JÃ¶rg Schaller

List of Publications by Year
in descending order

76 papers	2,419 citations	218677 26 h-index	233421 45 g-index
77 all docs	77 docs citations	77 times ranked	2262 citing authors

#	Article	IF	Citations
1	Silicon availability modifies nutrient use efficiency and content, C:N:P stoichiometry, and productivity of winter wheat (Triticum aestivum L.). Scientific Reports, 2017, 7, 40829.	3.3	196
2	Multiple plant diversity components drive consumer communities across ecosystems. Nature Communications, 2019, 10, 1460.	12.8	139
3	Silicon increases the phosphorus availability of Arctic soils. Scientific Reports, 2019, 9, 449.	3.3	115
4	Silicon availability changes structural carbon ratio and phenol content of grasses. Environmental and Experimental Botany, 2012, 77, 283-287.	4.2	111
5	Silicon supply modifies C:N:P stoichiometry and growth of <i>Phragmites australis</i>. Plant Biology, 2012, 14, 392-396.	3.8	111
6	Silicon Cycling in Soils Revisited. Plants, 2021, 10, 295.	3.5	105
7	Metal/metalloid accumulation/remobilization during aquatic litter decomposition in freshwater: A review. Science of the Total Environment, 2011, 409, 4891-4898.	8.0	78
8	Review on the interactions of arsenic, iron (oxy)(hydr)oxides, and dissolved organic matter in soils, sediments, and groundwater in a ternary system. Chemosphere, 2022, 286, 131790.	8.2	73
9	Silicon controls microbial decay and nutrient release of grass litter during aquatic decomposition. Hydrobiologia, 2013, 709, 201-212.	2.0	71
10	Comparing amorphous silica, short-range-ordered silicates and silicic acid species by FTIR. Scientific Reports, 2022, 12, .	3.3	71
11	Silica uptake from nanoparticles and silica condensation state in different tissues of Phragmites australis. Science of the Total Environment, 2013, 442, 6-9.	8.0	64
12	Biogenic amorphous silica as main driver for plant available water in soils. Scientific Reports, 2020, 10, 2424.	3.3	62
13	Silicon in the Soilâ€"Plant Continuum: Intricate Feedback Mechanisms within Ecosystems. Plants, 2021, 10, 652.	3.5	59
14	Silicon Availability Affects the Stoichiometry and Content of Calcium and Micro Nutrients in the Leaves of Common Reed. Silicon, 2013, 5, 199-204.	3.3	53
15	Invertebrates control metals and arsenic sequestration as ecosystem engineers. Chemosphere, 2010, 79, 169-173.	8.2	50
16	UV-screening of grasses by plant silica layer?. Journal of Biosciences, 2013, 38, 413-416.	1.1	49
17	Bioturbation/bioirrigation by Chironomus plumosus as main factor controlling elemental remobilization from aquatic sediments?. Chemosphere, 2014, 107, 336-343.	8.2	46
18	Enhanced silicon availability leads to increased methane production, nutrient and toxicant mobility in peatlands. Scientific Reports, 2017, 7, 8728.	3.3	46

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19	Silica decouples fungal growth and litter decomposition without changing responses to climate warming and N enrichment. Ecology, 2014, 95, 3181-3189.	3.2	42
20	Fire enhances phosphorus availability in topsoils depending on binding properties. Ecology, 2015, 96, 1598-1606.	3.2	41
21	Plants increase silicon content as a response to nitrogen or phosphorus limitation: a case study with Holcus lanatus. Plant and Soil, 2021, 462, 95-108.	3.7	40
22	Readily available phosphorous and nitrogen counteract for arsenic uptake and distribution in wheat (Triticum aestivum L.). Scientific Reports, 2015, 4, 4944.	3.3	38
23	Redox Dependence of Thioarsenate Occurrence in Paddy Soils and the Rice Rhizosphere. Environmental Science & Technology, 2020, 54, 3940-3950.	10.0	36
24	Silicon in tropical forests: large variation across soils and leaves suggests ecological significance. Biogeochemistry, 2018, 140, 161-174.	3.5	35
25	Tracing silicon cycling in the Okavango Delta, a sub-tropical flood-pulse wetland using silicon isotopes. Geochimica Et Cosmochimica Acta, 2014, 142, 132-148.	3.9	32
26	Plant diversity and functional groups affect Si and Ca pools in aboveground biomass of grassland systems. Oecologia, 2016, 182, 277-286.	2.0	32
27	Amorphous Silica Controls Water Storage Capacity and Phosphorus Mobility in Soils. Frontiers in Environmental Science, 2020, 8, .	3.3	30
28	Is relative Si/Ca availability crucial to the performance of grassland ecosystems?. Ecosphere, 2017, 8, e01726.	2.2	29
29	Increased silicon concentration in fen peat leads to a release of iron and phosphate and changes in the composition of dissolved organic matter. Geoderma, 2020, 374, 114422.	5.1	28
30	Retention of resources (metals, metalloids and rare earth elements) by autochthonously/allochthonously dominated wetlands: A review. Ecological Engineering, 2013, 53, 106-114.	3.6	26
31	Silicon Affects Nutrient Content and Ratios of Wetland Plants. Silicon, 2016, 8, 479-485.	3.3	26
32	Effects of gamma-sterilization on DOC, uranium and arsenic remobilization from organic and microbial rich stream sediments. Science of the Total Environment, 2011, 409, 3211-3214.	8.0	25
33	Crop straw recycling prevents anthropogenic desilication of agricultural soilâ€“plant systems in the temperate zone â€“ Results from a long-term field experiment in NE Germany. Geoderma, 2021, 403, 115187.	5.1	25
34	Enrichment of Uranium in Particulate Matter during Litter Decomposition Affected by Gammarus pulex L.. Environmental Science & Technology, 2008, 42, 8721-8726.	10.0	24
35	Fire enhances solubility of biogenic silica. Science of the Total Environment, 2016, 572, 1289-1296.	8.0	24
36	Monothioarsenate Occurrence in Bangladesh Groundwater and Its Removal by Ferrous and Zero-Valent Iron Technologies. Environmental Science & Technology, 2018, 52, 5931-5939.	10.0	22

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37	Effect on soil water availability, rather than silicon uptake by plants, explains the beneficial effect of silicon on rice during drought. Plant, Cell and Environment, 2021, 44, 3336-3346.	5.7	22
38	Effects of low-dosed imidacloprid pulses on the functional role of the caged amphipod Gammarus roeseli in stream mesocosms. Ecotoxicology and Environmental Safety, 2013, 93, 93-100.	6.0	21
39	Black carbon yields highest nutrient and lowest arsenic release when using rice residuals in paddy soils. Scientific Reports, 2018, 8, 17004.	3.3	21
40	Silicon accumulation in rice plant aboveground biomass affects leaf carbon quality. Plant and Soil, 2019, 444, 399-407.	3.7	20
41	Closer to reality â€" the influence of toxicity test modifications on the sensitivity of Gammarus roeseli to the insecticide imidacloprid. Ecotoxicology and Environmental Safety, 2012, 81, 49-54.	6.0	19
42	Heavy metals and arsenic fixation into freshwater organic matter under Gammarus pulex L. influence. Environmental Pollution, 2010, 158, 2454-2458.	7.5	18
43	Enhanced metal and metalloid concentrations in the gut system comparing to remaining tissues of Gammarus pulex L.. Chemosphere, 2011, 83, 627-631.	8.2	17
44	Potential mining of lithium, beryllium and strontium from oilfield wastewater after enrichment in constructed wetlands and ponds. Science of the Total Environment, 2014, 493, 910-913.	8.0	16
45	Invertebrates Minimize Accumulation of Metals and Metalloids in Contaminated Environments. Water, Air, and Soil Pollution, 2011, 218, 227-233.	2.4	15
46	The Role of Vegetation in the Okavango Delta Silica Sink. Wetlands, 2015, 35, 171-181.	1.5	14
47	Heat improves silicon availability in mineral soils. Geoderma, 2021, 386, 114909.	5.1	14
48	Limited transfer of uranium to higher trophic levels by Gammarus pulex L. in contaminated environments. Journal of Environmental Monitoring, 2009, 11, 1629.	2.1	13
49	Silica fertilization improved wheat performance and increased phosphorus concentrations during drought at the field scale. Scientific Reports, 2021, 11, 20852.	3.3	13
50	Invertebrate grazers are a crucial factor for grass litter mass loss and nutrient mobilization during aquatic decomposition. Fundamental and Applied Limnology, 2013, 183, 287-295.	0.7	12
51	Variability in chemistry of surface and soil waters of an evapotranspiration-dominated flood-pulsed wetland: solute processing in the Okavango Delta, Botswana. Water S A, 2017, 43, 104.	0.4	12
52	Aquatic degradation of Cry1Ab protein and decomposition dynamics of transgenic corn leaves under controlled conditions. Ecotoxicology and Environmental Safety, 2015, 113, 454-459.	6.0	11
53	Changes in catchment conditions lead to enhanced remobilization of arsenic in a water reservoir. Science of the Total Environment, 2013, 449, 63-70.	8.0	10
54	Strategies of Gammarus pulex L. to cope with arsenic â€" Results from speciation analyses by ICâ€"ICP-MS and XAS micro-mapping. Science of the Total Environment, 2015, 530-531, 430-433.	8.0	10

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55	Divergent effect of silicon on greenhouse gas production from reduced and oxidized peat organic matter. Geoderma, 2021, 386, 114916.	5.1	10
56	The trapping of organic matter within plant patches in the channels of the Okavango Delta: a matter of quality. Aquatic Sciences, 2017, 79, 661-674.	1.5	8
57	The filter feeder Dreissena polymorpha affects nutrient, silicon, and metal(loid) mobilization from freshwater sediments. Chemosphere, 2017, 174, 531-537.	8.2	7
58	Invertebrates control metal/metalloid sequestration and the quality of DOC/DON released during litter decay in slightly acidic environments. Environmental Science and Pollution Research, 2012, 19, 3942-3949.	5.3	6
59	Methane fluxes but not respiratory carbon dioxide fluxes altered under Si amendment during drying â€“ rewetting cycles in fen peat mesocosms. Geoderma, 2021, 404, 115338.	5.1	6
60	Thunderbolt in biogeochemistry: galvanic effects of lightning as another source for metal remobilization. Scientific Reports, 2013, 3, 3122.	3.3	5
61	Reed litter Si content affects microbial community structure and the lipid composition of an invertebrate shredder during aquatic decomposition. Limnologica, 2016, 57, 14-22.	1.5	5
62	Variation of foliar silicon concentrations in temperate forbs: effects of soil silicon, phylogeny and habitat. Oecologia, 2021, 196, 977-987.	2.0	5
63	Silicification patterns in wheat leaves related to ontogeny and soil silicon availability under field conditions. Plant and Soil, 0, , 1.	3.7	5
64	Auto-Fluorescence in Phytolithsâ€”A Mechanistic Understanding Derived From Microscopic and Spectroscopic Analyses. Frontiers in Environmental Science, 2022, 10, .	3.3	5
65	Arctic soil respiration and microbial community structure driven by silicon and calcium. Science of the Total Environment, 2022, 838, 156152.	8.0	5
66	Invertebrate shredder as a factor controlling the fixation potential for metals/metalloids in organic matter during decay. Ecological Engineering, 2013, 53, 200-204.	3.6	3
67	Metal/metalloid fixation by litter during decomposition affected by silicon availability during plant growth. Chemosphere, 2013, 90, 2534-2538.	8.2	3
68	Distribution and Relationship of Uranium and Radium Along an Allochthonously Dominated Wetland Gradient. Archives of Environmental Contamination and Toxicology, 2015, 68, 317-322.	4.1	3
69	Invertebrate grazers affect metal/metalloid fixation during litter decomposition. Chemosphere, 2015, 119, 394-399.	8.2	3
70	Methane Production Rate during Anoxic Litter Decomposition Depends on Si Mass Fractions, Nutrient Stoichiometry, and Carbon Quality. Plants, 2021, 10, 618.	3.5	3
71	Biological impacts on silicon availability and cycling in agricultural plant-soil systems. , 2022, , 309-324.		2
72	High mobilization of arsenic, metals and rare earth elements in seepage waters driven by respiration of old allochthonous organic carbon. Environmental Sciences: Processes and Impacts, 2013, 15, 2297.	3.5	1

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73	Input, behaviour and distribution of multiple elements in abiotic matrices along a transect within the Okavango Delta, northern Botswana. Environmental Monitoring and Assessment, 2016, 188, 682.	2.7	1
74	Is initial Si concentration determining the influence of warming and N-supply on stoichiometric changes during litter decomposition?. Aquatic Botany, 2017, 138, 1-8.	1.6	1
75	Enhanced Arsenic Mobility in a Dystrophic Water Reservoir System After Acidification Recovery. Water, Air, and Soil Pollution, 2017, 228, 1.	2.4	0
76	Remediation of Radionuclide-Contaminated Sites Using Plant Litter Decomposition. , 2014, , 161-176.		0