Bhabani S Das

List of Publications by Year
in descending order

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Version: 2024-02-01

75 papers	3,175 citations	218662 26 h-index	161844 54 g-index
75 all docs	75 docs citations	75 times ranked	4067 citing authors

#	Article	IF	Citations
1	Soil carbon 4 per mille. Geoderma, 2017, 292, 59-86.	5.1	1,279
2	Sorption and Degradation of Steroid Hormones in Soils during Transport:Â Column Studies and Model Evaluation. Environmental Science & Technology, 2004, 38, 1460-1470.	10.0	146
3	Error Analysis of Heat Pulse Method for Measuring Soil Heat Capacity, Diffusivity, and Conductivity. Soil Science Society of America Journal, 1995, 59, 719-726.	2.2	129
4	Effects of water deficit stress on agronomic and physiological responses of rice and greenhouse gas emission from rice soil under elevated atmospheric CO2. Science of the Total Environment, 2019, 650, 2032-2050.	8.0	75
5	Greenhouse gas emission from direct seeded paddy fields under different soil water potentials in Eastern India. Agriculture, Ecosystems and Environment, 2016, 228, 111-123.	5.3	73
6	Estimation of soil hydraulic properties using proximal spectral reflectance in visible, near-infrared, and shortwave-infrared (VISâ€“NIRâ€“SWIR) region. Geoderma, 2009, 152, 338-349.	5.1	64
7	Dual-domain solute transfer and transport processes: evaluation in batch and transport experiments. Journal of Contaminant Hydrology, 2004, 75, 257-280.	3.3	59
8	Measurement and modeling of soil water regime in a lowland paddy field showing preferential transport. Agricultural Water Management, 2009, 96, 1705-1714.	5.6	54
9	Variable indicators for optimum wavelength selection in diffuse reflectance spectroscopy of soils. Geoderma, 2016, 267, 1-9.	5.1	49
10	Pedotransfer functions for soil hydraulic properties developed from a hilly watershed of Eastern India. Geoderma, 2008, 146, 439-448.	5.1	46
11	Physiological and morphological responses of four different rice cultivars to soil water potential based deficit irrigation management strategies. Field Crops Research, 2017, 205, 78-94.	5.1	46
12	Estimation of weathering indices using spectral reflectance over visible to mid-infrared region. Geoderma, 2016, 266, 111-119.	5.1	44
13	Legacy data-based national-scale digital mapping of key soil properties in India. Geoderma, 2021, 381, 114684.	5.1	41
14	Diffuse Reflectance Spectroscopic Approach for the Characterization of Soil Aggregate Size Distribution. Soil Science Society of America Journal, 2014, 78, 369-376.	2.2	37
15	Soil water potential and recoverable water stress in drought tolerant and susceptible rice varieties. Agricultural Water Management, 2015, 152, 110-118.	5.6	37
16	MODELING TRANSIENT WATER DISTRIBUTIONS AROUND LANDMINES IN BARE SOILS. Soil Science, 2001, 166, 163-173.	0.9	35
17	Performance of polymer-coated urea in transplanted rice: effect of mixing ratio and water input on nitrogen use efficiency. Paddy and Water Environment, 2010, 8, 189-198.	1.8	34
18	Rejoinder to Comments on Minasny et al., 2017 Soil carbon 4 per mille Geoderma 292, 59â€“86. Geoderma, 2018, 309, 124-129.	5.1	34

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19	Dependency Measures for Assessing the Covariation of Spectrally Active and Inactive Soil Properties in Diffuse Reflectance Spectroscopy. Soil Science Society of America Journal, 2014, 78, 1522-1530.	2.2	33
20	Rapid assessment of black tea quality using diffuse reflectance spectroscopy. Journal of Food Engineering, 2016, 190, 101-108.	5.2	33
21	Optimizing wavelength selection by using informative vectors for parsimonious infrared spectra modelling. Computers and Electronics in Agriculture, 2019, 158, 201-210.	7.7	33
22	Assessment of soil texture from spectral reflectance data of bulk soil samples and their dry-sieved aggregate size fractions. Geoderma, 2019, 337, 914-926.	5.1	32
23	Pore Water Velocity and Residence Time Effects on the Degradation of 2,4-D during Transport. Environmental Science & Technology, 1998, 32, 1308-1315.	10.0	31
24	Predicting soil arsenic pools by visible near infrared diffuse reflectance spectroscopy. Geoderma, 2017, 296, 30-37.	5.1	29
25	Soil mapping via diffuse reflectance spectroscopy based on variable indicators: An ordered predictor selection approach. Geoderma, 2018, 314, 146-159.	5.1	29
26	Nitrate Concentrations in the Root Zone Estimated Using Time Domain Reflectometry. Soil Science Society of America Journal, 1999, 63, 1561-1570.	2.2	28
27	Effects of elevated CO 2 concentration on water productivity and antioxidant enzyme activities of rice (Oryza sativa L.) under water deficit stress. Field Crops Research, 2017, 212, 61-72.	5.1	28
28	A simple bund plugging technique for improving water productivity in wetland rice. Soil and Tillage Research, 2011, 112, 66-75.	5.6	27
29	Moment Analysis to Estimate Degradation Rate Constants from Leaching Experiments. Soil Science Society of America Journal, 1996, 60, 1724-1731.	2.2	26
30	Rapid assessment of algal biomass and pigment contents using diffuse reflectance spectroscopy and chemometrics. Algal Research, 2017, 27, 274-285.	4.6	26
31	Local modeling approaches for estimating soil properties in selected Indian soils using diffuse reflectance data over visible to near-infrared region. Geoderma, 2018, 325, 59-71.	5.1	26
32	Hyperspectral image preprocessing with bilateral filter for improving the classification accuracy of support vector machines. Journal of Applied Remote Sensing, 2016, 10, 025004.	1.3	25
33	Modeling runoff from an agricultural watershed of western catchment of Chilika lake through ArcSWAT. Journal of Hydro-Environment Research, 2013, 7, 261-269.	2.2	24
34	Application of VIS-NIR spectroscopy for estimation of soil organic carbon using different spectral preprocessing techniques and multivariate methods in the middle Indo-Gangetic plains of India. Geoderma Regional, 2020, 23, e00349.	2.1	24
35	Rapid estimation of compost enzymatic activity by spectral analysis method combined with machine learning. Waste Management, 2014, 34, 623-631.	7.4	23
36	TEMPERATURE DEPENDENCE OF NITROGEN MINERALIZATION RATE CONSTANT. Soil Science, 1995, 159, 294-300.	0.9	22

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37	Assessing the effect of puddling on preferential flow processes through under bund area of lowland rice field. Soil and Tillage Research, 2013, 134, 61-71.	5.6	22
38	Semiquantitative Evaluation of Secondary Carbonates via Portable X-ray Fluorescence Spectrometry. Soil Science Society of America Journal, 2017, 81, 844-852.	2.2	22
39	Canopy Spectral Reflectance as a Predictor of Soil Water Potential in Rice. Water Resources Research, 2018, 54, 2544-2560.	4.2	20
40	Monitoring soil water and ionic solute distributions using time-domain reflectometry. Soil and Tillage Research, 1998, 47, 145-150.	5.6	18
41	Soil hydraulic properties as ecological indicators in forested watersheds impacted by mechanized military training. Ecological Indicators, 2007, 7, 589-597.	6.3	17
42	Defining Geometric Similarity in Soils. Vadose Zone Journal, 2005, 4, 264-270.	2.2	17
43	Evaluation of Mass Recovery Impacts on Transport Parameters Using Least-Squares Optimization and Moment Analysis. Soil Science Society of America Journal, 2005, 69, 1209-1216.	2.2	15
44	Reflectance spectroscopic approach for estimation of soil properties in hot arid western Rajasthan, India. Environmental Earth Sciences, 2015, 74, 4233-4245.	2.7	15
45	Near infrared diffuse reflectance spectroscopy for rapid and comprehensive soil condition assessment in smallholder cacao farming systems of Papua New Guinea. Catena, 2019, 183, 104185.	5.0	15
46	Hydrus-1D model for simulating water flow through paddy soils under alternate wetting and drying irrigation practice. Paddy and Water Environment, 2020, 18, 73-85.	1.8	15
47	Delineation of hydrologically similar units in a watershed based on fuzzy classification of soil hydraulic properties. Hydrological Processes, 2011, 25, 64-79.	2.6	14
48	Spatial prediction of soil properties in a watershed scale through maximum likelihood approach. Environmental Earth Sciences, 2012, 65, 2051-2061.	2.7	14
49	Discrete Wavelet Transform Approach for the Estimation of Crop Residue Mass From Spectral Reflectance. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2490-2495.	4.9	14
50	Rapid and Noninvasive Assessment of Atterberg Limits Using Diffuse Reflectance Spectroscopy. Soil Science Society of America Journal, 2016, 80, 1283-1295.	2.2	14
51	Climate-catchment-soil control on hydrological droughts in peninsular India. Scientific Reports, 2022, 12, 8014.	3.3	14
52	Assessment of cocoa input needs using soil types and soil spectral analysis. Soil Use and Management, 2019, 35, 492-502.	4.9	12
53	Evaluation of regression algorithms for estimating leaf area index and canopy water content from water stressed rice canopy reflectance. Information Processing in Agriculture, 2021, 8, 284-298.	4.1	12
54	Living with arsenic in the environment: An examination of current awareness of farmers in the Bengal basin using hybrid feature selection and machine learning. Environment International, 2021, 153, 106529.	10.0	12

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55	Estimation of Gross Calorific Value of Bituminous Coal using various Coal Properties and Reflectance Spectra. International Journal of Coal Preparation and Utilization, 2022, 42, 979-985.	2.1	10
56	Application of Phosphorus, Iron, and Silicon Reduces Yield Loss in Rice Exposed to Water Deficit Stress. Agronomy Journal, 2019, 111, 1488-1497.	1.8	9
57	Estimation of soil texture using Sentinel-2 multispectral imaging data: An ensemble modeling approach. Soil and Tillage Research, 2021, 213, 105134.	5.6	9
58	Comparison of Data Mining Approaches for Estimating Soil Nutrient Contents Using Diffuse Reflectance Spectroscopy. Current Science, 2016, 110, 1031.	0.8	9
59	Soil health and its relationship with food security and human health to meet the sustainable development goals in India. Soil Security, 2022, 8, 100071.	2.3	9
60	Reflectance spectroscopy based rapid determination of coal quality parameters. Fuel, 2020, 280, 118676.	6.4	7
61	Spatial structure, parameter nonlinearity, and intelligent algorithms in constructing pedotransfer functions from large-scale soil legacy data. Scientific Reports, 2020, 10, 15050.	3.3	7
62	Diffuse reflectance spectroscopy based rapid coal rank estimation: A machine learning enabled framework. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 263, 120150.	3.9	7
63	Digital Soil Mapping and Best Management of Soil Resources: A Brief Discussion with Few Case Studies. , 2017, , 3-38.		6
64	Temperature Dependence of Soil Hydraulic Properties: Transient Measurements and Modeling. Soil Science Society of America Journal, 2019, 83, 1628-1636.	2.2	6
65	National-scale maps for soil aggregate size distribution parameters using pedotransfer functions and digital soil mapping data products. Geoderma, 2022, 424, 116006.	5.1	6
66	Hydrus-1D for Simulating Potassium Transport in Flooded Paddy Soils. Communications in Soil Science and Plant Analysis, 2021, 52, 2803-2820.	1.4	5
67	Assessment of Soil Properties using Spectral Signatures of Bulk Soils and Their Aggregate Size Fractions. Geoderma, 2022, 417, 115837.	5.1	5
68	Measurement and Modeling of Longitudinal Dispersivity in Undisturbed Saturated Soil: An Experimental Approach. Soil Science Society of America Journal, 2018, 82, 1117-1123.	2.2	4
69	Theory and Applications of Time Moment Analysis to Study the Fate of Reactive Solutes in Soil. , 2002, , 239-279.		3
70	Measurement and Modeling of Diffusive Tortuosity in Saturated Soils: A Pedotransfer Function Approach. Soil Science Society of America Journal, 2014, 78, 1869-1877.	2.2	3
71	An Ensemble Modeling Approach for Estimating Diffusive Tortuosity for Saturated Soils From Porosity. Soil Science, 2017, 182, 45-51.	0.9	3
72	Variance of Aggregate Size Distribution as a Criterion for Soil Similarity. Vadose Zone Journal, 2015, 14, vzj2015.05.0072.	2.2	2

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73	Cumulants-Based Analysis of Concentration Data from Soil-Column Studies for System Identification. Journal of Hydrologic Engineering - ASCE, 1996, 1, 41-48.	1.9	1
74	Assessment of Runoff and Sediment Yield from Selected Watersheds in the Western Catchment of the Chilika Lagoon. Wetlands: Ecology, Conservation and Management, 2020, , 133-164.	0.2	1
75	New geometry factors for hydraulic property-based soil solution electrical conductivity models. Water Resources Research, 2000, 36, 3383-3387.	4.2	0