Zakaria Solaiman

List of Publications by Citations

91 papers	3,142 citations	32 h-index	55 g-index
97 ext. papers	3,738 ext. citations	4.5 avg, IF	5.5 L-index

#	Paper	IF	Citations
91	Decreased soil microbial biomass and nitrogen mineralisation with Eucalyptus biochar addition to a coarse textured soil. *Plant and Soil*, **2012**, 354, 311-324	4.2	314
90	Exploring the transfer of recent plant photosynthates to soil microbes: mycorrhizal pathway vs direct root exudation. *New Phytologist*, **2015**, 205, 1537-1551	9.8	233
89	Biochar for crop production: potential benefits and risks. *Journal of Soils and Sediments*, **2017**, 17, 685-716	3.4	222
88	Effect of banded biochar on dryland wheat production and fertiliser use in south-western Australia: an agronomic and economic perspective. *Soil Research*, **2010**, 48, 531	1.8	168
87	Biochars influence seed germination and early growth of seedlings. *Plant and Soil*, **2012**, 353, 273-287	4.2	162
86	Use of sugars by intraradical hyphae of arbuscular mycorrhizal fungi revealed by radiorespirometry. *New Phytologist*, **1997**, 136, 533-538	9.8	148
85	Direct and residual effect of biochar application on mycorrhizal root colonisation, growth and nutrition of wheat. *Soil Research*, **2010**, 48, 546	1.8	147
84	Rhizosphere Properties of Poaceae Genotypes Under P-limiting Conditions. *Plant and Soil*, **2006**, 283, 11-24	4.2	83
83	Biochars immobilize soil cadmium, but do not improve growth of emergent wetland species Juncus subsecundus in cadmium-contaminated soil. *Journal of Soils and Sediments*, **2013**, 13, 140-151	3.4	79
82	Biochar: An Emerging Panacea for Remediation of Soil Contaminants from Mining, Industry and Sewage Wastes. *Pedosphere*, **2015**, 25, 654-665	5	74
81	Effects of Enriched Biochars Containing Magnetic Iron Nanoparticles on Mycorrhizal Colonisation, Plant Growth, Nutrient Uptake and Soil Quality Improvement. *Pedosphere*, **2015**, 25, 749-760	5	69
80	Influences of Biochar and Biochar-Mineral Complex on Mycorrhizal Colonisation and Nutrition of Wheat and Sorghum. *Pedosphere*, **2015**, 25, 686-695	5	63
79	Polyphosphates in intraradical and extraradical hyphae of an arbuscular mycorrhizal fungus, Gigaspora margarita. *Applied and Environmental Microbiology*, **1999**, 65, 5604-6	4.8	61
78	Characterization of Mycorrhizas Formed by Glomus sp. on Roots of Hypernodulating Mutants of Lotus japonicus. *Journal of Plant Research*, **2000**, 113, 443-448	2.6	58
77	Isolation of two different phenotypes of mycorrhizal mutants in the model legume plant Lotus japonicus after EMS-treatment. *Plant and Cell Physiology*, **2000**, 41, 726-32	4.9	58
76	Feeding Biochar to Cows: An Innovative Solution for Improving Soil Fertility and Farm Productivity. *Pedosphere*, **2015**, 25, 666-679	5	56
75	Biochar increases availability and uptake of phosphorus to wheat under leaching conditions. *Biology and Fertility of Soils*, **2016**, 52, 439-446	6.1	56

74	Growth responses of cool-season grain legumes to transient waterlogging. *Australian Journal of Agricultural Research*, **2007**, 58, 406		55
73	Growth, phosphorus uptake, and rhizosphere microbial-community composition of a phosphorus-efficient wheat cultivar in soils differing in pH. *Journal of Plant Nutrition and Soil Science*, **2005**, 168, 343-351	2.3	54
72	Brassica genotypes differ in growth, phosphorus uptake and rhizosphere properties under P-limiting conditions. *Soil Biology and Biochemistry*, **2007**, 39, 87-98	7.5	50
71	Interactions between biochar and mycorrhizal fungi in a water-stressed agricultural soil. *Mycorrhiza*, **2016**, 26, 565-74	3.9	48
70	Growth, P uptake and rhizosphere properties of intercropped wheat and chickpea in soil amended with iron phosphate or phytate. *Soil Biology and Biochemistry*, **2007**, 39, 249-256	7.5	47
69	Phosphate efflux from intraradical hyphae of Gigaspora margarita in vitro and its implication for phosphorus translocation. *New Phytologist*, **2001**, 151, 525-533	9.8	45
68	Effect of arbuscular mycorrhizal fungi inoculation of rice seedlings at the nursery stage upon performance in the paddy field and greenhouse **1997**, 191, 1-12		44
67	Biochar-based fertilizer: Supercharging root membrane potential and biomass yield of rice. *Science of the Total Environment*, **2020**, 713, 136431	10.2	43
66	Growth, P uptake and rhizosphere properties of wheat and canola genotypes in an alkaline soil with low P availability. *Biology and Fertility of Soils*, **2007**, 44, 143-153	6.1	39
65	Characterization and carbon mineralization of biochars produced from different animal manures and plant residues. *Scientific Reports*, **2020**, 10, 955	4.9	37
64	Effects of indigenous arbuscular mycorrhizal fungi in paddy fields on rice growth and N, P, K nutrition under different water regimes. *Soil Science and Plant Nutrition*, **1995**, 41, 505-514	1.6	37
63	Application of compost and clay under water-stressed conditions influences functional diversity of rhizosphere bacteria. *Biology and Fertility of Soils*, **2018**, 54, 55-70	6.1	34
62	Glomus-wetland rice mycorrhizas influenced by nursery inoculation techniques under high fertility soil conditions. *Biology and Fertility of Soils*, **1998**, 27, 92-96	6.1	34
61	Effectiveness of arbuscular mycorrhizal colonization at nursery-stage on growth and nutrition in wetland rice (Oryza sativa L.) after transplanting under different soil fertility and water regimes. *Soil Science and Plant Nutrition*, **1996**, 42, 561-571	1.6	34
60	Biochar phosphorus concentration dictates mycorrhizal colonisation, plant growth and soil phosphorus cycling. *Scientific Reports*, **2019**, 9, 5062	4.9	32
59	Responses of directly seeded wetland rice to arbuscular mycorrhizal fungi inoculation. *Journal of Plant Nutrition*, **1997**, 20, 1479-1487	2.3	28
58	Biochar increases soil organic carbon, avocado yields and economic return over 4 years of cultivation. *Science of the Total Environment*, **2020**, 724, 138153	10.2	26
57	Response of Wheat to a Multiple Species Microbial Inoculant Compared to Fertilizer Application. *Frontiers in Plant Science*, **2018**, 9, 1601	6.2	24

56	Belowground interactions between intercropped wheat and Brassicas in acidic and alkaline soils. *Soil Biology and Biochemistry*, **2007**, 39, 961-971	7.5	22
55	Pyrolysis and co-composting of municipal organic waste in Bangladesh: A quantitative estimate of recyclable nutrients, greenhouse gas emissions, and economic benefits. *Waste Management*, **2018**, 75, 503-513	8.6	21
54	Humus-Rich Compost Increases Lettuce Growth, Nutrient Uptake, Mycorrhizal Colonisation, and Soil Fertility. *Pedosphere*, **2019**, 29, 170-179	5	21
53	Soil disturbance and water stress interact to influence arbuscular mycorrhizal fungi, rhizosphere bacteria and potential for N and C cycling in an agricultural soil. *Biology and Fertility of Soils*, **2019**, 55, 53-66	6.1	19
52	Response of hydrolytic enzyme activities and nitrogen mineralization to fertilizer and organic matter application in subtropical paddy soils. *European Journal of Soil Biology*, **2017**, 80, 27-34	2.9	18
51	Poultry Litter Biochar Increases Mycorrhizal Colonisation, Soil Fertility and Cucumber Yield in a Fertigation System on Sandy Soil. *Agriculture (Switzerland)*, **2020**, 10, 480	3	17
50	Nanobiotechnology for Agriculture: Smart Technology for Combating Nutrient Deficiencies with Nanotoxicity Challenges. *Sustainability*, **2021**, 13, 1781	3.6	16
49	Molecular divergence of fungal communities in soil, roots and hyphae highlight the importance of sampling strategies. *Rhizosphere*, **2017**, 4, 104-111	3.5	12
48	Influence of liming, inoculum level and inoculum placement on root colonization of subterranean clover. *Mycorrhiza*, **2002**, 12, 285-90	3.9	12
47	Microbial respiration, microbial biomass and activity are highly sensitive to forest tree species and seasonal patterns in the Eastern Mediterranean Karst Ecosystems. *Science of the Total Environment*, **2021**, 775, 145868	10.2	11
46	Influence of arbuscular mycorrhizal fungi, inoculum level and phosphorus placement on growth and phosphorus uptake of Phyllanthus calycinus under jarrah forest soil. *Biology and Fertility of Soils*, **2008**, 44, 815-821	6.1	10
45	Phosphorus uptake by a community of arbuscular mycorrhizal fungi in jarrah forest. *Plant and Soil*, **2003**, 248, 313-320	4.2	9
44	Biochar with Alternate Wetting and Drying Irrigation: A Potential Technique for Paddy Soil Management. *Agriculture (Switzerland)*, **2021**, 11, 367	3	9
43	Biochar Production From Agricultural and Forestry Wastes and Microbial Interactions **2017**, 443-473		8
42	Contribution of Arbuscular Mycorrhizal Fungi to Soil Carbon Sequestration. *Soil Biology*, **2014**, 287-296	1	8
41	Measurement of Microbial Biomass and Activity in Soil **2007**, 201-211		8
40	Polymer-coated rock mineral fertilizer has potential to substitute soluble fertilizer for increasing growth, nutrient uptake, and yield of wheat. *Biology and Fertility of Soils*, **2020**, 56, 381-394	6.1	8
39	Walnut Shell Biochar Increases Seed Germination and Early Growth of Seedlings of Fodder Crops. *Agriculture (Switzerland)*, **2020**, 10, 427	3	8

38	Rhizosphere Microbes Interactions in Medicinal Plants. *Soil Biology*, **2015**, 19-41	1	7
37	Growth and nutrient uptake of temperate perennial pastures are influenced by grass species and fertilisation with a microbial consortium inoculant. *Journal of Plant Nutrition and Soil Science*, **2020**, 183, 530-538	2.3	6
36	Sequential defoliation impacts on colonisation of roots of Lolium rigidum by arbuscular mycorrhizal fungi were primarily determined by root responses. *Biology and Fertility of Soils*, **2019**, 55, 789-800	6.1	6
35	Growth, Rhizosphere Carboxylate Exudation, and Arbuscular Mycorrhizal Colonisation in Temperate Perennial Pasture Grasses Varied with Phosphorus Application. *Agronomy*, **2020**, 10, 2017	3.6	5
34	Use of Mycorrhiza in Sustainable Agriculture and Land Restoration. *Soil Biology*, **2014**, 1-15	1	5
33	Sugarcane bagasse biochar increases soil carbon sequestration and yields of maize and groundnut in charland ecosystem. *Archives of Agronomy and Soil Science*,1-14	2	5
32	Plant-Dependent Soil Bacterial Responses Following Amendment With a Multispecies Microbial Biostimulant Compared to Rock Mineral and Chemical Fertilizers. *Frontiers in Plant Science*, **2020**, 11, 550169	6.2	5
31	Nutrient Enriched Municipal Solid Waste Compost Increases Yield, Nutrient Content and Balance in Rice. *Sustainability*, **2021**, 13, 1047	3.6	4
30	Arbuscular mycorrhizal fungus causes increased condensed tannins concentrations in shoots but decreased in roots of Lotus japonicus L.. *Rhizosphere*, **2018**, 5, 32-37	3.5	4
29	Interactions between Lotus japonicus genotypes and arbuscular mycorrhizal fungi. *Journal of Plant Interactions*, **2005**, 1, 179-186	3.8	3
28	DGGE and RISA Protocols for Microbial Community Analysis in Soil **2007**, 167-180		3
27	Use of Mycorrhiza Bioassays in Ecological Studies. *Soil Biology*, **2009**, 41-50	1	3
26	Arbuscular mycorrhizal fungus-mediated interspecific nutritional competition of a pasture legume and grass under drought-stress. *Rhizosphere*, **2021**, 18, 100349	3.5	3
25	Co-application of a biosolids product and biochar to two coarse-textured pasture soils influenced microbial N cycling genes and potential for N leaching. *Scientific Reports*, **2021**, 11, 955	4.9	3
24	Biological Indicators for Soil Health: Potential for Development and Use of On-Farm Tests **2017**, 123-134		2
23	Molecular signal communication during arbuscular mycorrhizal formation induces significant transcriptional reprogramming of wheat (Triticum aestivum) roots. *Annals of Botany*, **2019**, 124, 1109-1119	4.1	2
22	Isolation and characterization of arbuscules from roots of an increased-arbuscule-forming mutant of Lotus japonicus. *Annals of Botany*, **2007**, 100, 1599-603	4.1	2
21	Nitrogen and Potassium Fertilisation Influences Growth, Rhizosphere Carboxylate Exudation and Mycorrhizal Colonisation in Temperate Perennial Pasture Grasses. *Agronomy*, **2020**, 10, 1878	3.6	2

20	Rice Seedling Growth Promotion by Biochar Varies With Genotypes and Application Dosages. *Frontiers in Plant Science*, **2021**, 12, 580462	6.2	2
19	A farmer□scientist investigation of soil carbon sequestration potential in a chronosequence of perennial pastures. *Land Degradation and Development*, **2018**, 29, 4301-4312	4.4	2
18	O-labeled phosphate applied to soil appears in the shoots of maize after uptake by roots but not after uptake by an arbuscular mycorrhizal fungus. *Mycorrhiza*, **2018**, 28, 787-793	3.9	2
17	Evaluation of Critical Limit of Sulphur in Soils for Wheat (Triticum aestivum L.) and Mustard (Brassica napus L.). *Sustainability*, **2021**, 13, 8325	3.6	2
16	Nutrient Release from Vermicompost under Anaerobic Conditions in Two Contrasting Soils of Bangladesh and Its Effect on Wetland Rice Crop. *Agriculture (Switzerland)*, **2022**, 12, 376	3	2
15	Influence of Various Composted Organic Amendments and their Rates of Application on Nitrogen Mineralization and Soil Productivity Using Chinese Cabbage (Brassica rapa L. var. Chinensis) as an Indicator Crop. *Agriculture (Switzerland)*, **2022**, 12, 201	3	1
14	The effects of biochar soil amendment on rice growth may vary greatly with rice genotypes.. *Science of the Total Environment*, **2021**, 810, 152223	10.2	1
13	Carbon mineralization in subtropical alluvial arable soils amended with sugarcane bagasse and rice husk biochars. *Pedosphere*, **2022**, 32, 475-486	5	1
12	Remediation of heavy metal-contaminated iron ore tailings by applying compost and growing perennial ryegrass (Lolium perenne L.). *Chemosphere*, **2021**, 288, 132573	8.4	1
11	Functional Diversity of Arbuscular Mycorrhizal Fungi on Root Surfaces **2008**, 331-349		1
10	Microbial consortium inoculant increases pasture grasses yield in low-phosphorus soil by influencing root morphology, rhizosphere carboxylate exudation and mycorrhizal colonisation. *Journal of the Science of Food and Agriculture*, **2022**, 102, 540-549	4.3	1
9	Industrial Hemp (Cannabis sativa L.) Varieties and Seed Pre-Treatments Affect Seed Germination and Early Growth of Seedlings. *Agronomy*, **2022**, 12, 6	3.6	1
8	Screening of Soybean Genotypes Based on Root Morphology and Shoot Traits Using the Semi-Hydroponic Phenotyping Platform and Rhizobox Technique. *Agronomy*, **2022**, 12, 56	3.6	1
7	Nutrients Leaching from Tillage Soil Amended with Wheat Straw Biochar Influenced by Fertiliser Type. *Agriculture (Switzerland)*, **2021**, 11, 1132	3	0
6	Complementary effect of zoo compost with mineral nitrogen fertilisation increases wheat yield and nutrition in a low-nutrient soil. *Pedosphere*, **2022**, 32, 339-347	5	0
5	Closing the circle for urban food waste anaerobic digestion: The use of digestate and biochar on plant growth in potting soil. *Journal of Cleaner Production*, **2022**, 347, 131071	10.3	0
4	Determination of Critical Limit of Zinc for Rice (Oryza sativa L.) and Potato (Solanum tuberosum L.) Cultivation in Floodplain Soils of Bangladesh. *Sustainability*, **2022**, 14, 167	3.6	0
3	Impact of Biochar on Soil Fertility and Behaviour of Xenobiotics in Soil. *Soil Biology*, **2017**, 299-318	1	

2 Environmental Proteomics: Extraction and Identification of Protein in Soil **2007**, 155-166

1 Isolation of Metabolically Active Arbuscules and Intraradical Hyphae from Mycorrhizal Roots. *Soil Biology*, **2009**, 189-195 1