Emmanuel Arthur

List of Publications by Year
in descending order

93 papers	2,380 citations	164554 28 h-index	202090 46 g-index
107 all docs	107 docs citations	107 times ranked	2586 citing authors

#	Article	IF	Citations
1	Unraveling the edaphic factors driving organic material decay: Insights from long-term manure application studies. Soil Biology and Biochemistry, 2025, 202, 109711.	10.3	0
2	Exploratory assessment of the SLAKES method to characterize aggregate stability across diverse soil types. Soil Science Society of America Journal, 2024, 88, 1086-1099.	2.5	1
3	Estimating the universal scaling of gas diffusion in coarse-textured soils. Geoderma, 2024, 446, 116900.	6.3	0
4	A systematic benchmarking framework for future assessments of soil health: An example from Denmark. Journal of Environmental Management, 2024, 366, 121882.	8.3	4
5	Estimating cation exchange capacity from hygroscopic water content change. Soil Science Society of America Journal, 2024, 88, 1983-1991.	2.5	0
6	Organic carbon controls water retention and plant available water in cultivated soils from South Greenland. Soil Science Society of America Journal, 2023, 87, 203-215.	2.5	3
7	Glacial rock flour reduces the hydrophobicity of Greenlandic cultivated soils. Soil Science Society of America Journal, 2023, , .	2.5	0
8	Biochar, manure and superabsorbent improve the physical quality of salineâ€sodic soil under greenhouse conditions. Soil Science Society of America Journal, 2023, 87, 1003-1017.	2.5	4
9	Soil aggregate stability quantified by different methods is unaffected by rice straw biochar in the long term. Soil Science Society of America Journal, 2023, 87, 1018-1028.	2.5	4
10	Long-term manure and cropping systems effect on soil water vapour sorption characteristics is controlled by soil texture. Geoderma, 2023, 436, 116533.	6.3	3
11	Effect of soil organic matter on sorption of water vapor and associated hysteresis. Soil Science Society of America Journal, 2023, 87, 1249-1262.	2.5	3
12	A Meta-analysis of Soil Susceptibility to Machinery-Induced Compaction in Forest Ecosystems Across Global Climatic Zones. Current Forestry Reports, 2023, 9, 370-381.	6.3	9
13	Specific surface area of soils with different clay mineralogy can be estimated from a single hygroscopic water content. Geoderma, 2023, 438, 116614.	6.3	6
14	Heat and air transport in differently compacted fibre materials. Journal of Industrial Textiles, 2022, 51, 1250-1263.	2.8	1
15	Linking litter decomposition to soil physicochemical properties, gas transport, and land use. Soil Science Society of America Journal, 2022, 86, 34-46.	2.5	8
16	Physical characterization of glacial rock flours from fjord deposits in South Greenlandâ€“Toward soil amendment. Soil Science Society of America Journal, 2022, 86, 407-422.	2.5	5
17	Biochar amendment impacts on microbial community structures and biological and enzyme activities in a weathered tropical sandy loam. Applied Soil Ecology, 2022, 172, 104364.	5.3	37
18	Evaluation of the potential of feedstock combinations and their biochars for soil amendment. Waste Management and Research, 2022, 40, 932-939.	4.8	5

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19	The use of oil palm empty fruit bunches as a soil amendmentto improve growth and yield of crops. A meta-analysis. Agronomy for Sustainable Development, 2022, 42, .	6.1	9
20	Water repellency prediction in highâ€organic Greenlandic soils: Comparing visâ€“NIRS to pedotransfer functions. Soil Science Society of America Journal, 2022, 86, 643-657.	2.5	6
21	Evaluating the particle densities of subarctic soils using pedotransfer functions and visâ€“NIR spectroscopy. Soil Science Society of America Journal, 2022, 86, 964-978.	2.5	2
22	Cation exchange capacity and soil pore system play key roles in water vapour sorption. Geoderma, 2022, 424, 116017.	6.3	14
23	Coefficient of linear extensibility of soil can be estimated from hygroscopic water content or clay and organic carbon contents. European Journal of Soil Science, 2022, 73, .	3.8	3
24	Estimating Atterberg limits of soils from hygroscopic water content. Geoderma, 2021, 381, 114698.	6.3	18
25	A new model for soil water vapor sorption isotherms considering adsorption and condensation. Soil Science Society of America Journal, 2021, 85, 195-206.	2.5	8
26	The feasibility of shortwave infrared imaging and inverse numerical modeling for rapid estimation of soil hydraulic properties. Vadose Zone Journal, 2021, 20, .	2.7	4
27	Estimating specific surface area: Incorporating the effect of surface roughness and probing molecule size. Soil Science Society of America Journal, 2021, 85, 534-545.	2.5	8
28	Effects of increasing water activity on the relationship between water vapor sorption and clay content. Soil Science Society of America Journal, 2021, 85, 520-525.	2.5	5
29	Linking water vapor sorption to water repellency in soils with high organic carbon contents. Soil Science Society of America Journal, 2021, 85, 1037-1049.	2.5	5
30	Biochar Amendment Influences Tropical Soil Carbon and Nitrogen Lability. Journal of Soil Science and Plant Nutrition, 2021, 21, 3567-3579.	2.8	8
31	Does Biochar Particle Size, Application Rate and Irrigation Regime Interact to Affect Soil Water Holding Capacity, Maize Growth and Nutrient Uptake?. Journal of Soil Science and Plant Nutrition, 2021, 21, 3180-3193.	2.8	4
32	Evaluating models to estimate cation exchange capacity of calcareous soils. Geoderma, 2021, 400, 115221.	6.3	29
33	Estimating Atterberg limits of soils from reflectance spectroscopy and pedotransfer functions. Geoderma, 2021, 402, 115300.	6.3	2
34	Moisture-dependent Water Repellency of Greenlandic Cultivated Soils. Geoderma, 2021, 402, 115189.	6.3	14
35	Estimation of soil specific surface area from adsorbed soil water content. European Journal of Soil Science, 2021, 72, 1718-1725.	3.8	9
36	Clay content and mineralogy, organic carbon and cation exchange capacity affect water vapour sorption hysteresis of soil. European Journal of Soil Science, 2020, 71, 204-214.	3.8	38

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37	Integration of farmersâ€™ knowledge and science-based assessment of soil quality for peri-urban vegetable production in Ghana. Renewable Agriculture and Food Systems, 2020, 35, 128-139.	1.8	6
38	Relating soil salinity, clay content and water vapour sorption isotherms. European Journal of Soil Science, 2020, 71, 399-414.	3.8	6
39	Soil organic carbon storage and quality are impacted by corn cob biochar application on a tropical sandy loam. Journal of Soils and Sediments, 2020, 20, 1960-1969.	2.9	34
40	Repeatability and agreement between methods for determining the Atterberg limits of fineâ€grained soils. Soil Science Society of America Journal, 2020, 84, 21-30.	2.5	12
41	Rice straw biochar effects on Atterberg limits and aggregate characteristics of an Acrisol in Ghana. Archives of Agronomy and Soil Science, 2020, 66, 1861-1872.	2.4	11
42	Does biochar improve soil water retention? A systematic review and meta-analysis. Geoderma, 2020, 361, 114055.	6.3	350
43	Biochar, manure, and super absorbent increased wheat yields and salt redistribution in a salineâ€sodic soil. Agronomy Journal, 2020, 112, 5193-5205.	1.8	13
44	Estimating coefficient of linear extensibility using Visâ€“NIR reflectance spectral data: Comparison of model validation approaches. Vadose Zone Journal, 2020, 19, .	2.7	3
45	Combining visible nearâ€infrared spectroscopy and water vapor sorption for soil specific surface area estimation. Vadose Zone Journal, 2020, 19, .	2.7	7
46	New Rootsnap Sensor Reveals the Ameliorating Effect of Biochar on In Situ Root Growth Dynamics of Maize in Sandy Soil. Frontiers in Plant Science, 2020, 11, .	4.2	8
47	Rice straw biochar and irrigation effect on yield and water productivity of okra. Agronomy Journal, 2020, 112, 3012-3023.	1.8	5
48	Effect of long-term organic amendments on the full-range soil water retention characteristics of a Vertisol. Soil and Tillage Research, 2020, 202, 104663.	6.6	61
49	Comparison of Cation Exchange Capacity Estimated from Visâ€“NIR Spectral Reflectance Data and a Pedotransfer Function. Vadose Zone Journal, 2019, 18, 1-8.	2.7	24
50	Water Retention, Air Exchange and Pore Structure Characteristics after Three Years of Rice Straw Biochar Application to an Acrisol. Soil Science Society of America Journal, 2019, 83, 1664-1671.	2.5	18
51	Impact of rice straw biochar and irrigation on maize yield, intercepted radiation and water productivity in a tropical sandy clay loam. Field Crops Research, 2019, 243, 107628.	6.0	24
52	Improved estimation of clay content from water content for soils rich in smectite and kaolinite. Geoderma, 2019, 350, 40-45.	6.3	10
53	Comparing Visibleâ€“Nearâ€Infrared Spectroscopy and a Pedotransfer Function for Predicting the Dry Region of the Soilâ€Water Retention Curve. Vadose Zone Journal, 2019, 18, 1-13.	2.7	8
54	Estimating Atterberg Limits of Fineâ€Grained Soils by Visibleâ€“Nearâ€Infrared Spectroscopy. Vadose Zone Journal, 2019, 18, .	2.7	8

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55	Applicability of the Guggenheimâ€“Andersonâ€“Boer water vapour sorption model for estimation of soil specific surface area. European Journal of Soil Science, 2018, 69, 245-255.	3.8	48
56	Towards prediction of soil erodibility, SOM and CaCO3 using laboratory Vis-NIR spectra: A case study in a semi-arid region of Iran. Geoderma, 2018, 314, 102-112.	6.3	84
57	Effect of Biochar Application on Hydraulic Properties of Sandy Soil under Dry and Wet Conditions. Vadose Zone Journal, 2018, 17, 1-8.	2.7	46
58	Soil Specific Surface Area Determination by Visible Nearâ€Infrared Spectroscopy. Soil Science Society of America Journal, 2018, 82, 1046-1056.	2.5	19
59	Soil Physical Properties and Processes. , 2018, , 137-207.		4
60	Rice straw biochar affects water retention and air movement in a sand-textured tropical soil. Archives of Agronomy and Soil Science, 2017, 63, 2035-2047.	2.4	20
61	Validation of water sorption-based clay prediction models for calcareous soils. Journal of Plant Nutrition and Soil Science, 2017, 180, 347-354.	2.5	8
62	A Simple Method for Determining the Critical Point of the Soil Water Retention Curve. Soil Science Society of America Journal, 2017, 81, 250-258.	2.5	10
63	Rapid estimation of cation exchange capacity from soil water content. European Journal of Soil Science, 2017, 68, 365-373.	3.8	31
64	Soil water retention, air flow and pore structure characteristics after corn cob biochar application to a tropical sandy loam. Geoderma, 2017, 307, 189-197.	6.3	101
65	Corn Cob Biochar Improves Aggregate Characteristics of a Tropical Sandy Loam. Soil Science Society of America Journal, 2017, 81, 1054-1063.	2.5	22
66	Predicting nitrous oxide emissions from manure properties and soil moisture: An incubation experiment. Soil Biology and Biochemistry, 2016, 97, 112-120.	10.3	38
67	Assessing Soil Water Repellency of a Sandy Field with Visible near Infrared Spectroscopy. Journal of Near Infrared Spectroscopy, 2016, 24, 215-224.	1.9	19
68	Evaluation of theoretical and empirical water vapor sorption isotherm models for soils. Water Resources Research, 2016, 52, 190-205.	4.6	60
69	Spatial variability of microbial richness and diversity and relationships with soil organic carbon, texture and structure across an agricultural field. Applied Soil Ecology, 2016, 103, 44-55.	5.3	84
70	Clay-to-Carbon Ratio Controls the Effect of Herbicide Application on Soil Bacterial Richness and Diversity in a Loamy Field. Water, Air, and Soil Pollution, 2016, 228, .	2.9	3
71	Quantification of Soil Pore Network Complexity with X-ray Computed Tomography and Gas Transport Measurements. Soil Science Society of America Journal, 2015, 79, 1577-1589.	2.5	33
72	Pore Structure Characteristics After 2 Years of Biochar Application to a Sandy Loam Field. Soil Science, 2015, 180, 41-46.	1.2	22

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73	A New Two-Stage Approach to predicting the soil water characteristic from saturation to oven-dryness. Journal of Hydrology, 2015, 521, 498-507.	5.9	80
74	Effects of biochar and manure amendments on water vapor sorption in a sandy loam soil. Geoderma, 2015, 243-244, 175-182.	6.3	53
75	Prediction of the glyphosate sorption coefficient across two loamy agricultural fields. Geoderma, 2015, 259-260, 224-232.	6.3	32
76	Rapid and Fully Automated Measurement of Water Vapor Sorption Isotherms: New Opportunities for Vadose Zone Research. Vadose Zone Journal, 2014, 13, 1-7.	2.7	25
77	Modeling Soil Water Retention Curves in the Dry Range Using the Hygroscopic Water Content. Vadose Zone Journal, 2014, 13, 1-7.	2.7	11
78	Effect of biochar on aerobic processes, enzyme activity, and crop yields in two sandy loam soils. Biology and Fertility of Soils, 2014, 50, 1087-1097.	5.0	68
79	Pore Structure of Natural and Regenerated Soil Aggregates: An X-Ray Computed Tomography Analysis. Soil Science Society of America Journal, 2014, 78, 377-386.	2.5	20
80	Simultaneous Loss of Soil Biodiversity and Functions along a Copper Contamination Gradient: When Soil Goes to Sleep. Soil Science Society of America Journal, 2014, 78, 1239-1250.	2.5	31
81	Evaluation of a Fully Automated Analyzer for Rapid Measurement of Water Vapor Sorption Isotherms for Applications in Soil Science. Soil Science Society of America Journal, 2014, 78, 754-760.	2.5	35
82	Density and permeability of a loess soil: Long-term organic matter effect and the response to compressive stress. Geoderma, 2013, 193-194, 236-245.	6.3	58
83	Direct and Indirect Short-term Effects of Biochar on Physical Characteristics of an Arable Sandy Loam. Soil Science, 2013, 178, 465-473.	1.2	57
84	Water Retention, Gas Transport, and Pore Network Complexity during Short-Term Regeneration of Soil Structure. Soil Science Society of America Journal, 2013, 77, 1965-1976.	2.5	18
85	Soil Specific Surface Area and Nonâ€Singularity of Soilâ€Water Retention at Low Saturations. Soil Science Society of America Journal, 2013, 77, 43-53.	2.5	63
86	Revealing Soil Structure and Functional Macroporosity along a Clay Gradient Using X-ray Computed Tomography. Soil Science Society of America Journal, 2013, 77, 403-411.	2.5	69
87	Modeling Air Permeability in Variably Saturated Soil from Two Natural Clay Gradients. Soil Science Society of America Journal, 2013, 77, 362-371.	2.5	17
88	Effects of Past Copper Contamination and Soil Structure on Copper Leaching from Soil. Journal of Environmental Quality, 2013, 42, 1852-1862.	4.1	20
89	Linking Particle and Pore Size Distribution Parameters to Soil Gas Transport Properties. Soil Science Society of America Journal, 2012, 76, 18-27.	2.5	30
90	Simple Predictive Models for Saturated Hydraulic Conductivity of Technosands. Soil Science, 2012, 177, 153-157.	1.2	3

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91	Soil resistance and resilience to mechanical stresses for three differently managed sandy loam soils. Geoderma, 2012, 173-174, 50-60.	6.3	43
92	Soil microbial and physical properties and their relations along a steep copper gradient. Agriculture, Ecosystems and Environment, 2012, 159, 9-18.	6.3	39
93	Effect of compost on erodibility of loamy sand under simulated rainfall. Catena, 2011, 85, 67-72.	5.5	17