ash from anthracite-burning stoker boilers. Fuel, 2017, 199, 438-446.	6.4	15
83	Mercury Exposure and Poor Nutritional Status Reduce Response to Six Expanded Program on Immunization Vaccines in Children: An Observational Cohort Study of Communities Affected by Gold Mining in the Peruvian Amazon. International Journal of Environmental Research and Public Health, 2019, 16, 638.	2.6	14
84	<i>In Vivo</i> Effects of Silver Nanoparticles on Development, Behavior, and Mitochondrial Function are Altered by Genetic Defects in Mitochondrial Dynamics. Environmental Science & Technology, 2022, 56, 1113-1124.	10.0	14
85	Lithium Isotope Fingerprints in Coal and Coal Combustion Residuals from the United States. Procedia Earth and Planetary Science, 2015, 13, 134-137.	0.6	13
86	Predictors of mitochondrial DNA copy number and damage in a mercuryâ€exposed rural Peruvian population near artisanal and smallâ€scale gold mining: An exploratory study. Environmental and Molecular Mutagenesis, 2019, 60, 197-210.	2.2	13
87	Signatures of rare earth element distributions in fly ash derived from the combustion of Central Appalachian, Illinois, and Powder River basin coals. Fuel, 2021, 301, 121048.	6.4	13
88	Residential Mercury Contamination in Adobe Brick Homes in Huancavelica, Peru. PLoS ONE, 2013, 8, e75179.	2.5	13
89	Mercury hair levels and factors that influence exposure for residents of Huancavelica, Peru. Environmental Geochemistry and Health, 2015, 37, 507-514.	3.4	12
90	Impacts of coal ash on methylmercury production and the methylating microbial community in anaerobic sediment slurries. Environmental Sciences: Processes and Impacts, 2016, 18, 1427-1439.	3.5	12

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91	Distinction of strontium isotope ratios between water-soluble and bulk coal fly ash from the United States. International Journal of Coal Geology, 2020, 222, 103464.	5.0	12
92	Microbe-Encapsulated Silica Gel Biosorbents for Selective Extraction of Scandium from Coal Byproducts. Environmental Science & Technology, 2021, 55, 6320-6328.	10.0	12
93	Unraveling Changes to PbS Nanocrystal Surfaces Induced by Thiols. Chemistry of Materials, 2022, 34, 1710-1721.	6.7	12
94	Lack of Detectable Direct Effects of Silver and Silver Nanoparticles on Mitochondria in Mouse Hepatocytes. Environmental Science & Technology, 2021, 55, 11166-11175.	10.0	11
95	Efficacy of Hair Total Mercury Content as a Biomarker of Methylmercury Exposure to Communities in the Area of Artisanal and Small-Scale Gold Mining in Madre de Dios, Peru. International Journal of Environmental Research and Public Health, 2021, 18, 13350.	2.6	11
96	Residential metal contamination and potential health risks of exposure in adobe brick houses in PotosÃ; Bolivia. Science of the Total Environment, 2016, 562, 237-246.	8.0	10
97	Legacy source of mercury in an urban streamâ€"wetland ecosystem in central North Carolina, USA. Chemosphere, 2015, 138, 960-965.	8.2	9
98	Microbial vesicle-mediated communication: convergence to understand interactions within and between domains of life. Environmental Sciences: Processes and Impacts, 2021, 23, 664-677.	3.5	9
99	Silver toxicity across salinity gradients: the role of dissolved silver chloride species (AgCl x) in Atlantic killifish (Fundulus heteroclitus) and medaka (Oryzias latipes) early life-stage toxicity. Ecotoxicology, 2016, 25, 1105-1118.	2.4	8
100	Modern science of a legacy problem: mercury biogeochemical research after the Minamata Convention. Environmental Sciences: Processes and Impacts, 2018, 20, 582-583.	3.5	8
101	Mercury and selenium loading in mountaintop mining impacted alkaline streams and riparian food webs. Biogeochemistry, 2020, 150, 109-122.	3.5	8
102	Separation of rare earth elements from mixed-metal feedstocks by micelle enhanced ultrafiltration with sodium dodecyl sulfate. Environmental Technology (United Kingdom), 2020, , 1-13.	2.2	8
103	Utility of Diffusive Gradient in Thin-Film Passive Samplers for Predicting Mercury Methylation Potential and Bioaccumulation in Freshwater Wetlands. Environmental Science & Technology, 2022, 56, 1743-1752.	10.0	8
104	Embryonic Fundulus heteroclitus responses to sediment extracts from differentially contaminated sites in the Elizabeth River, VA. Ecotoxicology, 2019, 28, 1126-1135.	2.4	6
105	Work in progress: A STEM educational outreach day for young females. , 2008, , .		5
106	Speciation and bioaccessibility of mercury in adobe bricks and dirt floors in Huancavelica, Peru. Environmental Geochemistry and Health, 2015, 37, 263-272.	3.4	5
107	FEMALES EXCELLING MORE IN MATH, ENGINEERING, AND SCIENCE (FEMMES): AN AFTER-SCHOOL STEM PROGRAM FOR GIRLS THAT FOSTERS HANDS-ON LEARNING AND FEMALE-TO-FEMALE MENTORSHIP. Journal of Women and Minorities in Science and Engineering, 2011, 17, 313-324.	0.8	5
108	Evaluation of Peruvian Government Interventions to Reduce Childhood Anemia. Annals of Global Health, 2020, 86, 98.	2.0	5

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109	Guest Comment: Nanoscale Metalâˆ’Organic Matter Interactions. Environmental Science & Technology, 2011, 45, 3194-3195.	10.0	4
110	FEMMES: A ONE-DAY MENTORSHIP PROGRAM TO ENGAGE 4TH-6TH GRADE GIRLS IN STEM ACTIVITIES. Journal of Women and Minorities in Science and Engineering, 2011, 17, 295-312.	0.8	4
111	Risk of lead exposure from wild game consumption from cross-sectional studies in Madre de Dios, Peru. The Lancet Regional Health Americas, 2022, 12, 100266.	2.6	4
112	Stability of Metalâˆ’Glutathione Complexes during Oxidation by Hydrogen Peroxide and Cu(II)-Catalysis. , 0, , .		3
113	<i>CoNaMadâ€"Cohorte de Nacimiento de Madre de Dios</i> / Madre de Dios Birth Cohort to Study Effects of in-utero Trace Metals Exposure in the Southern Peruvian Amazon. Annals of Global Health, 2021, 87, 69.	2.0	2
114	COMPLEXATION OF MERCURY(II) IN MUNICIPAL WASTEWATER: INSIGHTS FOR THE FATE OF MERCURY IN EFFLUENT-RECEIVING WATERS. Proceedings of the Water Environment Federation, 2007, 2007, 3161-3165.	0.0	0