Characterization of biochar from fast pyrolysis and gasi

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Citation Report

#	Article	IF	Citations
1	Physical and Mineralâ€Nutrition Properties of Sandâ€Based Turfgrass Root Zones Amended with Biochar. Agronomy Journal, 2010, 102, 1627-1631.	0.9	170
2	The Intrinsic Kinetics and Heats of Reactions for Cellulose Pyrolysis and Char Formation. ChemSusChem, 2010, 3, 1162-1165.	3.6	75
3	Review of the stability of biochar in soils: predictability of O:C molar ratios. Carbon Management, 2010, 1, 289-303.	1.2	847
4	Charcoal: Taphonomy and significance in geology, botany and archaeology. Palaeogeography, Palaeoclimatology, Palaeoecology, 2010, 291, 1-10.	1.0	107
5	Molecular Analysis of Primary Vapor and Char Products during Stepwise Pyrolysis of Poplar Biomass. Energy & Fuels, 2010, 24, 5199-5209.	2.5	23
6	Surface Functionality and Carbon Structures in Lignocellulosic-Derived Biochars Produced by Fast Pyrolysis. Energy & Fuels, 2011, 25, 4693-4703.	2.5	220
7	Chemical Structures of Swine-Manure Chars Produced under Different Carbonization Conditions Investigated by Advanced Solid-State ¹³C Nuclear Magnetic Resonance (NMR) Spectroscopy. Energy & Fuels, 2011, 25, 388-397.	2.5	207
8	Influence of Pyrolysis Temperature on Biochar Property and Function as a Heavy Metal Sorbent in Soil. Journal of Agricultural and Food Chemistry, 2011, 59, 2501-2510.	2.4	645
9	Development of Biochar-based Catalyst for Transesterification of Canola Oil. Energy & Fuels, 2011, 25, 337-344.	2.5	139
10	Advanced in situ Spectroscopic Techniques and their Applications in Environmental Biogeochemistry: Introduction to the Special Section. Journal of Environmental Quality, 2011, 40, 659-666.	1.0	23
11	Utilization of Dry Distillers Grains and Charcoal as Nitrogen Fertilizer in Corn. Agronomy Journal, 2011, 103, 1321-1328.	0.9	6
12	Impacts of Biochar (Black Carbon) Additions on the Sorption and Efficacy of Herbicides. , 0, , .		8
13	Impact of Biochar on Earthworm Populations: A Review. Applied and Environmental Soil Science, 2011, 2011, 1-12.	0.8	76
15	Nitrogen and Phosphorus Availability in Biochar-Amended Soils. Soil Science, 2011, 176, 218-226.	0.9	192
16	Quantitative analysis of biochar in field soil. Soil Biology and Biochemistry, 2011, 43, 1563-1568.	4.2	51
17	Biochar effects on soil biota â€“ A review. Soil Biology and Biochemistry, 2011, 43, 1812-1836.	4.2	3,514
18	Biochar as a strategy to sequester carbon and increase yield in durum wheat. European Journal of Agronomy, 2011, 34, 231-238.	1.9	355
19	A life cycle assessment of advanced biofuel production from a hectare of corn. Fuel, 2011, 90, 3306-3314.	3.4	76

#	Article	IF	Citations
20	Reconciling apparent variability in effects of biochar amendment on soil enzyme activities by assay optimization. Soil Biology and Biochemistry, 2011, 43, 296-301.	4.2	351
21	Criteria to Select Biochars for Field Studies based on Biochar Chemical Properties. Bioenergy Research, 2011, 4, 312-323.	2.2	231
22	Stable isotopic analysis of pyrogenic organic matter in soils by liquid chromatographyâ€"isotopeâ€ratio mass spectrometry of benzene polycarboxylic acids. Rapid Communications in Mass Spectrometry, 2011, 25, 3723-3731.	0.7	16
23	The forms of alkalis in the biochar produced from crop residues at different temperatures. Bioresource Technology, 2011, 102, 3488-3497.	4.8	1,448
24	Leading global energy and environmental transformation: Unified ASEAN biomass-based bio-energy system incorporating the clean development mechanism. Biomass and Bioenergy, 2011, 35, 2479-2490.	2.9	9
25	Residues of bioenergy production chains as soil amendments: Immediate and temporal phytotoxicity. Journal of Hazardous Materials, 2011, 186, 2017-2025.	6.5	126
26	Screening biochars for heavy metal retention in soil: Role of oxygen functional groups. Journal of Hazardous Materials, 2011, 190, 432-441.	6.5	526
27	Influence of Biochar on Nitrogen Fractions in a Coastal Plain Soil. Journal of Environmental Quality, 2012, 41, 1087-1095.	1.0	87
28	Biochar: A Synthesis of Its Agronomic Impact beyond Carbon Sequestration. Journal of Environmental Quality, 2012, 41, 973-989.	1.0	738
29	Extent of Pyrolysis Impacts on Fast Pyrolysis Biochar Properties. Journal of Environmental Quality, 2012, 41, 1115-1122.	1.0	80
30	Nitrogen mineralisation dynamics of meat bone meal and cattle manure as affected by the application of softwood chip biochar in soil. Earth and Environmental Science Transactions of the Royal Society of Edinburgh, 2012, 103, 19-30.	0.3	11
31	Pyrolysis for Biochar Purposes: A Review to Establish Current Knowledge Gaps and Research Needs. Environmental Science & Technology, 2012, 46, 7939-7954.	4.6	612
32	Characterization and potential applications of solid particles produced at a biomass gasification plant. Biomass and Bioenergy, 2012, 47, 134-144.	2.9	37
33	Characterization of Wood Chars Produced at Different Temperatures Using Advanced Solid-State ¹³C NMR Spectroscopic Techniques. Energy & Fuels, 2012, 26, 5983-5991.	2.5	132
34	A mechanistic model of fast pyrolysis of glucose-based carbohydrates to predict bio-oil composition. Energy and Environmental Science, 2012, 5, 9808.	15.6	307
35	Imaging of mineral-enriched biochar by FTIR, Raman and SEMâ€"EDX. Vibrational Spectroscopy, 2012, 62, 248-257.	1.2	303
36	Multiple Controls on the Chemical and Physical Structure of Biochars. Industrial & Engineering Chemistry Research, 2012, 51, 3587-3597.	1.8	145
37	Steamâ€"O₂ Blown Circulating Fluidized-Bed (CFB) Biomass Gasification: Characterization of Different Residual Chars and Comparison of Their Gasification Behavior to Thermogravimetric (TG)-Derived Pyrolysis Chars. Energy & Fuels, 2012, 26, 722-739.	2.5	12

#	Article	IF	Citations
38	Advanced Solid-State NMR Characterization of Marine Dissolved Organic Matter Isolated Using the Coupled Reverse Osmosis/Electrodialysis Method. Environmental Science & Technology, 2012, 46, 5806-5814.	4.6	60
39	High-Resolution Mass Spectrometric Characterization of Molecules on Biochar from Pyrolysis and Gasification of Switchgrass. Energy & Fuels, 2012, 26, 3803-3809.	2.5	39
40	Structural characterization of gilsonite bitumen by advanced nuclear magnetic resonance spectroscopy and ultrahigh resolution mass spectrometry revealing pyrrolic and aromatic rings substituted with aliphatic chains. Organic Geochemistry, 2012, 44, 21-36.	0.9	37
41	Elucidating the chemical structure of pyrogenic organic matter by combining magnetic resonance, mid-infrared spectroscopy and mass spectrometry. Organic Geochemistry, 2012, 51, 35-44.	0.9	40
42	Pyrolysis biochar systems for recovering biodegradable materials: A life cycle carbon assessment. Waste Management, 2012, 32, 859-868.	3.7	101
43	Influence of pyrolysis temperature on physicochemical properties of biochar obtained from the fast pyrolysis of pitch pine (Pinus rigida). Bioresource Technology, 2012, 118, 158-162.	4.8	485
44	Surface Characterization and Classification of Slow and Fast Pyrolyzed Biochar Using Novel Methods of Pycnometry and Hyperspectral Imaging. Journal of Wood Chemistry and Technology, 2012, 32, 105-120.	0.9	19
45	Chemical characterization of rice straw-derived biochar for soil amendment. Biomass and Bioenergy, 2012, 47, 268-276.	2.9	517
46	Physico-chemical characterization of biochars from vacuum pyrolysis of South African agricultural wastes for application as soil amendments. Journal of Analytical and Applied Pyrolysis, 2012, 98, 207-213.	2.6	86
47	Waste Gas Biofiltration: Advances and Limitations of Current Approaches in Microbiology. Environmental Science & Technology, 2012, 46, 8542-8573.	4.6	69
48	Biochar: Carbon Sequestration, Land Remediation, and Impacts on Soil Microbiology. Critical Reviews in Environmental Science and Technology, 2012, 42, 2311-2364.	6.6	158
49	Abundant and Stable Char Residues in Soils: Implications for Soil Fertility and Carbon Sequestration. Environmental Science & Technology, 2012, 46, 9571-9576.	4.6	239
50	Comparing Corn Stover and Switchgrass Biochar: Characterization and Sorption Properties. Journal of Agricultural Science, 2012, 5, .	0.1	15
51	Review of Syngas Contaminants removal using Carbon-based Catalysts. , 2012, , .		0
52	Unusual Catalysts from Molasses: Synthesis, Properties and Application in Obtaining Biofuels from Algae. ChemSusChem, 2012, 5, 1501-1512.	3.6	15
53	Analytical pyrolysis of synthetic chars derived from biomass with potential agronomic application (biochar). Relationships with impacts on microbial carbon dioxide production. Journal of Analytical and Applied Pyrolysis, 2012, 93, 77-84.	2.6	79
54	Production of char from vacuum pyrolysis of South-African sugar cane bagasse and its characterization as activated carbon and biochar. Journal of Analytical and Applied Pyrolysis, 2012, 96, 24-32.	2.6	182
55	Effects of slow and fast pyrolysis biochar on soil C and N turnover dynamics. Soil Biology and Biochemistry, 2012, 46, 73-79.	4.2	401

#	Article	IF	Citations
56	Biocharâ€™s role as an alternative N-fertilizer: ammonia capture. Plant and Soil, 2012, 350, 35-42.	1.8	242
57	An energyâ€biochar chain involving biomass gasification and rice cultivation in Northern Italy. GCB Bioenergy, 2013, 5, 192-201.	2.5	34
58	Effects of environmental conditions on the release of phosphorus from biochar. Chemosphere, 2013, 93, 2069-2075.	4.2	115
59	Comparison of biochars derived from wood pellets and pelletized wheat straw as replacements for peat in potting substrates. Industrial Crops and Products, 2013, 51, 437-443.	2.5	154
60	Activated carbon from biochar: Influence of its physicochemical properties on the sorption characteristics of phenanthrene. Bioresource Technology, 2013, 149, 383-389.	4.8	138
61	Can biochar and hydrochar stability be assessed with chemical methods?. Organic Geochemistry, 2013, 60, 40-44.	0.9	36
62	Pyrolysis of Switchgrass (Panicum virgatum L.) at Low Temperatures within N₂ and CO₂ Environments: Product Yield Study. ACS Sustainable Chemistry and Engineering, 2013, 1, 198-204.	3.2	59
63	Carbon materials from high ash biochar for supercapacitor and improvement of capacitance with HNO3 surface oxidation. Journal of Power Sources, 2013, 236, 285-292.	4.0	161
64	Transformation of lignocellulosic biomass during torrefaction. Journal of Analytical and Applied Pyrolysis, 2013, 100, 199-206.	2.6	168
65	Comparisons of Biochar Properties from Wood Material and Crop Residues at Different Temperatures and Residence Times. Energy & Fuels, 2013, 27, 5890-5899.	2.5	202
66	Characteristics and origin of char and coke from fast and slow, catalytic and thermal pyrolysis of biomass and relevant model compounds. Green Chemistry, 2013, 15, 3214.	4.6	120
67	Biochar: Sustainable and Versatile. ACS Symposium Series, 2013, , 193-205.	0.5	13
68	Biochar-based catalyst for simultaneous reactions of esterification and transesterification. Catalysis Today, 2013, 207, 86-92.	2.2	137
69	Spectrally edited 2D 13C13C NMR spectra without diagonal ridge for characterizing 13C-enriched low-temperature carbon materials. Journal of Magnetic Resonance, 2013, 234, 112-124.	1.2	40
70	Comparison of Rice Husk and Wheat Straw: From Slow and Fast Pyrolysis to Char Combustion. Energy & Fuels, 2013, 27, 7115-7125.	2.5	43
71	Biochar based solid acid catalyst hydrolyze biomass. Journal of Environmental Chemical Engineering, 2013, 1, 1174-1181.	3.3	66
72	Chemical structure changes in kerogen from bituminous coal in response to dike intrusions as investigated by advanced solid-state 13C NMR spectroscopy. International Journal of Coal Geology, 2013, 108, 53-64.	1.9	68
73	Effect of pH on surface characteristics of switchgrass-derived biochars produced by fast pyrolysis. Chemosphere, 2013, 90, 2623-2630.	4.2	39

#	Article	IF	Citations
74	Characterization of Biochars Using Advanced Solid-State 13C Nuclear Magnetic Resonance Spectroscopy. , 2013, , 47-55.		4
75	Biochar, Tool for Climate Change Mitigation and Soil Management. , 2013, , 73-140.		7
76	Chars produced by slow pyrolysis and hydrothermal carbonization vary in carbon sequestration potential and greenhouse gases emissions. Soil Biology and Biochemistry, 2013, 62, 137-146.	4.2	150
77	Characterization of kerogen using solid-state nuclear magnetic resonance spectroscopy: A review. International Journal of Coal Geology, 2013, 108, 83-90.	1.9	43
78	Use of Chemical and Physical Characteristics To Investigate Trends in Biochar Feedstocks. Journal of Agricultural and Food Chemistry, 2013, 61, 2196-2204.	2.4	333
79	Microwave and slow pyrolysis biocharâ€"Comparison of physical and functional properties. Journal of Analytical and Applied Pyrolysis, 2013, 100, 41-48.	2.6	193
80	Fast pyrolysis of microalgae remnants in a fluidized bed reactor for bio-oil and biochar production. Bioresource Technology, 2013, 127, 494-499.	4.8	276
81	Solid-State Nuclear Magnetic Resonance Characterization of Chars Obtained from Hydrothermal Carbonization of Corncob and Miscanthus. Energy & Fuels, 2013, 27, 303-309.	2.5	41
82	Effects of Biomass Feedstocks and Gasification Conditions on the Physiochemical Properties of Char. Energies, 2013, 6, 3972-3986.	1.6	157
83	Characteristics of Straw Biochar and its Influence on the Forms of Arsenic in Heavy Metal Polluted Soil. Applied Mechanics and Materials, 0, 409-410, 133-138.	0.2	6
84	Alterations in Molecular Composition of Humic Substances from Eucalypt Plantation Soils Assessed by ‹sup›13‹/sup›Câ€NMR Spectroscopy. Soil Science Society of America Journal, 2013, 77, 293-306.	1.2	13
85	Distributed biochar and bioenergy coproduction: a regionally specific case study of environmental benefits and economic impacts. GCB Bioenergy, 2013, 5, 177-191.	2.5	101
86	Impact of Biochar on Organic Contaminants in Soil: A Tool for Mitigating Risk?. Agronomy, 2013, 3, 349-375.	1.3	82
87	The Application of Biochar in the EU: Challenges and Opportunities. Agronomy, 2013, 3, 462-473.	1.3	52
88	Characterization, Stability, and Plant Effects of Kiln-Produced Wheat Straw Biochar. Journal of Environmental Quality, 2013, 42, 429-436.	1.0	27
89	Characterization and Mineralization Rates of Low Temperature Peanut Hull and Pine Chip Biochars. Agronomy, 2013, 3, 294-312.	1.3	27
90	Characterization of Biochar from Switchgrass Carbonization. Energies, 2014, 7, 548-567.	1.6	137
91	Effects of Biochar-Amendment to Landfill Cover Soil on Microbial Methane Oxidation: Initial Results. , 2014, , .		10

#	Article	IF	Citations
92	Characterization of biochar from fast pyrolysis and its effect on chemical properties of the tea garden soil. Journal of Analytical and Applied Pyrolysis, 2014, 110, 375-381.	2.6	94
93	Physical and chemical characterization of biochars derived from different agricultural residues. Biogeosciences, 2014, 11, 6613-6621.	1.3	515
94	Characterization and Utilization of Char Derived from Fast Pyrolysis of Plastic Wastes. Advanced Materials Research, 2014, 931-932, 849-853.	0.3	3
95	Kinetics of thermal degradation of wood biomass. Chemical Papers, 2014, 68, .	1.0	6
96	Contrasting Effects of Sorghum Biochars and Sorghum Residues on Soil Chemical Changes of Coastal Plains Ultisols With Winter Wheat. Soil Science, 2014, 179, 383-392.	0.9	1
98	Cadmium and lead remediation using magnetic oak wood and oak bark fast pyrolysis bio-chars. Chemical Engineering Journal, 2014, 236, 513-528.	6.6	446
99	Synthesis and evaluation of biochar-derived catalysts for removal of toluene (model tar) from biomass-generated producer gas. Renewable Energy, 2014, 66, 346-353.	4.3	117
100	Carbon mineralization in two ultisols amended with different sources and particle sizes of pyrolyzed biochar. Chemosphere, 2014, 103, 313-321.	4.2	77
101	New approaches to measuring biochar density and porosity. Biomass and Bioenergy, 2014, 66, 176-185.	2.9	412
102	Biochar as a Substitute for Vermiculite in Potting Mix for Hybrid Poplar. Bioenergy Research, 2014, 7, 120-131.	2.2	53
103	Characterization of engineered biochar for soil management. Environmental Progress and Sustainable Energy, 2014, 33, 490-496.	1.3	25
104	Solid state NMR study of chemical structure and hydrothermal deactivation of moderate-temperature carbon materials with acidic SO3H sites. Carbon, 2014, 74, 333-345.	5.4	67
105	Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbent â€“ A critical review. Bioresource Technology, 2014, 160, 191-202.	4.8	1,736
106	Production Factors Controlling the Physical Characteristics of Biochar Derived from Phytoremediation Willow for Agricultural Applications. Bioenergy Research, 2014, 7, 371-380.	2.2	26
107	<scp>Effects</scp> of coâ€produced biochar on life cycle greenhouse gas emissions of pyrolysisâ€derived renewable fuels. Biofuels, Bioproducts and Biorefining, 2014, 8, 189-204.	1.9	31
108	Quantitative solid-state 13C NMR with signal enhancement by multiple cross polarization. Journal of Magnetic Resonance, 2014, 239, 44-49.	1.2	253
109	Characterization and Utilization of Char Derived from Fast Pyrolysis of Plastic Wastes. Procedia Engineering, 2014, 69, 1437-1442.	1.2	106
110	Soil Chemical Insights Provided through Vibrational Spectroscopy. Advances in Agronomy, 2014, 126, 1-148.	2.4	168

#	Article	IF	Citations
111	Simplifying pyrolysis: Using gasification to produce corn stover and wheat straw biochar for sorptive and horticultural media. Industrial Crops and Products, 2014, 53, 228-235.	2.5	54
112	Producing energy while sequestering carbon? The relationship between biochar and agricultural productivity. Biomass and Bioenergy, 2014, 63, 167-176.	2.9	45
113	Comparative study of the pyrolysis of lignocellulose and its major components: Characterization and overall distribution of their biochars and volatiles. Bioresource Technology, 2014, 155, 21-27.	4.8	85
114	Electrosorption on activated biochar: effect of thermo-chemical activation treatment on the electric double layer capacitance. Journal of Applied Electrochemistry, 2014, 44, 141-157.	1.5	95
115	Fluoride removal from ground water using magnetic and nonmagnetic corn stover biochars. Ecological Engineering, 2014, 73, 798-808.	1.6	117
116	Unintended effects of biochars on short-term plant growth in a calcareous soil. Plant and Soil, 2014, 385, 87-105.	1.8	68
117	Biochar application to soil for climate change mitigation by soil organic carbon sequestration. Journal of Plant Nutrition and Soil Science, 2014, 177, 651-670.	1.1	169
118	Influence of Molecular Structure and Adsorbent Properties on Sorption of Organic Compounds to a Temperature Series of Wood Chars. Environmental Science & Technology, 2014, 48, 4790-4798.	4.6	137
119	Speciation of Sulfur in Biochar Produced from Pyrolysis and Gasification of Oak and Corn Stover. Environmental Science & Technology, 2014, 48, 8474-8480.	4.6	103
120	Steam gasification of rapeseed, wood, sewage sludge and miscanthus biochars for the production of a hydrogen-rich syngas. Biomass and Bioenergy, 2014, 69, 276-286.	2.9	94
121	Experimental and Mechanistic Modeling of Fast Pyrolysis of Neat Glucose-Based Carbohydrates. 1. Experiments and Development of a Detailed Mechanistic Model. Industrial & Engineering Chemistry Research, 2014, 53, 13274-13289.	1.8	160
122	Investigation on Pyrolysis of Low Lipid Microalgae Chlorella vulgaris and Dunaliella salina. Energy & Fuels, 2014, 28, 95-103.	2.5	93
123	Simple One-Step Synthesis of Aromatic-Rich Materials with High Concentrations of Hydrothermally Stable Catalytic Sites, Validated by NMR. Chemistry of Materials, 2014, 26, 5523-5532.	3.2	11
124	Comparison of in-situ and ex-situ catalytic pyrolysis in a micro-reactor system. Bioresource Technology, 2014, 173, 124-131.	4.8	177
125	Kinetic analysis of co-pyrolysis of cellulose and polypropylene. Journal of Thermal Analysis and Calorimetry, 2014, 117, 1441-1451.	2.0	79
126	Biochar from Slow Pyrolysis of Two-Phase Olive Mill Waste: Effect of Pressure and Peak Temperature on its Potential Stability. Energy & Fuels, 2014, 28, 3271-3280.	2.5	27
127	Rhizoctonia solani suppression and plant growth promotion in cucumber as affected by biochar pyrolysis temperature, feedstock and concentration. Soil Biology and Biochemistry, 2014, 69, 110-118.	4.2	148
128	Life cycle assessment of pyrolysis oil applications. Biomass Conversion and Biorefinery, 2015, 5, 1.	2.9	7

#	Article	IF	Citations
129	Biochar impact on Midwestern Mollisols and maize nutrient availability. Geoderma, 2014, 230-231, 340-347.	2.3	147
130	Biochar from pyrolysis of deinking paper sludge and its use in the treatment of a nickel polluted soil. Journal of Analytical and Applied Pyrolysis, 2014, 107, 46-52.	2.6	87
131	Characterization of liquid and solid product from pyrolysis of Pongamia glabra deoiled cake. Bioresource Technology, 2014, 165, 336-342.	4.8	78
132	Advances in solid-state NMR of cellulose. Current Opinion in Biotechnology, 2014, 27, 176-184.	3.3	138
133	Leaching characteristics of inherent inorganic nutrients in biochars from the slow and fast pyrolysis of mallee biomass. Fuel, 2014, 128, 433-441.	3.4	56
134	Subcritical water extraction of lipids from wet algae for biodiesel production. Fuel, 2014, 133, 73-81.	3.4	89
135	Experimental study on the effect of pyrolysis pressure, peak temperature, and particle size on the potential stability of vine shoots-derived biochar. Fuel, 2014, 133, 163-172.	3.4	72
136	Utilizing bio-char as a bio-modifier for asphalt cement: A sustainable application of bio-fuel by-product. Fuel, 2014, 133, 52-62.	3.4	90
137	Assessing Microbial Contributions to N2O Impacts Following Biochar Additions. Agronomy, 2014, 4, 478-496.	1.3	9
138	The Profiles of Mass and Heat Transfer during Pinewood Conversion. Energy Procedia, 2015, 66, 285-288.	1.8	3
139	Characterization and Surface Analysis of Commercially Available Biochars for Geoenvironmental Applications. , 2015, , .		2
140	Use of biochar and oxidized lignite for reconstructing functioning agronomic topsoil: Effects on soil properties in a greenhouse study. Canadian Journal of Soil Science, 2015, 95, 269-285.	0.5	17
141	Production and Characterization of Biochar from Agricultural By-Products: Overview and Use of Cotton Biomass Residues. SSSA Special Publication Series, 0, , 63-86.	0.2	13
142	Considerations in Biochar Characterization. SSSA Special Publication Series, 0, , 87-100.	0.2	9
143	Agricultural and Environmental Applications of Biochar: Advances and Barriers. SSSA Special Publication Series, 0, , 495-504.	0.2	11
144	Terrestrial pyrogenic carbon export to fluvial ecosystems: Lessons learned from the White Nile watershed of East Africa. Global Biogeochemical Cycles, 2015, 29, 1911-1928.	1.9	27
145	Variations in mineral element concentrations of poultry manure biochar obtained at different pyrolysis temperatures, and their effects on crop growth and mineral nutrition. Soil Use and Management, 2015, 31, 429-437.	2.6	44
146	Design of Sustainable Biofuel Processes and Supply Chains: Challenges and Opportunities. Processes, 2015, 3, 634-663.	1.3	36

#	Article	IF	Citations
147	BIOCHAR: PYROGENIC CARBON FOR AGRICULTURAL USE - A CRITICAL REVIEW. Revista Brasileira De Ciencia Do Solo, 2015, 39, 321-344.	0.5	141
148	Characterization of biochar of pine pellet. Journal of Thermal Analysis and Calorimetry, 2015, 122, 21-32.	2.0	24
149	Effect of holding time on fuel properties of biochars prepared from the torrefaction of coffee residue. Biomass Conversion and Biorefinery, 2015, 5, 209-214.	2.9	7
150	Controlled Burning of Forest Detritus Altering Spectroscopic Characteristics and Chlorine Reactivity of Dissolved Organic Matter: Effects of Temperature and Oxygen Availability. Environmental Science & Technology, 2015, 49, 14019-14027.	4.6	58
151	Production and Evaluation of Physicochemical Characteristics of Paddy Husk Bio-char for its C Sequestration Applications. Bioenergy Research, 2015, 8, 1800-1809.	2.2	18
152	Lead sorptive removal using magnetic and nonmagnetic fast pyrolysis energy cane biochars. Journal of Colloid and Interface Science, 2015, 448, 238-250.	5.0	130
153	Removal of acetaminophen and naproxen by combined coagulation and adsorption using biochar: influence of combined sewer overflow components. Environmental Science and Pollution Research, 2015, 22, 10058-10069.	2.7	58
154	Multifaceted application of crop residue biochar as a tool for sustainable agriculture: An ecological perspective. Ecological Engineering, 2015, 77, 324-347.	1.6	117
155	A comparative review of biochar and hydrochar in terms of production, physico-chemical properties and applications. Renewable and Sustainable Energy Reviews, 2015, 45, 359-378.	8.2	1,127
156	Nutrient Transport in Soils Amended with Biochar: A Transient Model with Two Stationary Phases and Intraparticle Diffusion. Industrial & Engineering Chemistry Research, 2015, 54, 4123-4135.	1.8	12
157	Effects of temperature and processing conditions on biochar chemical properties and their influence on soil C and N transformations. Soil Biology and Biochemistry, 2015, 83, 19-28.	4.2	167
158	Application of biochar for the removal of pollutants from aqueous solutions. Chemosphere, 2015, 125, 70-85.	4.2	1,324
159	Effect of biochar amendment on PAH dissipation and indigenous degradation bacteria in contaminated soil. Journal of Soils and Sediments, 2015, 15, 313-322.	1.5	54
160	High Resolution Solid State 2D NMR Analysis of Biomass and Biochar. Analytical Chemistry, 2015, 87, 843-847.	3.2	46
161	Chemicalâ€“structural properties of South African bituminous coals: Insights from wide angle XRDâ€“carbon fraction analysis, ATRâ€“FTIR, solid state 13 C NMR, and HRTEM techniques. Fuel, 2015, 158, 779-792.	3.4	262
162	Dissolved Phosphorus Speciation of Flash Carbonization, Slow Pyrolysis, and Fast Pyrolysis Biochars. ACS Sustainable Chemistry and Engineering, 2015, 3, 1642-1649.	3.2	87
163	Cascading microalgae biorefinery: Fast pyrolysis of Dunaliella tertiolecta lipid extracted-residue. Algal Research, 2015, 11, 184-193.	2.4	81
164	Investigation on the Physical and Chemical Properties of Hydrochar and Its Derived Pyrolysis Char for Their Potential Application: Influence of Hydrothermal Carbonization Conditions. Energy & Fuels, 2015, 29, 5222-5230.	2.5	56

#	Article	IF	Citations
165	Life Cycle Assessment of Biochar versus Metal Catalysts Used in Syngas Cleaning. Energies, 2015, 8, 621-644.	1.6	22
166	Pattern of pore water nutrients in planted and non-planted soilless substrates as affected by the addition of biochars from wood gasification. Biology and Fertility of Soils, 2015, 51, 625-635.	2.3	25
167	Biochar from Pine and Birch Morphology and Pore Structure Change by Treatment in Biofilter. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	45
168	Pyrolysis of hornbeam shell (Carpinus betulus L.) in a fixed bed reactor: Characterization of bio-oil and bio-char. Fuel, 2015, 150, 672-678.	3.4	125
169	Esterification of glycerol over a solid acid biochar catalyst derived from waste biomass. RSC Advances, 2015, 5, 44550-44556.	1.7	42
170	Influence of Carbonization Methods on the Aromaticity of Pyrogenic Dissolved Organic Carbon. Energy & Fuels, 2015, 29, 2503-2513.	2.5	27
171	Producing pipeline-quality biomethane via anaerobic digestion of sludge amended with corn stover biochar with in-situ CO2 removal. Applied Energy, 2015, 158, 300-309.	5.1	247
172	Development of Biochar-Based Functional Materials: Toward a Sustainable Platform Carbon Material. Chemical Reviews, 2015, 115, 12251-12285.	23.0	1,149
173	Characterization of biochars produced from seven biomasses grown in three different climate zones. Diqiu Huaxue, 2015, 34, 592-600.	0.5	26
174	Feeding Biochar to Cows: An Innovative Solution for Improving Soil Fertility and Farm Productivity. Pedosphere, 2015, 25, 666-679.	2.1	74
175	Anion exchange capacity of biochar. Green Chemistry, 2015, 17, 4628-4636.	4.6	160
176	Physical and chemical characterization of waste wood derived biochars. Waste Management, 2015, 36, 256-268.	3.7	297
177	The impact of biochars on sorption and biodegradation of polycyclic aromatic hydrocarbons in soilsâ€"a review. Environmental Science and Pollution Research, 2015, 22, 3314-3341.	2.7	102
178	Aromaticity and degree of aromatic condensation of char. Organic Geochemistry, 2015, 78, 135-143.	0.9	207
179	Sorptive removal of salicylic acid and ibuprofen from aqueous solutions using pine wood fast pyrolysis biochar. Chemical Engineering Journal, 2015, 265, 219-227.	6.6	291
180	Physical properties and reactivity of char obtained from downdraft gasification of sorghum and eastern red cedar. Fuel, 2015, 143, 383-389.	3.4	13
181	Kinetics investigation on the combustion of biochar in <scp>O</scp>₂/<scp>CO</scp>₂ atmosphere. Environmental Progress and Sustainable Energy, 2015, 34, 923-932.	1.3	29
182	Gasification biochar as a valuable by-product for carbon sequestration and soil amendment. Biomass and Bioenergy, 2015, 72, 300-308.	2.9	157

#	Article	IF	Citations
183	Recent advances in utilization of biochar. Renewable and Sustainable Energy Reviews, 2015, 42, 1055-1064.	8.2	640
184	Characterization of chemicalâ€"physical, structural and morphological properties of biochars from biowastes produced at different temperatures. Journal of Soils and Sediments, 2015, 15, 792-804.	1.5	111
185	Biochar in thermal and thermochemical biorefineriesâ€"production of biochar as a coproduct. , 2016, , 655-671.		8
186	An Innovative Agro-Forestry Supply Chain for Residual Biomass: Physicochemical Characterisation of Biochar from Olive and Hazelnut Pellets. Energies, 2016, 9, 526.	1.6	50
187	Carbon Abatement and Emissions Associated with the Gasification of Walnut Shells for Bioenergy and Biochar Production. PLoS ONE, 2016, 11, e0150837.	1.1	18
188	Influence of Pyrolysis Temperature on Physico-Chemical Properties of Corn Stover (Zea mays L.) Biochar and Feasibility for Carbon Capture and Energy Balance. PLoS ONE, 2016, 11, e0156894.	1.1	199
189	The Role of Biochar Production in Sustainable Development in Thailand, Lao PDR and Cambodia. , 2016, , 266-288.		2
190	Characterization of biomass char formation investigated by advanced solid state NMR. Carbon, 2016, 108, 165-177.	5.4	54
191	Gasification reactor engineering approach to understanding the formation of biochar properties. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150841.	1.0	15
192	Feedstock and Production Parameters. , 2016, , 41-54.		7
193	Spatial heterogeneity of soil biochar content affects soil quality and wheat growth and yield. Science of the Total Environment, 2016, 562, 690-700.	3.9	32
194	Thermal degradation capabilities of modified bio-chars and fluid cracking catalyst (FCC) for acetic acid. Biomass and Bioenergy, 2016, 90, 243-251.	2.9	11
195	Improving the deconvolution and interpretation of XPS spectra from chars by ab initio calculations. Carbon, 2016, 110, 155-171.	5.4	351
196	Catalytic fast pyrolysis forÂimproved liquid quality. , 2016, , 391-429.		7
197	Size distribution of carbon layer planes in biochar from different plant type of feedstock with different heating temperatures. Chemosphere, 2016, 163, 252-258.	4.2	4
198	Hydrothermal gasification of Cladophora glomerata macroalgae over its hydrochar as a catalyst for hydrogen-rich gas production. Bioresource Technology, 2016, 222, 232-241.	4.8	96
199	Pyrolysis of Nordic biomass types in a cyclone pilot plant â€" Mass balances and yields. Fuel Processing Technology, 2016, 152, 274-284.	3.7	21
200	Combination of biochar amendment and phytoremediation for hydrocarbon removal in petroleum-contaminated soil. Environmental Science and Pollution Research, 2016, 23, 21219-21228.	2.7	40

#	Article	IF	Citations
201	Promotion of hydrogen-rich gas and phenolic-rich bio-oil production from green macroalgae Cladophora glomerata via pyrolysis over its bio-char. Bioresource Technology, 2016, 219, 643-651.	4.8	113
202	Towards a sustainable paradigm of waste-to-energy process: Enhanced anaerobic digestion of sludge with woody biochar. Journal of Cleaner Production, 2016, 135, 1054-1064.	4.6	182
203	The impact of biochars prepared from agricultural residues on phosphorus release and availability in two fertile soils. Journal of Environmental Management, 2016, 181, 536-543.	3.8	64
204	Biochar prepared from castor oil cake at different temperatures: A voltammetric study applied for Pb2+, Cd2+ and Cu2+ ions preconcentration. Journal of Hazardous Materials, 2016, 318, 526-532.	6.5	66
205	Influence of pyrolysis temperature and hardwood species on resulting biochar properties and their effect on azimsulfuron sorption as compared to other sorbents. Science of the Total Environment, 2016, 566-567, 1454-1464.	3.9	51
206	Biochar properties: Transport, fate, and impact. Critical Reviews in Environmental Science and Technology, 2016, 46, 1183-1296.	6.6	126
207	H/C atomic ratio as a smart linkage between pyrolytic temperatures, aromatic clusters and sorption properties of biochars derived from diverse precursory materials. Scientific Reports, 2016, 6, 22644.	1.6	149
209	Characterization of Biochars and Their Use as an Amendment to Acid Soils. Soil Science, 2016, 181, 412-426.	0.9	39
210	Potential of Fusarium wilt-inducing chlamydospores, in vitro behaviour in root exudates and physiology of tomato in biochar and compost amended soil. Plant and Soil, 2016, 406, 425-440.	1.8	57
211	Carbon-Based Adsorbents for Postcombustion CO₂ Capture: A Critical Review. Environmental Science & Technology, 2016, 50, 7276-7289.	4.6	430
212	Phosphorus removal from wastewater by field-scale fortified filter beds during a one-year study. Environmental Technology (United Kingdom), 2016, 37, 2953-2963.	1.2	16
213	Production and utilization of biochar: A review. Journal of Industrial and Engineering Chemistry, 2016, 40, 1-15.	2.9	861
214	Mineralâ€“Biochar Composites: Molecular Structure and Porosity. Environmental Science & Technology, 2016, 50, 7706-7714.	4.6	148
215	Alkalineâ€Earthâ€Metalâ€Catalyzed Thinâ€Film Pyrolysis of Cellulose. ChemCatChem, 2016, 8, 818-829.	1.8	56
216	Carbon footprint of rice production under biochar amendment â€“ a case study in a Chinese rice cropping system. GCB Bioenergy, 2016, 8, 148-159.	2.5	54
217	Temperature effect on hydrothermal liquefaction of Nannochloropsis gaditana and Chlorella sp.. Applied Energy, 2016, 165, 943-951.	5.1	125
218	Coke formation of model compounds relevant to pyrolysis bio-oil over ZSM-5. Applied Catalysis A: General, 2016, 513, 67-81.	2.2	83
219	Structural analysis of char by Raman spectroscopy: Improving band assignments through computational calculations from first principles. Carbon, 2016, 100, 678-692.	5.4	288

#	Article	IF	Citations
220	Birchwood biochar as partial carbon black replacement in styreneâ€"butadiene rubber composites. Journal of Elastomers and Plastics, 2016, 48, 305-316.	0.7	49
221	Soil organic carbon content affects the stability of biochar in paddy soil. Agriculture, Ecosystems and Environment, 2016, 223, 59-66.	2.5	42
222	A novel method to tailor the porous structure of KOH-activated biochar and its application in capacitive deionization and energy storage. Biomass and Bioenergy, 2016, 87, 107-121.	2.9	159
223	Lignocellulosic biomass pyrolysis: A review of product properties and effects of pyrolysis parameters. Renewable and Sustainable Energy Reviews, 2016, 57, 1126-1140.	8.2	1,460
224	Effect of particle size and doses of olivine addition on carbon dioxide sequestration during anaerobic digestion of sewage sludge at ambient and mesophilic temperatures. Process Biochemistry, 2016, 51, 59-72.	1.8	15
225	Chemical and structural properties of dissolved black carbon released from biochars. Carbon, 2016, 96, 759-767.	5.4	259
226	Ameliorating soil chemical properties of a hard setting subsoil layer in Coastal Plain USA with different designer biochars. Chemosphere, 2016, 142, 168-175.	4.2	20
227	Slow pyrolysis of relevant biomasses in the Mediterranean basin. Part 2. Char characterisation for carbon sequestration and agricultural uses. Journal of Cleaner Production, 2016, 120, 191-197.	4.6	44
228	Highly stable rice-straw-derived charcoal in 3700-year-old ancient paddy soil: evidence for an effective pathway toward carbon sequestration. Environmental Science and Pollution Research, 2016, 23, 1007-1014.	2.7	5
229	Biochar for crop production: potential benefits and risks. Journal of Soils and Sediments, 2017, 17, 685-716.	1.5	331
230	Highly efficient adsorption of Cr(VI) from aqueous solution by Fe3+ impregnated biochar. Journal of Dispersion Science and Technology, 2017, 38, 815-825.	1.3	16
231	A Systemsâ€Level Roadmap for Biomass Thermal Fractionation and Catalytic Upgrading Strategies. Energy Technology, 2017, 5, 130-150.	1.8	23
232	Modified method for proximate analysis of biochars. Journal of Analytical and Applied Pyrolysis, 2017, 124, 335-342.	2.6	51
233	Evolution of chars during slow pyrolysis of citrus waste. Fuel Processing Technology, 2017, 158, 255-263.	3.7	41
234	Experimental comparison of two bench scale units for fast and intermediate pyrolysis. Journal of Analytical and Applied Pyrolysis, 2017, 124, 504-514.	2.6	41
235	Corn cob biochar increases soil culturable bacterial abundance without enhancing their capacities in utilizing carbon sources in Biolog Eco-plates. Journal of Integrative Agriculture, 2017, 16, 713-724.	1.7	41
236	Comparison of characteristics of twenty-one types of biochar and their ability to remove multi-heavy metals and methylene blue in solution. Fuel Processing Technology, 2017, 160, 55-63.	3.7	133
237	Effect of biochars produced from solid organic municipal waste on soil quality parameters. Journal of Environmental Management, 2017, 192, 271-280.	3.8	96

#	Article	IF	Citations
238	Physicochemical Characteristics of Biochar Produced from Rice Straw at Different Pyrolysis Temperature for Soil Amendment and Removal of Organics. Proceedings of the National Academy of Sciences India Section A - Physical Sciences, 2017, 87, 207-214.	0.8	34
239	Effect of pyrolysis temperature on aromatic cluster size of cellulose char by quantitative multi cross-polarization 13C NMR with long range dipolar dephasing. Carbon, 2017, 116, 210-222.	5.4	22
240	Effects of alkali-treated hierarchical HZSM-5 zeolites on the production of aromatic hydrocarbons from catalytic fast pyrolysis of waste cardboard. Journal of Analytical and Applied Pyrolysis, 2017, 125, 153-161.	2.6	83
241	A Direct Observation of the Fine Aromatic Clusters and Molecular Structures of Biochars. Environmental Science & Technology, 2017, 51, 5473-5482.	4.6	173
242	Characterization of biochar and its effects on the water holding capacity of loamy sand soil: Comparison of hemlock biochar and switchblade grass biochar characteristics. Environmental Progress and Sustainable Energy, 2017, 36, 1474-1479.	1.3	29
243	Characterization of biochar prepared from biogas digestate. Waste Management, 2017, 66, 53-60.	3.7	132
244	In-situ biogas upgrading during anaerobic digestion of food waste amended with walnut shell biochar at bench scale. Waste Management and Research, 2017, 35, 669-679.	2.2	89
246	Biochar-based water treatment systems as a potential low-cost and sustainable technology for clean water provision. Journal of Environmental Management, 2017, 197, 732-749.	3.8	272
247	Chemical and morphological evaluation of chars produced from primary biomass constituents: Cellulose, xylan, and lignin. Biomass and Bioenergy, 2017, 104, 17-35.	2.9	62
248	Gasification Char as a Potential Substitute of Activated Carbon in Adsorption Applications. Energy Procedia, 2017, 105, 712-717.	1.8	45
249	Pyrogenic carbon and its role in contaminant immobilization in soils. Critical Reviews in Environmental Science and Technology, 2017, 47, 795-876.	6.6	72
250	Aluminum and iron biomass pretreatment impacts on biochar anion exchange capacity. Carbon, 2017, 118, 422-430.	5.4	62
251	Biomass Treatment Strategies for Thermochemical Conversion. Energy & Fuels, 2017, 31, 3525-3536.	2.5	83
252	Investigation on by-products of bioenergy systems (anaerobic digestion and gasification) as potential crop nutrient using FTIR, XRD, SEM analysis and phyto-toxicity test. Journal of Environmental Management, 2017, 196, 201-216.	3.8	57
253	The reduction of chromium (VI) phytotoxicity and phytoavailability to wheat (Triticum aestivum L.) using biochar and bacteria. Applied Soil Ecology, 2017, 114, 90-98.	2.1	87
254	Effect of environmental exposure on charcoal density and porosity in a boreal forest. Science of the Total Environment, 2017, 592, 316-325.	3.9	18
255	Potassium enriched biochar production by thermal plasma processing of banana peduncle for soil application. Journal of Analytical and Applied Pyrolysis, 2017, 123, 165-172.	2.6	46
256	Steam gasification of a thermally pretreated high lignin corn stover simultaneous saccharification and fermentation digester residue. Energy, 2017, 119, 400-407.	4.5	4

#	Article	IF	Citations
257	Biochar total surface area and total pore volume determined by N2 and CO2 physisorption are strongly influenced by degassing temperature. Science of the Total Environment, 2017, 580, 770-775.	3.9	107
258	Adsorption of metribuzin from aqueous solution using magnetic and nonmagnetic sustainable low-cost biochar adsorbents. Environmental Science and Pollution Research, 2017, 24, 4577-4590.	2.7	77
259	Effects of pyrolysis conditions on Miscanthus and corncob chars: Characterization by IR, solid state NMR and BPCA analysis. Journal of Analytical and Applied Pyrolysis, 2017, 128, 335-345.	2.6	25
260	Catalytic microwave pyrolysis of oil palm fiber (OPF) for the biochar production. Environmental Science and Pollution Research, 2017, 24, 26521-26533.	2.7	19
261	Solid-State NMR Investigation of Bio-chars Produced from Biomass Components and Whole Biomasses. Bioenergy Research, 2017, 10, 1036-1044.	2.2	9
262	Polycyclic aromatic hydrocarbons (PAHs) in biochar â€“ Their formation, occurrence and analysis: A review. Organic Geochemistry, 2017, 114, 1-11.	0.9	143
263	Soil biochemical properties and crop productivity following application of locally produced biochar at organic farms on Waldron Island, WA. Biogeochemistry, 2017, 136, 31-46.	1.7	28
265	Carbon sequestration potential and physicochemical properties differ between wildfire charcoals and slow-pyrolysis biochars. Scientific Reports, 2017, 7, 11233.	1.6	93
266	Biochar soil amendments for increased crop yields: How to design a â€œdesignerâ€•biochar. AICHE Journal, 2017, 63, 5425-5437.	1.8	15
268	Recent developments of post-modification of biochar for electrochemical energy storage. Bioresource Technology, 2017, 246, 224-233.	4.8	160
269	A Dialogue on Perspectives of Biochar Applications and Its Environmental Risks. Water, Air, and Soil Pollution, 2017, 228, 1.	1.1	30
270	Novel multidimensional carbons from structural transformations of waste lignin: A low temperature pyrolysis investigation. Fuel Processing Technology, 2017, 166, 312-321.	3.7	20
271	Magnesium Oxide Embedded Nitrogen Self-Doped Biochar Composites: Fast and High-Efficiency Adsorption of Heavy Metals in an Aqueous Solution. Environmental Science & Technology, 2017, 51, 10081-10089.	4.6	306
272	Composite-pulse and partially dipolar dephased multiCP for improved quantitative solid-state 13 C NMR. Journal of Magnetic Resonance, 2017, 285, 68-78.	1.2	61
273	Optimum Utilization of Biochemical Components in Chlorella sp. KR1 via Subcritical Hydrothermal Liquefaction. ACS Sustainable Chemistry and Engineering, 2017, 5, 7240-7248.	3.2	15
274	Uptake of Cu²⁺and Zn²⁺from simulated wastewater using muskmelon peel biochar: Isotherm and kinetic studies. Egyptian Journal of Basic and Applied Sciences, 2017, 4, 236-248.	0.2	26
275	Composition and structure of natural organic matter through advanced nuclear magnetic resonance techniques. Chemical and Biological Technologies in Agriculture, 2017, 4, .	1.9	8
276	A critical review on sustainable biochar system through gasification: Energy and environmental applications. Bioresource Technology, 2017, 246, 242-253.	4.8	263

#	Article	IF	Citations
277	Biochar physicochemical parameters as a result of feedstock material and pyrolysis temperature: predictable for the fate of biochar in soil?. Environmental Geochemistry and Health, 2017, 39, 1381-1395.	1.8	29
278	Profiles of Volatile Organic Compounds in Biochar: Insights into Process Conditions and Quality Assessment. ACS Sustainable Chemistry and Engineering, 2017, 5, 510-517.	3.2	57
279	Temperature and reaction atmosphere effects on the properties of corn stover biochar. Environmental Progress and Sustainable Energy, 2017, 36, 696-707.	1.3	17
280	A multicomponent approach to using waste-derived biochar in biofiltration: A case study based on dissimilar types of waste. International Biodeterioration and Biodegradation, 2017, 119, 565-576.	1.9	31
281	Effects of biochar and maize straw on the short-term carbon and nitrogen dynamics in a cultivated silty loam in China. Environmental Science and Pollution Research, 2017, 24, 1019-1029.	2.7	48
282	Characterization and quantification of biochar alkalinity. Chemosphere, 2017, 167, 367-373.	4.2	270
283	Rheological behaviour and stability characteristics of biochar-water slurry fuels: Effect of biochar particle size and size distribution. Fuel Processing Technology, 2017, 156, 27-32.	3.7	27
284	Advances and future directions of biochar characterization methods and applications. Critical Reviews in Environmental Science and Technology, 2017, 47, 2275-2330.	6.6	194
285	Study on the evolution characteristic of intermediate during the pyrolysis of oil shale. Journal of Thermal Analysis and Calorimetry, 2017, 130, 2227-2238.	2.0	5
286	Biochar and Soil Physical Properties. Soil Science Society of America Journal, 2017, 81, 687-711.	1.2	548
287	Air gasification of biogas-derived digestate in a downdraft fixed bed gasifier. Waste Management, 2017, 69, 162-169.	3.7	71
288	Biomass Chars: The Effects of Pyrolysis Conditions on Their Morphology, Structure, Chemical Properties and Reactivity. Energies, 2017, 10, 796.	1.6	128
289	Application of fast pyrolysis char in an electric arc furnace. Fuel Processing Technology, 2018, 174, 61-68.	3.7	19
290	Development of biochar as fuel and catalyst in energy recovery technologies. Journal of Cleaner Production, 2018, 188, 477-488.	4.6	178
291	Abundant Nonprotonated Aromatic and Oxygen-Bonded Carbons Make Humic Substances Distinct from Biopolymers. Environmental Science and Technology Letters, 2018, 5, 476-480.	3.9	32
292	Insight into Multiple and Multilevel Structures of Biochars and Their Potential Environmental Applications: A Critical Review. Environmental Science & Technology, 2018, 52, 5027-5047.	4.6	593
293	Biochar characteristics and early applications in anaerobic digestion-a review. Journal of Environmental Chemical Engineering, 2018, 6, 2892-2909.	3.3	114
294	Structural Characterization of Loblolly Pine Derived Biochar by X-ray Diffraction and Electron Energy Loss Spectroscopy. ACS Sustainable Chemistry and Engineering, 2018, 6, 2621-2629.	3.2	65

#	Article	IF	Citations
295	Synergestic effect in the steam co-gasification of olive pomace, coal and petcoke: Thermogravimetric-mass spectrometric analysis. Energy Conversion and Management, 2018, 159, 140-150.	4.4	39
296	Effects of biochar application in forest ecosystems on soil properties and greenhouse gas emissions: a review. Journal of Soils and Sediments, 2018, 18, 546-563.	1.5	287
297	Pyrolysis of chemically treated corncob for biochar production and its application in Cr(VI) removal. Environmental Progress and Sustainable Energy, 2018, 37, 1606-1617.	1.3	67
298	Surface oxygenation of biochar through ozonization for dramatically enhancing cation exchange capacity. Bioresources and Bioprocessing, 2018, 5, .	2.0	41
299	Biochar immobilizes soil-borne arsenic but not cationic metals in the presence of low-molecular-weight organic acids. Science of the Total Environment, 2018, 630, 1188-1194.	3.9	39
300	A review on common adsorbents for acid gases removal: Focus on biochar. Renewable and Sustainable Energy Reviews, 2018, 81, 1705-1720.	8.2	159
301	Impact of biochar properties on soil conditions and agricultural sustainability: A review. Land Degradation and Development, 2018, 29, 2124-2161.	1.8	184
302	Sewage sludge gasification in a bench scale rotary kiln. Fuel, 2018, 212, 88-94.	3.4	60
303	Characterization of char from biomass gasification and its similarities with activated carbon in adsorption applications. Applied Energy, 2018, 227, 92-99.	5.1	132
304	The feasibility of char and bio-oil production from pyrolysis of pit latrine sludge. Environmental Science: Water Research and Technology, 2018, 4, 253-264.	1.2	10
305	Review of Pulverized Combustion of Non-Woody Residues. Energy & Fuels, 2018, 32, 4069-4095.	2.5	22
306	Co-gasification of pine and oak biochar with sub-bituminous coal in carbon dioxide. Bioresource Technology, 2018, 251, 31-39.	4.8	27
307	Sustainable bioeconomy transitions: Targeting value capture by integrating pyrolysis in a winery waste biorefinery. Journal of Cleaner Production, 2018, 172, 3387-3397.	4.6	24
308	Characterization and valorization of biomass char: a comparison with biomass ash. Environmental Science and Pollution Research, 2018, 25, 3458-3467.	2.7	16
309	Characterization and ammonia adsorption of biochar prepared from distillers' grains anaerobic digestion residue with different pyrolysis temperatures. Journal of Chemical Technology and Biotechnology, 2018, 93, 198-206.	1.6	26
310	Detection of Biochar Carbon by Fluorescence and Near-Infrared-Based Chemometrics. Aquatic Geochemistry, 2018, 24, 345-361.	1.5	3
311	An Experimental and Theoretical Study of the Gasification of Miscanthus Briquettes in a Double-Stage Downdraft Gasifier: Syngas, Tar, and Biochar Characterization. Energies, 2018, 11, 3225.	1.6	14
312	Rice straw biochar as a novel niche for improved alterations to the cecal microbial community in rats. Scientific Reports, 2018, 8, 16426.	1.6	6

#	Article	IF	Citations
313	Biochar Amendment to Soil for Sustainable Agriculture. Sustainable Agriculture Reviews, 2018, , 207-227.	0.6	3
314	Biochar for sustainable soil and environment: a comprehensive review. Arabian Journal of Geosciences, 2018, 11, 1.	0.6	20
315	Characterization the potential of biochar from cow and pig manure for geoecology application. IOP Conference Series: Earth and Environmental Science, 2018, 131, 012055.	0.2	15
316	Sorption of ammonium and nitrate to biochars is electrostatic and pH-dependent. Scientific Reports, 2018, 8, 17627.	1.6	140
317	Preparation and Application of Biochar-Based Catalysts for Biofuel Production. Catalysts, 2018, 8, 346.	1.6	167
318	Characterization of mesoporous biochar produced from biogas digestate implemented in an anaerobic process of large-scale hog farm. Biomass Conversion and Biorefinery, 2018, 8, 945-951.	2.9	9
320	Pyrolysis behavior and economics analysis of the biomass pyrolytic polygeneration of forest farming waste. Bioresource Technology, 2018, 270, 189-197.	4.8	34
321	Fast Pyrolysis of Sisal Residue in a Pilot Fluidized Bed Reactor. Energy & Fuels, 2018, 32, 9478-9492.	2.5	11
322	Use of Penicillium bilaiae to improve phosphorus bioavailability of thermally treated sewage sludge â€“ A potential novel type biofertiliser. Process Biochemistry, 2018, 69, 169-177.	1.8	13
323	Production Temperature Effects on the Structure of Hydrochar-Derived Dissolved Organic Matter and Associated Toxicity. Environmental Science & Technology, 2018, 52, 7486-7495.	4.6	86
324	The Chemical Structure of Carbon Nanothreads Analyzed by Advanced Solid-State NMR. Journal of the American Chemical Society, 2018, 140, 7658-7666.	6.6	59
325	Experimental investigation of hardwood air gasification in a pilot scale bubbling fluidized bed reactor and CFD simulation of jet/grid and pressure conditions. Energy Conversion and Management, 2018, 168, 599-610.	4.4	23
326	Bone char vs. S-enriched bone char: Multi-method characterization of bone chars and their transformation in soil. Science of the Total Environment, 2018, 643, 145-156.	3.9	21
327	A predictive model of biochar formation and characterization. Journal of Analytical and Applied Pyrolysis, 2018, 134, 326-335.	2.6	69
328	A versatile approach to the synthesis of biomass derived from furfural residues as a potential adsorbent. Journal of Environmental Chemical Engineering, 2018, 6, 5049-5052.	3.3	13
329	Protective Carbon Overlayers from 2,3-Naphthalenediol Pyrolysis on Mesoporous SiO2 and Al2O3 Analyzed by Solid-State NMR. Materials, 2018, 11, 980.	1.3	4
330	Valorization of biochars from pinewood gasification and municipal solid waste torrefaction as peat substitutes. Environmental Science and Pollution Research, 2018, 25, 26461-26469.	2.7	24
331	Activity of chars and activated carbons for removal and decomposition of tar model compounds â€“ A review. Renewable and Sustainable Energy Reviews, 2018, 94, 1044-1056.	8.2	92

#	Article	IF	Citations
332	Effects of temperature and low-concentration oxygen on pine wood sawdust briquettes pyrolysis: Gas yields and biochar briquettes physical properties. Fuel Processing Technology, 2018, 177, 228-236.	3.7	18
333	Biochar. , 2018, , 301-355.		3
334	Changes in root traits explain the variability of biochar effects on fruit production in eight agronomic species. Organic Agriculture, 2019, 9, 139-153.	1.2	7
335	Wood-based biochar for the removal of potentially toxic elements in water and wastewater: a critical review. International Materials Reviews, 2019, 64, 216-247.	9.4	355
336	Pyrolysis and carbon dioxide gasification kinetics of hydrochar produced from cow manure. Environmental Progress and Sustainable Energy, 2019, 38, 154-162.	1.3	11
337	Spectroscopic analyses combined with Gaussian and Coats-Redfern models to investigate the characteristics and pyrolysis kinetics of sugarcane residue-derived biochars. Journal of Cleaner Production, 2019, 237, 117855.	4.6	40
338	Biochar application on paddy and purple soils in southern China: soil carbon and biotic activity. Royal Society Open Science, 2019, 6, 181499.	1.1	21
339	Carbon mineralization in subtropical dryland soil amended with different biochar sources. Arabian Journal of Geosciences, 2019, 12, 1.	0.6	4
340	Short-term leachability of salts from Atriplex-derived biochars. Science of the Total Environment, 2019, 688, 701-707.	3.9	5
341	Effects of post-pyrolysis air oxidation on the chemical composition of biomass chars investigated by solid-state nuclear magnetic resonance spectroscopy. Carbon, 2019, 153, 173-178.	5.4	10
342	Feedstock-induced changes in composition and stability of biochar derived from different agricultural wastes. Arabian Journal of Geosciences, 2019, 12, 1.	0.6	20
343	Slow Pyrolysis Temperature and Duration Effects on Fuel Properties of Food Rice Waste Bio-Char. Key Engineering Materials, 0, 797, 319-326.	0.4	1
344	Characteristics of biochar porosity by NMR and study of ammonium ion adsorption. Journal of Analytical and Applied Pyrolysis, 2019, 143, 104687.	2.6	27
345	CFD analysis and characterization of biochar produced via fixed-bed gasification of fallen leaf pellets. Energy, 2019, 186, 115904.	4.5	14
346	Kinetics of Carbon Mineralization and Sequestration of Sole and/or Co-amended Biochar and Cattle Manure in a Sandy Soil. Communications in Soil Science and Plant Analysis, 2019, 50, 2593-2609.	0.6	10
347	Phosphorus retention and availability in three contrasting soils amended with rice husk and corn cob biochar at varying pyrolysis temperatures. Geoderma, 2019, 341, 10-17.	2.3	98
348	Recovery of Cr(III) by using chars from the co-gasification of agriculture and forestry wastes. Environmental Science and Pollution Research, 2019, 26, 22723-22735.	2.7	7
349	Impact of oxidative carbonization on structure development of loblolly pine-derived biochar investigated by nuclear magnetic resonance spectroscopy and X-ray photoelectron spectroscopy. Diamond and Related Materials, 2019, 96, 140-147.	1.8	10

#	Article	IF	Citations
350	Microstructure and mechanical, physical and structural properties of sustainable lightweight metakaolin-based geopolymer cements and mortars employing rice husk. Journal of Asian Ceramic Societies, 2019, 7, 199-212.	1.0	22
351	Biocarbon Production and Use as a Fuel. Biofuels and Biorefineries, 2019, , 295-324.	0.5	4
352	Strategic use of biochar for CO2 capture and sequestration. Journal of CO2 Utilization, 2019, 32, 128-139.	3.3	159
353	Effects of wood biomass type and airflow rate on fuel and soil amendment properties of biochar produced in a topâ€kit updraft gasifier. Environmental Progress and Sustainable Energy, 2019, 38, 13105.	1.3	13
354	Biochar's role as an electron shuttle for mediating soil N2O emissions. Soil Biology and Biochemistry, 2019, 133, 94-96.	4.2	61
355	Assessment of energy parameters of biomass and biochars, leachability of heavy metals and phytotoxicity of their ashes. Journal of Material Cycles and Waste Management, 2019, 21, 786-800.	1.6	78
356	Impact of Carbon Properties on Mo₂C/Carbon Catalysts for the Hydrodeoxygenation of 4-Methylphenol. Energy & Fuels, 2019, 33, 4506-4514.	2.5	10
357	Biochar versus bone char for a sustainable inorganic arsenic mitigation in water: What needs to be done in future research?. Environment International, 2019, 127, 52-69.	4.8	101
358	Carbonaceous Catalysts from Biomass. Biofuels and Biorefineries, 2019, , 185-231.	0.5	1
359	Effects of innovative biofertilizers on yield of processing tomato cultivated in organic cropping systems in northern Italy. Acta Horticulturae, 2019, , 129-136.	0.1	20
360	Biochar as a management tool for soilborne diseases affecting early stage nursery seedling production. Crop Protection, 2019, 120, 34-42.	1.0	36
361	The Heat Treatment Severity Index: A new metric correlated to the properties of biochars obtained from entrained flow pyrolysis of biomass. Fuel, 2019, 244, 61-68.	3.4	16
362	Food waste to biochars through pyrolysis: A review. Resources, Conservation and Recycling, 2019, 144, 310-320.	5.3	239
363	Woody Feedstock Pretreatments to Enhance Pyrolysis Bio-oil Quality and Produce Transportation Fuel. , 0, , .		4
364	Impacts of different biochar types on the anaerobic digestion of sewage sludge. RSC Advances, 2019, 9, 42375-42386.	1.7	72
365	Technogenic metallic elements in biomass and their effects on biomass product properties. Journal of Water Supply: Research and Technology - AQUA, 2019, 68, 623-644.	0.6	3
366	Microwave assisted and conventional pyrolysis of MDF â€“ Characterization of the produced biochars. Journal of Analytical and Applied Pyrolysis, 2019, 138, 218-230.	2.6	52
367	Production and Characterisation of Teak Tree Saw Dust and Rice Husk Biochar. Energy, Environment, and Sustainability, 2019, , 291-306.	0.6	1

#	Article	IF	Citations
368	Kinetic study of uranium removal from aqueous solutions by macaÃºba biochar. Chemical Engineering Communications, 2019, 206, 1354-1366.	1.5	12
369	Production and Formation of Biochar. , 2019, , 3-18.		26
370	Elemental and Spectroscopic Characterization of Low-Temperature (350Â°C) Lignocellulosic- and Manure-Based Designer Biochars and Their Use as Soil Amendments. , 2019, , 37-58.		9
371	Characterization of products derived from the high temperature flash pyrolysis of microalgae and rice hulls. Chemical Engineering Science, 2019, 196, 527-537.	1.9	15
372	Labile and recalcitrant components of organic matter of a Mollisol changed with land use and plant litter management: An advanced 13C NMR study. Science of the Total Environment, 2019, 660, 1-10.	3.9	19
373	Removal of azo dye from water via adsorption on biochar produced by the gasification of wood wastes. Environmental Science and Pollution Research, 2019, 26, 28558-28573.	2.7	56
374	Insights into biochar and hydrochar production and applications: A review. Energy, 2019, 171, 581-598.	4.5	424
375	Colloidal stability and aggregation kinetics of biochar colloids: Effects of pyrolysis temperature, cation type, and humic acid concentrations. Science of the Total Environment, 2019, 658, 1306-1315.	3.9	86
376	Conceptual design of a dedicatedâ€crop biorefinery for <scp>Jatropha curcas</scp> using a systematic sustainability evaluation. Biofuels, Bioproducts and Biorefining, 2019, 13, 86-106.	1.9	6
377	Measuring biomass fast pyrolysis kinetics: State of the art. Wiley Interdisciplinary Reviews: Energy and Environment, 2019, 8, e326.	1.9	37
378	Biochar â€“ Recovery Material from Pyrolysis of Sewage Sludge: A Review. Waste and Biomass Valorization, 2020, 11, 3677-3709.	1.8	69
379	Understanding structure-performance correlation of biochar materials in environmental remediation and electrochemical devices. Chemical Engineering Journal, 2020, 382, 122977.	6.6	109
380	Overview of biochar production from preservative-treated wood with detailed analysis of biochar characteristics, heavy metals behaviors, and their ecotoxicity. Journal of Hazardous Materials, 2020, 384, 121356.	6.5	73
381	Characterization of Ugandan biomass wastes as the potential candidates towards bioenergy production. Renewable and Sustainable Energy Reviews, 2020, 117, 109477.	8.2	35
382	Synthesis and characterization of amorphous mesoporous silica from palm kernel shell ash. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2020, 59, 159-164.	0.9	48
383	Gasification biochar from biowaste (food waste and wood waste) for effective CO2 adsorption. Journal of Hazardous Materials, 2020, 391, 121147.	6.5	132
384	Analysis of green pesticide production by valorization of husks from Croton megalocarpus tree nuts. Environmental Progress and Sustainable Energy, 2020, 39, e13312.	1.3	1
385	Influence of Pyro-Gasification and Activation Conditions on the Porosity of Activated Biochars: A Literature Review. Waste and Biomass Valorization, 2020, 11, 5079-5098.	1.8	22

#	Article	IF	Citations
386	A Review of Non-Soil Biochar Applications. Materials, 2020, 13, 261.	1.3	79
387	Co-pyrolysis of lignocellulosic and macroalgae biomasses for the production of biochar â€“ A review. Bioresource Technology, 2020, 297, 122408.	4.8	121
388	Environmentally friendly and sustainable bark cloth for garment applications: Evaluation of fabric properties and apparel development. Sustainable Materials and Technologies, 2020, 23, e00136.	1.7	7
389	Advances in design strategies for preparation of biochar based catalytic system for production of high value chemicals. Bioresource Technology, 2020, 299, 122564.	4.8	43
390	Mechanism of orthophosphate (PO‹mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML") Tj ETQq0 0 0 rgBT /Overlock 10 T different biochars. Environmental Technology and Innovation, 2020, 17, 100572.	3.0	47
391	Biochar of distillersâ€™ grains anaerobic digestion residue: Influence of pyrolysis conditions on its characteristics and ammonium adsorptive optimization. Waste Management and Research, 2020, 38, 86-97.	2.2	6
392	Gasification of Cup Plant (Silphium perfoliatum L.) Biomassâ€“Energy Recovery and Environmental Impacts. Energies, 2020, 13, 4960.	1.6	5
393	The rational design of biomass-derived carbon materials towards next-generation energy storage: A review. Renewable and Sustainable Energy Reviews, 2020, 134, 110308.	8.2	141
394	Artificial Neural Networks To Distinguish Charcoal from ‹i›Eucalyptus‹/i› and Native Forests Based on Their Mineral Components. Energy & Fuels, 2020, 34, 9599-9608.	2.5	2
395	Thermochemical conversion of oil palm ‹scp›Fiberâ€ŁDPE‹/scp› hybrid waste into biochar. Biofuels, Bioproducts and Biorefining, 2020, 14, 1313-1323.	1.9	37
396	Redox-Active Biochar and Conductive Graphite Stimulate Methanogenic Metabolism in Anaerobic Digestion of Waste-Activated Sludge: Beyond Direct Interspecies Electron Transfer. ACS Sustainable Chemistry and Engineering, 2020, 8, 12626-12636.	3.2	50
397	Mechanism of in-situ dynamic catalysis and selective deactivation of H2O-activated biochar for biomass tar reforming. Fuel, 2020, 279, 118450.	3.4	113
398	Iron oxide loaded biochar/polyaniline nanocomposite: Synthesis, characterization and electrochemical analysis. Inorganic Chemistry Communication, 2020, 119, 108097.	1.8	20
399	Biochar Potential in Improving Agricultural Production in East Africa. , 2020, , .		4
400	Co-pyrolysis of softwood with waste mussel shells: Biochar analysis. Fuel, 2020, 282, 118792.	3.4	27
401	Techno-economic and environmental assessments for nutrient-rich biochar production from cattle manure: A case study in Idaho, USA. Applied Energy, 2020, 279, 115782.	5.1	48
402	Impact of agricultural management practices on soil carbon sequestration and its monitoring through simulation models and remote sensing techniques: A review. Critical Reviews in Environmental Science and Technology, 2022, 52, 1-49.	6.6	46
403	Corn and hardwood biochars affected soil microbial community and enzymeÂactivities. , 2020, 3, e20082.		6

#	Article	IF	Citations
404	Biochar from date palm waste, production, characteristics and use in the treatment of pollutants: A Review. IOP Conference Series: Materials Science and Engineering, 0, 737, 012171.	0.3	15
405	Biochar amendment as a remediation strategy for surface soils impacted by crude oil. Environmental Pollution, 2020, 265, 115006.	3.7	36
406	Pyrolysis of microalgae biomass over carbonate catalysts. Journal of Chemical Technology and Biotechnology, 2020, 95, 3270-3279.	1.6	15
407	Selective production of glycolaldehyde via hydrothermal pyrolysis of glucose: Experiments and microkinetic modeling. Journal of Analytical and Applied Pyrolysis, 2020, 149, 104846.	2.6	19
408	Hydrochar structural determination from artifact-free Raman analysis. Carbon, 2020, 167, 378-387.	5.4	13
409	Characterization of tar generated from the mixture of municipal solid waste and coal pyrolysis at 800ÂÂ°C. Energy Reports, 2020, 6, 147-152.	2.5	22
410	Enhanced high-quality biomethane production from anaerobic digestion of primary sludge by corn stover biochar. Bioresource Technology, 2020, 306, 123159.	4.8	83
411	Waste valorization technology options for the egg and broiler industries: A review and recommendations. Journal of Cleaner Production, 2020, 262, 121129.	4.6	40
412	Biochar based catalysts for the abatement of emerging pollutants: A review. Chemical Engineering Journal, 2020, 394, 124856.	6.6	129
413	Temporal physicochemical changes and transformation of biochar in a rice paddy: Insights from a 9-year field experiment. Science of the Total Environment, 2020, 721, 137670.	3.9	54
414	Hybrid biocomposites from polypropylene, sustainable biocarbon and graphene nanoplatelets. Scientific Reports, 2020, 10, 10714.	1.6	37
415	Impact of Biomass Sources on Acoustic-Based Chemical Functionalization of Biochars for Improved CO₂ Adsorption. Energy & Fuels, 2020, 34, 8608-8627.	2.5	7
416	Oxidation kinetics of biochar from woody and herbaceous biomass. Chemical Engineering Journal, 2020, 401, 126043.	6.6	33
417	A novel self-sustained single step process for synthesizing activated char from ligno-cellulosic biomass. Fuel Processing Technology, 2020, 208, 106516.	3.7	8
418	Filter Media-Packed Bed Reactor Fortification with Biochar to Enhance Wastewater Quality. Applied Sciences (Switzerland), 2020, 10, 790.	1.3	2
419	The Effect of Gasification Conditions on the Surface Properties of Biochar Produced in a Top-Lit Updraft Gasifier. Applied Sciences (Switzerland), 2020, 10, 688.	1.3	20
420	Biocoal - Quality control and assurance. Biomass and Bioenergy, 2020, 135, 105509.	2.9	19
421	Biomass ashes as potent adsorbent for pesticide: prediction of adsorption capacity by artificial neural network. International Journal of Environmental Science and Technology, 2020, 17, 3209-3216.	1.8	10

#	Article	IF	Citations
422	Application of biochar-based materials in environmental remediation: from multi-level structures to specific devices. Biochar, 2020, 2, 1-31.	6.2	118
423	Adsorptive removal of micropollutants from wastewater with floating-fixed-bed gasification char. Journal of Environmental Chemical Engineering, 2020, 8, 103757.	3.3	10
424	Role of redox-active biochar with distinctive electrochemical properties to promote methane production in anaerobic digestion of waste activated sludge. Journal of Cleaner Production, 2021, 278, 123212.	4.6	83
425	Facile preparation of sulfonated biochar for highly efficient removal of toxic Pb(II) and Cd(II) from wastewater. Science of the Total Environment, 2021, 750, 141545.	3.9	90
426	Study of surface heterogeneity and nitrogen functionalizing of biochars: Molecular modeling approach. Carbon, 2021, 171, 161-170.	5.4	19
427	Biochar as a support for nanocatalysts and other reagents: Recent advances and applications. Coordination Chemistry Reviews, 2021, 426, 213585.	9.5	87
428	Microscopic mechanism about the selective adsorption of Cr(VI) from salt solution on O-rich and N-rich biochars. Journal of Hazardous Materials, 2021, 404, 124162.	6.5	63
429	Morpho-mineralogical exploration of crop, weed and tree derived biochar. Journal of Hazardous Materials, 2021, 407, 124370.	6.5	37
430	Development of biomass-derived biochar for agronomic and environmental remediation applications. Biomass Conversion and Biorefinery, 2021, 11, 339-361.	2.9	23
431	Progress of using biochar as a catalyst in thermal conversion of biomass. Reviews in Chemical Engineering, 2021, 37, 229-258.	2.3	26
432	Advanced applications of green materials for gas separation and storage. , 2021, , 681-703.		1
433	Application of Biochar for Sustainable Development in Agriculture and Environmental Remediation. , 2021, , 133-153.		1
434	Biopolymer-derived carbonaceous composites and their potential applications. , 2021, , 253-280.		7
435	Characterization of Bael Shell (Aegle marmelos) Pyrolytic Biochar. Lecture Notes in Mechanical Engineering, 2021, , 747-760.	0.3	0
436	Biomass pyrolysis technologies for value-added products: a state-of-the-art review. Environment, Development and Sustainability, 2021, 23, 14324-14378.	2.7	77
437	Biochar from lab-scale pyrolysis: influence of feedstock and operational temperature. Biomass Conversion and Biorefinery, 2024, 14, 5901-5911.	2.9	22
438	Can the addition of biochar improve the performance of biogas digesters operated at 45Â°C?. Environmental Engineering Research, 2022, 27, 200648-0.	1.5	3
439	Biochar Volatile Matter and Feedstock Effects on Soil Nitrogen Mineralization and Soil Fungal Colonization. Sustainability, 2021, 13, 2018.	1.6	9

#	Article	IF	Citations
440	Biochar production, activation and adsorptive applications: a review. Environmental Chemistry Letters, 2021, 19, 2237-2259.	8.3	80
441	Critical review of biochar applications in geoengineering infrastructure: moving beyond agricultural and environmental perspectives. Biomass Conversion and Biorefinery, 2024, 14, 5943-5971.	2.9	36
442	Analysis and Characterization of Metallic Nodules on Biochar from Single-Stage Downdraft Gasification. Processes, 2021, 9, 533.	1.3	3
443	Role of biochar, compost and plant growth promoting rhizobacteria in the management of tomato early blight disease. Scientific Reports, 2021, 11, 6092.	1.6	63
444	Physiochemical Characterization of Biochars from Six Feedstocks and Their Effects on the Sorption of Atrazine in an Organic Soil. Agronomy, 2021, 11, 716.	1.3	21
445	Biochar prepared from Feâ€rich sludge as suitable microbial carriers for facilitating biodegradation of phenanthrene in soil. Journal of Chemical Technology and Biotechnology, 2021, 96, 2014-2021.	1.6	6
446	Cement Catalyzed Valorization of Rice Straw into Upgraded Bio-Oil and Fuel Gases Using Pyrolysis Reactions. Combustion Science and Technology, 2022, 194, 3094-3108.	1.2	2
447	Review on biomass feedstocks, pyrolysis mechanism and physicochemical properties of biochar: State-of-the-art framework to speed up vision of circular bioeconomy. Journal of Cleaner Production, 2021, 297, 126645.	4.6	202
448	Occurrence, formation and environmental fate of polycyclic aromatic hydrocarbons in biochars. Fundamental Research, 2021, 1, 296-305.	1.6	31
449	Multifunctional applications of biochar beyond carbon storage. International Materials Reviews, 2022, 67, 150-200.	9.4	245
450	Porous biochar purification method from coconut shell by alkali roasting followed by leaching and its application as a lithium primary battery. IOP Conference Series: Earth and Environmental Science, 2021, 749, 012036.	0.2	0
452	Combined analyses of hygroscopic properties of organic and inorganic components of three representative black carbon samples recovered from pyrolysis. Science of the Total Environment, 2021, 771, 145393.	3.9	1
453	Efficiency assessment of municipal landfill leachate treatment during advanced oxidation process (AOP) with biochar adsorption (BC). Journal of Environmental Management, 2021, 287, 112309.	3.8	37
454	A scientometric review of biochar preparation research from 2006 to 2019. Biochar, 2021, 3, 283-298.	6.2	23
455	Utilizing dissimilar feedstocks derived biochar amendments to alter soil biological indicators in acidic soil of Northeast India. Biomass Conversion and Biorefinery, 2023, 13, 10203-10214.	2.9	10
458	Yeast-based biodiesel production using sulfonated carbon-based solid acid catalyst by an integrated biorefinery of durian peel waste. Renewable Energy, 2021, 171, 647-657.	4.3	27
459	Mini-Review on Hot Gas Filtration in Biomass Gasification: Focusing on Ceramic Filter Candles. Energy & Fuels, 2021, 35, 11800-11819.	2.5	14
461	Characterization Techniques as Supporting Tools for the Interpretation of Biochar Adsorption Efficiency in Water Treatment: A Critical Review. Molecules, 2021, 26, 5063.	1.7	6

#	Article	IF	Citations
462	The potential of biochar and lignin-based adsorbents for wastewater treatment: Comparison, mechanism, and applicationâ€"A review. Industrial Crops and Products, 2021, 166, 113473.	2.5	52
463	Gasification biochar from horticultural waste: An exemplar of the circular economy in Singapore. Science of the Total Environment, 2021, 781, 146573.	3.9	24
464	Use of charcoal from gasification residues in adsorption pilot plant for the practical application of circular economy in industrial wastewater treatment. Chemical Engineering Communications, 2022, 209, 1316-1333.	1.5	2
465	Biochar Derived from Domestic Sewage Sludge: Influence of Temperature Pyrolysis on Biocharsâ€™ Chemical Properties and Phytotoxicity. Journal of Chemistry, 2021, 2021, 1-10.	0.9	10
466	Physicochemical Changes in Biomass Chars by Thermal Oxidation or Ambient Weathering and Their Impacts on Sorption of a Hydrophobic and a Cationic Compound. Environmental Science & Technology, 2021, 55, 13072-13081.	4.6	7
467	Assessment of Pyrolytic Biochar as a Solar Absorber Material for Cost-Effective Water Evaporation Enhancement. Environmental Engineering Science, 2021, 38, 1120-1128.	0.8	3
468	Biochar derived from agricultural wastes and wood residues for sustainable agricultural and environmental applications. International Soil and Water Conservation Research, 2022, 10, 335-341.	3.0	39
469	Reusing biochar as a filler or cement replacement material in cementitious composites: A review. Construction and Building Materials, 2021, 300, 124295.	3.2	54
470	Properties of biochar and its potential role in climate change mitigation and bioenergy generation: a review. Environmental Sustainability, 0, , 1.	1.4	0
471	Prediction of char production from slow pyrolysis of lignocellulosic biomass using multiple nonlinear regression and artificial neural network. Journal of Analytical and Applied Pyrolysis, 2021, 159, 105286.	2.6	17
472	Use of either pumice or willow-based biochar amendments to decrease soil salinity under arid conditions. Environmental Technology and Innovation, 2021, 24, 101849.	3.0	10
473	Relative proportions of organic carbon functional groups in biochars as influenced by spectral data collection and processing. Chemosphere, 2021, 283, 131023.	4.2	6
474	A review on lignocellulosic biomass waste into biochar-derived catalyst: Current conversion techniques, sustainable applications and challenges. Biomass and Bioenergy, 2021, 154, 106245.	2.9	37
475	A critical review of the possible adverse effects of biochar in the soil environment. Science of the Total Environment, 2021, 796, 148756.	3.9	113
476	Effects of biochar amendment on wheat production, mycorrhizal status, soil microbial community, and properties of an Andisol in Southern Chile. Field Crops Research, 2021, 273, 108306.	2.3	8
477	Propensity and appraisal of biochar performance in removal of oil spills: A comprehensive review. Environmental Pollution, 2021, 288, 117676.	3.7	39
478	Char suppression mechanism using recycled intermediate phenol in supercritical water gasification of coal. Fuel, 2021, 305, 121441.	3.4	17
479	Life-cycle assessment of hydrogen production via catalytic gasification of wheat straw in the presence of straw derived biochar catalyst. Bioresource Technology, 2021, 341, 125796.	4.8	43

#	Article	IF	Citations
480	Experimental and DFT investigation on N-functionalized biochars for enhanced removal of Cr(VI). Environmental Pollution, 2021, 291, 118244.	3.7	15
481	Adsorptive removal of fluoride using biochar â€" A potential application in drinking water treatment. Separation and Purification Technology, 2021, 278, 119106.	3.9	47
482	Biochar for asphalt modification: A case of high-temperature properties improvement. Science of the Total Environment, 2022, 804, 150194.	3.9	25
483	Production, characterization, activation and environmental applications of engineered biochar: a review. Environmental Chemistry Letters, 2021, 19, 2261-2297.	8.3	117
484	Environmental Benign Biochar Technologies: Strategic Utilization for CO2 Capture and Wastewater Treatment. , 2021, , 181-214.		0
485	State-of-the-Art Char Production with a Focus on Bark Feedstocks: Processes, Design, and Applications. Processes, 2021, 9, 87.	1.3	14
486	Biochar, Tool for Climate Change Mitigation and Soil Management. , 2012, , 845-893.		7
487	Recent Development in Bioremediation of Soil Pollutants Through Biochar for Environmental Sustainability. , 2020, , 123-140.		14
488	Use of Char Derived from Waste Plastic Pyrolysis for Asphalt Binder Modification. RILEM Bookseries, 2021, , 337-356.	0.2	10
489	Adsorption of Dissolved Organic Compounds by Black Carbon. , 2013, , 359-385.		8
490	Microstructural analysis of nitrogen-doped char by Raman spectroscopy: Raman shift analysis from first principles. Carbon, 2020, 167, 559-574.	5.4	52
491	Water hyacinth as a biomass: A review. Journal of Cleaner Production, 2020, 277, 122214.	4.6	80
492	Biochar Production, Activation and Application as a Promising Catalyst. RSC Green Chemistry, 2018, , 340-366.	0.0	3
493	Mechanical Properties of Mortar Containing Bio-Char From Pyrolysis. Journal of the Korea Institute for Structural Maintenance Inspection, 2012, 16, 67-74.	0.1	51
494	Risk Evaluation of Pyrolyzed Biochar from Multiple Wastes. Journal of Chemistry, 2019, 2019, 1-28.	0.9	36
495	Effect of biochar on N2O emission, crop yield and properties of Stagnic Luvisol in a field experiment. Zemdirbyste, 2019, 106, 297-306.	0.3	6
496	Biochar from Sugarcane Filtercake Reduces Soil CO2 Emissions Relative to Raw Residue and Improves Water Retention and Nutrient Availability in a Highly-Weathered Tropical Soil. PLoS ONE, 2014, 9, e98523.	1.1	29
497	Characterization, Modification and Application of Biochar for Energy Storage and Catalysis: A Review. Trends in Renewable Energy, 2017, 3, 86-101.	0.1	56

#	Article	IF	Citations
498	Morphological and physicochemical characterization of biochar produced by gasification of selected forestry species. Revista Facultad De IngenierÃa, 2017, 26, 123-130.	0.0	25
499	Agricultural and Environmental Applications of Biochar: Advances and Barriers. SSSA Special Publication Series, 2016, , .	0.2	22
500	Comparison of photoacoustic, diffuse reflectance, attenuated total reflectance and transmission infrared spectroscopy for the study of biochars. Polish Journal of Chemical Technology, 2018, 20, 75-83.	0.3	11
501	Biomass char production at low severity conditions under CO₂and N₂environments. WIT Transactions on Ecology and the Environment, 2011, , .	0.0	6
506	Cadmium and Copper Removal From Aqueous Solutions Using Chitosan-Coated Gasifier Biochar. Frontiers in Environmental Science, 2020, 8, .	1.5	27
507	Evaluation of Biochar as Fertilizer for the Growth of Some Seasonal Vegetables. Journal of Bioresource Management, 2015, 2, .	0.4	10
508	Soil amendment impact to soil organic matter and physical properties on the three soil types after second corn cultivation. AIMS Agriculture and Food, 2020, 5, 150-168.	0.8	20
509	Preparation and Application of Biochars for Organic and Microbial Control in Wastewater Treatment Regimes. Advances in Environmental Engineering and Green Technologies Book Series, 2019, , 19-34.	0.3	2
510	Application of Spectral Induced Polarization and Electrical Impedance Tomography on Mixtures of Biochars and Active Carbons with Sand. , 2012, , .		2
511	Review Paper: The Fundamentals of Biochar as a Soil Amendment Tool and Management in Agriculture Scope: An Overview for Farmers and Gardeners. Journal of Agricultural Chemistry and Environment, 2017, 06, 38-61.	0.2	22
512	Optimizing slow pyrolysis of banana peels wastes using response surface methodology. Environmental Engineering Research, 2019, 24, 354-361.	1.5	34
514	Interactions between Biochar and Compost Treatment and Mycorrhizal Fungi to Improve the Qualitative Properties of a Calcareous Soil under Rhizobox Conditions. Agriculture (Switzerland), 2021, 11, 993.	1.4	7
515	Efforts to Curb NOx from Greenhouse Gases by the Application of Energy Crops and Vegetation Filters. , 0, , .		0
516	Hydrothermal and Thermochemical Synthesis of Bio-Oil from Lignocellulosic Biomass: Composition, Engineering and Catalytic Upgrading. , 2016, , 325-370.		1
517	Characterization of soil amendment potential of 18 different biochar types produced by slow pyrolysis. Eurasian Journal of Soil Science, 2019, 8, 329-339.	0.2	5
518	The properties of biochars derived from different plant residue and different pyrolysis temperatures. Akademik Ziraat Dergisi, 0, , .	0.2	1
519	CO2 adsorption by carbonaceous materials and nanomaterials. , 2020, , 173-192.		2
520	Tailoring biochar for persulfate-based environmental catalysis: Impact of biomass feedstocks. Journal of Hazardous Materials, 2022, 424, 127663.	6.5	53

#	Article	IF	Citations
521	Improvement effects of conditioners on properties of acidified-salinized soils and lettuce growth. Journal of Plant Nutrition, 2022, 45, 937-950.	0.9	2
522	Biochars intended for water filtration: A comparative study with activated carbons of their physicochemical properties and removal efficiency towards neutral and anionic organic pollutants. Chemosphere, 2022, 288, 132538.	4.2	16
523	A Biorefinery Based Zero-Waste Utilization of Non-edible Oilseeds for Biodiesel and Biofuel Production Along with Chemicals and Biomaterials. Clean Energy Production Technologies, 2020, , 21-55.	0.3	0
524	Lignocellulosic Biomass. , 2020, , 499-535.		0
525	Recent Advances in Biochar-Based Mitigation of Dyes, Agrochemicals, and Pharmaceutical Pollutants. Clean Energy Production Technologies, 2020, , 391-415.	0.3	0
526	The impact of water soaking on physicochemical activated carbon produced by various thermal cracking temperature. AIP Conference Proceedings, 2020, , .	0.3	2
527	Recent advances in the application of biochar in microbial electrochemical cells. Fuel, 2022, 311, 122501.	3.4	43
530	Biocharâ€based land development. Land Degradation and Development, 2022, 33, 1139-1158.	1.8	13
531	Treatment of wastewater from biomass pyrolysis and recovery of its organic compounds with char-assisted drying. Fuel, 2022, 312, 122825.	3.4	0
532	Preparation of nano-biochar from conventional biorefineries for high-value applications. Renewable and Sustainable Energy Reviews, 2022, 157, 112057.	8.2	35
533	Lignocellulosic biomass carbonization for biochar production and characterization of biochar reactivity. Renewable and Sustainable Energy Reviews, 2022, 157, 112056.	8.2	71
534	Characteristics of Biochar from Jengkok Tobacco: The Effect of Quenching in Pyrolysis Process. Materials Science Forum, 0, 1051, 64-70.	0.3	0
535	Functionalized green carbon-based nanomaterial for environmental application. , 2022, , 347-382.		1
536	Characteristic Spectral Features of Terra Preta (TP) in the 5â€“15 Terahertz Range. Applied Spectroscopy, 2022, 76, 300-309.	1.2	2
537	A review of the recent trend in the synthesis of carbon nanomaterials derived from oil palm by-product materials. Biomass Conversion and Biorefinery, 2024, 14, 13-44.	2.9	11
538	Metal-Supported Biochar Catalysts for Sustainable Biorefinery, Electrocatalysis, and Energy Storage Applications: A Review. Catalysts, 2022, 12, 207.	1.6	31
540	Valorization of Cotton Gin Trash through Thermal and Biological Conversion for Soil Application. Sustainability, 2021, 13, 13842.	1.6	1
541	Does biochar improve nutrient availability in Ultisols of tree plantations in the Ecuadorian Amazonia?. Soil Science Society of America Journal, 2022, 86, 1072-1085.	1.2	2

#	Article	IF	Citations
542	Use of Biochar in Asphalts: Review. Sustainability, 2022, 14, 4745.	1.6	13
546	Emerging application of biochar as a renewable and superior filler in polymer composites. RSC Advances, 2022, 12, 13938-13949.	1.7	15
547	Biochar characterization for water and wastewater treatments. , 2022, , 135-152.		0
548	Retention of oxyanions on biochar surface. , 2022, , 233-276.		1
549	Life cycle assessment of bioenergy from lignocellulosic herbaceous biomass: The case study of Spartina argentinensis. Energy, 2022, 254, 124215.	4.5	9
550	Synergetic effects of biochar addition on mesophilic and high total solids anaerobic digestion of chicken manure. Journal of Environmental Management, 2022, 315, 115192.	3.8	15
551	Biochar soil application: soil improvement and pollution remediation. , 2022, , 97-102.		1
553	Biochar from microalgae. , 2022, , 613-637.		0
554	Sorption kinetics of 1,3,5-trinitrobenzene to biochars produced at various temperatures. Biochar, 2022, 4, .	6.2	14
555	Hydrogenation/Hydrodeoxygenation Selectivity Modulation by Cometal Addition to Palladium on Carbon-Coated Supports. ACS Sustainable Chemistry and Engineering, 2022, 10, 7759-7771.	3.2	4
556	Application of biochar for the removal of methylene blue from aquatic environments. , 2022, , 29-76.		1
557	Modification of biomass-derived biochar: A practical approach towards development of sustainable CO2 adsorbent. Biomass Conversion and Biorefinery, 0, , .	2.9	12
558	Recent Advances and Prospects of Biochar-based Adsorbents for Malachite Green Removal: A Comprehensive Review. Chemistry Africa, 2023, 6, 579-608.	1.2	11
559	Addition of biochar as thin preamble layer into sand filtration columns could improve the microplastics removal from water. Water Research, 2022, 221, 118783.	5.3	23
561	Design and Development of Onsite Biofilter Unit for Effective Remediation of Contaminants from Wastewater. Clean - Soil, Air, Water, 0, , 2100396.	0.7	0
562	Fruit quality and marketability of Okra (Abelmoschus esculentus (L.) Moench) as influenced by biochar rates and weeding regime. International Journal of Pest Management, 0, , 1-9.	0.9	1
563	Effects of biochar application on the loss characteristics of Cd from acidic soil under simulated rainfall conditions. Environmental Science and Pollution Research, 2022, 29, 83969-83980.	2.7	3
564	Characterization of biochar and phosphorus adsorption in charnockite-originated soils. Journal of the Saudi Society of Agricultural Sciences, 2023, 22, 54-61.	1.0	1

#	Article	IF	Citations
565	Biochar amended microbial conversion of C1 gases to ethanol and butanol: Effects of biochar feedstock type and processing temperature. Bioresource Technology, 2022, 360, 127573.	4.8	9
566	Influence of indirectly heated steam-blown gasification process conditions on biochar physico-chemical properties. Fuel Processing Technology, 2022, 235, 107347.	3.7	7
567	The response of paddy with biochar application and legowo planting system at Tanjung Garbus Kampung Village. IOP Conference Series: Earth and Environmental Science, 2022, 977, 012038.	0.2	0
568	Perspectives of Engineered Biochar for Environmental Applications: A Review. Energy & Fuels, 2022, 36, 7940-7986.	2.5	31
569	Preparation of High-Performance Porous Carbon Materials by Citric Acid-Assisted Hydrothermal Carbonization of Bamboo and Their Application in Electrode Materials. Energy & Fuels, 2022, 36, 9303-9312.	2.5	19
570	Sustainable carbon materials from the pyrolysis of lignocellulosic biomass. Materials Today Sustainability, 2022, 19, 100209.	1.9	20
571	A green approach towards sorption of CO2 on waste derived biochar. Environmental Research, 2022, 214, 113954.	3.7	12
572	Predictions of burnout times of biomass char using experimentally determined CO to CO2 ratio. Chemical Engineering Journal, 2022, 450, 138404.	6.6	1
573	The Effect of Activation on the Structure of Biochars Prepared from Wood and from Posidonia Oceanica: A Spectroscopic Study. Physchem, 2022, 2, 286-304.	0.5	2
574	Characterization of Poultry Litter Biochar and Activated Biochar as a Soil Amendment for Valorization. Biomass, 2022, 2, 209-223.	1.2	3
575	Production and Characterization of Biochar from Almond Shells. Clean Technologies, 2022, 4, 854-864.	1.9	4
576	Microwave-Assisted Chemically Modified Biochar for the Sequestration of Emerging Contaminants. , 2022, , 283-310.		1
577	Waste to catalyst: Role of agricultural waste in water and wastewater treatment. Science of the Total Environment, 2023, 858, 159762.	3.9	63
578	Model for the physical activation of biochar to activated carbon. Journal of Analytical and Applied Pyrolysis, 2022, 168, 105769.	2.6	16
579	Physical-Chemical Characterization of Different Carbon-Based Sorbents for Environmental Applications. Materials, 2022, 15, 7162.	1.3	12
580	Enhancement of biogas production from individually or co-digested green algae Cheatomorpha linum using ultrasound and ozonation treated biochar. Ultrasonics Sonochemistry, 2022, 90, 106197.	3.8	5
581	Solar pyrolysis of biomass - part II: The physicochemical structure evolution of char. Fuel, 2023, 333, 126474.	3.4	22
582	Mechanistic investigation of char growth from lignin monomers during biomass utilisation. Fuel Processing Technology, 2023, 239, 107556.	3.7	4

#	Article	IF	Citations
583	Coconut shell and husk biochar: A review of production and activation technology, economic, financial aspect and application. Waste Management and Research, 2023, 41, 37-51.	2.2	16
584	Surface functional groups and degree of carbonization of selected chars from different processes and feedstock. PLoS ONE, 2022, 17, e0277365.	1.1	7
585	Removal of RhB from water by Fe-modified hydrochar and biochar â€" An experimental evaluation supported by genetic programming. Journal of Molecular Liquids, 2023, 369, 120971.	2.3	20
586	Reviewing the effect of pyrolysis temperature on the fourier-transform infrared spectra of biochars. Acta Horticulturae Et Regiotecturae, 2022, 25, 160-173.	0.5	1
587	Improving the electrochemical desalination performance of chloride-doped polyaniline activated carbon electrode by tuning the synthesis method. Chemical Engineering Journal, 2023, 457, 141059.	6.6	7
588	Pyrolysis of the anaerobic digestion solid by-product: Characterization of digestate decomposition and screening of the biochar use as soil amendment and as additive in anaerobic digestion. Energy Conversion and Management, 2023, 277, 116658.	4.4	10
589	Sustainable production and application of biochar for energy storage and conversion. , 2023, , 333-364.		1
590	Production of biochar from biowaste and its application in wastewater treatment. , 2023, , 149-193.		1
591	Soil Organic Carbon Sequestration in Dryland Soils to Alleviate Impacts of Climate Change. , 2023, , 221-245.		1
592	Production and application of biochar. Advances in Bioenergy, 2023, , .	0.5	0
593	The effect of ferrous sulfate pretreatment on the optimal temperature for production of sugars during autothermal pyrolysis. Journal of Analytical and Applied Pyrolysis, 2023, 171, 105966.	2.6	1
594	Microalgae for biofuel: Isothermal pyrolysis of a fresh and a marine microalga with mass and energy assessment. Chemical Engineering Journal Advances, 2023, 14, 100474.	2.4	2
595	Adsorption of CO2 using biochar - Review of the impact of gas mixtures and water on adsorption. Journal of Environmental Chemical Engineering, 2023, 11, 109643.	3.3	6
596	A comprehensive review on low-cost waste-derived catalysts for environmental remediation. Materials Research Bulletin, 2023, 164, 112261.	2.7	16
597	Improving Pharmaceuticals Removal at Wastewater Treatment Plants Using Biochar: A Review. Waste and Biomass Valorization, 2023, 14, 2433-2458.	1.8	2
598	Sustainable management of unavoidable biomass wastes. , 2023, 1, 100005.		16
599	Carbon nano-materials (CNMs) derived from biomass for energy storage applications: a review. Carbon Letters, 2023, 33, 661-690.	3.3	14
601	Biochar from Grapevine-Pruning Residues Is Affected by Grapevine Rootstock and Pyrolysis Temperature. Sustainability, 2023, 15, 4851.	1.6	1

#	Article	IF	Citations
602	Facile Functionalization of Charcoal by a Green Approach. Crystals, 2023, 13, 476.	1.0	0
603	Bamboo: A Sustainable Alternative for Biochar Production. Environmental Footprints and Eco-design of Products and Processes, 2023, , 265-295.	0.7	1
604	Use of Plasticized Biochar Intermediate for Producing Biocarbons with Improved Mechanical Properties. ACS Sustainable Chemistry and Engineering, 2023, 11, 5845-5857.	3.2	2
605	Assessment of the effects of biochar on biogas production during anaerobic digestion of aqueous pyrolysis condensate: A circular economy approach. Journal of Environmental Chemical Engineering, 2023, 11, 109982.	3.3	6
613	Post-modified biomass derived carbon materials for energy storage supercapacitors: a review. Sustainable Energy and Fuels, 2023, 7, 3541-3559.	2.5	7
617	Distinct Behavior of Biochar Modulating Biogeochemistry of Salt-Affected and Acidic Soil: a Review. Journal of Soil Science and Plant Nutrition, 2023, 23, 2981-2997.	1.7	2
633	Climate Change and Its Impact on Soil Carbon Storage: An Indian Perspective. Earth and Environmental Sciences Library, 2023, , 211-235.	0.3	0
647	Solar Pyrolysis: Igniting the Future of Sustainable Fuel Production. , 2024, , .		0