

Rahul Datta

List of Publications by Citations

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119
papers

1,891
citations

23
h-index

39
g-index

135
ext. papers

2,719
ext. citations

3.9
avg. IF

5.42
L-index

#	Paper	IF	Citations
119	Impact of Agrochemicals on Soil Microbiota and Management: A Review. <i>Land</i> , 2020 , 9, 34	3.5	231
118	Enzymatic Degradation of Lignin in Soil: A Review. <i>Sustainability</i> , 2017 , 9, 1163	3.6	177
117	Coupling Phosphate-Solubilizing Bacteria with Phosphorus Supplements Improve Maize Phosphorus Acquisition and Growth under Lime Induced Salinity Stress. <i>Plants</i> , 2020 , 9,	4.5	76
116	Soil microbial and nutrient dynamics under different sowings environment of Indian mustard (<i>Brassica juncea</i> L.) in rice based cropping system. <i>Scientific Reports</i> , 2021 , 11, 5289	4.9	55
115	How enzymes are adsorbed on soil solid phase and factors limiting its activity: A Review. <i>International Agrophysics</i> , 2017 , 31, 287-302	2	54
114	Drought Stress Alleviation by ACC Deaminase Producing <i>Achromobacter xylosoxidans</i> and <i>Enterobacter cloacae</i> , with and without Timber Waste Biochar in Maize. <i>Sustainability</i> , 2020 , 12, 6286	3.6	54
113	Amino Acid: Its Dual Role as Nutrient and Scavenger of Free Radicals in Soil. <i>Sustainability</i> , 2017 , 9, 1402	3.6	51
112	Potential role of compost mixed biochar with rhizobacteria in mitigating lead toxicity in spinach. <i>Scientific Reports</i> , 2020 , 10, 12159	4.9	48
111	Role of Soil Phosphorus on Legume Production 2018 , 487-510		44
110	Sustainable Management with Mycorrhizae and Phosphate Solubilizing Bacteria for Enhanced Phosphorus Uptake in Calcareous Soils. <i>Agriculture (Switzerland)</i> , 2020 , 10, 334	3	41
109	Application of Single Superphosphate with Humic Acid Improves the Growth, Yield and Phosphorus Uptake of Wheat (<i>Triticum aestivum</i> L.) in Calcareous Soil. <i>Agronomy</i> , 2020 , 10, 1224	3.6	40
108	Assessment of some cultural experimental methods to study the effects of antibiotics on microbial activities in a soil: An incubation study. <i>PLoS ONE</i> , 2017 , 12, e0180663	3.7	38
107	Long-Term Effects of Biochar-Based Organic Amendments on Soil Microbial Parameters. <i>Agronomy</i> , 2019 , 9, 747	3.6	36
106	Impact of chlortetracycline and sulfapyridine antibiotics on soil enzyme activities. <i>International Agrophysics</i> , 2017 , 31, 499-505	2	32
105	Effects of Conservation Tillage and Nutrient Management Practices on Soil Fertility and Productivity of Rice (<i>Oryza sativa</i> L.) Rice System in North Eastern Region of India. <i>Sustainability</i> , 2017 , 9, 1816	3.6	32
104	Effect of Cadmium-Tolerant Rhizobacteria on Growth Attributes and Chlorophyll Contents of Bitter Gourd under Cadmium Toxicity. <i>Plants</i> , 2020 , 9,	4.5	32
103	Alleviation of Cadmium Adverse Effects by Improving Nutrients Uptake in Bitter Gourd through Cadmium Tolerant Rhizobacteria. <i>Environments - MDPI</i> , 2020 , 7, 54	3.2	31

102	Microbial expression profiles in the rhizosphere of two maize lines differing in N use efficiency. <i>Plant and Soil</i> , 2018 , 433, 401-413	4.2	30
101	Effect of soil sieving on respiration induced by low-molecular-weight substrates. <i>International Agrophysics</i> , 2014 , 28, 119-124	2	29
100	Effect of Seaweed Extract on Productivity and Quality Attributes of Four Onion Cultivars. <i>Horticulturae</i> , 2020 , 6, 28	2.5	28
99	Effect of micronutrients foliar supplementation on the production and eminence of plum (<i>Prunus domestica</i> L.). <i>Quality Assurance and Safety of Crops and Foods</i> , 2020 , 12, 32-40	1.5	28
98	Legumes for Carbon and Nitrogen Cycling: An Organic Approach 2020 , 337-375		28
97	Glomalin Truths, myths, and the future of this elusive soil glycoprotein. <i>Soil Biology and Biochemistry</i> , 2021 , 153, 108116	7.5	27
96	Phosphorus Nutrient Management through Synchronization of Application Methods and Rates in Wheat and Maize Crops. <i>Plants</i> , 2020 , 9,	4.5	23
95	Impact of Seed Dressing and Soil Application of Potassium Humate on Cotton Plants Productivity and Fiber Quality. <i>Plants</i> , 2020 , 9,	4.5	22
94	Ecotone Dynamics and Stability from Soil Scientific Point of View. <i>Diversity</i> , 2019 , 11, 53	2.5	21
93	A critical review of the possible adverse effects of biochar in the soil environment. <i>Science of the Total Environment</i> , 2021 , 796, 148756	10.2	21
92	Ecotone Dynamics and Stability from Soil Perspective: Forest-Agriculture Land Transition. <i>Agriculture (Switzerland)</i> , 2019 , 9, 228	3	19
91	Zinc nutrition and arbuscular mycorrhizal symbiosis effects on maize (L.) growth and productivity. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 6339-6351	4	18
90	Optimizing nutrient use efficiency, productivity, energetics, and economics of red cabbage following mineral fertilization and biopriming with compatible rhizosphere microbes. <i>Scientific Reports</i> , 2021 , 11, 15680	4.9	18
89	Heavy metals immobilization and improvement in maize (<i>Zea mays</i> L.) growth amended with biochar and compost. <i>Scientific Reports</i> , 2021 , 11, 18416	4.9	18
88	Insight into metal immobilization and microbial community structure in soil from a steel disposal dump phytostabilized with composted, pyrolyzed or gasified wastes. <i>Chemosphere</i> , 2021 , 272, 129576	8.4	17
87	Deep placement of nitrogen fertilizer improves yield, nitrogen use efficiency and economic returns of transplanted fine rice. <i>PLoS ONE</i> , 2021 , 16, e0247529	3.7	17
86	Biochar and urease inhibitor mitigate NH and NO emissions and improve wheat yield in a urea fertilized alkaline soil. <i>Scientific Reports</i> , 2021 , 11, 17413	4.9	17
85	Drought Stress in Grain Legumes: Effects, Tolerance Mechanisms and Management. <i>Agronomy</i> , 2021 , 11, 2374	3.6	14

84	Influence of variable biochar concentration on yield-scaled nitrous oxide emissions, Wheat yield and nitrogen use efficiency. <i>Scientific Reports</i> , 2021 , 11, 16774	4.9	14
83	Effect of arbuscular mycorrhizal fungi on the physiological functioning of maize under zinc-deficient soils. <i>Scientific Reports</i> , 2021 , 11, 18468	4.9	14
82	Synergistic Effect of IAGS 199 and Putrescine on Alleviating Cadmium-Induced Phytotoxicity in. <i>Plants</i> , 2020 , 9,	4.5	13
81	Compost mixed fruits and vegetable waste biochar with ACC deaminase rhizobacteria can minimize lead stress in mint plants. <i>Scientific Reports</i> , 2021 , 11, 6606	4.9	13
80	Chemical and Biological Enhancement Effects of Biochar on Wheat Growth and Yield under Arid Field Conditions. <i>Sustainability</i> , 2021 , 13, 5890	3.6	13
79	Damping-Off and Root Rot of L.: Impacts, Diagnosis, and Management. <i>Microorganisms</i> , 2021 , 9,	4.9	12
78	Biofertilizer-Based Zinc Application Enhances Maize Growth, Gas Exchange Attributes, and Yield in Zinc-Deficient Soil. <i>Agriculture (Switzerland)</i> , 2021 , 11, 310	3	11
77	Effects of the Combinations of Rhizobacteria, Mycorrhizae, and Seaweed, and Supplementary Irrigation on Growth and Yield in Wheat Cultivars. <i>Plants</i> , 2021 , 10,	4.5	10
76	Impact of mineral fertilizers on mineral nutrients in the ginger rhizome and on soil enzymes activities and soil properties. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 5268-5274	4	10
75	Toxicity of Cadmium and nickel in the context of applied activated carbon biochar for improvement in soil fertility.. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 743-750	4	10
74	Enantiomers of Carbohydrates and Their Role in Ecosystem Interactions: A Review. <i>Symmetry</i> , 2020 , 12, 470	2.7	9
73	Studying soil erosion by evaluating changes in physico-chemical properties of soils under different land-use types. <i>Journal of the Saudi Society of Agricultural Sciences</i> , 2021 , 20, 190-197	3.3	9
72	Effects of the nitrification inhibitor nitrapyrin and mulch on NO emission and fertilizer use efficiency using N tracing techniques. <i>Science of the Total Environment</i> , 2021 , 757, 143739	10.2	9
71	Dual-color quantum dots-based simultaneous detection of HPV-HIV co-infection. <i>Sensors and Actuators B: Chemical</i> , 2018 , 258, 295-303	8.5	9
70	Synchronization of Boron application methods and rates is environmentally friendly approach to improve quality attributes of L. On sustainable basis.. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 1869-1880	4.8	8
69	Production of Organic Fertilizers from Rocket Seed (<i>Eruca Sativa</i> L.), Chicken Peat and Moringa <i>Oleifera</i> Leaves for Growing Linseed under Water Deficit Stress. <i>Sustainability</i> , 2021 , 13, 59	3.6	8
68	Application of Zinc Fertilizer and Mycorrhizal Inoculation on Physio-Biochemical Parameters of Wheat Grown under Water-Stressed Environment. <i>Sustainability</i> , 2021 , 13, 11007	3.6	8
67	Connecting Bio-Priming Approach with Integrated Nutrient Management for Improved Nutrient Use Efficiency in Crop Species. <i>Agriculture (Switzerland)</i> , 2021 , 11, 372	3	8

66	Heavy metal accumulation by roadside vegetation and implications for pollution control. <i>PLoS ONE</i> , 2021 , 16, e0249147	3.7	8
65	Rhizobacteria Inoculation and Caffeic Acid Alleviated Drought Stress in Lentil Plants. <i>Sustainability</i> , 2021 , 13, 9603	3.6	8
64	Mineral Fertilizers Improves the Quality of Turmeric and Soil. <i>Sustainability</i> , 2021 , 13, 9437	3.6	8
63	Biochar and Arbuscular mycorrhizal fungi mediated enhanced drought tolerance in Okra () plant growth, root morphological traits and physiological properties. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 5490-5499	4	8
62	Correlation of Soil Characteristics and Citrus Leaf Nutrients Contents in Current Scenario of Layyah District. <i>Horticulturae</i> , 2022 , 8, 61	2.5	7
61	Assessment of Water Quality in Lake Qaroun Using Ground-Based Remote Sensing Data and Artificial Neural Networks. <i>Water (Switzerland)</i> , 2021 , 13, 3094	3	7
60	Humic Acid Mitigates the Negative Effects of High Rates of Biochar Application on Microbial Activity. <i>Sustainability</i> , 2020 , 12, 9524	3.6	7
59	Yield Enhancement and Better Micronutrients Uptake in Tomato Fruit through Potassium Humate Combined with Micronutrients Mixture. <i>Agriculture (Switzerland)</i> , 2021 , 11, 357	3	7
58	Physio-chemical characterization of indigenous agricultural waste materials for the development of potting media. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 7491-7498	4	7
57	Drought Stress Alleviation by Potassium-Nitrate-Containing Chitosan/Montmorillonite Microparticles Confers Changes in Spinacia oleracea L.. <i>Sustainability</i> , 2021 , 13, 9903	3.6	7
56	Fourier Transform Infrared Spectroscopy vibrational bands study of Spinacia oleracea and Trigonella corniculata under biochar amendment in naturally contaminated soil. <i>PLoS ONE</i> , 2021 , 16, e0253390	3.7	6
55	Characterization and discrimination of Indian propolis based on physico-chemical, techno-functional, thermal and textural properties: A multivariate approach. <i>Journal of King Saud University - Science</i> , 2021 , 33, 101405	3.6	6
54	Immobilization of Cd in soil by biochar and new emerging chemically produced carbon. <i>Journal of King Saud University - Science</i> , 2021 , 33, 101472	3.6	6
53	What Factors Predict Falls in Older Adults Living in Nursing Homes: A Pilot Study. <i>Journal of Functional Morphology and Kinesiology</i> , 2018 , 4,	2.4	5
52	Mitigation of lead (Pb) toxicity in rice cultivated with either ground water or wastewater by application of acidified carbon.. <i>Journal of Environmental Management</i> , 2022 , 307, 114521	7.9	5
51	Biochar and Organic Amendments for Sustainable Soil Carbon and Soil Health 2020 , 45-85		5
50	Mitigation of Osmotic Stress in Cotton for the Improvement in Growth and Yield through Inoculation of Rhizobacteria and Phosphate Solubilizing Bacteria Coated Diammonium Phosphate. <i>Sustainability</i> , 2020 , 12, 10456	3.6	5
49	Nanoparticles combined with cefixime as an effective synergistic strategy against. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 4164-4172	4	5

48	Mitigation of bacterial spot disease induced biotic stress in <i>Capsicum annum</i> L. cultivars via antioxidant enzymes and isoforms. <i>Scientific Reports</i> , 2021 , 11, 9445	4.9	5
47	Carbon Mineralization Rates and Kinetics of Surface-Applied and Incorporated Rice and Maize Residues in Entisol and Inceptisol Soil Types. <i>Sustainability</i> , 2021 , 13, 7212	3.6	5
46	Bio-based integrated pest management in rice: An agro-ecosystems friendly approach for agricultural sustainability. <i>Journal of the Saudi Society of Agricultural Sciences</i> , 2021 , 20, 94-102	3.3	5
45	Kaolin and Jasmonic acid improved cotton productivity under water stress conditions. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 6606-6614	4	5
44	Exploring the potential of moringa leaf extract as bio stimulant for improving yield and quality of black cumin oil.. <i>Scientific Reports</i> , 2021 , 11, 24217	4.9	5
43	Improvement in growth and yield attributes of cluster bean through optimization of sowing time and plant spacing under climate change scenario.. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 781-792 ⁴		4
42	Regulation of Phosphorus and Zinc Uptake in Relation to Arbuscular Mycorrhizal Fungi for Better Maize Growth. <i>Agronomy</i> , 2021 , 11, 2322	3.6	4
41	Phosphate solubilizing bacteria optimize wheat yield in mineral phosphorus applied alkaline soil. <i>Journal of the Saudi Society of Agricultural Sciences</i> , 2021 ,	3.3	4
40	Contrasting effects of maize residue, coal gas residue and their biochars on nutrient mineralization, enzyme activities and CO emissions in sandy loess soil. <i>Saudi Journal of Biological Sciences</i> , 2021 , 28, 4154-4163 ⁴		
39	Nitrification Inhibitor and Plant Growth Regulators Improve Wheat Yield and Nitrogen Use Efficiency. <i>Journal of Plant Growth Regulation</i> , 2021 , 1	4.7	4
38	Supplemental Effects of Biochar and Foliar Application of Ascorbic Acid on Physio-Biochemical Attributes of Barley (<i>Hordeum vulgare</i> L.) under Cadmium-Contaminated Soil. <i>Sustainability</i> , 2021 , 13, 9128	3.6	4
37	Proteomic changes in various plant tissues associated with chromium stress in sunflower.. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 2604-2612	4	4
36	Effect of Plant Spacings on Growth, Physiology, Yield and Fiber Quality Attributes of Cotton Genotypes under Nitrogen Fertilization. <i>Agronomy</i> , 2021 , 11, 2589	3.6	4
35	Gibberellic Acid Induced Changes on Growth, Yield, Superoxide Dismutase, Catalase and Peroxidase in Fruits of Bitter Gourd (<i>Momordica charantia</i> L.). <i>Horticulturae</i> , 2020 , 6, 72	2.5	3
34	Formalin fumigation and steaming of various composts differentially influence the nutrient release, growth and yield of muskmelon (<i>Cucumis melo</i> L.). <i>Scientific Reports</i> , 2021 , 11, 21057	4.9	3
33	Antimicrobial, antioxidant and cytotoxic properties of <i>Chenopodium glaucum</i> L. <i>PLoS ONE</i> , 2021 , 16, e0255502	3.7	3
32	Bentonite-Based Organic Amendment Enriches Microbial Activity in Agricultural Soils. <i>Land</i> , 2020 , 9, 258	3.5	3
31	Successful Outcome of Phytostabilization in Cr(VI) Contaminated Soils Amended with Alkalinizing Additives. <i>International Journal of Environmental Research and Public Health</i> , 2020 , 17,	4.6	3

30	Effect of carbon-enriched digestate on the microbial soil activity. <i>PLoS ONE</i> , 2021 , 16, e0252262	3.7	3
29	Mineralization of Farm Manures and Slurries under Aerobic and Anaerobic Conditions for Subsequent Release of Phosphorus and Sulphur in Soil. <i>Sustainability</i> , 2021 , 13, 8605	3.6	3
28	Assessment of the bioaccumulation pattern of Pb, Cd, Cr and Hg in edible fishes of East kolkata Wetlands, India.. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 758-766	4	3
27	Environmental Pollution Indices and Multivariate Modeling Approaches for Assessing the Potentially Harmful Elements in Bottom Sediments of Qaroun Lake, Egypt. <i>Journal of Marine Science and Engineering</i> , 2021 , 9, 1443	2.4	3
26	Recognizing the Basics of Phytochrome-Interacting Factors in Plants for Abiotic Stress Tolerance. <i>Plant Stress</i> , 2022 , 3, 100050		2
25	Abiotic Stresses: Alteration of Composition and Grain Quality in Food Legumes. <i>Agronomy</i> , 2021 , 11, 2238	3.6	2
24	Nitrogen Fertilizer Effects on Microbial Respiration, Microbial Biomass, and Carbon Sequestration in a Mediterranean Grassland Ecosystem. <i>International Journal of Environmental Research</i> , 2021 , 15, 655-665	2.9	2
23	Evaluation of <i>Jatropha curcas</i> L. leaves mulching on wheat growth and biochemical attributes under water stress. <i>BMC Plant Biology</i> , 2021 , 21, 303	5.3	2
22	Key factors shaping prokaryotic communities in subtropical forest soils. <i>Applied Soil Ecology</i> , 2022 , 169, 104162	5	2
21	Cholesterol Reduction and Vitamin B12 Production Study on <i>Enterococcus faecium</i> and <i>Lactobacillus pentosus</i> Isolated from Yoghurt. <i>Sustainability</i> , 2021 , 13, 5853	3.6	1
20	Biochar Role in Soil Carbon Stabilization and Crop Productivity 2021 , 1-46		1
19	Perspective on the status and behaviour of SARS-CoV-2 in soil. <i>Saudi Journal of Biological Sciences</i> , 2021 ,	4	1
18	Effect of Short-Term Zero Tillage and Legume Intercrops on Soil Quality, Agronomic and Physiological Aspects of Cotton under Arid Climate. <i>Land</i> , 2022 , 11, 289	3.5	1
17	Carbohydrate Partitioning, Growth and Ionic Compartmentalisation of Wheat Grown under Boron Toxic and Salt Degraded Land. <i>Agronomy</i> , 2022 , 12, 740	3.6	1
16	Bio-Priming with Compatible Rhizospheric Microbes Enhances Growth and Micronutrient Uptake of Red Cabbage. <i>Land</i> , 2022 , 11, 536	3.5	1
15	Soil organic carbon and labile and recalcitrant carbon fractions attributed by contrasting tillage and cropping systems in old and recent alluvial soils of subtropical eastern India.. <i>PLoS ONE</i> , 2021 , 16, e0259645	3.7	0
14	Chemical role of Tocopherol in salt stress mitigation by improvement in morpho-physiological attributes of sunflower (L.).. <i>Saudi Journal of Biological Sciences</i> , 2022 , 29, 1386-1393	4	0
13	Acidified Biochar Confers Improvement in Quality and Yield Attributes of Sufaid Chaunsa Mango in Saline Soil. <i>Horticulturae</i> , 2021 , 7, 418	2.5	0

12	To extinguish or not to extinguish: The role of forest fire in nature and soil resilience. <i>Journal of King Saud University - Science</i> , 2021 , 33, 101539	3.6	o
11	The Synergistic Action of Three Piper Plant Extracts and Biofertilizer for Growth Promotion and Biocontrol of Blast Disease in Red Rice. <i>Sustainability</i> , 2021 , 13, 10412	3.6	o
10	Glomalin: A Key Indicator for Soil Carbon Stabilization 2021 , 47-81		o
9	The Use of Soil Conditioners to Ensure a Sustainable Wheat Yield under Water Deficit Conditions by Enhancing the Physiological and Antioxidant Potentials. <i>Land</i> , 2022 , 11, 368	3.5	o
8	Alleviation of Cd stress in maize by compost mixed biochar. <i>Journal of King Saud University - Science</i> , 2022 , 102014	3.6	o
7	Sole and combined effect of foliar zinc and arbuscular mycorrhizae inoculation on basmati rice growth, productivity and grains nutrient.. <i>PLoS ONE</i> , 2022 , 17, e0266248	3.7	o
6	Citrus Canker Distribution, Taxonomy, Epidemiology, Disease Cycle, Pathogen Biology, Detection, and Management: A Critical Review and Future Research Agenda. <i>Agronomy</i> , 2022 , 12, 1075	3.6	o
5	Maize productivity and soil nutrients variations by the application of vermicompost and biochar.. <i>PLoS ONE</i> , 2022 , 17, e0267483	3.7	o
4	Role of Soil Microbes and Their Cell Components in Carbon Stabilization 2021 , 169-204		
3	Carbon Stabilisation in Tropical Ecosystem 2021 , 243-275		
2	Microbial Potential for Carbon Fixation and Stabilization 2021 , 125-168		
1	Synchronization of arbuscular mycorrhizae fungi inoculation with different zinc application methods for improvement in Basmati rice growth and yield in alkaline calcareous soil. <i>Journal of King Saud University - Science</i> , 2022 , 102053	3.6	