Gerhard Soja

List of Publications by Citations

101 papers	3,561 citations	32 h-index	58 g-index
107 ext. papers	4,271 ext. citations	4.2 avg, IF	5.44 L-index

#	Paper	IF	Citations
101	Characterization of slow pyrolysis biochars: effects of feedstocks and pyrolysis temperature on biochar properties. *Journal of Environmental Quality*, **2012**, 41, 990-1000	3.4	589
100	Long-term effects of biochar on soil physical properties. *Geoderma*, **2016**, 282, 96-102	6.7	211
99	Biochar decelerates soil organic nitrogen cycling but stimulates soil nitrification in a temperate arable field trial. *PLoS ONE*, **2014**, 9, e86388	3.7	178
98	Biochar application to temperate soils: Effects on soil fertility and crop growth under greenhouse conditions. *Journal of Plant Nutrition and Soil Science*, **2014**, 177, 3-15	2.3	136
97	Complex interactive effects of drought and ozone stress on the antioxidant defence systems of two wheat cultivars. *Plant Physiology and Biochemistry*, **2002**, 40, 691-696	5.4	127
96	Soil microbial communities responded to biochar application in temperate soils and slowly metabolized 13C-labelled biochar as revealed by 13C PLFA analyses: results from a short-term incubation and pot experiment. *European Journal of Soil Science*, **2014**, 65, 40-51	3.4	102
95	Iron-impregnated biochars as effective phosphate sorption materials. *Environmental Science and Pollution Research*, **2017**, 24, 463-475	5.1	98
94	Changes in biochar physical and chemical properties: Accelerated biochar aging in an acidic soil. *Carbon*, **2017**, 115, 209-219	10.4	88
93	Pyrolysis treatment of sewage sludge: A promising way to produce phosphorus fertilizer. *Journal of Cleaner Production*, **2018**, 172, 1772-1778	10.3	87
92	Biochar application to temperate soils: effects on nutrient uptake and crop yield under field conditions. *Agricultural and Food Science*, **2013**, 22, 390-403	2	76
91	Combined application of biochar, compost, and bacterial consortia with Italian ryegrass enhanced phytoremediation of petroleum hydrocarbon contaminated soil. *Environmental and Experimental Botany*, **2018**, 153, 80-88	5.9	74
90	Compost and biochar alter mycorrhization, tomato root exudation, and development of Fusarium oxysporum f. sp. lycopersici. *Frontiers in Plant Science*, **2015**, 6, 529	6.2	73
89	Toward the Standardization of Biochar Analysis: The COST Action TD1107 Interlaboratory Comparison. *Journal of Agricultural and Food Chemistry*, **2016**, 64, 513-27	5.7	71
88	Production, characterization and adsorption studies of bamboo-based biochar/montmorillonite composite for nitrate removal. *Waste Management*, **2018**, 79, 385-394	8.6	69
87	Biochar and compost amendments enhance copper immobilisation and support plant growth in contaminated soils. *Journal of Environmental Management*, **2016**, 171, 101-112	7.9	66
86	Utilization of biochar sorbents for Cd□+, Zn□+, and Cu□+ ions separation from aqueous solutions: comparative study. *Environmental Monitoring and Assessment*, **2015**, 187, 4093	3.1	64
85	The reduction of chromium (VI) phytotoxicity and phytoavailability to wheat (Triticum aestivum L.) using biochar and bacteria. *Applied Soil Ecology*, **2017**, 114, 90-98	5	57

84	Rhizoremediation of petroleum hydrocarbon-contaminated soils: Improvement opportunities and field applications. *Environmental and Experimental Botany*, **2018**, 147, 202-219	5.9	56
83	The mechanisms of biochar interactions with microorganisms in soil. *Environmental Geochemistry and Health*, **2020**, 42, 2495-2518	4.7	52
82	Effects of Biochars and Compost Mixtures and Inorganic Additives on Immobilisation of Heavy Metals in Contaminated Soils. *Water, Air, and Soil Pollution*, **2015**, 226, 1	2.6	50
81	Trace element concentrations in leachates and mustard plant tissue (Sinapis alba L.) after biochar application to temperate soils. *Science of the Total Environment*, **2014**, 481, 498-508	10.2	48
80	Biochar affects the structure rather than the total biomass of microbial communities in temperate soils. *Agricultural and Food Science*, **2013**, 22, 404-423	2	48
79	THE DIFFERENT FACES OF BIOCHAR: CONTAMINATION RISK VERSUS REMEDIATION TOOL. *Journal of Environmental Engineering and Landscape Management*, **2017**, 25, 86-104	1.1	45
78	The influence of ambient and elevated ozone concentrations on photosynthesis in Populus nigra. *Plant, Cell and Environment*, **1997**, 20, 1061-1069	8.4	43
77	Enhanced Cu and Cd sorption after soil aging of woodchip-derived biochar: What were the driving factors?. *Chemosphere*, **2019**, 216, 463-471	8.4	41
76	Ozone stress and antioxidant substances in Trifolium repens and Centaurea jacea leaves. *Environmental Pollution*, **2007**, 146, 707-14	9.3	38
75	Biochar surface functional groups as affected by biomass feedstock, biochar composition and pyrolysis temperature. *Carbon Resources Conversion*, **2021**, 4, 36-46	4.7	38
74	Assessment of Cu applications in two contrasting soils-effects on soil microbial activity and the fungal community structure. *Ecotoxicology*, **2018**, 27, 217-233	2.9	37
73	Phenological weighting of ozone exposures in the calculation of critical levels for wheat, bean and plantain. *Environmental Pollution*, **2000**, 109, 517-24	9.3	37
72	Sorption separation of Eu and As from single-component systems by Fe-modified biochar: kinetic and equilibrium study. *Journal of the Iranian Chemical Society*, **2017**, 14, 521-530	2	36
71	BIOCHAR STANDARDIZATION AND LEGISLATION HARMONIZATION. *Journal of Environmental Engineering and Landscape Management*, **2017**, 25, 175-191	1.1	34
70	Climate impacts on water balance of a shallow steppe lake in Eastern Austria (Lake Neusiedl). *Journal of Hydrology*, **2013**, 480, 115-124	6	33
69	Potential of Fusarium wilt-inducing chlamydospores, in vitro behaviour in root exudates and physiology of tomato in biochar and compost amended soil. *Plant and Soil*, **2016**, 406, 425-440	4.2	30
68	Designing biochar properties through the blending of biomass feedstock with metals: Impact on oxyanions adsorption behavior. *Chemosphere*, **2019**, 214, 743-753	8.4	29
67	Degradation of polycyclic aromatic hydrocarbons in a mixed contaminated soil supported by phytostabilisation, organic and inorganic soil additives. *Science of the Total Environment*, **2018**, 628-629, 1287-1295	10.2	28

66	Yield Responses of Wheat to Ozone Exposure as Modified by Drought-Induced Differences in Ozone Uptake. *Water, Air, and Soil Pollution*, **2003**, 147, 299-315	2.6	28
65	Compost and biochar interactions with copper immobilisation in copper-enriched vineyard soils. *Applied Geochemistry*, **2018**, 88, 40-48	3.5	27
64	Effect of biochar artificial ageing on Cd and Cu sorption characteristics. *Journal of Geochemical Exploration*, **2015**, 159, 178-184	3.8	26
63	Photosynthetic parameters as early indicators of ozone injury in apple leaves. *Physiologia Plantarum*, **1998**, 104, 639-645	4.6	26
62	Differentiation between physical and chemical effects of oil presence in freshly spiked soil during rhizoremediation trial. *Environmental Science and Pollution Research*, **2019**, 26, 18451-18464	5.1	25
61	Ozone indices based on simple meteorological parameters: potentials and limitations of regression and neural network models. *Atmospheric Environment*, **1999**, 33, 4299-4307	5.3	25
60	Test of the short-term critical levels for acute ozone injury on plants: Improvements by ozone uptake modelling and the use of an effect threshold. *Atmospheric Environment*, **2004**, 38, 2237-2245	5.3	24
59	Ozone effects on dry matter partitioning and chlorophyll fluorescence during plant development of wheat. *Water, Air, and Soil Pollution*, **1995**, 85, 1461-1466	2.6	22
58	Trace element biogeochemistry in the soil-water-plant system of a temperate agricultural soil amended with different biochars. *Environmental Science and Pollution Research*, **2015**, 22, 4513-26	5.1	21
57	Discrimination between ginseng from Korea and China by light stable isotope analysis. *Analytica Chimica Acta*, **2010**, 682, 77-81	6.6	21
56	Free radicals in the fruit of three strawberry cultivars exposed to drought stress in the field. *Plant Physiology and Biochemistry*, **2002**, 40, 709-717	5.4	21
55	Activated biochar alters activities of carbon and nitrogen acquiring soil enzymes. *Pedobiologia*, **2018**, 69, 1-10	1.7	20
54	Long-term ozone exposure and ozone uptake of grapevines in open-top chambers. *Atmospheric Environment*, **2004**, 38, 2313-2321	5.3	20
53	Sorption and desorption of pertechnetate on biochar under static batch and dynamic conditions. *Journal of Radioanalytical and Nuclear Chemistry*, **2016**, 310, 253-261	1.5	20
52	Sorption separation of cobalt and cadmium by straw-derived biochar: a radiometric study. *Journal of Radioanalytical and Nuclear Chemistry*, **2017**, 311, 85-97	1.5	19
51	Growth and yield of winter wheat (Triticum aestivum L.) and corn (Zea mays L.) near a high voltage transmission line. *Bioelectromagnetics*, **2003**, 24, 91-102	1.6	18
50	Immobilisation of metals in a contaminated soil with biochar-compost mixtures and inorganic additives: 2-year greenhouse and field experiments. *Environmental Science and Pollution Research*, **2018**, 25, 2506-2516	5.1	18
49	Emissions of greenhouse gases from Lake Neusiedl, a shallow steppe lake in Eastern Austria. *Hydrobiologia*, **2014**, 731, 125-138	2.4	16

48	Harvest Dates, Fertilizer and Varietal Effects on Yield, Concentration and Molecular Distribution of Fructan in Jerusalem Artichoke (Helianthus tuberosus L.). *Journal of Agronomy and Crop Science*, **1990**, 165, 181-189	3.9	16
47	Leaf gas exchange and tuber yield in Jerusalem artichoke (Helianthus tuberosus) cultivars. *Field Crops Research*, **1991**, 26, 241-252	5.5	14
46	Control of origin of sesame oil from various countries by stable isotope analysis and DNA based markers--a pilot study. *PLoS ONE*, **2015**, 10, e0123020	3.7	14
45	Effects of rapeseed oil on the rhizodegradation of polyaromatic hydrocarbons in contaminated soil. *International Journal of Phytoremediation*, **2014**, 16, 671-83	3.9	13
44	Effect Of Wood-Based Biochar And Sewage Sludge Amendments For Soil Phosphorus Availability. *Nova Biotechnologica Et Chimica*, **2015**, 14, 104-115	0.4	13
43	Translocation of 14C-assimilates in Jerusalem Artichoke (Helianthus tuberosus L.). *Journal of Plant Physiology*, **1989**, 134, 218-223	3.6	13
42	Soil organic carbon and microbial communities respond to vineyard management. *Soil Use and Management*, **2015**, 31, 528-533	3.1	12
41	The Response of Artificial Aging to Sorption Properties of Biochar for Potentially Toxic Heavy Metals. *Nova Biotechnologica Et Chimica*, **2014**, 13, 137-147	0.4	12
40	Soil microbial community dynamics and phenanthrene degradation as affected by rape oil application. *Applied Soil Ecology*, **2010**, 46, 329-334	5	12
39	Role of biochar, compost and plant growth promoting rhizobacteria in the management of tomato early blight disease. *Scientific Reports*, **2021**, 11, 6092	4.9	12
38	Simultaneous analyses of chromosomes in root meristems and of the biochemical status of needle tissues of three different clones of Norway spruce trees challenged with moderate ozone levels. *Forest Pathology*, **1999**, 29, 281-294	1.2	11
37	Changes in ice phenology characteristics of two Central European steppe lakes from 1926 to 2012 - influences of local weather and large scale oscillation patterns. *Climatic Change*, **2014**, 126, 119-133	4.5	10
36	The Impact of Biochar Incorporation on Inorganic Nitrogen Fertilizer Plant Uptake; An Opportunity for Carbon Sequestration in Temperate Agriculture. *Geosciences (Switzerland)*, **2018**, 8, 420	2.7	10
35	Organic and chemical amendments positively modulate the bacterial proliferation for effective rhizoremediation of PCBs-contaminated soil. *Ecological Engineering*, **2019**, 138, 412-419	3.9	9
34	Engineered biochar as a tool for nitrogen pollutants removal: preparation, characterization and sorption study191, 318-331		9
33	Fungicide application increased copper-bioavailability and impaired nitrogen fixation through reduced root nodule formation on alfalfa. *Ecotoxicology*, **2019**, 28, 599-611	2.9	7
32	Bush bean (Phaseolus vulgaris L) leaf injury, photosynthesis and stomatal functions under elevated ozone levels. *Water, Air, and Soil Pollution*, **1995**, 85, 1533-1538	2.6	7
31	Investigations of microbial degradation of polycyclic aromatic hydrocarbons based on C-labeled phenanthrene in a soil co-contaminated with trace elements using a plant assisted approach. *Environmental Science and Pollution Research*, **2018**, 25, 6364-6377	5.1	7

30	Leachate Composition of Temperate Agricultural Soils in Response to Biochar Application. *Water, Air, and Soil Pollution*, **2016**, 227, 1	2.6	6
29	Stress-physiological investigations and chromosomal analyses on cloned Norway spruce trees exposed to various levels of ozone in open-top chambers. *Chemosphere*, **1998**, 36, 709-714	8.4	6
28	Plant development and hormonal status in the Jerusalem artichoke (Helianthus tuberosus L.). *Industrial Crops and Products*, **1992**, 1, 219-228	5.9	6
27	Risk assessment of conventional crop plants in analogy to transgenic plants. *Environmental Science and Pollution Research*, **1998**, 5, 89-93	5.1	5
26	Monitoring of methylated naphthalenes in sludge-derived pyrogenic carbonaceous materials. *Chemosphere*, **2019**, 217, 456-462	8.4	5
25	Steady state levels of free radicals in tomato fruit exposed to drought and ozone stress in a field experiment. *Plant Physiology and Biochemistry*, **2003**, 41, 921-927	5.4	4
24	Assessment of Pyrogenic Carbonaceous Materials for Effective Removal of Radiocesium. *Key Engineering Materials*, **2020**, 838, 103-110	0.4	4
23	Conazole fungicides epoxiconazole and tebuconazole in biochar amended soils: Degradation and bioaccumulation in earthworms. *Chemosphere*, **2021**, 274, 129700	8.4	4
22	Pyrogenic Materials-Induced Immobilization of Eu in Aquatic and Soil Systems: Comparative Study. *Water, Air, and Soil Pollution*, **2018**, 229, 1	2.6	3
21	Interactions of Biochar and Biological Degradation of Aromatic Hydrocarbons in Contaminated Soil **2016**, 247-267		3
20	Potassium nickel(II) hexacyanoferrate(III)-functionalized biochar for selective separation of radiocesium from liquid wastes. *Journal of Radiation Research and Applied Sciences*, **2020**, 13, 343-355	1.5	2
19	Pyrolysis Products as Soil Fertilizers: Screening of Potentially Hazardous Aromatic Compounds. *Nova Biotechnologica Et Chimica*, **2016**, 15, 35-46	0.4	2
18	Assessment of sustainability in Austrian wine production. *BIO Web of Conferences*, **2015**, 5, 01022	0.4	2
17	Determination of Soil Organic Matter Features of Extractable Fractions Using Capillary Electrophoresis: An Organic Matter Stabilization Study in a Carbon-14-Labeled Long-Term Field Experiment. *SSSA Special Publication Series*, **2015**, 23-40	0	2
16	Biokohle f□ landwirtschaftliche B□denBiochar for Agricultural Soils. *Gaia*, **2012**, 21, 236-238	1.4	2
15	Leaf Nitrogen, Photosynthesis and Crop Productivity in Jerusalem Artichoke (Helianthus Tuberosus L.). *Studies in Plant Science*, **1993**, 39-44		2
14	Pyrogenic carbon for decontamination of low-level radioactive effluents: Simultaneous separation of 137Cs and 60Co. *Progress in Nuclear Energy*, **2020**, 129, 103484	2.3	2
13	Preparation and Characterization of Novel Magnesium Composite/Walnut Shells-Derived Biochar for As and P Sorption from Aqueous Solutions. *Agriculture (Switzerland)*, **2021**, 11, 714	3	2

List of Publications

12	Agro-Environmental Benefit and Risk of Manure- and Bone Meal-Derived Pyrogenic Carbonaceous Materials as Soil Amendments: Availability of PAHs, PTEs, and P. *Agronomy*, **2019**, 9, 802	3.6	2
11	Biological characteristics of composts and biochar as determined by plant response analysis. *Acta Horticulturae*, **2017**, 407-412	0.3	1
10	Physicochemical Characterization of Cherry Pits-Derived Biochar.. *Materials*, **2022**, 15,	3.5	1
9	The Applicability of Enzymatic Methods for the Quantitative Analysis of Fructan-Containing Plant Extracts. *Studies in Plant Science*, **1993**, 3, 101-106		1
8	Engineered Pyrogenic Materials as Tools to Affect Arsenic Mobility in Old Mine Site Soil of Mediterranean Region. *Bulletin of Environmental Contamination and Toxicology*, **2020**, 104, 265-272	2.7	1
7	Carbon Sequestration in Support of the 4 per 1000 Initiative Using Compost and Stable Biochar from Hazelnut Shells and Sunflower Husks. *Processes*, **2020**, 8, 764	2.9	1
6	Unravelling the process of petroleum hydrocarbon biodegradation in different filter materials of constructed wetlands by stable isotope fractionation and labelling studies. *Biodegradation*, **2021**, 32, 343-359	4.1	1
5	Assessing the ecological vulnerability of the shallow steppe Lake Neusiedl (Austria-Hungary) to climate-driven hydrological changes using a palaeolimnological approach. *Journal of Great Lakes Research*, **2021**, 47, 1327-1344	3	1
4	Biochar Applications to Agricultural Soils in Temperate Climates More Than Carbon Sequestration?291-314		0
3	Effects of biochar on the fate of conazole fungicides in soils and their bioavailability to earthworms and plants. *Environmental Science and Pollution Research*, **2021**, 1	5.1	0
2	Temporal Changes in the Efficiency of Biochar- and Compost-Based Amendments on Copper Immobilization in Vineyard Soils. *Soil Systems*, **2019**, 3, 78	3.5	0
1	Utilization of Sewage Sludge-Derived Pyrogenic Material as a Promising Soil Amendment. *Agriculture (Switzerland)*, **2022**, 12, 360	3	0