Jonas Olof Sommar

List of Publications by Year
in descending order

84	5,308	81743	91712
papers	citations	39 h-index	69 g-index

99	99	99	2725
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A synthesis of atmospheric mercury depletion event chemistry in the atmosphere and snow. Atmospheric Chemistry and Physics, 2008, 8, 1445-1482.	1.9	426
2	A kinetic study of the gas-phase reaction between the hydroxyl radical and atomic mercury. Atmospheric Environment, 2001, 35, 3049-3054.	1.9	214
3	International field intercomparison measurements of atmospheric mercury species at Mace Head, Ireland. Atmospheric Environment, 1999, 33, 3063-3073.	1.9	197
4	A review of studies on atmospheric mercury in China. Science of the Total Environment, 2012, 421-422, 73-81.	3.9	188
5	Distribution Patterns of Inorganic Mercury and Methylmercury in Tissues of Rice (<i>Oryza sativa) Tj ETQq1 1 0.784314 rgBT /Overloc 2010, 58, 4951-4958.	2.4	183
6	Nevada STORMS project: Measurement of mercury emissions from naturally enriched surfaces. Journal of Geophysical Research, 1999, 104, 21831-21844.	3.3	180
7	Intercomparison of methods for sampling and analysis of atmospheric mercury species. Atmospheric Environment, 2001, 35, 3007-3017.	1.9	154
8	Mass-Dependent and -Independent Fractionation of Mercury Isotope during Gas-Phase Oxidation of Elemental Mercury Vapor by Atomic Cl and Br. Environmental Science & Technology, 2016, 50, 9232-9241.	4.6	143
9	Isotopic Composition of Atmospheric Mercury in China: New Evidence for Sources and Transformation Processes in Air and in Vegetation. Environmental Science & Technology, 2016, 50, 9262-9269.	4.6	139
10	Increases in mercury emissions from desert soils in response to rainfall and irrigation. Journal of Geophysical Research, 1999, 104, 21879-21888.	3.3	127
11	Evasion of mercury from coastal and open waters of the Atlantic Ocean and the Mediterranean Sea. Atmospheric Environment, 2003, 37, 73-84.	1.9	126
12	Atmospheric mercury inputs in montane soils increase with elevation: evidence from mercury isotope signatures. Scientific Reports, 2013, 3, 3322.	1.6	126
13	Mercury speciation in the marine boundary layer along a 6000km cruise path around the Mediterranean Sea. Atmospheric Environment, 2003, 37, 63-71.	1.9	124
14	Enhanced concentrations of dissolved gaseous mercury in the surface waters of the Arctic Ocean. Marine Chemistry, 2008, 110, 190-194.	0.9	121
15	Oxidation of atomic mercury by hydroxyl radicals and photoinduced decomposition of methylmercury in the aqueous phase. Atmospheric Environment, 2001, 35, 3039-3047.	1.9	120
16	Atmospheric mercury distribution in Northern Europe and in the Mediterranean region. Atmospheric Environment, 2001, 35, 3019-3025.	1.9	115
17	Stable Isotope Evidence Shows Re-emission of Elemental Mercury Vapor Occurring after Reductive Loss from Foliage. Environmental Science & Technology, 2019, 53, 651-660.	4.6	107
18	Mercury in the marine boundary layer and seawater of the South China Sea: Concentrations, sea/air flux, and implication for land outflow. Journal of Geophysical Research, 2010, 115, .	3.3	104

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19	Using Mercury Isotopes To Understand Mercury Accumulation in the Montane Forest Floor of the Eastern Tibetan Plateau. Environmental Science & Technology, 2017, 51, 801-809.	4.6	102
20	Global observations and modeling of atmosphereâ€“surface exchange of elemental mercury: a critical review. Atmospheric Chemistry and Physics, 2016, 16, 4451-4480.	1.9	101
21	Total gaseous mercury in the atmosphere of Guiyang, PR China. Science of the Total Environment, 2003, 304, 61-72.	3.9	100
22	Title is missing!. Water, Air, and Soil Pollution, 2002, 139, 311-324.	1.1	97
23	Total gaseous mercury exchange between air and water at river and sea surfaces in Swedish coastal regions. Atmospheric Environment, 2001, 35, 3027-3038.	1.9	94
24	Depletion of atmospheric gaseous elemental mercury by plant uptake at Mt. Changbai, Northeast China. Atmospheric Chemistry and Physics, 2016, 16, 12861-12873.	1.9	82
25	Factors affecting the measurement of mercury emissions from soils with flux chambers. Journal of Geophysical Research, 1999, 104, 21859-21871.	3.3	70
26	Distribution of atmospheric mercury species in Northern Europe: final results from the MOE project. Atmospheric Environment, 2003, 37, 9-20.	1.9	67
27	On the Gas Phase Reactions Between Volatile Biogenic Mercury Species and the Nitrate Radical. Journal of Atmospheric Chemistry, 1997, 27, 233-247.	1.4	66
28	Emission-dominated gas exchange of elemental mercury vapor over natural surfaces in China. Atmospheric Chemistry and Physics, 2016, 16, 11125-11143.	1.9	60
29	Circumpolar transport and air-surface exchange of atmospheric mercury at Ny-Ã…lesund (79Â° N), Svalbard, spring 2002. Atmospheric Chemistry and Physics, 2007, 7, 151-166.	1.9	58
30	Airâ€“sea exchange of volatile mercury in the North Atlantic Ocean. Marine Chemistry, 2011, 125, 1-7.	0.9	58
31	Environmental geochemistry of an active Hg mine in Xunyang, Shaanxi Province, China. Applied Geochemistry, 2012, 27, 2280-2288.	1.4	53
32	Atmospheric mercury near a chlor-alkali plant in Sweden. Science of the Total Environment, 2003, 304, 29-41.	3.9	52
33	Sampling and determination of gas phase divalent mercury in the air using a KCl coated denuder. Fresenius' Journal of Analytical Chemistry, 1997, 358, 386-391.	1.5	50
34	Novel Dynamic Flux Chamber for Measuring Airâ€“Surface Exchange of Hg^o from Soils. Environmental Science & Technology, 2012, 46, 8910-8920.	4.6	49
35	Re-emission of legacy mercury from soil adjacent to closed point sources of Hg emission. Environmental Pollution, 2018, 242, 718-727.	3.7	49
36	Profiles of dissolved gaseous mercury concentration in the Mediterranean seawater. Atmospheric Environment, 2003, 37, 85-92.	1.9	48

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37	Mercury biogeochemical cycling: A synthesis of recent scientific advances. Science of the Total Environment, 2020, 737, 139619.	3.9	48
38	Mercury vapor airâ€“surface exchange measured by collocated micrometeorological and enclosure methods â€“ Part I: Data comparability and method characteristics. Atmospheric Chemistry and Physics, 2015, 15, 685-702.	1.9	47
39	Short-time variation of mercury speciation in the urban of GÃ¶teborg during GÃ–TE-2005. Atmospheric Environment, 2008, 42, 8382-8388.	1.9	46
40	Recent advances in understanding and measurement of Hg in the environment: Surface-atmosphere exchange of gaseous elemental mercury (Hg0). Science of the Total Environment, 2020, 721, 137648.	3.9	43
41	Circumpolar measurements of speciated mercury, ozone and carbon monoxide in the boundary layer of the Arctic Ocean. Atmospheric Chemistry and Physics, 2010, 10, 5031-5045.	1.9	42
42	Atmospheric mercury at mediterranean coastal stations. Environmental Fluid Mechanics, 2008, 8, 101-116.	0.7	40
43	Airborne concentrations and deposition fluxes of major and trace species at marine stations in Southern Scandinavia. Atmospheric Environment, 1996, 30, 3857-3872.	1.9	39
44	Field Approaches to Measure Hg Exchange Between Natural Surfaces and the Atmosphereâ€”A Review. Critical Reviews in Environmental Science and Technology, 2013, 43, 1657-1739.	6.6	38
45	Stable Mercury Isotope Transition during Postdepositional Decomposition of Biomass in a Forest Ecosystem over Five Centuries. Environmental Science & Technology, 2020, 54, 8739-8749.	4.6	38
46	Improved determination of gaseous divalent mercury in ambient air using KCl coated denuders. Fresenius' Journal of Analytical Chemistry, 2000, 366, 423-428.	1.5	35
47	Spatial distribution of mercury deposition fluxes in Wanshan Hg mining area, Guizhou province, China. Atmospheric Chemistry and Physics, 2012, 12, 6207-6218.	1.9	35
48	Mercury vapor airâ€“surface exchange measured by collocated micrometeorological and enclosure methods â€“ Part II: Bias and uncertainty analysis. Atmospheric Chemistry and Physics, 2015, 15, 5359-5376.	1.9	34
49	Distribution of TPM in Northern Europe. Science of the Total Environment, 2003, 304, 53-59.	3.9	32
50	Comparison of procedures for measurements of dissolved gaseous mercury in seawater performed on a Mediterranean cruise. Analytical and Bioanalytical Chemistry, 2002, 374, 1002-1008.	1.9	30
51	Emission characteristics and airâ€“surface exchange of gaseous mercury at the largest active landfill in Asia. Atmospheric Environment, 2013, 79, 188-197.	1.9	30
52	New insights into the Jahnâ€“Teller effect in NO3via the dark Ãƒ2Eâ€³ state. Physica Scripta, 2006, 73, C64-C70.	1.2	29
53	Cavity ringdown spectrum of the forbidden AÌƒEâ€³2â†XÌƒA2â€²2 transition of NO3: Evidence for static Jahnâ€“Teller distortion in the AÌƒ state. Journal of Chemical Physics, 2005, 122, 224305.	1.2	28
54	Process factors driving dynamic exchange of elemental mercury vapor over soil in broadleaf forest ecosystems. Atmospheric Environment, 2019, 219, 117047.	1.9	27

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55	Influence of Eutrophication on the Distribution of Total Mercury and Methylmercury in Hydroelectric Reservoirs. Journal of Environmental Quality, 2010, 39, 1624-1635.	1.0	26
56	Characteristics, Accumulation, and Potential Health Risks of Antimony in Atmospheric Particulate Matter. ACS Omega, 2021, 6, 9460-9470.	1.6	26
57	Atmospheric mercury deposition on Fanjing Mountain Nature Reserve, Guizhou, China. Chemosphere, 1998, 36, 2191-2200.	4.2	25
58	A whole-air relaxed eddy accumulation measurement system for sampling vertical vapour exchange of elemental mercury. Tellus, Series B: Chemical and Physical Meteorology, 2022, 65, 19940.	0.8	24
59	A dual-inlet, single detector relaxed eddy accumulation system for long-term measurement of mercury flux. Atmospheric Measurement Techniques, 2016, 9, 509-524.	1.2	24
60	Application of Relaxed Eddy Accumulation Technique to Quantify Hg0 Fluxes Over Modified Soil Surfaces. Water, Air, and Soil Pollution, 2005, 167, 331-352.	1.1	23
61	Seasonal variations in metallic mercury (Hg⁰) vapor exchange over biannual wheatâ€“corn rotation cropland in the North China Plain. Biogeosciences, 2016, 13, 2029-2049.	1.3	23
62	Rate of reaction between the nitrate radical and dimethyl mercury in the gas phase. Chemical Physics Letters, 1996, 257, 434-438.	1.2	22
63	Corn (Zea mays L.): A low methylmercury staple cereal source and an important biospheric sink of atmospheric mercury, and health risk assessment. Environment International, 2019, 131, 104971.	4.8	22
64	Speciation of volatile mercury species present in digester and deposit gases. Applied Organometallic Chemistry, 1999, 13, 441-445.	1.7	21
65	Emissions, dispersion and human exposure of mercury from a Swedish chlor-alkali plant. Atmospheric Environment, 2005, 39, 7451-7458.	1.9	21
66	Atmospheric mercury deposition to grass in southern Sweden. Science of the Total Environment, 1998, 213, 85-94.	3.9	20
67	Measurements of fractionated gaseous mercury concentrations over northwestern and central Europe, 1995-99. Journal of Environmental Monitoring, 1999, 1, 435-439.	2.1	19
68	Quantification of Atmospheric Mercury Deposition to and Legacy Re-emission from a Subtropical Forest Floor by Mercury Isotopes. Environmental Science & Technology, 2021, 55, 12352-12361.	4.6	19
69	Comparative study of elemental mercury flux measurement techniques over a Fennoscandian boreal peatland. Atmospheric Environment, 2018, 172, 16-25.	1.9	18
70	Lidar mapping of atmospheric atomic mercury in the Wanshan area, China. Environmental Pollution, 2018, 240, 353-358.	3.7	16
71	Highly elevated emission of mercury vapor due to the spontaneous combustion of refuse in a landfill. Atmospheric Environment, 2013, 79, 540-545.	1.9	14
72	Distribution Equilibrium of Mercury (II) Chloride between Water and Air Applied to Flue Gas Scrubbing. Journal of the Air and Waste Management Association, 2000, 50, 1663-1666.	0.9	11

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73	Exchange flux of total gaseous mercury between air and natural water surfaces in summer season. Science in China Series D: Earth Sciences, 2002, 45, 211-220.	0.9	11
74	Sources and Transformation Mechanisms of Atmospheric Particulate Bound Mercury Revealed by Mercury Stable Isotopes. Environmental Science & Technology, 2022, 56, 5224-5233.	4.6	11
75	Mercury Isotope Fractionation during the Exchange of Hg(0) between the Atmosphere and Land Surfaces: Implications for Hg(0) Exchange Processes and Controls. Environmental Science & Technology, 2022, 56, 1445-1457.	4.6	11
76	Arctic mercury depletion events at two elevations as observed at the Zeppelin Station and Dirigibile Italia, Ny-Ã...lesund, spring 2002. European Physical Journal Special Topics, 2003, 107, 151-154.	0.2	10
77	Canopy-Level Flux and Vertical Gradients of Hg⁰ Stable Isotopes in Remote Evergreen Broadleaf Forest Show Year-Around Net Hg⁰ Deposition. Environmental Science & Technology, 2022, 56, 5950-5959.	4.6	10
78	Mercury pollution in a mining area of Guizhou, China: Fluxes over contaminated surfaces and concentrations in air, biological and geological samples. Toxicological and Environmental Chemistry, 1998, 67, 225-236.	0.6	9
79	Interpretation of mercury depletion events observed at Ny-Ã...lesund, Svalbard during spring 2002. European Physical Journal Special Topics, 2003, 107, 1353-1356.	0.2	7
80	Critical Observations of Gaseous Elemental Mercury Airâ€Sea Exchange. Global Biogeochemical Cycles, 2021, 35, e2020GB006742.	1.9	7
81	Modified on-line monitoring of total gaseous mercury in flue gases using Semtech ï¿½ Hg 2000 analyzer. Fresenius' Journal of Analytical Chemistry, 2000, 368, 528-533.	1.5	6
82	Assessing Airâ€“Surface Exchange and Fate of Mercury in a Subtropical Forest Using a Novel Passive Exchange-Meter Device. Environmental Science & Technology, 2019, 53, 4869-4879.	4.6	6
83	Chemistry and Isotope Fractionation of Divalent Mercury during Aqueous Reduction Mediated by Selected Oxygenated Organic Ligands. Environmental Science & Technology, 2021, 55, 13376-13386.	4.6	6
84	Reply to discussion on â€œTotal gaseous mercury exchange between air and water at river and sea surfaces in swedish coastal regionsâ€• Atmospheric Environment, 2002, 36, 1405-1406.	1.9	1