Elsie M Sunderland

List of Publications by Year
in descending order

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124 papers	13,456 citations	19608 61 h-index	22102 113 g-index
131 all docs	131 docs citations	131 times ranked	9451 citing authors

#	Article	IF	Citations
1	A review of the pathways of human exposure to poly- and perfluoroalkyl substances (PFASs) and present understanding of health effects. Journal of Exposure Science and Environmental Epidemiology, 2019, 29, 131-147.	1.8	1,219
2	Detection of Poly- and Perfluoroalkyl Substances (PFASs) in U.S. Drinking Water Linked to Industrial Sites, Military Fire Training Areas, and Wastewater Treatment Plants. Environmental Science and Technology Letters, 2016, 3, 344-350.	3.9	839
3	A review of global environmental mercury processes in response to human and natural perturbations: Changes of emissions, climate, and land use. Ambio, 2018, 47, 116-140.	2.8	500
4	Mercury biogeochemical cycling in the ocean and policy implications. Environmental Research, 2012, 119, 101-117.	3.7	477
5	All-Time Releases of Mercury to the Atmosphere from Human Activities. Environmental Science & Technology, 2011, 45, 10485-10491.	4.6	434
6	Mercury sources, distribution, and bioavailability in the North Pacific Ocean: Insights from data and models. Global Biogeochemical Cycles, 2009, 23, .	1.9	378
7	Legacy impacts of allâ€•time anthropogenic emissions on the global mercury cycle. Global Biogeochemical Cycles, 2013, 27, 410-421.	1.9	377
8	Gas-particle partitioning of atmospheric Hg(II) and its effect on global mercury deposition. Atmospheric Chemistry and Physics, 2012, 12, 591-603.	1.9	371
9	PFAS Exposure Pathways for Humans and Wildlife: A Synthesis of Current Knowledge and Key Gaps in Understanding. Environmental Toxicology and Chemistry, 2021, 40, 631-657.	2.2	311
10	Total Mercury Released to the Environment by Human Activities. Environmental Science & Technology, 2017, 51, 5969-5977.	4.6	304
11	A new mechanism for atmospheric mercury redox chemistry: implications for the global mercury budget. Atmospheric Chemistry and Physics, 2017, 17, 6353-6371.	1.9	296
12	Global Change and Mercury. Science, 2013, 341, 1457-1458.	6.0	289
13	Observed decrease in atmospheric mercury explained by global decline in anthropogenic emissions. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 526-531.	3.3	284
14	Mercury Exposure from Domestic and Imported Estuarine and Marine Fish in the U.S. Seafood Market. Environmental Health Perspectives, 2007, 115, 235-242.	2.8	271
15	Human impacts on open ocean mercury concentrations. Global Biogeochemical Cycles, 2007, 21, .	1.9	239
16	Global Biogeochemical Implications of Mercury Discharges from Rivers and Sediment Burial. Environmental Science & Technology, 2014, 48, 9514-9522.	4.6	229
17	Historical Mercury Releases from Commercial Products: Global Environmental Implications. Environmental Science & Technology, 2014, 48, 10242-10250.	4.6	227
18	An Improved Global Model for Air-Sea Exchange of Mercury: High Concentrations over the North Atlantic. Environmental Science & Technology, 2010, 44, 8574-8580.	4.6	225

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19	Balancing the benefits of n-3 polyunsaturated fatty acids and the risks of methylmercury exposure from fish consumption. Nutrition Reviews, 2011, 69, 493-508.	2.6	204
20	Global 3â€D landâ€oceanâ€atmosphere model for mercury: Presentâ€day versus preindustrial cycles and anthropogenic enrichment factors for deposition. Global Biogeochemical Cycles, 2008, 22, .	1.9	174
21	Riverine source of Arctic Ocean mercury inferred from atmospheric observations. Nature Geoscience, 2012, 5, 499-504.	5.4	168
22	Which Fish Should I Eat? Perspectives Influencing Fish Consumption Choices. Environmental Health Perspectives, 2012, 120, 790-798.	2.8	156
23	Global and regional trends in mercury emissions and concentrations, 2010â€“2015. Atmospheric Environment, 2019, 201, 417-427.	1.9	154
24	Observational and Modeling Constraints on Global Anthropogenic Enrichment of Mercury. Environmental Science & Technology, 2015, 49, 4036-4047.	4.6	152
25	Mercury methylation in estuaries: Insights from using measuring rates using stable mercury isotopes. Marine Chemistry, 2006, 102, 134-147.	0.9	151
26	Geochemical and Hydrologic Factors Controlling Subsurface Transport of Poly- and Perfluoroalkyl Substances, Cape Cod, Massachusetts. Environmental Science & Technology, 2017, 51, 4269-4279.	4.6	150
27	Environmental controls on the speciation and distribution of mercury in coastal sediments. Marine Chemistry, 2006, 102, 111-123.	0.9	149
28	Speciation and bioavailability of mercury in well-mixed estuarine sediments. Marine Chemistry, 2004, 90, 91-105.	0.9	142
29	Climate change and overfishing increase neurotoxicant in marine predators. Nature, 2019, 572, 648-650.	13.7	142
30	Anthropogenic impacts on global storage and emissions of mercury from terrestrial soils: Insights from a new global model. Journal of Geophysical Research, 2010, 115, .	3.3	140
31	Global Sourceâ€“Receptor Relationships for Mercury Deposition Under Present-Day and 2050 Emissions Scenarios. Environmental Science & Technology, 2011, 45, 10477-10484.	4.6	140
32	Freshwater discharges drive high levels of methylmercury in Arctic marine biota. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11789-11794.	3.3	116
33	Source Attribution of Poly- and Perfluoroalkyl Substances (PFASs) in Surface Waters from Rhode Island and the New York Metropolitan Area. Environmental Science and Technology Letters, 2016, 3, 316-321.	3.9	111
34	A mass budget for mercury and methylmercury in the Arctic Ocean. Global Biogeochemical Cycles, 2016, 30, 560-575.	1.9	110
35	Contrasting Effects of Marine and Terrestrially Derived Dissolved Organic Matter on Mercury Speciation and Bioavailability in Seawater. Environmental Science & Technology, 2015, 49, 5965-5972.	4.6	109
36	Vertical Profiles, Sources, and Transport of PFASs in the Arctic Ocean. Environmental Science & Technology, 2017, 51, 6735-6744.	4.6	107

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37	Photoreduction of gaseous oxidized mercury changes global atmospheric mercury speciation, transport and deposition. Nature Communications, 2018, 9, 4796.	5.8	107
38	Biogeochemical drivers of the fate of riverine mercury discharged to the global and Arctic oceans. Global Biogeochemical Cycles, 2015, 29, 854-864.	1.9	99
39	Modelling the mercury stable isotope distribution of Earth surface reservoirs: Implications for global Hg cycling. Geochimica Et Cosmochimica Acta, 2019, 246, 156-173.	1.6	96
40	Historical releases of mercury to air, land, and water from coal combustion. Science of the Total Environment, 2018, 615, 131-140.	3.9	90
41	Toward an Assessment of the Global Inventory of Present-Day Mercury Releases to Freshwater Environments. International Journal of Environmental Research and Public Health, 2017, 14, 138.	1.2	87
42	Toward the next generation of air quality monitoring: Mercury. Atmospheric Environment, 2013, 80, 599-611.	1.9	86
43	A Model for Methylmercury Uptake and Trophic Transfer by Marine Plankton. Environmental Science & Technology, 2018, 52, 654-662.	4.6	86
44	Multiâ€decadal decline of mercury in the North Atlantic atmosphere explained by changing subsurface seawater concentrations. Geophysical Research Letters, 2012, 39, .	1.5	85
45	Poly- and Perfluoroalkyl Substances in Seawater and Plankton from the Northwestern Atlantic Margin. Environmental Science & Technology, 2019, 53, 12348-12356.	4.6	85
46	Assessing Sources of Human Methylmercury Exposure Using Stable Mercury Isotopes. Environmental Science & Technology, 2014, 48, 8800-8806.	4.6	84
47	Phospholipid Levels Predict the Tissue Distribution of Poly- and Perfluoroalkyl Substances in a Marine Mammal. Environmental Science and Technology Letters, 2019, 6, 119-125.	3.9	84
48	Five hundred years of anthropogenic mercury: spatial and temporal release profiles*. Environmental Research Letters, 2019, 14, 084004.	2.2	80
49	Transport of Legacy Perfluoroalkyl Substances and the Replacement Compound HFPO-DA through the Atlantic Gateway to the Arctic Oceanâ€"Is the Arctic a Sink or a Source?. Environmental Science & Technology, 2020, 54, 9958-9967.	4.6	79
50	Nutrient supply and mercury dynamics in marine ecosystems: A conceptual model. Environmental Research, 2012, 119, 118-131.	3.7	78
51	APPLICATION OF ECOSYSTEM-SCALE FATE AND BIOACCUMULATION MODELS TO PREDICT FISH MERCURY RESPONSE TIMES TO CHANGES IN ATMOSPHERIC DEPOSITION. Environmental Toxicology and Chemistry, 2009, 28, 881.	2.2	77
52	Potential impacts of mercury released from thawing permafrost. Nature Communications, 2020, 11, 4650.	5.8	77
53	Sources of Mercury Exposure for U.S. Seafood Consumers: Implications for Policy. Environmental Health Perspectives, 2010, 118, 137-143.	2.8	72
54	Elemental Mercury Concentrations and Fluxes in the Tropical Atmosphere and Ocean. Environmental Science & Technology, 2014, 48, 11312-11319.	4.6	72

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55	Tap Water Contributions to Plasma Concentrations of Poly- and Perfluoroalkyl Substances (PFAS) in a Nationwide Prospective Cohort of U.S. Women. Environmental Health Perspectives, 2019, 127, 67006.	2.8	72
56	Decadal Changes in the Edible Supply of Seafood and Methylmercury Exposure in the United States. Environmental Health Perspectives, 2018, 126, 017006.	2.8	69
57	Eurasian river spring flood observations support net Arctic Ocean mercury export to the atmosphere and Atlantic Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11586-E11594.	3.3	68
58	Drivers of Surface Ocean Mercury Concentrations and Airâ€"Sea Exchange in the West Atlantic Ocean. Environmental Science & Technology, 2013, 47, 7757-7765.	4.6	65
59	A Global Model for Methylmercury Formation and Uptake at the Base of Marine Food Webs. Global Biogeochemical Cycles, 2020, 34, e2019GB006348.	1.9	65
60	Improved Mechanistic Model of the Atmospheric Redox Chemistry of Mercury. Environmental Science & Technology, 2021, 55, 14445-14456.	4.6	65
61	Shifting Global Exposures to Poly- and Perfluoroalkyl Substances (PFASs) Evident in Longitudinal Birth Cohorts from a Seafood-Consuming Population. Environmental Science & Technology, 2018, 52, 3738-3747.	4.6	64
62	Historical (1850â€"2010) mercury stable isotope inventory from anthropogenic sources to the atmosphere. Elementa, 2016, 4, .	1.1	64
63	Response of a Macrotidal Estuary to Changes in Anthropogenic Mercury Loading between 1850 and 2000. Environmental Science & Technology, 2010, 44, 1698-1704.	4.6	63
64	Temporal Shifts in Poly- and Perfluoroalkyl Substances (PFASs) in North Atlantic Pilot Whales Indicate Large Contribution of Atmospheric Precursors. Environmental Science & Technology, 2017, 51, 4512-4521.	4.6	62
65	Environmental Origins of Methylmercury Accumulated in Subarctic Estuarine Fish Indicated by Mercury Stable Isotopes. Environmental Science & Technology, 2016, 50, 11559-11568.	4.6	60
66	Physico-chemical properties and gestational diabetes predict transplacental transfer and partitioning of perfluoroalkyl substances. Environment International, 2019, 130, 104874.	4.8	60
67	Can profiles of poly- and Perfluoroalkyl substances (PFASs) in human serum provide information on major exposure sources?. Environmental Health, 2018, 17, 11.	1.7	58
68	Isolating the AFFF Signature in Coastal Watersheds Using Oxidizable PFAS Precursors and Unexplained Organofluorine. Environmental Science & Technology, 2021, 55, 3686-3695.	4.6	56
69	Mercury sources and fate in the Gulf of Maine. Environmental Research, 2012, 119, 27-41.	3.7	54
70	Mercury Stable Isotopes Reveal Influence of Foraging Depth on Mercury Concentrations and Growth in Pacific Bluefin Tuna. Environmental Science & Technology, 2018, 52, 6256-6264.	4.6	52
71	Reconstructing the Composition of Per- and Polyfluoroalkyl Substances in Contemporary Aqueous Film-Forming Foams. Environmental Science and Technology Letters, 2021, 8, 59-65.	3.9	50
72	Characterization of hospital airborne SARS-CoV-2. Respiratory Research, 2021, 22, 73.	1.4	48

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73	Future trends in environmental mercury concentrations: implications for prevention strategies. Environmental Health, 2013, 12, 2.	1.7	47
74	How Do We Measure Poly- and Perfluoroalkyl Substances (PFASs) at the Surface of Consumer Products?. Environmental Science and Technology Letters, 2019, 6, 38-43.	3.9	46
75	North Atlantic Deep Water formation inhibits high Arctic contamination by continental perfluorooctane sulfonate discharges. Global Biogeochemical Cycles, 2017, 31, 1332-1343.	1.9	42
76	Screening New Persistent and Bioaccumulative Organics in Chinaâ€™s Inventory of Industrial Chemicals. Environmental Science & Technology, 2020, 54, 7398-7408.	4.6	42
77	Future Impacts of Hydroelectric Power Development on Methylmercury Exposures of Canadian Indigenous Communities. Environmental Science & Technology, 2016, 50, 13115-13122.	4.6	41
78	Mercury in the Gulf of Mexico: Sources to receptors. Environmental Research, 2012, 119, 42-52.	3.7	40
79	Per- and polyfluoroalkyl substances (PFAS) and total fluorine in fire station dust. Journal of Exposure Science and Environmental Epidemiology, 2021, 31, 930-942.	1.8	40
80	Historical rates of salt marsh accretion on the outer Bay of Fundy. Canadian Journal of Earth Sciences, 2001, 38, 1081-1092.	0.6	39
81	An inventory of historical mercury emissions in Maritime Canada: implications for present and future contamination. Science of the Total Environment, 2000, 256, 39-57.	3.9	38
82	Factors driving mercury variability in the Arctic atmosphere and ocean over the past 30 years. Global Biogeochemical Cycles, 2013, 27, 1226-1235.	1.9	37
83	Selenium and stable mercury isotopes provide new insights into mercury toxicokinetics in pilot whales. Science of the Total Environment, 2020, 710, 136325.	3.9	36
84	Benefits of Regulating Hazardous Air Pollutants from Coal and Oil-Fired Utilities in the United States. Environmental Science & Technology, 2016, 50, 2117-2120.	4.6	35
85	Reconciling models and measurements to assess trends in atmospheric mercury deposition. Environmental Pollution, 2008, 156, 526-535.	3.7	32
86	A Global 3â€D Ocean Model for PCBs: Benchmark Compounds for Understanding the Impacts of Global Change on Neutral Persistent Organic Pollutants. Global Biogeochemical Cycles, 2019, 33, 469-481.	1.9	31
87	Atmospheric Concentrations and Wet/Dry Loadings of Mercury at the Remote Experimental Lakes Area, Northwestern Ontario, Canada. Environmental Science & Technology, 2019, 53, 8017-8026.	4.6	29
88	Marine mercury fate: From sources to seafood consumers. Environmental Research, 2012, 119, 1-2.	3.7	28
89	Concentrations and Water Mass Transport of Legacy POPs in the Arctic Ocean. Geophysical Research Letters, 2018, 45, 12,972.	1.5	28
90	Correction to â€œGlobal 3â€D landâ€oceanâ€atmosphere model for mercury: Presentâ€day versus preindustrial cycles and anthropogenic enrichment factors for depositionâ€ Global Biogeochemical Cycles, 2008, 22, .	1.9	24

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91	The history of mercury emissions from fuel combustion in Maritime Canada. Environmental Pollution, 2000, 110, 297-306.	3.7	23
92	Results of a national survey of high-frequency fish consumers in the United States. Environmental Research, 2017, 158, 126-136.	3.7	23
93	Organ-specific differences in mercury speciation and accumulation across ringed seal (Phoca hispida) life stages. Science of the Total Environment, 2019, 650, 2013-2020.	3.9	22
94	Synthesis and Physicochemical Transformations of Sizeâ€Sorted Graphene Oxide during Simulated Digestion and Its Toxicological Assessment against an In Vitro Model of the Human Intestinal Epithelium. Small, 2020, 16, e1907640.	5.2	20
95	Connecting mercury science to policy: from sources to seafood. Reviews on Environmental Health, 2016, 31, 17-20.	1.1	19
96	Anthropogenic influences on mercury in Chinese soil and sediment revealed by relationships with total organic carbon. Environmental Pollution, 2019, 255, 113186.	3.7	19
97	Risk tradeoffs associated with traditional food advisories for Labrador Inuit. Environmental Research, 2019, 168, 496-506.	3.7	19
98	Trends of Diverse POPs in Air and Water Across the Western Atlantic Ocean: Strong Gradients in the Ocean but Not in the Air. Environmental Science & Technology, 2021, 55, 9498-9507.	4.6	18
99	A Statistical Approach for Identifying Private Wells Susceptible to Perfluoroalkyl Substances (PFAS) Contamination. Environmental Science and Technology Letters, 2021, 8, 596-602.	3.9	18
100	Surface-water/groundwater boundaries affect seasonal PFAS concentrations and PFAA precursor transformations. Environmental Sciences: Processes and Impacts, 2021, 23, 1893-1905.	1.7	15
101	Impacts of climate change on methylmercury formation and bioaccumulation in the 21st century ocean. One Earth, 2021, 4, 279-288.	3.6	14
102	Simultaneous combustion preparation for mercury isotope analysis and detection of total mercury using a direct mercury analyzer. Analytica Chimica Acta, 2021, 1154, 338327.	2.6	14
103	Multidecadal declines in particulate mercury and sediment export from Russian rivers in the pan-Arctic basin. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2119857119.	3.3	14
104	The Microbiome of Size-Fractionated Airborne Particles from the Sahara Region. Environmental Science & Technology, 2021, 55, 1487-1496.	4.6	12
105	Insights from mercury stable isotopes into factors affecting the internal body burden of methylmercury in frequent fish consumers. Elementa, 2016, 4, .	1.1	12
106	Historical patterns in mercury exposure for North American songbirds. Ecotoxicology, 2020, 29, 1161-1173.	1.1	11
107	A food web bioaccumulation model for the accumulation of per- and polyfluoroalkyl substances (PFAS) in fish: how important is renal elimination?. Environmental Sciences: Processes and Impacts, 2022, 24, 1152-1164.	1.7	11
108	Mercury in soils of the conterminous United States: patterns and pools. Environmental Research Letters, 2022, 17, 074030.	2.2	7

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109	A Data-Driven Design Evaluation Tool for Handheld Device Soft Keyboards. PLoS ONE, 2014, 9, e107070.	1.1	6
110	Mercury in foods. , 2013, , 392-413.		5
111	Essential and toxic elements in sardines and tuna on the Colombian market. Food Additives and Contaminants: Part B Surveillance, 2021, 14, 206-218.	1.3	4
112	Are mercury emissions from satellite electric propulsion an environmental concern?*. Environmental Research Letters, 2019, 14, 124021.	2.2	3
113	Portable X-ray Fluorescence as a Rapid Determination Tool to Detect Parts per Million Levels of Ni, Zn, As, Se, and Pb in Human Toenails: A South India Case Study. Environmental Science & Technology, 2021, 55, 13113-13121.	4.6	3
114	Changing ocean systems: A short synthesis. , 2019, , 19-34.		2
115	Fisheries and seafood security under changing oceans. , 2019, , 175-179.		2
116	Response to Comment on â€œScreening New Persistent and Bioaccumulative Organics in Chinaâ€™s Inventory of Industrial Chemicalsâ€: A Call for Further Environmental Research on Organosilicons Produced in China. Environmental Science & Technology, 2022, 56, 693-696.	4.6	2
117	Biogeochemistry: Mercury methylation on ice. Nature Microbiology, 2016, 1, 16165.	5.9	1
118	Human influence on the global mercury cycle: understanding the past and projecting the future. E3S Web of Conferences, 2013, 1, 30001.	0.2	0
119	Hg0trends in the North and South Atlantic. E3S Web of Conferences, 2013, 1, 07002.	0.2	0
120	Cumulative Lead Exposure Resulting from Coal Power Plants in India. ISEE Conference Abstracts, 2021, 2021, .	0.0	0
121	Emerging questions in exposure, regulation, and remediation of PFAS. IScience, 2021, 24, 103054.	1.9	0
122	POLY- AND PERFLUOROALKYL SUBSTANCES (PFASS) IN GROUNDWATER FROM TWO LEGACY SOURCES ON CAPE COD, MA â€“ WHAT ARE THE NATIONAL IMPLICATIONS?. , 2017, , .		0
123	TAP WATER INTAKE OF POLY- AND PERFLUOROALKYL SUBSTANCES (PFASS) IN RELATION TO SERUM CONCENTRATIONS IN A NATIONWIDE PROSPECTIVE COHORT OF U.S. WOMEN. , 2018, , .		0
124	Seafood methylmercury in a changing ocean. , 2019, , 61-68.		0