Lianqing Li

List of Publications by Year
in descending order

130 papers	9,952 citations	36303 51 h-index	38395 95 g-index
132 all docs	132 docs citations	132 times ranked	7599 citing authors

#	Article	IF	Citations
1	Effect of biochar amendment on yield and methane and nitrous oxide emissions from a rice paddy from Tai Lake plain, China. Agriculture, Ecosystems and Environment, 2010, 139, 469-475.	5.3	661
2	Biocharâ€™s effect on crop productivity and the dependence on experimental conditionsâ€"a meta-analysis of literature data. Plant and Soil, 2013, 373, 583-594.	3.7	580
3	Effects of biochar amendment on soil quality, crop yield and greenhouse gas emission in a Chinese rice paddy: A field study of 2 consecutive rice growing cycles. Field Crops Research, 2012, 127, 153-160.	5.1	494
4	A three-year experiment confirms continuous immobilization of cadmium and lead in contaminated paddy field with biochar amendment. Journal of Hazardous Materials, 2014, 272, 121-128.	12.4	482
5	Storage and sequestration potential of topsoil organic carbon in China's paddy soils. Global Change Biology, 2004, 10, 79-92.	9.5	431
6	Effect of biochar amendment on maize yield and greenhouse gas emissions from a soil organic carbon poor calcareous loamy soil from Central China Plain. Plant and Soil, 2012, 351, 263-275.	3.7	397
7	Biochar soil amendment increased bacterial but decreased fungal gene abundance with shifts in community structure in a slightly acid rice paddy from Southwest China. Applied Soil Ecology, 2013, 71, 33-44.	4.3	324
8	Biochar decreased microbial metabolic quotient and shifted community composition four years after a single incorporation in a slightly acid rice paddy from southwest China. Science of the Total Environment, 2016, 571, 206-217.	8.0	236
9	Effects of amendment of biochar-manure compost in conjunction with pyroligneous solution on soil quality and wheat yield of a salt-stressed cropland from Central China Great Plain. Field Crops Research, 2013, 144, 113-118.	5.1	209
10	Biochar soil amendment as a solution to prevent Cd-tainted rice from China: Results from a cross-site field experiment. Ecological Engineering, 2013, 58, 378-383.	3.6	205
11	Combined inorganic/organic fertilization enhances N efficiency and increases rice productivity through organic carbon accumulation in a rice paddy from the Tai Lake region, China. Agriculture, Ecosystems and Environment, 2009, 131, 274-280.	5.3	199
12	Carbon footprint of China's crop productionâ€"An estimation using agro-statistics data over 1993â€"2007. Agriculture, Ecosystems and Environment, 2011, 142, 231-237.	5.3	192
13	Biochar-manure compost in conjunction with pyroligneous solution alleviated salt stress and improved leaf bioactivity of maize in a saline soil from central China: a 2-year field experiment. Journal of the Science of Food and Agriculture, 2015, 95, 1321-1327.	3.5	177
14	Topsoil organic carbon storage of China and its loss by cultivation. Biogeochemistry, 2005, 74, 47-62.	3.5	172
15	Effects of biochar on availability and plant uptake of heavy metals â€" A meta-analysis. Journal of Environmental Management, 2018, 222, 76-85.	7.8	172
16	Low uptake affinity cultivars with biochar to tackle Cd-tainted rice â€" A field study over four rice seasons in Hunan, China. Science of the Total Environment, 2016, 541, 1489-1498.	8.0	165
17	Biochar helps enhance maize productivity and reduce greenhouse gas emissions under balanced fertilization in a rainfed low fertility inceptisol. Chemosphere, 2016, 142, 106-113.	8.2	149
18	Continuous immobilization of cadmium and lead in biochar amended contaminated paddy soil: A five-year field experiment. Ecological Engineering, 2016, 93, 1-8.	3.6	145

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19	Changes in microbial biomass and the metabolic quotient with biochar addition to agricultural soils: A Meta-analysis. Agriculture, Ecosystems and Environment, 2017, 239, 80-89.	5.3	143
20	Biochar bound urea boosts plant growth and reduces nitrogen leaching. Science of the Total Environment, 2020, 701, 134424.	8.0	137
21	Consistent increase in abundance and diversity but variable change in community composition of bacteria in topsoil of rice paddy under short term biochar treatment across three sites from South China. Applied Soil Ecology, 2015, 91, 68-79.	4.3	133
22	Biochar compound fertilizer increases nitrogen productivity and economic benefits but decreases carbon emission of maize production. Agriculture, Ecosystems and Environment, 2017, 241, 70-78.	5.3	110
23	Effect of long-term fertilization on C mineralization and production of CH4 and CO2 under anaerobic incubation from bulk samples and particle size fractions of a typical paddy soil. Agriculture, Ecosystems and Environment, 2007, 120, 129-138.	5.3	107
24	Change in net global warming potential of a riceâ€"wheat cropping system with biochar soil amendment in a rice paddy from China. Agriculture, Ecosystems and Environment, 2013, 173, 37-45.	5.3	103
25	Changes in soil microbial community structure and enzyme activity with amendment of biochar-manure compost and pyroligneous solution in a saline soil from Central China. European Journal of Soil Biology, 2015, 70, 67-76.	3.2	102
26	Cd immobilization in a contaminated rice paddy by inorganic stabilizers of calcium hydroxide and silicon slag and by organic stabilizer of biochar. Environmental Science and Pollution Research, 2016, 23, 10028-10036.	5.3	99
27	Biochar compound fertilizer as an option to reach high productivity but low carbon intensity in rice agriculture of China. Carbon Management, 2014, 5, 145-154.	2.4	96
28	Is current biochar research addressing global soil constraints for sustainable agriculture?. Agriculture, Ecosystems and Environment, 2016, 226, 25-32.	5.3	96
29	Organic carbon quality, composition of main microbial groups, enzyme activities, and temperature sensitivity of soil respiration of an acid paddy soil treated with biochar. Biology and Fertility of Soils, 2019, 55, 185-197.	4.3	82
30	Changes in microbial community structure and function within particle size fractions of a paddy soil under different long-term fertilization treatments from the Tai Lake region, China. Colloids and Surfaces B: Biointerfaces, 2007, 58, 264-270.	5.0	79
31	Biochar amendment changes temperature sensitivity of soil respiration and composition of microbial communities 3Âyears after incorporation in an organic carbon-poor dry cropland soil. Biology and Fertility of Soils, 2018, 54, 175-188.	4.3	79
32	Bioavailability of Cd in a soilâ€"rice system in China: soil type versus genotype effects. Plant and Soil, 2005, 271, 165-173.	3.7	78
33	Biochar-based fertilizer: Supercharging root membrane potential and biomass yield of rice. Science of the Total Environment, 2020, 713, 136431.	8.0	78
34	Sustainable biochar effects for low carbon crop production: A 5-crop season field experiment on a low fertility soil from Central China. Agricultural Systems, 2014, 129, 22-29.	6.1	77
35	Utilization of biochar produced from invasive plant species to efficiently adsorb Cd (II) and Pb (II). Bioresource Technology, 2020, 317, 124011.	9.6	76
36	Effect of biochar amendment on soilâ€silicon availability and rice uptake. Journal of Plant Nutrition and Soil Science, 2014, 177, 91-96.	1.9	75

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37	Soil carbon, multiple benefits. Environmental Development, 2015, 13, 33-38.	4.1	75
38	Feeding Biochar to Cows: An Innovative Solution for Improving Soil Fertility and Farm Productivity. Pedosphere, 2015, 25, 666-679.	4.0	74
39	THE REDUCTION OF WHEAT Cd UPTAKE IN CONTAMINATED SOIL VIA BIOCHAR AMENDMENT: A TWO-YEAR FIELD EXPERIMENT. BioResources, 2012, 7, .	1.0	68
40	Biochar has no effect on soil respiration across Chinese agricultural soils. Science of the Total Environment, 2016, 554-555, 259-265.	8.0	67
41	The responses of soil organic carbon mineralization and microbial communities to fresh and aged biochar soil amendments. GCB Bioenergy, 2019, 11, 1408-1420.	5.6	67
42	Soil quality changes in land degradation as indicated by soil chemical, biochemical and microbiological properties in a karst area of southwest Guizhou, China. Environmental Geology, 2006, 51, 609-619.	1.2	64
43	Leaf N/P ratio and nutrient reuse between dominant species and stands: predicting phosphorus deficiencies in Karst ecosystems, southwestern China. Environmental Earth Sciences, 2011, 64, 299-309.	2.7	64
44	Influence of Biochar on Microbial Activities of Heavy Metals Contaminated Paddy Fields. BioResources, 2013, 8, .	1.0	63
45	A long-term hybrid poplar plantation on cropland reduces soil organic carbon mineralization and shifts microbial community abundance and composition. Applied Soil Ecology, 2017, 111, 94-104.	4.3	62
46	Changes in grain protein and amino acids composition of wheat and rice under shortâ€term increased [CO₂] and temperature of canopy air in a paddy from East China. New Phytologist, 2019, 222, 726-734.	7.3	61
47	Short-term responses of microbial community and functioning to experimental CO2 enrichment and warming in a Chinese paddy field. Soil Biology and Biochemistry, 2014, 77, 58-68.	8.8	59
48	Developing More Effective Enhanced Biochar Fertilisers for Improvement of Pepper Yield and Quality. Pedosphere, 2015, 25, 703-712.	4.0	58
49	Farmersâ€™ Perceptions of Climate Variability and Factors Influencing Adaptation: Evidence from Anhui and Jiangsu, China. Environmental Management, 2016, 57, 976-986.	2.7	57
50	Role of chemical protection by binding to oxyhydrates in SOC sequestration in three typical paddy soils under long-term agro-ecosystem experiments from South China. Geoderma, 2009, 153, 52-60.	5.1	56
51	Pyrolysis of crop residues in a mobile bench-scale pyrolyser: Product characterization and environmental performance. Journal of Analytical and Applied Pyrolysis, 2016, 119, 52-59.	5.5	56
52	Size and variability of crop productivity both impacted by CO2 enrichment and warmingâ€"A case study of 4 year field experiment in a Chinese paddy. Agriculture, Ecosystems and Environment, 2016, 221, 40-49.	5.3	56
53	Biochar provided limited benefits for rice yield and greenhouse gas mitigation six years following an amendment in a fertile rice paddy. Catena, 2019, 179, 20-28.	5.0	52
54	Adsorption, immobilization, and activity of Î²-glucosidase on different soil colloids. Journal of Colloid and Interface Science, 2010, 348, 565-570.	9.4	51

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55	Temporal dynamics of ammonia oxidizer (amoA) and denitrifier (nirK) communities in the rhizosphere of a rice ecosystem from Tai Lake region, China. Applied Soil Ecology, 2011, 48, 210-218.	4.3	51
56	Variation of grain Cd and Zn concentrations of 110 hybrid rice cultivars grown in a low-Cd paddy soil. Journal of Environmental Sciences, 2009, 21, 168-172.	6.1	50
57	Characterizing the solidâ€“solution partitioning coefficient and plant uptake factor of As, Cd, and Pb in California croplands. Agriculture, Ecosystems and Environment, 2009, 129, 212-220.	5.3	50
58	Short-term response of nitrifier communities and potential nitrification activity to elevated CO2 and temperature interaction in a Chinese paddy field. Applied Soil Ecology, 2015, 96, 88-98.	4.3	49
59	Effect of mid-season drainage on CH4 and N2O emission and grain yield in rice ecosystem: A meta-analysis. Agricultural Water Management, 2019, 213, 1028-1035.	5.6	49
60	Biochar effects on uptake of cadmium and lead by wheat in relation to annual precipitation: a 3-year field study. Environmental Science and Pollution Research, 2018, 25, 3368-3377.	5.3	48
61	Molecular changes of soil organic matter induced by root exudates in a rice paddy under CO2 enrichment and warming of canopy air. Soil Biology and Biochemistry, 2019, 137, 107544.	8.8	43
62	Effect of amendment of biochar supplemented with Si on Cd mobility and rice uptake over three rice growing seasons in an acidic Cd-tainted paddy from central South China. Science of the Total Environment, 2020, 709, 136101.	8.0	43
63	Variation of bacterial and fungal community structures in the rhizosphere of hybrid and standard rice cultivars and linkage to CO2 flux. FEMS Microbiology Ecology, 2011, 78, 116-128.	2.7	41
64	Enhanced rice production but greatly reduced carbon emission following biochar amendment in a metal-polluted rice paddy. Environmental Science and Pollution Research, 2015, 22, 18977-18986.	5.3	41
65	Legacy of soil health improvement with carbon increase following one time amendment of biochar in a paddy soil â€“ A rice farm trial. Geoderma, 2020, 376, 114567.	5.1	40
66	Changes in cropland topsoil organic carbon with different fertilizations under long-term agro-ecosystem experiments across mainland China. Science China Life Sciences, 2010, 53, 858-867.	4.9	39
67	Long-term rice cultivation stabilizes soil organic carbon and promotes soil microbial activity in a salt marsh derived soil chronosequence. Scientific Reports, 2015, 5, 15704.	3.3	36
68	Pyrolysis of contaminated wheat straw to stabilize toxic metals in biochar but recycle the extract for agricultural use. Biomass and Bioenergy, 2018, 118, 32-39.	5.7	35
69	Greater microbial carbon use efficiency and carbon sequestration in soils: Amendment of biochar versus crop straws. GCB Bioenergy, 2020, 12, 1092-1103.	5.6	35
70	Variation of organic carbon and nitrogen in aggregate size fractions of a paddy soil under fertilisation practices from Tai Lake Region, China. Journal of the Science of Food and Agriculture, 2007, 87, 1052-1058.	3.5	34
71	Decline in Topsoil Microbial Quotient, Fungal Abundance and C Utilization Efficiency of Rice Paddies under Heavy Metal Pollution across South China. PLoS ONE, 2012, 7, e38858.	2.5	34
72	Organic carbon stratification and size distribution of three typical paddy soils from Taihu Lake region, China. Journal of Environmental Sciences, 2008, 20, 456-463.	6.1	33

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73	Functional and structural responses of bacterial and fungal communities from paddy fields following long-term rice cultivation. Journal of Soils and Sediments, 2016, 16, 1460-1471.	3.0	33
74	Could biochar amendment be a tool to improve soil availability and plant uptake of phosphorus? A meta-analysis of published experiments. Environmental Science and Pollution Research, 2021, 28, 34108-34120.	5.3	31
75	Changes in nutrient uptake and utilization by rice under simulated climate change conditions: A 2-year experiment in a paddy field. Agricultural and Forest Meteorology, 2018, 250-251, 202-208.	4.8	30
76	An assessment of emergy, energy, and cost-benefits of grain production over 6Âyears following a biochar amendment in a rice paddy from China. Environmental Science and Pollution Research, 2018, 25, 9683-9696.	5.3	30
77	Perspectives on studies on soil carbon stocks and the carbon sequestration potential of China. Science Bulletin, 2011, 56, 3748-3758.	1.7	29
78	Responses of Methanogenic and Methanotrophic Communities to Elevated Atmospheric CO2 and Temperature in a Paddy Field. Frontiers in Microbiology, 2016, 7, 1895.	3.5	29
79	Changes in plant C, N and P ratios under elevated [CO2] and canopy warming in a rice-winter wheat rotation system. Scientific Reports, 2019, 9, 5424.	3.3	29
80	Water Extract from Straw Biochar Used for Plant Growth Promotion: An Initial Test. BioResources, 2015, 11, .	1.0	28
81	Abundance, composition and activity of denitrifier communities in metal polluted paddy soils. Scientific Reports, 2016, 6, 19086.	3.3	28
82	Short-term biochar manipulation of microbial nitrogen transformation in wheat rhizosphere of a metal contaminated Inceptisol from North China plain. Science of the Total Environment, 2018, 640-641, 1287-1296.	8.0	26
83	Sequestration of maize crop straw C in different soils: Role of oxyhydrates in chemical binding and stabilization as recalcitrance. Chemosphere, 2012, 87, 649-654.	8.2	25
84	Abundance, Composition and Activity of Ammonia Oxidizer and Denitrifier Communities in Metal Polluted Rice Paddies from South China. PLoS ONE, 2014, 9, e102000.	2.5	24
85	Soil organic carbon fractions and microbial community and functions under changes in vegetation: a case of vegetation succession in karst forest. Environmental Earth Sciences, 2014, 71, 3727-3735.	2.7	23
86	Microbial activity promoted with organic carbon accumulation in macroaggregates of paddy soils under long-term rice cultivation. Biogeosciences, 2016, 13, 6565-6586.	3.3	23
87	Abundance and composition response of wheat field soil bacterial and fungal communities to elevated CO2 and increased air temperature. Biology and Fertility of Soils, 2017, 53, 3-8.	4.3	23
88	Changes in soil nematode abundance and composition under elevated [CO2] and canopy warming in a rice paddy field. Plant and Soil, 2019, 445, 425-437.	3.7	23
89	Biochar increases maize yield by promoting root growth in the rainfed region. Archives of Agronomy and Soil Science, 2021, 67, 1411-1424.	2.6	23
90	Changes in greenhouse gas evolution in heavy metal polluted paddy soils with rice straw return: A laboratory incubation study. European Journal of Soil Biology, 2014, 63, 1-6.	3.2	22

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91	Pyrolyzed municipal sewage sludge ensured safe grain production while reduced C emissions in a paddy soil under rice and wheat rotation. Environmental Science and Pollution Research, 2019, 26, 9244-9256.	5.3	22
92	Effects of free iron oxyhydrates and soil organic matter on copper sorption-desorption behavior by size fractions of aggregates from two paddy soils. Journal of Environmental Sciences, 2009, 21, 618-624.	6.1	20
93	Changes in micronutrient availability and plant uptake under simulated climate change in winter wheat field. Journal of Soils and Sediments, 2016, 16, 2666-2675.	3.0	20
94	Long-term elevated CO2 and warming enhance microbial necromass carbon accumulation in a paddy soil. Biology and Fertility of Soils, 2021, 57, 673-684.	4.3	20
95	Responses of wheat and rice grain mineral quality to elevated carbon dioxide and canopy warming. Field Crops Research, 2020, 249, 107753.	5.1	19
96	Influence of pyrolysis temperature on the cadmium and lead removal behavior of biochar derived from oyster shell waste. Bioresource Technology Reports, 2021, 15, 100709.	2.7	19
97	Modeling uptake kinetics of cadmium by field-grown lettuce. Environmental Pollution, 2008, 152, 147-152.	7.5	18
98	Effect of Municipal Biowaste Biochar on Greenhouse Gas Emissions and Metal Bioaccumulation in a Slightly Acidic Clay Rice Paddy. BioResources, 2013, 9, .	1.0	18
99	Winter wheat water requirement and utilization efficiency under simulated climate change conditions: A Penman-Monteith model evaluation. Agricultural Water Management, 2018, 197, 100-109.	5.6	18
100	Does metal pollution matter with C retention by rice soil?. Scientific Reports, 2015, 5, 13233.	3.3	17
101	Effects of iron-modified biochar with S-rich and Si-rich feedstocks on Cd immobilization in the soil-rice system. Ecotoxicology and Environmental Safety, 2021, 225, 112764.	6.0	17
102	Comprehensive evaluation of environmental footprints of regional crop production: A case study of Chizhou City, China. Ecological Economics, 2019, 164, 106360.	5.7	16
103	Improved ginseng production under continuous cropping through soil health reinforcement and rhizosphere microbial manipulation with biochar: a field study of <i>Panax ginseng</i> from Northeast China. Horticulture Research, 2022, 9, .	6.3	15
104	Biochar decreases Cd mobility and rice (Oryza sativa L.) uptake by affecting soil iron and sulfur cycling. Science of the Total Environment, 2022, 836, 155547.	8.0	14
105	Rice Seedling Growth Promotion by Biochar Varies With Genotypes and Application Dosages. Frontiers in Plant Science, 2021, 12, 580462.	3.6	13
106	Biochar-based fertiliser enhances nutrient uptake and transport in rice seedlings. Science of the Total Environment, 2022, 826, 154174.	8.0	13
107	Macroaggregates as biochemically functional hotspots in soil matrix: Evidence from a rice paddy under long-term fertilization treatments in the Taihu Lake Plain, eastern China. Applied Soil Ecology, 2019, 138, 262-273.	4.3	12
108	The Water-Soluble Pool in Biochar Dominates Maize Plant Growth Promotion Under Biochar Amendment. Journal of Plant Growth Regulation, 2021, 40, 1466-1476.	5.1	12

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109	Cadmium Uptake by Lettuce in Fields Treated with Cadmiumâ€Spiked Phosphorus Fertilizers. Communications in Soil Science and Plant Analysis, 2009, 40, 1124-1137.	1.4	11
110	Changes in soil nematodes in rhizosphere and non-rhizosphere soils following combined elevated [CO2] and canopy warming in a winter wheat field. Geoderma, 2021, 386, 114907.	5.1	11
111	Amendment of straw biochar increased molecular diversity and enhanced preservation of plant derived organic matter in extracted fractions of a rice paddy. Journal of Environmental Management, 2021, 285, 112104.	7.8	11
112	Assessing the impacts of biocharâ€blended urea on nitrogen use efficiency and soil retention in wheat production. GCB Bioenergy, 2022, 14, 65-83.	5.6	11
113	Quantitative assessment of the effects of biochar amendment on photosynthetic carbon assimilation and dynamics in a riceâ€"soil system. New Phytologist, 2021, 232, 1250-1258.	7.3	10
114	Root-Derived Short-Chain Suberin Diacids from Rice and Rape Seed in a Paddy Soil under Rice Cultivar Treatments. PLoS ONE, 2015, 10, e0127474.	2.5	10
115	Pool complexity and molecular diversity shaped topsoil organic matter accumulation following decadal forest restoration in a karst terrain. Soil Biology and Biochemistry, 2022, 166, 108553.	8.8	10
116	The effects of biochar soil amendment on rice growth may vary greatly with rice genotypes. Science of the Total Environment, 2022, 810, 152223.	8.0	10
117	Remediation of Cd2+ in aqueous systems by alkali-modified (Ca) biochar and quantitative analysis of its mechanism. Arabian Journal of Chemistry, 2022, 15, 103750.	4.9	10
118	Contribution of Soluble Minerals in Biochar to Pb2+ Adsorption in Aqueous Solutions. BioResources, 2016, 12, .	1.0	9
119	Aggregate fractions shaped molecular composition change of soil organic matter in a rice paddy under elevated CO2 and air warming. Soil Biology and Biochemistry, 2021, 159, 108289.	8.8	9
120	Copyrolysis of food waste and rice husk to biochar to create a sustainable resource for soil amendment: A pilot-scale case study in Jinhua, China. Journal of Cleaner Production, 2022, 347, 131269.	9.3	8
121	Advanced characterization of biomineralization at plaque layer and inside rice roots amended with iron- and silica-enhanced biochar. Scientific Reports, 2021, 11, 159.	3.3	7
122	PROBABILITY DISTRIBUTION OF CADMIUM PARTITIONING COEFFICIENTS OF CROPLAND SOILS. Soil Science, 2007, 172, 132-140.	0.9	6
123	Short- and Long-Term Biochar Cadmium and Lead Immobilization Mechanisms. Environments - MDPI, 2020, 7, 53.	3.3	6
124	Investigating the cadmium adsorption capacities of crop straw biochars produced using various feedstocks and pyrolysis temperatures. Environmental Science and Pollution Research, 2021, 28, 21516-21527.	5.3	6
125	Amendment of crop residue in different forms shifted micro-pore system structure and potential functionality of macroaggregates while changed their mass proportion and carbon storage of paddy topsoil. Geoderma, 2022, 409, 115643.	5.1	6
126	Comparison of heavy metal speciation, transfer and their key influential factors in vegetable soils contaminated from industrial operation and organic fertilization. Journal of Soils and Sediments, 2022, 22, 1735-1745.	3.0	6

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127	Physicochemical disintegration of biochar: a potentially important process for long-term cadmium and lead sorption. Biochar, 2021, 3, 511-518.	12.6	5
128	Macroaggregates Serve as Micro-Hotspots Enriched With Functional and Networked Microbial Communities and Enhanced Under Organic/Inorganic Fertilization in a Paddy Topsoil From Southeastern China. Frontiers in Microbiology, 2022, 13, 831746.	3.5	4
129	Molecular changes of ferric oxide bound soil humus during the decomposition of maize straw. Chemical and Biological Technologies in Agriculture, 2016, 3, .	4.6	2
130	Cellulase Activity in Physically Isolated Fractions of a Paddy Soil. , 2009, , .		0