Pratap Bhattacharyya

List of Publications by Year
in descending order

92 papers	2,908 citations	147801 31 h-index	189892 50 g-index
96 all docs	96 docs citations	96 times ranked	2734 citing authors

#	Article	IF	Citations
1	Mitigation of greenhouse gases emission through value-added straw amendments in riceâ€“green gram system. International Journal of Environmental Science and Technology, 2023, 20, 1019-1036.	3.5	3
2	Trade-off between soil aggregate stability and carbon decomposition under 44 years long-term integrated nutrient management in rice-wheat-jute system. Archives of Agronomy and Soil Science, 2023, 69, 417-430.	2.6	3
3	Efficient Lignin Decomposing Microbial Consortium to Hasten Rice-Straw Composting with Moderate GHGs Fluxes. Waste and Biomass Valorization, 2022, 13, 481-496.	3.4	3
4	Challenges, opportunities, and climate change adaptation strategies of mangrove-agriculture ecosystem in the Sundarbans, India: a review. Wetlands Ecology and Management, 2022, 30, 191-206.	1.5	4
5	Elucidation of dominant energy metabolic pathways of methane, sulphur and nitrogen in respect to mangrove-degradation for climate change mitigation. Journal of Environmental Management, 2022, 303, 114151.	7.8	11
6	Seasonal quantification of carbonate dissolution and CO2 emission dynamics in the Indian Sundarbans estuaries. Regional Studies in Marine Science, 2022, 53, 102413.	0.7	1
7	Longâ€term manure application for crop yield stability and carbon sequestration in subtropical region. Soil Use and Management, 2021, 37, 264-276.	4.9	13
8	Seed Biopriming With Trichoderma Strains Isolated From Tree Bark Improves Plant Growth, Antioxidative Defense System in Rice and Enhance Straw Degradation Capacity. Frontiers in Microbiology, 2021, 12, 633881.	3.5	24
9	Trichoderma-mediated rice straw compost promotes plant growth and imparts stress tolerance. Environmental Science and Pollution Research, 2021, 28, 44014-44027.	5.3	15
10	Characterization of carbon dioxide fluxes in tropical lowland flooded rice ecology. Paddy and Water Environment, 2021, 19, 539.	1.8	3
11	Turn the wheel from waste to wealth: Economic and environmental gain of sustainable rice straw management practices over field burning in reference to India. Science of the Total Environment, 2021, 775, 145896.	8.0	73
12	A unique bacterial and archaeal diversity make mangrove a green production system compared to rice in wetland ecology: A metagenomic approach. Science of the Total Environment, 2021, 781, 146713.	8.0	27
13	Key Metabolic Pathways of Sulfur Metabolism and Bacterial Diversity under Elevated CO2 and Temperature in Lowland Rice: A Metagenomic Approach. Geomicrobiology Journal, 2020, 37, 13-21.	2.0	5
14	Characterization of rice straw from major cultivars for best alternative industrial uses to cutoff the menace of straw burning. Industrial Crops and Products, 2020, 143, 111919.	5.2	85
15	Seasonal fluctuation in three mode of greenhouse gases emission in relation to soil labile carbon pools in degraded mangrove, Sundarban, India. Science of the Total Environment, 2020, 705, 135909.	8.0	38
16	Partitioning of eddy covariance-measured net ecosystem exchange of CO2 in tropical lowland paddy. Paddy and Water Environment, 2020, 18, 623-636.	1.8	9
17	Enhanced labile carbon flow in soil-microbes-plant-atmospheric continuum in rice under elevated CO2 and temperature leads to positive climate change feed-back. Applied Soil Ecology, 2020, 155, 103657.	4.3	16
18	Climate Smart Agriculture. Green Energy and Technology, 2020, , .	0.6	13

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19	Partitioning of total soil respiration into root, rhizosphere and basal-soil CO2 fluxes in contrasting rice production systems. Soil Research, 2020, 58, 592.	1.1	4
20	Soil Carbon Dynamics in Different Land-Use and Management Systems in Tropical Coastal Regions of India. , 2020, , 89-102.		0
21	Mitigation of Greenhouse Gases Emission and Low Carbon Technologies. Green Energy and Technology, 2020, , 129-153.	0.6	0
22	Crop Management for Climate-Smart Agriculture. Green Energy and Technology, 2020, , 85-111.	0.6	1
23	Structural diversity and efficacy of culturable cellulose decomposing bacteria isolated from riceâ€“pulse resource conservation practices. Journal of Basic Microbiology, 2019, 59, 963-978.	3.3	2
24	Environmental constraintsâ€™ sensitivity of soil organic carbon decomposition to temperature, management practices and climate change. Ecological Indicators, 2019, 107, 105644.	6.3	21
25	Ecosystem services in different agro-climatic zones in eastern India: impact of land use and land cover change. Environmental Monitoring and Assessment, 2019, 191, 98.	2.7	24
26	Assessment of ecosystem services of rice farms in eastern India. Ecological Processes, 2019, 8, .	3.9	29
27	Mechanism of plant mediated methane emission in tropical lowland rice. Science of the Total Environment, 2019, 651, 84-92.	8.0	44
28	Characterization of land surface energy fluxes in a tropical lowland rice paddy. Theoretical and Applied Climatology, 2019, 136, 157-168.	2.8	14
29	Carbon and nutrient dynamics under long-term nutrient management in tropical rice-wheat-jute system. Archives of Agronomy and Soil Science, 2018, 64, 1595-1607.	2.6	8
30	Dynamics of soil organic carbon mineralization and C fractions in paddy soil on application of rice husk biochar. Biomass and Bioenergy, 2018, 115, 1-9.	5.7	46
31	Crop Residue Management and Greenhouse Gases Emissions in Tropical Rice Lands. , 2018, , 323-335.		14
32	Temporal Variation of Energy Fluxes During Dry Season in Tropical Lowland Rice. Mapan - Journal of Metrology Society of India, 2018, 33, 241-251.	1.5	6
33	Nitrate leaching, nitrous oxide emission and N use efficiency of aerobic rice under different N application strategy. Archives of Agronomy and Soil Science, 2018, 64, 465-479.	2.6	19
34	Comparative assessment of urea briquette applicators on greenhouse gas emission, nitrogen loss and soil enzymatic activities in tropical lowland rice. Agriculture, Ecosystems and Environment, 2018, 252, 178-190.	5.3	58
35	Carbon Dynamics in Soil-Plant-Environment System on Climate Change Perspective: Special Reference to Rice. , 2018, , 3-23.		2
36	Elevated carbon dioxide and temperature imparted intrinsic drought tolerance in aerobic rice system through enhanced exopolysaccharide production and rhizospheric activation. Agriculture, Ecosystems and Environment, 2018, 268, 52-60.	5.3	13

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37	Novel Trichoderma strains isolated from tree barks as potential biocontrol agents and biofertilizers for direct seeded rice. Microbiological Research, 2018, 214, 83-90.	5.3	46
38	Greenhouse gas emissions and energy exchange in wet and dry season rice: eddy covariance-based approach. Environmental Monitoring and Assessment, 2018, 190, 423.	2.7	15
39	Dynamics of net ecosystem methane exchanges on temporal scale in tropical lowland rice. Atmospheric Environment, 2018, 191, 291-301.	4.1	7
40	Soil carbon dynamics and enzymatic activities under different resource conservation technologies in rice-green gram cropping system. Oryza, 2018, 55, 292.	0.4	3
41	Soil quality assessment using soil organic carbon, total nitrogen and microbial properties in hilly agro-ecosystem. Applied Biological Research, 2018, 20, 1.	0.2	0
42	Metagenomic assessment of methane production-oxidation and nitrogen metabolism of long term manured systems in lowland rice paddy. Science of the Total Environment, 2017, 586, 1245-1253.	8.0	32
43	Carbon and nitrogen fractions and stocks under 41 years of chemical and organic fertilization in a sub-humid tropical rice soil. Soil and Tillage Research, 2017, 170, 136-146.	5.6	70
44	Changes in Soilâ€“Plantâ€“Microbes Interactions in Anticipated Climatic Change Conditions. , 2017, , 261-275.		2
45	Low carbon resource conservation techniques for energy savings, carbon gain and lowering GHGs emission in lowland transplanted rice. Soil and Tillage Research, 2017, 174, 45-57.	5.6	15
46	Variation of functional diversity of soil microbial community in sub-humid tropical rice-rice cropping system under long-term organic and inorganic fertilization. Ecological Indicators, 2017, 73, 536-543.	6.3	139
47	Net ecosystem methane and carbon dioxide exchange in relation to heat and carbon balance in lowland tropical rice. Ecological Engineering, 2016, 95, 364-374.	3.6	23
48	Combined application of rice husk biochar and fly ash improved the yield of lowland rice. Soil Research, 2016, 54, 451.	1.1	39
49	Soil quality in mangrove ecosystem deteriorates due to rice cultivation. Ecological Engineering, 2016, 90, 163-169.	3.6	17
50	Elucidation of rice rhizosphere metagenome in relation to methane and nitrogen metabolism under elevated carbon dioxide and temperature using whole genome metagenomic approach. Science of the Total Environment, 2016, 542, 886-898.	8.0	73
51	Micronutrients (Fe, Mn, Zn and Cu) balance under long-term application of fertilizer and manure in a tropical rice-rice system. Journal of Soils and Sediments, 2016, 16, 737-747.	3.0	60
52	APPLICATION TIME OF NITROGEN AND PHOSPHORUS FERTILIZATION MITIGATES THE ADVERSE EFFECT OF SUBMERGENCE IN RICE (ORYZA SATIVA L.). Experimental Agriculture, 2015, 51, 522-539.	0.9	5
53	Effect of Nutrient Application on Growth, Metabolic and Enzymatic Activities of Rice Seedlings During Flooding Stress and Subsequent Reâ€Aeration. Journal of Agronomy and Crop Science, 2015, 201, 138-151.	3.5	19
54	Combined application of silica and nitrogen alleviates the damage of flooding stress in rice. Crop and Pasture Science, 2015, 66, 679.	1.5	10

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55	Effects of 42-year long-term fertilizer management on soil phosphorus availability, fractionation, adsorptionâ€“desorption isotherm and plant uptake in flooded tropical rice. Crop Journal, 2015, 3, 387-395.	5.2	57
56	Long-term effect of rice-based farming systems on soil health. Environmental Monitoring and Assessment, 2015, 187, 296.	2.7	13
57	Growth and nitrogen allocation of dry season tropical rice as a result of carbon dioxide fertilization and elevated night time temperature. Nutrient Cycling in Agroecosystems, 2015, 103, 293-309.	2.2	12
58	Effect of nutrient application and water turbidity on submergence tolerance of rice (<i>Oryza) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 622	2.5	6
59	Effect of fly ash application on soil microbial response and heavy metal accumulation in soil and rice plant. Ecotoxicology and Environmental Safety, 2015, 114, 257-262.	6.0	101
60	Carbon Pools and Associated Soil Enzymatic Activities as Influenced by Long-term Application of Fertilizers and Manure in Lowland Rice Soil. Journal of the Indian Society of Soil Science, 2015, 63, 310.	0.2	6
61	Effect of elevated carbon dioxide and temperature on phosphorus uptake in tropical flooded rice (Oryza sativa L.). European Journal of Agronomy, 2014, 53, 28-37.	4.1	40
62	Fly Ash Addition Affects Microbial Biomass and Carbon Mineralization in Agricultural Soils. Bulletin of Environmental Contamination and Toxicology, 2014, 92, 160-164.	2.7	13
63	Soil aggregation and distribution of carbon and nitrogen in different fractions after 41 years long-term fertilizer experiment in tropical riceâ€“rice system. Geoderma, 2014, 213, 280-286.	5.1	136
64	Soil respiration, labile carbon pools, and enzyme activities as affected by tillage practices in a tropical riceâ€“maizeâ€“cowpea cropping system. Environmental Monitoring and Assessment, 2014, 186, 4223-4236.	2.7	31
65	Tropical low land rice ecosystem is a net carbon sink. Agriculture, Ecosystems and Environment, 2014, 189, 127-135.	5.3	83
66	Submergence tolerance in relation to application time of nitrogen and phosphorus in rice (Oryza) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	4.2	35
67	Gaseous carbon emission in relation to soil carbon fractions and microbial diversities as affected by organic amendments in tropical rice soil. Archives of Agronomy and Soil Science, 2014, 60, 1345-1361.	2.6	7
68	Weed community composition after 43 years of long-term fertilization in tropical riceâ€“rice system. Agriculture, Ecosystems and Environment, 2014, 197, 301-308.	5.3	10
69	Effect of Fly Ash Deposition on Photosynthesis, Growth and Yield of Rice. Bulletin of Environmental Contamination and Toxicology, 2014, 93, 106-112.	2.7	37
70	Effect of nitrogen fertilization on methane and carbon dioxide production potential in relation to labile carbon pools in tropical flooded rice soils in eastern India. Archives of Agronomy and Soil Science, 2014, 60, 1329-1344.	2.6	13
71	Postâ€“flood nitrogen and basal phosphorus management affects survival, metabolic changes and anti-oxidant enzyme activities of submerged rice (Oryza sativa). Functional Plant Biology, 2014, 41, 1284.	2.1	23
72	Influence of elevated carbon dioxide and temperature on belowground carbon allocation and enzyme activities in tropical flooded soil planted with rice. Environmental Monitoring and Assessment, 2013, 185, 8659-8671.	2.7	50

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73	Root Exudates of Rice Cultivars Affect Rhizospheric Phosphorus Dynamics in Soils with Different Phosphorus Statuses. Communications in Soil Science and Plant Analysis, 2013, 44, 1643-1658.	1.4	34
74	Greenhouse gas emission in relation to labile soil C, N pools and functional microbial diversity as influenced by 39 years long-term fertilizer management in tropical rice. Soil and Tillage Research, 2013, 129, 93-105.	5.6	85
75	Carbon and nitrogen mineralization kinetics in soil of riceâ€“rice system under long term application of chemical fertilizers and farmyard manure. European Journal of Soil Biology, 2013, 58, 113-121.	3.2	94
76	Net ecosystem CO2 exchange and carbon cycling in tropical lowland flooded rice ecosystem. Nutrient Cycling in Agroecosystems, 2013, 95, 133-144.	2.2	39
77	Impact of elevated CO2 and temperature on soil C and N dynamics in relation to CH4 and N2O emissions from tropical flooded rice (Oryza sativa L.). Science of the Total Environment, 2013, 461-462, 601-611.	8.0	93
78	Carbon fractions and productivity under changed climate scenario in soybeanâ€“wheat system. Field Crops Research, 2013, 145, 10-20.	5.1	37
79	Longâ€term effects of fertilizer and manure applications on soil quality and yields in a subâ€humid tropical riceâ€rice system. Soil Use and Management, 2013, 29, 322-332.	4.9	66
80	Effect of fish species on methane and nitrous oxide emission in relation to soil C, N pools and enzymatic activities in rainfed shallow lowland rice-fish farming system. Agriculture, Ecosystems and Environment, 2013, 176, 53-62.	5.3	55
81	Long-term organic nutrient managements foster the biological properties and carbon sequestering capability of a wetland rice soil. Archives of Agronomy and Soil Science, 2013, 59, 1607-1624.	2.6	21
82	Effect of long-term application of organic amendment on C storage in relation to global warming potential and biological activities in tropical flooded soil planted to rice. Nutrient Cycling in Agroecosystems, 2012, 94, 273-285.	2.2	56
83	Combined effect of elevated CO2 and temperature on dry matter production, net assimilation rate, C and N allocations in tropical rice (Oryza sativa L.). Field Crops Research, 2012, 139, 71-79.	5.1	77
84	Effects of rice straw and nitrogen fertilization on greenhouse gas emissions and carbon storage in tropical flooded soil planted with rice. Soil and Tillage Research, 2012, 124, 119-130.	5.6	237
85	A Quantitative Methodology for Estimating Soil Loss Tolerance Limits for Three States of Northern India. Agroecology and Sustainable Food Systems, 2011, 35, 276-292.	0.9	5
86	Interaction effects of elevated CO2 and temperature on microbial biomass and enzyme activities in tropical rice soils. Environmental Monitoring and Assessment, 2011, 182, 555-569.	2.7	37
87	Impact of elevated CO2, flooding, and temperature interaction on heterotrophic nitrogen fixation in tropical rice soils. Biology and Fertility of Soils, 2011, 47, 25-30.	4.3	22
88	Soil loss tolerance limits for planning of soil conservation measures in Shivalikâ€“Himalayan region of India. Catena, 2008, 73, 117-124.	5.0	24
89	Modification of Phosphate Uptake Model Considering Changing Buffering Capacity of Soil and Release Threshold Limit of Phosphorus in Soil due to Rhizosphere Effect. Communications in Soil Science and Plant Analysis, 2005, 35, 1773-1792.	1.4	3
90	Modification of Phosphate Uptake Model Considering Changing Buffering Capacity of Soil and Release Threshold Limit of Phosphorus in Soil due to Rhizosphere Effect#. Communications in Soil Science and Plant Analysis, 2004, 35, 1773-1792.	1.4	1

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91	Interrelationship of pH, Organic Acids, and Phosphorus Concentration in Soil Solution of Rhizosphere and Non-rhizosphere of Wheat and Rice Crops. Communications in Soil Science and Plant Analysis, 2003, 34, 231-245.	1.4	18
92	Soil Metagenome Revealed Contrasting Anammox Bacterial Diversity in Coastal Mangrove and Rice Ecology. Geomicrobiology Journal, 0, , 1-10.	2.0	3