Bhupinder Pal Singh

List of Publications by Year
in descending order

119 papers	10,013 citations	53794 45 h-index	36028 97 g-index
122 all docs	122 docs citations	122 times ranked	7944 citing authors

#	Article	IF	Citations
1	An investigation into the reactions of biochar in soil. Soil Research, 2010, 48, 501.	1.1	840
2	Characterisation and evaluation of biochars for their application as a soil amendment. Soil Research, 2010, 48, 516.	1.1	763
3	Biochar's role in mitigating soil nitrous oxide emissions: A review and meta-analysis. Agriculture, Ecosystems and Environment, 2014, 191, 5-16.	5.3	746
4	Influence of Biochars on Nitrous Oxide Emission and Nitrogen Leaching from Two Contrasting Soils. Journal of Environmental Quality, 2010, 39, 1224-1235.	2.0	630
5	Biochar Carbon Stability in a Clayey Soil As a Function of Feedstock and Pyrolysis Temperature. Environmental Science & Technology, 2012, 46, 11770-11778.	10.0	456
6	Influence of biochar application to soil on the availability of As, Cd, Cu, Pb, and Zn to maize (Zea mays) Tj ETQq0 0 0 rgBT /Overlock 10 T	1.1	317
7	Microbial utilisation of biochar-derived carbon. Science of the Total Environment, 2013, 465, 288-297.	8.0	292
8	Interactive Priming of Biochar and Labile Organic Matter Mineralization in a Smectite-Rich Soil. Environmental Science & Technology, 2011, 45, 9611-9618.	10.0	282
9	Tree root and soil heterotrophic respiration as revealed by girdling of boreal Scots pine forest: extending observations beyond the first year. Plant, Cell and Environment, 2003, 26, 1287-1296.	5.7	281
10	Multifunctional applications of biochar beyond carbon storage. International Materials Reviews, 2022, 67, 150-200.	19.3	245
11	Long-term influence of biochar on native organic carbon mineralisation in a low-carbon clayey soil. Scientific Reports, 2014, 4, 3687.	3.3	244
12	Biochar built soil carbon over a decade by stabilizing rhizodeposits. Nature Climate Change, 2017, 7, 371-376.	18.8	232
13	Challenges and opportunities for mitigating nitrous oxide emissions from fertilized cropping systems. Frontiers in Ecology and the Environment, 2012, 10, 562-570.	4.0	220
14	Microbial mechanisms of carbon priming effects revealed during the interaction of crop residue and nutrient inputs in contrasting soils. Global Change Biology, 2018, 24, 2775-2790.	9.5	201
15	Biochar carbon stability in four contrasting soils. European Journal of Soil Science, 2014, 65, 60-71.	3.9	190
16	Soil aggregation and associated microbial communities modify the impact of agricultural management on carbon content. Environmental Microbiology, 2017, 19, 3070-3086.	3.8	180
17	An incubation study investigating the mechanisms that impact N2O flux from soil following biochar application. Agriculture, Ecosystems and Environment, 2014, 191, 53-62.	5.3	170
18	Effect of temperature on biochar priming effects and its stability in soils. Soil Biology and Biochemistry, 2015, 80, 136-145.	8.8	161

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19	A scientometric review of biochar research in the past 20Âyears (1998â€“2018). Biochar, 2019, 1, 23-43.	12.6	160
20	Biochar lowers ammonia emission and improves nitrogen retention in poultry litter composting. Waste Management, 2017, 61, 129-137.	7.4	155
21	Soil physical properties and their relations to organic carbon pools as affected by land use in an alpine pastureland. Geoderma, 2007, 139, 98-105.	5.1	126
22	Biochar increases nitrogen retention and lowers greenhouse gas emissions when added to composting poultry litter. Waste Management, 2017, 61, 138-149.	7.4	119
23	Agricultural management practices impacted carbon and nutrient concentrations in soil aggregates, with minimal influence on aggregate stability and total carbon and nutrient stocks in contrasting soils. Soil and Tillage Research, 2018, 178, 209-223.	5.6	118
24	Soil Health Indicators Under Climate Change: A Review of Current Knowledge. Soil Biology, 2011, , 25-45.	0.8	96
25	Oil mallee biochar improves soil structural propertiesâ€”A study with x-ray micro-CT. Agriculture, Ecosystems and Environment, 2014, 191, 142-149.	5.3	94
26	The impact of crop residue biochars on silicon and nutrient cycles in croplands. Science of the Total Environment, 2019, 659, 673-680.	8.0	94
27	Carbon and nutrient mineralisation dynamics in aggregate-size classes from different tillage systems after input of canola and wheat residues. Soil Biology and Biochemistry, 2018, 116, 22-38.	8.8	88
28	Designing advanced biochar products for maximizing greenhouse gas mitigation potential. Critical Reviews in Environmental Science and Technology, 2016, 46, 1367-1401.	12.8	86
29	Temperature sensitivity of biochar and native carbon mineralisation in biochar-amended soils. Agriculture, Ecosystems and Environment, 2014, 191, 158-167.	5.3	83
30	Impact of agricultural management practices on the nutrient supply potential of soil organic matter under long-term farming systems. Soil and Tillage Research, 2018, 175, 71-81.	5.6	80
31	Plant-biochar interactions drive the negative priming of soil organic carbon in an annual ryegrass field system. Soil Biology and Biochemistry, 2015, 90, 111-121.	8.8	75
32	Characterization of an enriched biochar. Journal of Analytical and Applied Pyrolysis, 2014, 108, 26-34.	5.5	74
33	Responses of soil greenhouse gas emissions to different application rates of biochar in a subtropical Chinese chestnut plantation. Agricultural and Forest Meteorology, 2019, 271, 168-179.	4.8	74
34	Rusty sink of rhizodeposits and associated keystone microbiomes. Soil Biology and Biochemistry, 2020, 147, 107840.	8.8	73
35	Partitioning of soil respiration into its autotrophic and heterotrophic components by means of tree-girdling in old boreal spruce forest. Forest Ecology and Management, 2009, 257, 1764-1767.	3.2	70
36	Distribution, sources, and decomposition of soil organic matter along a salinity gradient in estuarine wetlands characterized by C:N ratio, Î´¹³Câ€Î´¹⁵N, and lignin biomarker. Global Change Biology, 2021, 27, 417-434.	9.5	63

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37	Influence of soil texture and mineralogy on organic matter content and composition in physically separated fractions soils of Thailand. Geoderma, 2013, 195-196, 207-219.	5.1	62
38	NosZ clade II rather than clade I determine in situ N2O emissions with different fertilizer types under simulated climate change and its legacy. Soil Biology and Biochemistry, 2020, 150, 107974.	8.8	62
39	Carbon, nitrogen and sulphur cycling following incorporation of canola residue of different sizes into a nutrient-poor sandy soil. Soil Biology and Biochemistry, 2006, 38, 32-42.	8.8	61
40	Pyrolysing poultry litter reduces N2O and CO2 fluxes. Science of the Total Environment, 2013, 465, 279-287.	8.0	57
41	Nutrient supply enhanced wheat residue-carbon mineralization, microbial growth, and microbial carbon-use efficiency when residues were supplied at high rate in contrasting soils. Soil Biology and Biochemistry, 2018, 126, 168-178.	8.8	57
42	Nutrient stoichiometry and labile carbon content of organic amendments control microbial biomass and carbon-use efficiency in a poorly structured sodic-subsoil. Biology and Fertility of Soils, 2020, 56, 219-233.	4.3	52
43	Biochar increased field soil inorganic carbon content five years after application. Soil and Tillage Research, 2019, 186, 36-41.	5.6	51
44	Sewage sludge-derived hydrochar that inhibits ammonia volatilization, improves soil nitrogen retention and rice nitrogen utilization. Chemosphere, 2020, 245, 125558.	8.2	51
45	Determination of carbonate-C in biochars. Soil Research, 2014, 52, 495.	1.1	49
46	Biochar application constrained native soil organic carbon accumulation from wheat residue inputs in a long-term wheat-maize cropping system. Agriculture, Ecosystems and Environment, 2018, 252, 200-207.	5.3	49
47	Organic matter chemistry and bacterial community structure regulate decomposition processes in post-fire forest soils. Soil Biology and Biochemistry, 2021, 160, 108311.	8.8	49
48	In Situ Persistence and Migration of Biochar Carbon and Its Impact on Native Carbon Emission in Contrasting Soils under Managed Temperate Pastures. PLoS ONE, 2015, 10, e0141560.	2.5	45
49	Temperature sensitivity and priming of organic matter with different stabilities in a Vertisol with aged biochar. Soil Biology and Biochemistry, 2017, 115, 346-356.	8.8	44
50	Increase in pH stimulates mineralization of â€˜nativeâ€™ organic carbon and nitrogen in naturally salt-affected sandy soils. Plant and Soil, 2007, 290, 269-282.	3.7	43
51	Uncertainties in static closed chamber measurements of the carbon isotopic ratio of soil-respired CO. Soil Biology and Biochemistry, 2005, 37, 2273-2276.	8.8	41
52	Effect of crop residue addition on soil organic carbon priming as influenced by temperature and soil properties. Geoderma, 2019, 347, 70-79.	5.1	39
53	Nitrous oxide and methane emissions from soil are reduced following afforestation of pasture lands in three contrasting climatic zones. Soil Research, 2009, 47, 443.	1.1	38
54	Tillage history and crop residue input enhanced native carbon mineralisation and nutrient supply in contrasting soils under long-term farming systems. Soil and Tillage Research, 2019, 193, 71-84.	5.6	38

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55	Effects of nitrogen-enriched biochar on rice growth and yield, iron dynamics, and soil carbon storage and emissions: A tool to improve sustainable rice cultivation. Environmental Pollution, 2021, 287, 117565.	7.5	36
56	Biochar carbon dynamics in physically separated fractions and microbial use efficiency in contrasting soils under temperate pastures. Soil Biology and Biochemistry, 2018, 116, 399-409.	8.8	35
57	Balancing nutrient stoichiometry facilitates the fate of wheat residueâ€'carbon in physically defined soil organic matter fractions. Geoderma, 2019, 354, 113883.	5.1	35
58	Decomposition of maize straw in saline soil. Biology and Fertility of Soils, 2006, 42, 366-370.	4.3	34
59	Dynamics of soil organic carbon and nitrogen associated with physically separated fractions in a grassland-cultivation sequence in the Qinghai-Tibetan plateau. Biology and Fertility of Soils, 2010, 46, 103-111.	4.3	33
60	Priming of soil organic carbon induced by sugarcane residues and its biochar control the source of nitrogen for plant uptake: A dual 13C and 15N isotope three-source-partitioning study. Soil Biology and Biochemistry, 2020, 146, 107792.	8.8	31
61	Steel slag and biochar amendments decreased CO2 emissions by altering soil chemical properties and bacterial community structure over two-year in a subtropical paddy field. Science of the Total Environment, 2020, 740, 140403.	8.0	30
62	Gain in carbon: Deciphering the abiotic and biotic mechanisms of biochar-induced negative priming effects in contrasting soils. Science of the Total Environment, 2020, 746, 141057.	8.0	29
63	In situ assessment of new carbon and nitrogen assimilation and allocation in contrastingly managed dryland wheat cropâ€"soil systems. Agriculture, Ecosystems and Environment, 2016, 235, 80-90.	5.3	27
64	Biochar has little effect on soil dissolved organic carbon pool 5Âyears after biochar application under field condition. Soil Use and Management, 2019, 35, 466-477.	4.9	27
65	Balanced nutrient stoichiometry of organic amendments enhances carbon priming in a poorly structured sodic subsoil. Soil Biology and Biochemistry, 2020, 145, 107800.	8.8	26
66	Tillage and nitrogen fertilization enhanced belowground carbon allocation and plant nitrogen uptake in a semi-arid canola cropâ€"soil system. Scientific Reports, 2017, 7, 10726.	3.3	25
67	Effects of contrasting biochars on the leaching of inorganic nitrogen from soil. Journal of Soils and Sediments, 2020, 20, 3017-3026.	3.0	24
68	The accumulation of rhizodeposits in organo-mineral fractions promoted biochar-induced negative priming of native soil organic carbon in Ferralsol. Soil Biology and Biochemistry, 2018, 118, 91-96.	8.8	23
69	Assessment of radon and potentially toxic metals in agricultural soils of Punjab, India. Microchemical Journal, 2019, 146, 444-454.	4.5	23
70	Biochar accelerates soil organic carbon mineralization via rhizodeposit-activated Actinobacteria. Biology and Fertility of Soils, 2022, 58, 565-577.	4.3	22
71	Compatible package-based agriculture systems: an urgent need for agro-ecological balance and climate change adaptation. Soil Ecology Letters, 2022, 4, 187-212.	4.5	21
72	Is sustainability certification for biochar the answer to environmental risks?. Pesquisa Agropecuaria Brasileira, 2012, 47, 637-648.	0.9	20

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73	Discrimination in Degradability of Soil Pyrogenic Organic Matter Follows a Return-On-Energy-Investment Principle. Environmental Science & Technology, 2016, 50, 8578-8585.	10.0	20
74	Nitrilotriacetic acid modified bamboo charcoal (NTA-MBC): An effective adsorbent for the removal of Cr (III) and Cr (VI) from aqueous solution. Journal of Environmental Chemical Engineering, 2018, 6, 2965-2974.	6.7	20
75	Soil organic matter turnover depending on land use change: Coupling C/N ratios, <scp>l′¹³C,</scp> and lignin biomarkers. Land Degradation and Development, 2021, 32, 1591-1605.	3.9	19
76	Biochar in Soil for Climate Change Mitigation and Adaptation. Soil Biology, 2011, , 345-368.	0.8	19
77	Interactive effects of rice-residue biochar and N-fertilizer on soil functions and crop biomass in contrasting soils. Journal of Soil Science and Plant Nutrition, 2018, , 0-0.	3.4	18
78	Contrasting short-term responses of soil heterotrophic and autotrophic respiration to biochar-based and chemical fertilizers in a subtropical Moso bamboo plantation. Applied Soil Ecology, 2021, 157, 103758.	4.3	18
79	Rhizosphere microbiome modulated effects of biochar on ryegrass 15N uptake and rhizodeposited 13C allocation in soil. Plant and Soil, 2021, 463, 359-377.	3.7	17
80	Assessing Biochar Stability Indices Using near Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2014, 22, 313-328.	1.5	15
81	Rice-residue biochar influences phosphorus availability in soil with contrasting P status. Archives of Agronomy and Soil Science, 2020, 66, 778-791.	2.6	15
82	Silicon Effects on Biomass Carbon and Phytolith-Occluded Carbon in Grasslands Under High-Salinity Conditions. Frontiers in Plant Science, 2020, 11, 657.	3.6	15
83	The response of soil multi-functionality to agricultural management practices can be predicted by key soil abiotic and biotic properties. Agriculture, Ecosystems and Environment, 2021, 307, 107206.	5.3	15
84	Biochar decreased rhizodeposits stabilization via opposite effects on bacteria and fungi: diminished fungi-promoted aggregation and enhanced bacterial mineralization. Biology and Fertility of Soils, 2021, 57, 533-546.	4.3	15
85	Amino-functionalized mesoporous MCM-41: an efficient adsorbent for the removal of chromium (III) ions from aqueous solution. Journal of Water Supply: Research and Technology - AQUA, 2016, 65, 480-493.	1.4	14
86	Resource stoichiometric and fertility in soil. Biology and Fertility of Soils, 2020, 56, 1091-1092.	4.3	14
87	Biochar protects hydrophilic dissolved organic matter against mineralization and enhances its microbial carbon use efficiency. Science of the Total Environment, 2021, 795, 148793.	8.0	14
88	Additive effects of organic and inorganic amendments can significantly improve structural stability of a sodic dispersive subsoil. Geoderma, 2021, 404, 115281.	5.1	13
89	Characterization of recently 14C pulse-labelled carbon from roots by fractionation of soil organic matter. European Journal of Soil Science, 2005, 56, 329-341.	3.9	12
90	Fabrication and characterization of Ti-Nb-HA alloy by mechanical alloying and spark plasma sintering for hard tissue replacements. IOP Conference Series: Materials Science and Engineering, 2017, 225, 012051.	0.6	12

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91	Multiple tradeâ€offs between maximizing yield and minimizing greenhouse gas production in Chinese rice croplands. Land Degradation and Development, 2020, 31, 1287-1299.	3.9	12
92	Effects of slag and biochar amendments on microorganisms and fractions of soil organic carbon during flooding in a paddy field after two years in southeastern China. Science of the Total Environment, 2022, 824, 153783.	8.0	12
93	Long-term saline water irrigation decreased soil organic carbon and inorganic carbon contents. Agricultural Water Management, 2022, 270, 107760.	5.6	11
94	Combined slag and biochar amendments to subtropical paddy soils lead to a short-term change of bacteria community structure and rise of soil organic carbon. Applied Soil Ecology, 2022, 179, 104593.	4.3	11
95	Soil Organic Matter, Soil Health and Climate Change. Soil Biology, 2011, , 87-106.	0.8	9
96	Unexpected increases in soil carbon eventually fell in low rainfall farming systems. Journal of Environmental Management, 2020, 261, 110192.	7.8	9
97	Nitrous oxide emissions from cow urine patches in an intensively managed grassland: Influence of nitrogen loading under contrasting soil moisture. Science of the Total Environment, 2021, 757, 143790.	8.0	9
98	Plant productivity is a key driver of soil respiration response to climate change in a nutrient-limited soil.. Basic and Applied Ecology, 2021, 50, 155-168.	2.7	8
99	Characterization of halophyte biochar and its effects on water and salt contents in saline soil. Environmental Science and Pollution Research, 2022, 29, 11831-11842.	5.3	8
100	In situ dynamics of recently allocated 14C in pasture soil and soil solution collected with Rhizon Soil Moisture Samplers. Soil Research, 2005, 43, 659.	1.1	7
101	Nutrients addition regulates temperature sensitivity of maize straw mineralization. Journal of Soils and Sediments, 2021, 21, 2778-2790.	3.0	7
102	Fabrication of Biodegradable Low Elastic Porous Mg-Zn-Mn-HA Alloy by Spark Plasma Sintering for Orthopaedic Applications. IOP Conference Series: Materials Science and Engineering, 2017, 225, 012050.	0.6	6
103	Yak dung pat fragmentation decreases yield-scaled growing-season nitrous oxide emissions in an alpine steppe on the Qinghai-Tibetan Plateau. Biology and Fertility of Soils, 2021, 57, 1103-1115.	4.3	6
104	A quantitative sizeâ€“density separation method to recover and characterise decomposing crop residues added to soil. Biology and Fertility of Soils, 2009, 45, 423-434.	4.3	5
105	Defluoridation of water using micelle templated MCM-41: adsorption and RSM studies. Journal of Water Supply: Research and Technology - AQUA, 2019, 68, 282-294.	1.4	5
106	Wheatâ€derived soil organic carbon accumulates more than its maize counterpart in a wheatâ€“maize cropping system after 21â€‰years. European Journal of Soil Science, 2020, 71, 695-705.	3.9	5
107	The benefit of leafy vegetable as catch crop to mitigate N and P leaching losses in intensive plastic-shed production system. Journal of Soils and Sediments, 2021, 21, 2253-2261.	3.0	5
108	Biostimulants decreased nitrogen leaching and NH3 volatilization but increased N2O emission from plastic-shed greenhouse vegetable soil. Environmental Science and Pollution Research, 2022, 29, 6093-6102.	5.3	4

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109	Soil Respiration in Future Global Change Scenarios. Soil Biology, 2011, , 131-153.	0.8	3
110	Regional Considerations for Targeted Use of Biochar in Agriculture and Remediation in Australia. SSSA Special Publication Series, 0, , 445-474.	0.2	2
111	Comparative Performance Evaluation of Axial Flow and Tangential Axial Flow Threshing System for Basmati Rice (Oryza sativa). Agricultural Research, 2015, 4, 303-308.	1.7	2
112	4-Formylphenyl boronic acid grafted amino MCM-41 for efficient adsorption of Cu(II) ions in aqueous medium: isotherm, kinetic and optimization studies. Toxin Reviews, 2022, 41, 551-563.	3.4	2
113	Nitrous oxide emission factors in conventionally and naturally simulated cattle urine patches. Nutrient Cycling in Agroecosystems, 2021, 121, 129-147.	2.2	2
114	Evaluation of proximal sensing technologies for mapping bovine urine patches under grazing pastures. Computers and Electronics in Agriculture, 2021, 188, 106309.	7.7	2
115	Tillage and Crop Stubble Management and Soil Health in a Changing Climate. Soil Biology, 2011, , 181-206.	0.8	2
116	Soil health and climate change: a critical nexus. Burleigh Dodds Series in Agricultural Science, 2018, , 39-68.	0.2	2
117	Intensive management of a bamboo forest significantly enhanced soil nutrient concentrations but decreased soil microbial biomass and enzyme activity: a long-term chronosequence study. Journal of Soils and Sediments, 2022, 22, 2640-2653.	3.0	2
118	The impact of biochar on nutrient supplies in agricultural ecosystems. , 2022, , 193-201.		1
119	Decomposition of substrates with recalcitrance gradient, primed CO2, and its relations with soil microbial diversity in post-fire forest soils. Journal of Soils and Sediments, 2021, 21, 3007-3017.	3.0	0