# JÃ¶rg Schaller

List of Publications by Year
in descending order



| 76 | 2,419 | 218662 26 | 233409 45 |
|---|---|---|---|
| papers | citations | h-index | g-index |

| 77 | 77 | 77 | 2262 |
|---|---|---|---|
| all docs | docs citations | times ranked | 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 |

| # | Article | IF | Citations |
|---|---|---|---|
| 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 |

| # | ARTICLE | IF | CITATIONS |
|---|---|---|---|
| 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 |