

Properties of biochar

Fuel

217, 240-261

DOI: [10.1016/j.fuel.2017.12.054](https://doi.org/10.1016/j.fuel.2017.12.054)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Waste to Carbon: Densification of Torrefied Refuse-Derived Fuel. <i>Energies</i> , 2018, 11, 3233.	1.6	41
2	Adsorption Characteristics of Sea buckthorn Residue Biochar on Ethyl paraben. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 452, 022138.	0.3	0
3	Slow Pyrolysis as a Promising Approach for Producing Biochar from Sunflower Straw. <i>BioResources</i> , 2018, 13, .	0.5	7
4	Isothermal Adsorption Characteristics of Phenol from Straw Biochar. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 452, 022165.	0.3	0
5	Quantification of VOC Emissions from Carbonized Refuse-Derived Fuel Using Solid-Phase Microextraction and Gas Chromatography-Mass Spectrometry. <i>Molecules</i> , 2018, 23, 3208.	1.7	11
6	Study on adsorption of phenol from aqueous media using biochar of Chinese herb residue. <i>IOP Conference Series: Materials Science and Engineering</i> , 2018, 394, 022044.	0.3	5
7	Simulating Thermal Wood Particle Conversion: Ash-Layer Modeling and Parametric Studies. <i>Energy & Fuels</i> , 2018, 32, 10668-10682.	2.5	4
8	An overview of the effect of pyrolysis process parameters on biochar stability. <i>Bioresource Technology</i> , 2018, 270, 627-642.	4.8	275
9	Development of CO ₂ activated biochar from solid wastes of a beer industry and its application for methylene blue adsorption. <i>Waste Management</i> , 2018, 78, 630-638.	3.7	131
10	An Alternative Approach for the Estimation of Biochar Yields. <i>Energy & Fuels</i> , 2018, 32, 9506-9512.	2.5	17
11	Biochar preparation from <i>Solidago canadensis</i> and its alleviation of the inhibition of tomato seed germination by allelochemicals. <i>RSC Advances</i> , 2018, 8, 22370-22375.	1.7	18
12	Properties of biochar obtained by hydrothermal carbonization and torrefaction of peat. <i>Fuel</i> , 2019, 256, 115929.	3.4	53
13	Waste Valorisation using biochar for cement replacement and internal curing in ultra-high performance concrete. <i>Journal of Cleaner Production</i> , 2019, 238, 117876.	4.6	131
14	Role of <i>Prosopis juliflora</i> biochar in poly-aromatic hydrocarbon remediation using <i>Trifolium alexandrinum</i> L.. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	3
15	Oxytree Pruned Biomass Torrefaction: Mathematical Models of the Influence of Temperature and Residence Time on Fuel Properties Improvement. <i>Materials</i> , 2019, 12, 2228.	1.3	18
16	Thermal transfer behavior of biochar-natural inorganic clay composite for building envelope insulation. <i>Construction and Building Materials</i> , 2019, 223, 668-678.	3.2	38
17	Sorption, persistence, and leaching of the allelochemical umbelliferone in soils treated with nanoengineered sorbents. <i>Scientific Reports</i> , 2019, 9, 9764.	1.6	21
18	Evaluation of pyrolysis behavior and products properties of rice husk after combined pretreatment of washing and torrefaction. <i>Biomass and Bioenergy</i> , 2019, 127, 105293.	2.9	40

#	ARTICLE	IF	CITATIONS
19	Biomass enhancement and bioconversion of brown marine microalgal lipid using heterogeneous catalysts mediated transesterification from biowaste derived biochar and bionanoparticle. <i>Fuel</i> , 2019, 255, 115789.	3.4	28
20	Production and characterization of co-composted biochar and digestate from biomass anaerobic digestion. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2271-2279.	2.9	16
21	Insights into the roles of the morphological carbon structure and ash in the sorption of aromatic compounds to wood-derived biochars. <i>Science of the Total Environment</i> , 2019, 693, 133455.	3.9	26
22	Effect of Biochar Application Depth on Crop Productivity Under Tropical Rainfed Conditions. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 2602.	1.3	9
23	Role of Digestate and Biochar in Carbon-Negative Bioenergy. <i>Environmental Science & Technology</i> , 2019, 53, 12989-12998.	4.6	31
24	Comparison of the methane-oxidizing capacity of landfill cover soil amended with biochar produced using different pyrolysis temperatures. <i>Science of the Total Environment</i> , 2019, 693, 133594.	3.9	26
25	Spectral Induced Polarization of Biochar in Variably Saturated Soil. <i>Vadose Zone Journal</i> , 2019, 18, 1-13.	1.3	6
26	Carbon-Supported Palladium-Cobalt Catalysts in Chlorobenzene Hydrodechlorination. <i>Russian Journal of Physical Chemistry A</i> , 2019, 93, 1986-2002.	0.1	5
27	Recent developments in lignocellulosic biomass catalytic fast pyrolysis: Strategies for the optimization of bio-oil quality and yield. <i>Fuel Processing Technology</i> , 2019, 196, 106180.	3.7	318
28	<i>Wodyetia bifurcata</i> biochar for methylene blue removal from aqueous matrix. <i>Bioresource Technology</i> , 2019, 293, 122093.	4.8	61
29	Assessment of combustion and emission behavior of corn straw biochar briquette fuels under different temperatures. <i>Journal of Environmental Management</i> , 2019, 250, 109399.	3.8	38
30	Influence of Commercial Biochar Fillers on Brittleness/Ductility of Epoxy Resin Composites. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3109.	1.3	44
31	Evaluation of the catalytic performance of different activated biochar catalysts for removal of tar from biomass pyrolysis. <i>Fuel</i> , 2019, 258, 116204.	3.4	102
32	A Review of Biochar Properties and Their Utilization in Crop Agriculture and Livestock Production. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3494.	1.3	64
33	Role of neutral extractives and inherent active minerals in pyrolysis of agricultural crop residues and bio-oil formations. <i>Biomass and Bioenergy</i> , 2019, 122, 53-62.	2.9	21
34	Analysis of biochar with different pyrolysis temperatures used as filler in epoxy resin composites. <i>Biomass and Bioenergy</i> , 2019, 122, 466-471.	2.9	65
35	The adsorption, regeneration and engineering applications of biochar for removal organic pollutants: A review. <i>Chemosphere</i> , 2019, 223, 12-27.	4.2	578
36	Co-pyrolysis of softwood with waste mussel shells: Liquid analysis. <i>Fuel</i> , 2019, 254, 115584.	3.4	12

#	ARTICLE	IF	CITATIONS
37	Prospective Life Cycle Assessment of Large-Scale Biochar Production and Use for Negative Emissions in Stockholm. <i>Environmental Science & Technology</i> , 2019, 53, 8466-8476.	4.6	81
38	A quantitative understanding of the role of co-composted biochar in plant growth using meta-analysis. <i>Science of the Total Environment</i> , 2019, 685, 741-752.	3.9	93
39	Effects of crop straw and its derived biochar on the mobility and bioavailability in Cd and Zn in two smelter-contaminated alkaline soils. <i>Ecotoxicology and Environmental Safety</i> , 2019, 181, 155-163.	2.9	70
40	Upgrading of refuse derived fuel through torrefaction and carbonization: Evaluation of RDF char fuel properties. <i>Energy</i> , 2019, 181, 66-76.	4.5	57
41	Biochar-derived heterogeneous catalysts for biodiesel production. <i>Environmental Chemistry Letters</i> , 2019, 17, 1447-1469.	8.3	79
42	Synergistic effects of low-/medium-vacuum carbonization on physico-chemical properties and stability characteristics of biochars. <i>Chemical Engineering Journal</i> , 2019, 373, 44-57.	6.6	39
43	Charcoal as a bacteriological adherent for biomethanation of organic wastes. <i>Energy</i> , 2019, 179, 336-342.	4.5	2
44	The Effect of Biochar Addition on the Biogas Production Kinetics from the Anaerobic Digestion of Brewers' Spent Grain. <i>Energies</i> , 2019, 12, 1518.	1.6	61
45	Tree water use strategies and soil type determine growth responses to biochar and compost organic amendments. <i>Soil and Tillage Research</i> , 2019, 192, 12-21.	2.6	16
46	Characterization of biomass-derived chars. , 2019, , 69-108.		7
47	Characterization of biochar and byproducts from slow pyrolysis of hinoki cypress. <i>Bioresource Technology Reports</i> , 2019, 6, 217-222.	1.5	83
48	Erodibility assessment of compacted biochar amended soil for geo-environmental applications. <i>Science of the Total Environment</i> , 2019, 672, 698-707.	3.9	60
49	Adsorption of aromatic compounds by biochar: influence of the type of tropical biomass precursor. <i>Cellulose</i> , 2019, 26, 4291-4299.	2.4	24
50	Past, present, and future of biochar. <i>Biochar</i> , 2019, 1, 75-87.	6.2	278
51	Biochar Immobilizes and Degrades 2,4,6-Trichlorophenol in Soils. <i>Environmental Toxicology and Chemistry</i> , 2019, 38, 1364-1371.	2.2	15
52	Investigation of municipal sludge gasification potential: Gasification characteristics of dried sludge in a pilot-scale downdraft fixed bed gasifier. <i>International Journal of Hydrogen Energy</i> , 2019, 44, 17397-17410.	3.8	42
53	The financial viability of artificial drying of forest chips, a case study from Northern Finland. <i>Journal of Cleaner Production</i> , 2019, 212, 1454-1461.	4.6	2
54	Shape tunability of carbonized cellulose nanocrystals. <i>SN Applied Sciences</i> , 2019, 1, 1.	1.5	17

#	ARTICLE	IF	CITATIONS
55	Development of Coffee Biochar Filler for the Production of Electrical Conductive Reinforced Plastic. <i>Polymers</i> , 2019, 11, 1916.	2.0	61
56	Potentials, Limitations, Co-Benefits, and Trade-Offs of Biochar Applications to Soils for Climate Change Mitigation. <i>Land</i> , 2019, 8, 179.	1.2	79
57	Torrefaction Characteristics of Japanese Cedar Sawdust with a Mechanical Compression in Air Atmosphere. <i>Journal of Chemical Engineering of Japan</i> , 2019, 52, 851-858.	0.3	2
58	Variables governing the initial stages of the synergisms of ultrasonic treatment of biochar in water with dissolved CO ₂ . <i>Fuel</i> , 2019, 235, 1131-1145.	3.4	21
59	Pyrogenic carbon capture and storage. <i>GCB Bioenergy</i> , 2019, 11, 573-591.	2.5	95
60	The impact of crop residue biochars on silicon and nutrient cycles in croplands. <i>Science of the Total Environment</i> , 2019, 659, 673-680.	3.9	94
61	Catalytic effects of potassium on biomass pyrolysis, combustion and torrefaction. <i>Applied Energy</i> , 2019, 235, 346-355.	5.1	170
62	Biochar amendment improves crop production in problem soils: A review. <i>Journal of Environmental Management</i> , 2019, 232, 8-21.	3.8	377
63	Effect of water washing pretreatment on property and adsorption capacity of macroalgae-derived biochar. <i>Journal of Environmental Management</i> , 2019, 233, 165-174.	3.8	58
64	Influence of biochar application on growth of <i>Oryza sativa</i> and its associated soil microbial ecology. <i>Biomass Conversion and Biorefinery</i> , 2019, 9, 341-352.	2.9	14
65	Influence of pyrolysis conditions and the nature of the wood on the quality of charcoal as a reducing agent. <i>Journal of Analytical and Applied Pyrolysis</i> , 2019, 137, 1-13.	2.6	51
66	Valuable polar moieties on cereal-derived biochars. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019, 561, 275-282.	2.3	7
67	Valorisation of biomass pellets to renewable fuel and chemicals using pyrolysis: characterisation of pyrolysis products and its application. <i>Indian Chemical Engineer</i> , 2020, 62, 78-91.	0.9	9
68	Biochar as Sustainable Reinforcement for Polymer Composites. , 2020, , 10-22.		3
69	Curing the earth: A review of anthropogenic soil salinization and plant-based strategies for sustainable mitigation. <i>Science of the Total Environment</i> , 2020, 698, 134235.	3.9	175
70	Biochar increases 15N fertilizer retention and indigenous soil N uptake in a cotton-barley rotation system. <i>Geoderma</i> , 2020, 357, 113944.	2.3	40
71	Low-cost field production of biochars and their properties. <i>Environmental Geochemistry and Health</i> , 2020, 42, 1569-1578.	1.8	30
72	Small-scale autothermal thermochemical conversion of multiple solid biomass feedstock. <i>Renewable Energy</i> , 2020, 149, 1261-1270.	4.3	17

#	ARTICLE	IF	CITATIONS
73	Critical review of magnetic biosorbents: Their preparation, application, and regeneration for wastewater treatment. <i>Science of the Total Environment</i> , 2020, 702, 134893.	3.9	122
74	Occurrence, formation, environmental fate and risks of environmentally persistent free radicals in biochars. <i>Environment International</i> , 2020, 134, 105172.	4.8	125
75	Application of Biochar as an Adsorbent and Its Significance on Berseem (<i>Trifolium alexandrinum</i>) Growth Parameters in Farm Soil Contaminated with PAH. <i>Journal of Soil Science and Plant Nutrition</i> , 2020, 20, 806-819.	1.7	9
76	Microwave reforming with char-supported Nickel-Cerium catalysts: A potential approach for thorough conversion of biomass tar model compound. <i>Applied Energy</i> , 2020, 261, 114375.	5.1	42
78	Effects of spent mushroom substrate-derived biochar on soil CO ₂ and N ₂ O emissions depend on pyrolysis temperature. <i>Chemosphere</i> , 2020, 246, 125608.	4.2	37
79	Enhanced phosphate removal from aqueous solution using resourceable nano-CaO ₂ /BC composite: Behaviors and mechanisms. <i>Science of the Total Environment</i> , 2020, 709, 136123.	3.9	84
80	Synergistic construction of green tea biochar supported nZVI for immobilization of lead in soil: A mechanistic investigation. <i>Environment International</i> , 2020, 135, 105374.	4.8	74
81	Metal catalysts supported on biochars: Part I synthesis and characterization. <i>Applied Catalysis B: Environmental</i> , 2020, 268, 118423.	10.8	43
82	Investigating the pyrolysis temperature to define the use of charcoal. <i>European Journal of Wood and Wood Products</i> , 2020, 78, 193-204.	1.3	25
83	Biochar made from low density wood has greater plant available water than biochar made from high density wood. <i>Science of the Total Environment</i> , 2020, 705, 135856.	3.9	37
84	Surface and colloid properties of biochar and implications for transport in porous media. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 2484-2522.	6.6	56
85	Environmental and energy assessment of biomass residues to biochar as fuel: A brief review with recommendations for future bioenergy systems. <i>Journal of Cleaner Production</i> , 2020, 251, 119714.	4.6	75
86	Hydrochar production from defective coffee beans by hydrothermal carbonization. <i>Bioresource Technology</i> , 2020, 300, 122653.	4.8	32
87	Effects of different corn straw amendments on humus composition and structural characteristics of humic acid in black soil. <i>Communications in Soil Science and Plant Analysis</i> , 2020, 51, 107-117.	0.6	35
88	Influence of pyrolytic thermal history on olive pruning biochar and related epoxy composites mechanical properties. <i>Journal of Composite Materials</i> , 2020, 54, 1863-1873.	1.2	30
89	Agronomic potential of biochar prepared from brewery byproducts. <i>Journal of Environmental Management</i> , 2020, 255, 109856.	3.8	22
91	Green synthesis of graphitic nanobiochar for the removal of emerging contaminants in aqueous media. <i>Science of the Total Environment</i> , 2020, 706, 135725.	3.9	76
92	Temperature effect on biochar produced from tea (<i>Camellia sinensis</i> L.) pruning litters: A comprehensive treatise on physico-chemical and statistical approaches. <i>Bioresource Technology</i> , 2020, 318, 124023.	4.8	22

#	ARTICLE	IF	CITATIONS
93	Laser-Induced Biochar Formation through 355 nm Pulsed Laser Irradiation of Wood, and Application to Eco-Friendly pH Sensors. <i>Nanomaterials</i> , 2020, 10, 1904.	1.9	16
94	Biochar and its importance on nutrient dynamics in soil and plant. <i>Biochar</i> , 2020, 2, 379-420.	6.2	266
95	Impact of post-torrefaction process on biochar formation from wood pellets and self-heating phenomena for production safety. <i>Energy</i> , 2020, 207, 118324.	4.5	17
96	Influences of feedstock sources and pyrolysis temperature on the properties of biochar and functionality as adsorbents: A meta-analysis. <i>Science of the Total Environment</i> , 2020, 744, 140714.	3.9	313
97	Sustainable Carbon as Efficient Support for Metal-Based Nanocatalyst: Applications in Energy Harvesting and Storage. <i>Molecules</i> , 2020, 25, 3123.	1.7	10
98	Insight into the mechanism of low molecular weight organic acids-mediated release of phosphorus and potassium from biochars. <i>Science of the Total Environment</i> , 2020, 742, 140416.	3.9	25
99	Thermoformed Containers Based on Starch and Starch/Coffee Waste Biochar Composites. <i>Energies</i> , 2020, 13, 6034.	1.6	25
100	Applications of biomass-derived materials for energy production, conversion, and storage. <i>Materials Science for Energy Technologies</i> , 2020, 3, 905-920.	1.0	36
101	Sustainable biochar as an electrocatalysts for the oxygen reduction reaction in microbial fuel cells. <i>Green Energy and Environment</i> , 2021, 6, 644-659.	4.7	77
102	Ignition of bio-water-coal fuels based on coal and charcoal. <i>Combustion Science and Technology</i> , 2022, 194, 1003-1026.	1.2	7
103	Application Research of Biochar for the Remediation of Soil Heavy Metals Contamination: A Review. <i>Molecules</i> , 2020, 25, 3167.	1.7	92
104	Purification of Aqueous Media by Biochars: Feedstock Type Effect on Silver Nanoparticles Removal. <i>Molecules</i> , 2020, 25, 2930.	1.7	14
105	Carbon Sequestration in Support of the "€4 per 1000" Initiative Using Compost and Stable Biochar from Hazelnut Shells and Sunflower Husks. <i>Processes</i> , 2020, 8, 764.	1.3	5
106	Effects of Glucose on Nitrogen Retention and Transformation during Copyrolysis with Fiberboard Waste. <i>Energy & Fuels</i> , 2020, 34, 11083-11090.	2.5	14
107	Does biochar application enhance soil salinization risk in black soil of northeast China (a laboratory) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.3	6
108	Response of soil fertility and Cu and Cd availability to biochar application on paddy soils with different acidification levels. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 1493-1502.	2.9	13
109	Nanobiochar: production, properties, and multifunctional applications. <i>Environmental Science: Nano</i> , 2020, 7, 3279-3302.	2.2	64
110	Bibliometric analysis of the evolution of biochar research trends and scientific production. <i>Clean Technologies and Environmental Policy</i> , 2020, 22, 1967-1997.	2.1	21

#	ARTICLE	IF	CITATIONS
111	Feedstock choice, pyrolysis temperature and type influence biochar characteristics: a comprehensive meta-data analysis review. <i>Biochar</i> , 2020, 2, 421-438.	6.2	333
112	Effect of Biochar Diet Supplementation on Chicken Broilers Performance, NH ₃ and Odor Emissions and Meat Consumer Acceptance. <i>Animals</i> , 2020, 10, 1539.	1.0	22
113	Effects of three types of amendments in woodchip-denitrifying bioreactors for tile drainage water treatment. <i>Ecological Engineering</i> , 2020, 158, 106054.	1.6	8
114	Effect of biochar and inoculation with <i>Trichoderma aureoviride</i> on melon growth and sandy Entisol quality. <i>Australian Journal of Crop Science</i> , 2020, , 971-977.	0.1	6
115	How to trace back an unknown production temperature of biochar from chemical characterization methods in a feedstock independent way. <i>Journal of Analytical and Applied Pyrolysis</i> , 2020, 151, 104926.	2.6	8
116	Dechlorination of 2,4-dichlorophenoxyacetic acid using biochar-supported nano-palladium/iron: Preparation, characterization, and influencing factors. <i>Applied Organometallic Chemistry</i> , 2020, 34, e6010.	1.7	6
117	Electrical Resistivity of Carbonaceous Bed Material at High Temperature. <i>Processes</i> , 2020, 8, 933.	1.3	13
118	Difference in characteristics and nutrient retention between biochars produced in nitrogen-flow and air-limitation atmospheres. <i>Journal of Environmental Quality</i> , 2020, 49, 1396-1407.	1.0	7
119	Renewable Energy from Woody Biomass of Poplar and Willow SRC Coupled to Biochar Production. <i>Handbook of Environmental Chemistry</i> , 2020, , 133-150.	0.2	2
120	Low-temperature biochars from cork-rich and phloem-rich wastes: fuel, leaching, and methylene blue adsorption properties. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 3899-3909.	2.9	11
121	Application methods influence biochar-fertilizer interactive effects on soil nitrogen dynamics. <i>Soil Science Society of America Journal</i> , 2020, 84, 1871-1884.	1.2	5
122	Activated Carbons from Fast Pyrolysis Biochar as Novel Catalysts for the Post-Treatment of Pyrolysis Vapors, Studied by Analytical Pyrolysis. <i>Journal of Carbon Research</i> , 2020, 6, 65.	1.4	4
123	Vermiremediation of Pharmaceutical-Contaminated Soils and Organic Amendments. <i>Handbook of Environmental Chemistry</i> , 2020, , 339.	0.2	4
124	Charcoal as an Alternative Reductant in Ferroalloy Production: A Review. <i>Processes</i> , 2020, 8, 1432.	1.3	29
125	The Future is Garbage: Repurposing of Food Waste to an Integrated Biorefinery. <i>ACS Sustainable Chemistry and Engineering</i> , 2020, 8, 8124-8136.	3.2	42
126	Dependence of pyrolysis temperature and lignocellulosic physical-chemical properties of biochar on its wettability. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2775-2793.	2.9	26
127	Integrating anaerobic digestion and slow pyrolysis improves the product portfolio of a cocoa waste biorefinery. <i>Sustainable Energy and Fuels</i> , 2020, 4, 3712-3725.	2.5	35
128	Feedstock Dependence of Emissions from a Reverse-Downdraft Gasifier Cookstove. <i>Energy for Sustainable Development</i> , 2020, 56, 42-50.	2.0	10

#	ARTICLE	IF	CITATIONS
129	A comprehensive review of engineered biochar: Production, characteristics, and environmental applications. <i>Journal of Cleaner Production</i> , 2020, 270, 122462.	4.6	207
130	Biochar characterization of invasive <i>Pennisetum purpureum</i> grass: effect of pyrolysis temperature. <i>Biochar</i> , 2020, 2, 239-251.	6.2	61
131	Raman spectroscopy of biochar from the pyrolysis of three typical Chinese biomasses: A novel method for rapidly evaluating the biochar property. <i>Energy</i> , 2020, 202, 117644.	4.5	81
132	Valorization of the poultry litter through wet torrefaction and different activation treatments. <i>Science of the Total Environment</i> , 2020, 732, 139288.	3.9	23
133	Waste-derived biochar: Applications and future perspective in microbial fuel cells. <i>Bioresource Technology</i> , 2020, 312, 123587.	4.8	107
134	Phosphorus availability and grass growth in biochar-modified acid soil: A study excluding the effects of soil pH. <i>Soil Use and Management</i> , 2020, 36, 714-725.	2.6	15
135	A study on the new type of radicals in corncob derived biochars. <i>Fuel</i> , 2020, 277, 118163.	3.4	15
136	Utilization of CO ₂ in thermochemical conversion of biomass for enhanced product properties: A review. <i>Journal of CO₂ Utilization</i> , 2020, 40, 101217.	3.3	72
137	Sequestration effect and mechanism of PCB1 by high-temperature black carbon. <i>Environmental Science and Pollution Research</i> , 2020, 27, 31516-31526.	2.7	6
138	Balancing Waste and Nutrient Flows Between Urban Agglomerations and Rural Ecosystems: Biochar for Improving Crop Growth and Urban Air Quality in The Mediterranean Region. <i>Atmosphere</i> , 2020, 11, 539.	1.0	9
139	Carbonization of corncobs for the preparation of barbecue charcoal and combustion characteristics of corncob char. <i>Waste Management</i> , 2020, 105, 560-565.	3.7	19
140	Stabilization of Calcareous Sand by Applying the Admixture of Alkali-Activated Slag (AAS) and Biochar. , 2020, , .		4
141	Dynamic of the structural alteration of biochar in ancient Anthrosol over a long timescale by Raman spectroscopy. <i>PLoS ONE</i> , 2020, 15, e0229447.	1.1	22
142	Electrical and Microwave Characterization of Thermal Annealed Sewage Sludge Derived Biochar Composites. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 1334.	1.3	24
143	Supermagnetic Nano-Bifunctional Catalyst from Rice Husk: Synthesis, Characterization and Application for Conversion of Used Cooking Oil to Biodiesel. <i>Catalysts</i> , 2020, 10, 225.	1.6	43
144	The Research on Adsorption of Cd (II) by Magnetic Biochar. <i>Journal of Physics: Conference Series</i> , 2020, 1549, 022122.	0.3	0
145	Laying Hens Biochar Diet Supplementation Effect on Performance, Excreta N Content, NH ₃ and VOCs Emissions, Egg Traits and Egg Consumers Acceptance. <i>Agriculture (Switzerland)</i> , 2020, 10, 237.	1.4	12
146	Processing and properties of <i>Calotropis gigantea</i> bio-char: A wasteland weed. <i>Materials Today: Proceedings</i> , 2020, 33, 5334-5340.	0.9	5

#	ARTICLE	IF	CITATIONS
147	Improvement of mechanical properties of clay in landfill lines with biochar additive. <i>Arabian Journal of Geosciences</i> , 2020, 13, 1.	0.6	9
148	Influence of high carbonization temperatures on microstructural and physicochemical characteristics of herbaceous biomass derived biochars. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104169.	3.3	27
149	Catalytic performance and mechanism of biochars for dechlorination of tetrachloroethylene in sulfide aqueous solution. <i>Applied Catalysis B: Environmental</i> , 2020, 278, 119285.	10.8	17
150	A novel self-sustained single step process for synthesizing activated char from ligno-cellulosic biomass. <i>Fuel Processing Technology</i> , 2020, 208, 106516.	3.7	8
151	Energy quality of pellets produced from coffee residue: Characterization of the products obtained via slow pyrolysis. <i>Industrial Crops and Products</i> , 2020, 154, 112731.	2.5	29
152	Production of renewable diesel from <i>Jatropha curcas</i> oil via pyrolytic-deoxygenation over various multi-wall carbon nanotube-based catalysts. <i>Chemical Engineering Research and Design</i> , 2020, 142, 336-349.	2.7	48
153	Three-dimensional microspheric g-C ₃ N ₄ coupled by <i>Broussonetia papyrifera</i> biochar: facile sodium alginate immobilization and excellent photocatalytic Cr(IV) reduction. <i>RSC Advances</i> , 2020, 10, 6121-6128.	1.7	21
154	Bio/hydrochar Sorbents for Environmental Remediation. <i>Energy and Environmental Materials</i> , 2020, 3, 453-468.	7.3	50
155	Biochar physicochemical properties: pyrolysis temperature and feedstock kind effects. <i>Reviews in Environmental Science and Biotechnology</i> , 2020, 19, 191-215.	3.9	1,089
156	Effect of biochar and compost on soil properties and organic matter in aggregate size fractions under field conditions. <i>Agriculture, Ecosystems and Environment</i> , 2020, 295, 106882.	2.5	114
157	Differential roles of ash in sorption of triclosan to wood-derived biochars produced at different temperatures. <i>Journal of Environmental Quality</i> , 2020, 49, 335-345.	1.0	12
158	Co-Hydrothermal gasification of <i>Chlorella vulgaris</i> and hydrochar: The effects of waste-to-solid biofuel production and blending concentration on biogas generation. <i>Bioresource Technology</i> , 2020, 302, 122793.	4.8	33
159	Biochar from biomass waste as a renewable carbon material for climate change mitigation in reducing greenhouse gas emissions—a review. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 2247-2267.	2.9	83
160	Performance of the emerging biochar on the stabilization of potentially toxic metals in smelter- and mining-contaminated soils. <i>Environmental Science and Pollution Research</i> , 2020, 27, 43428-43438.	2.7	17
161	Biochar addition with Fe impregnation to reduce H ₂ S production from anaerobic digestion. <i>Bioresource Technology</i> , 2020, 306, 123121.	4.8	62
162	Biochar and kinetics studies on the reduction of sodium bromate by a cobaloxime in an aqueous media: How we can remove a toxic substance from our environment. <i>Inorganica Chimica Acta</i> , 2020, 510, 119697.	1.2	0
163	Stabilization of heavy metal-contaminated soils by biochar: Challenges and recommendations. <i>Science of the Total Environment</i> , 2020, 729, 139060.	3.9	185
164	Biochar Applications in Agriculture and Environment Management. , 2020, , .		9

#	ARTICLE	IF	CITATIONS
165	Remediation of Lead-Contaminated Water by Virgin Coniferous Wood Biochar Adsorbent: Batch and Column Application. <i>Water, Air, and Soil Pollution</i> , 2020, 231, 1.	1.1	30
166	Widespread tropical agrowastes as novel feedstocks for biochar production: characterization and priority environmental uses. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 1775-1785.	2.9	11
167	Effect of biochar on soil properties on the Loess Plateau: Results from field experiments. <i>Geoderma</i> , 2020, 369, 114323.	2.3	44
168	Biochar application for the improvement of water-soil environments and carbon emissions under freeze-thaw conditions: An in-situ field trial. <i>Science of the Total Environment</i> , 2020, 723, 138007.	3.9	28
169	Biochar from Figue Bagasse for Remotion of Caffeine and Diclofenac from Aqueous Solution. <i>Molecules</i> , 2020, 25, 1849.	1.7	24
170	Hydochar and biochar: Production, physicochemical properties and techno-economic analysis. <i>Bioresource Technology</i> , 2020, 310, 123442.	4.8	130
171	Insight into the co-pyrolysis of different blended feedstocks to biochar for the adsorption of organic and inorganic pollutants: A review. <i>Journal of Cleaner Production</i> , 2020, 265, 121762.	4.6	132
172	Kinetic and mechanistic investigation of catalytic alkaline thermal treatment of xylan producing high purity H ₂ with in-situ carbon capture. <i>Journal of Industrial and Engineering Chemistry</i> , 2020, 85, 219-225.	2.9	9
173	Effects of Biochar on Paddy Soil Fertility Under Different Water Management Modes. <i>Journal of Soil Science and Plant Nutrition</i> , 2020, 20, 1810-1818.	1.7	30
174	Pyrolysis and subsequent steam gasification of metal dry impregnated lignin for the production of H ₂ -rich syngas and magnetic activated carbon. <i>Chemical Engineering Journal</i> , 2020, 394, 124902.	6.6	29
175	Progress and future prospects in biochar composites: Application and reflection in the soil environment. <i>Critical Reviews in Environmental Science and Technology</i> , 2021, 51, 219-271.	6.6	93
176	Study of biorefineries based on experimental data: production of bioethanol, biogas, syngas, and electricity using coffee-cut stems as raw material. <i>Environmental Science and Pollution Research</i> , 2021, 28, 24590-24604.	2.7	19
177	Activated carbon in mixed-matrix membranes. <i>Separation and Purification Reviews</i> , 2021, 50, 1-31.	2.8	20
178	Potential role of biochar in advanced oxidation processes: A sustainable approach. <i>Chemical Engineering Journal</i> , 2021, 405, 126582.	6.6	129
179	Biochar production: A sustainable solution for crop residue burning and related environmental issues. <i>Environmental Progress and Sustainable Energy</i> , 2021, 40, e13529.	1.3	6
180	Co-pyrolysis of coal and raw/torrefied biomass: A review on chemistry, kinetics and implementation. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 135, 110189.	8.2	101
181	Influences of rice straw biochar and organic manure on forage soybean nutrient and Cd uptake. <i>International Journal of Phytoremediation</i> , 2021, 23, 53-63.	1.7	9
182	Recent advances in carbon capture storage and utilisation technologies: a review. <i>Environmental Chemistry Letters</i> , 2021, 19, 797-849.	8.3	363

#	ARTICLE	IF	CITATIONS
183	Biomass-derived porous carbonaceous materials and their composites as adsorbents for cationic and anionic dyes: A review. <i>Chemosphere</i> , 2021, 265, 129087.	4.2	115
184	Chemical stabilization of Cd-contaminated soil using fresh and aged wheat straw biochar. <i>Environmental Science and Pollution Research</i> , 2021, 28, 10155-10166.	2.7	20
185	Adsorption of hydrogen sulfide in biogas using a novel iron-impregnated biochar scrubbing system. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 104837.	3.3	41
186	Characterization of Steam Gasification Biochars from Lignocellulosic Agrowaste Towards Soil Applications. <i>Waste and Biomass Valorization</i> , 2021, 12, 4141-4155.	1.8	9
187	Sustainable improvement of soil health utilizing biochar and arbuscular mycorrhizal fungi: A review. <i>Environmental Pollution</i> , 2021, 268, 115549.	3.7	74
188	Biochar: a sustainable solution. <i>Environment, Development and Sustainability</i> , 2021, 23, 6642-6680.	2.7	67
189	Biochar production from sewage sludge and microalgae mixtures: properties, sustainability and possible role in circular economy. <i>Biomass Conversion and Biorefinery</i> , 2021, 11, 289-299.	2.9	80
190	Pineapple Residue Ash Reduces Carbon Dioxide and Nitrous Oxide Emissions in Pineapple Cultivation on Tropical Peat Soils at Saratok, Malaysia. <i>Sustainability</i> , 2021, 13, 1014.	1.6	2
191	O-aryl and Carbonyl Carbon Contents of Food Waste and Biosolid Predict P Availability in an Acidic Soil. <i>Frontiers in Sustainable Food Systems</i> , 2021, 4, .	1.8	3
192	A review on sustainability and quality of biochar production from oil palm biomass in Malaysia using thermal conversion technology. <i>E3S Web of Conferences</i> , 2021, 287, 04011.	0.2	2
193	Investigation of Char Yield and Its Physicochemical Properties with Recycling of Heavy Oil from Biomass Pyrolysis. <i>Energy & Fuels</i> , 2021, 35, 2326-2334.	2.5	4
194	Effect of pyrolysis temperature on eucalyptus wood residues biochar on availability and transport of hexazinone in soil. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 499-514.	1.8	6
195	Induced changes of pyrolysis temperature on the physicochemical traits of sewage sludge and on the potential ecological risks. <i>Scientific Reports</i> , 2021, 11, 974.	1.6	19
196	Alteration of plant physiology by the application of biochar for remediation of organic pollutants. , 2021, , 475-492.		4
197	Optimization of Slow Pyrolysis of Bamboo for Biochar Production using Taguchi's L9 Orthogonal Array. <i>E3S Web of Conferences</i> , 2021, 287, 02004.	0.2	1
198	A review of thermal and thermocatalytic valorization of food waste. <i>Green Chemistry</i> , 2021, 23, 2806-2833.	4.6	28
199	Biochar as a Catalytic Material. , 2021, , 767-801.		0
200	Synthetic Organic Compounds From Paper Industry Wastes: Integrated Biotechnological Interventions. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 592939.	2.0	6

#	ARTICLE	IF	CITATIONS
201	Pilot scale pyro-gasification of biomass and waste: char characterization. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 5751-5765.	2.9	0
202	The effects of vacuum pyrolysis conditions on wood biochar monoliths for electrochemical capacitor electrodes. <i>Journal of Materials Science</i> , 2021, 56, 8588-8599.	1.7	16
203	Engineered biochar – A sustainable solution for the removal of antibiotics from water. <i>Chemical Engineering Journal</i> , 2021, 405, 126926.	6.6	212
204	Insights into adsorption of ammonium by biochar derived from low temperature pyrolysis of coffee husk. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 2193-2205.	2.9	17
205	Greenhouse Evaluation of Pinewood Biochar Effects on Nutrient Status and Physiological Performance in Muscadine Grape (<i>Vitis rotundifolia</i> L.). <i>Hortscience: A Publication of the American Society for Horticultural Science</i> , 2021, 56, 277-285.	0.5	3
206	A decision support method for biochars characterization from carbonization of grape pomace. <i>Biomass and Bioenergy</i> , 2021, 145, 105946.	2.9	15
207	How clonal differences and within-tree heterogeneity affect pore properties of hybrid aspen wood and biochar?. <i>Biomass Conversion and Biorefinery</i> , 0, , 1.	2.9	0
208	A Review of Bio-Oil Production through Microwave-Assisted Pyrolysis. <i>Processes</i> , 2021, 9, 561.	1.3	18
209	Valorization of waste potato peel as iron adsorbent and catalyst in photo-oxidation: a sustainable waste management strategy. <i>International Journal of Environmental Science and Technology</i> , 2022, 19, 1945-1956.	1.8	2
210	Effects of Biochar on Replant Disease by Amendment Soil Environment. <i>Communications in Soil Science and Plant Analysis</i> , 2021, 52, 673-685.	0.6	12
211	Hardwood biochar as an alternative to reduce peat use for seed germination and growth of <i>Tagetes patula</i> . <i>Acta Agriculturae Scandinavica - Section B Soil and Plant Science</i> , 2021, 71, 408-421.	0.3	3
212	Biochar from sawmill residues: characterization and evaluation for its potential use in the horticultural growing media. <i>Biochar</i> , 2021, 3, 201-212.	6.2	8
213	Experimental Investigations to Promote Better Adaptability of Safety Helmets Using Jute Fiber Reinforced Polyester Composites – A Waste Utilization Approach. <i>Journal of Natural Fibers</i> , 2022, 19, 5755-5767.	1.7	4
214	Effect of three different types of biochars on eco-physiological response of important agroforestry tree species under salt stress. <i>International Journal of Phytoremediation</i> , 2021, 23, 1412-1422.	1.7	5
215	Progress on Biobased Industrial Carbons as Thermochemical Biorefinery Coproducts. <i>Energy & Fuels</i> , 2021, 35, 5627-5642.	2.5	12
216	Inherent Metal Elements in Biomass Pyrolysis: A Review. <i>Energy & Fuels</i> , 2021, 35, 5407-5478.	2.5	68
217	Bio Based Batteries. <i>Advanced Energy Materials</i> , 2021, 11, 2003713.	10.2	19
218	Biochar Derived from Agricultural Wastes as a Means of Facilitating the Degradation of Azo Dyes by Sulfides. <i>Catalysts</i> , 2021, 11, 434.	1.6	11

#	ARTICLE	IF	CITATIONS
219	Biochar from Pine Wood, Rice Husks and Iron-Eupatorium Shrubs for Remediation Applications: Surface Characterization and Experimental Tests for Trichloroethylene Removal. <i>Materials</i> , 2021, 14, 1776.	1.3	14
220	Biochar from Oil Palm Frond to Reduce Fe Ions in Artificial Solution and Peat Water. <i>Advanced Materials Research</i> , 0, 1162, 49-56.	0.3	0
221	An overview on engineering the surface area and porosity of biochar. <i>Science of the Total Environment</i> , 2021, 763, 144204.	3.9	434
222	Investigation of Different Types of Biochar on the Thermal Stability and Fire Retardance of Ethylene-Vinyl Acetate Copolymers. <i>Polymers</i> , 2021, 13, 1256.	2.0	13
223	Changes in soil water retention following biochar amendment. <i>Energy Sources, Part A: Recovery, Utilization and Environmental Effects</i> , 0, , 1-9.	1.2	2
224	Assessment of the pyrolysis products from halophyte <i>Salicornia bigelovii</i> cultivated in a desert environment. <i>Fuel</i> , 2021, 290, 119518.	3.4	15
225	A review on membrane fouling control in anaerobic membrane bioreactors by adding performance enhancers. <i>Journal of Water Process Engineering</i> , 2021, 40, 101867.	2.6	47
226	Surface Modification of Spruce and Fir Sawn-Timber by Charring in the Traditional Japanese Method "Yakisugi". <i>Polymers</i> , 2021, 13, 1662.	2.0	14
227	Upgrading from batch to continuous flow process for the pyrolysis of sugarcane bagasse: Structural characterization of the biochars produced. <i>Journal of Environmental Management</i> , 2021, 285, 112145.	3.8	29
228	Highly dispersed iron-doped biochar derived from sawdust for Fenton-like degradation of toxic dyes. <i>Journal of Cleaner Production</i> , 2021, 297, 126681.	4.6	97
229	Biochar and Its Broad Impacts in Soil Quality and Fertility, Nutrient Leaching and Crop Productivity: A Review. <i>Agronomy</i> , 2021, 11, 993.	1.3	129
230	Investigation on co-combustion of coal gasification fine slag residual carbon and sawdust char blends: Physicochemical properties, combustion characteristic and kinetic behavior. <i>Fuel</i> , 2021, 292, 120387.	3.4	55
231	Exploring long-term effects of biochar on mitigating methane emissions from paddy soil: a review. <i>Biochar</i> , 2021, 3, 125-134.	6.2	58
232	Pyrolysis of different wood species: influence of process conditions on biochar properties and gas-phase composition. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 6027-6037.	2.9	4
233	Incorporation of biochar in cementitious materials: A roadmap of biochar selection. <i>Construction and Building Materials</i> , 2021, 283, 122757.	3.2	72
234	Assessment of the fertilizer potential of biochars produced from slow pyrolysis of biosolid and animal manures. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 155, 105043.	2.6	32
235	Dynamics of hydrogen loss and structural changes in pyrolyzing biomass utilizing neutron imaging. <i>Carbon</i> , 2021, 176, 511-529.	5.4	5
236	A complete review on biochar: Production, property, multifaceted applications, interaction mechanism and computational approach. <i>Fuel</i> , 2021, 292, 120243.	3.4	90

#	ARTICLE	IF	CITATIONS
237	Evaluation of pervious concrete performance with pulverized biochar as cement replacement. <i>Cement and Concrete Composites</i> , 2021, 119, 104022.	4.6	61
238	Microwave-intensified treatment of low-zinc EAF dust: A route toward high-grade metallized product with a focus on multiple elements. <i>Powder Technology</i> , 2021, 383, 509-521.	2.1	14
239	Assessment of a Biochar-Based Controlled Release Nitrogen Fertilizer Coated with Polylactic Acid. <i>Journal of Soil Science and Plant Nutrition</i> , 2021, 21, 2007-2019.	1.7	17
240	Co-pyrolysis of agricultural and industrial wastes changes the composition and stability of biochars and can improve their agricultural and environmental benefits. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 155, 105036.	2.6	26
241	Biochar Improves Root Growth of <i>Sapium sebiferum</i> (L.) Roxb. Container Seedlings. <i>Agronomy</i> , 2021, 11, 1242.	1.3	2
242	Plant Biostimulants: A Categorical Review, Their Implications for Row Crop Production, and Relation to Soil Health Indicators. <i>Agronomy</i> , 2021, 11, 1297.	1.3	56
243	Preparation of high-performance, three-dimensional, hierarchical porous carbon Supercapacitor materials and high-value-added potassium Humate from cotton stalks. <i>Diamond and Related Materials</i> , 2021, 116, 108375.	1.8	10
244	Structural and chemical changes of sludge derived pyrolysis char prepared under different process temperatures. <i>Journal of Analytical and Applied Pyrolysis</i> , 2021, 156, 105085.	2.6	20
246	A comprehensive review of biochar-derived dissolved matters in biochar application: Production, characteristics, and potential environmental effects and mechanisms. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105258.	3.3	20
247	Performance analysis of cold storage system with nanofiller phase change material. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 6777-6786.	2.9	3
248	Synchrotron X-ray microtomography and multifractal analysis for the characterization of pore structure and distribution in softwood pellet biochar. <i>Biochar</i> , 2021, 3, 671-686.	6.2	7
249	Valorization of humins from food waste biorefinery for synthesis of biochar-supported Lewis acid catalysts. <i>Science of the Total Environment</i> , 2021, 775, 145851.	3.9	30
251	Residual stress-strain relationship for the biochar-based mortar after exposure to elevated temperature. <i>Case Studies in Construction Materials</i> , 2021, 14, e00540.	0.8	10
252	Investigation of the adsorption of ions chromium by mean biochar from coniferous trees. <i>Applied Nanoscience (Switzerland)</i> , 0, , 1.	1.6	2
253	Evaluation on soil fertility quality under biochar combined with nitrogen reduction. <i>Scientific Reports</i> , 2021, 11, 13792.	1.6	9
254	Biochar produced from wood waste for soil remediation in Sweden: Carbon sequestration and other environmental impacts. <i>Science of the Total Environment</i> , 2021, 776, 145953.	3.9	47
255	Evaluation of characteristics of raw tea waste-derived adsorbents for removal of metals from aqueous medium. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 7811-7826.	2.9	9
256	Dual waste utilization in ultra-high performance concrete using biochar and marine clay. <i>Cement and Concrete Composites</i> , 2021, 120, 104049.	4.6	42

#	ARTICLE	IF	CITATIONS
257	Biochar and environmental sustainability: Emerging trends and techno-economic perspectives. <i>Bioresource Technology</i> , 2021, 332, 125102.	4.8	66
258	Research on improving comprehensive properties of a new sawdust composite insulation material by torrefaction. <i>Chemical Engineering Research and Design</i> , 2021, 152, 361-374.	2.7	7
259	Visualizing the development trend and research frontiers of biochar in 2020: a scientometric perspective. <i>Biochar</i> , 2021, 3, 419-436.	6.2	39
260	Thermal and mechanical characteristics of local firewood species and resulting charcoal produced by slow pyrolysis. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 6689-6704.	2.9	9
261	Combined Strategies to Prompt the Biological Reduction of Chlorinated Aliphatic Hydrocarbons: New Sustainable Options for Bioremediation Application. <i>Bioengineering</i> , 2021, 8, 109.	1.6	11
262	Thermochemical methods for the treatment of municipal sludge. <i>Journal of Cleaner Production</i> , 2021, 311, 127811.	4.6	63
263	Crop-residues derived biochar: Synthesis, properties, characterization and application for the removal of trace elements in soils. <i>Journal of Hazardous Materials</i> , 2021, 416, 126212.	6.5	37
264	Gasification biochar from horticultural waste: An exemplar of the circular economy in Singapore. <i>Science of the Total Environment</i> , 2021, 781, 146573.	3.9	24
265	Use of charcoal from gasification residues in adsorption pilot plant for the practical application of circular economy in industrial wastewater treatment. <i>Chemical Engineering Communications</i> , 2022, 209, 1316-1333.	1.5	2
266	Low temperature production of biochars from different biomasses: Effect of static and rotary lab reactors and application as soil conditioners. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105472.	3.3	4
267	Characterization of halophyte biochar and its effects on water and salt contents in saline soil. <i>Environmental Science and Pollution Research</i> , 2022, 29, 11831-11842.	2.7	8
268	Agricultural Waste-Based Biochar for Agronomic Applications. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8914.	1.3	28
269	Effects of biochar application on soil nitrogen and phosphorous leaching loss and oil peony growth. <i>Agricultural Water Management</i> , 2021, 255, 107022.	2.4	22
270	Inhibition of ammonia and hydrogen sulphide as faecal sludge odour control in dry sanitation toilet facilities using plant waste materials. <i>Scientific Reports</i> , 2021, 11, 17803.	1.6	2
271	Physical and Energy Characteristics, Compression Strength and Chemical Modification of Charcoal Produced from Sixteen Tropical Woods in Costa Rica. <i>Journal of Sustainable Forestry</i> , 2023, 42, 151-169.	0.6	4
272	Phytoattenuation of Cd, Pb, and Zn in a Slag-contaminated Soil Amended with Rice Straw Biochar and Grown with Energy Maize. <i>Environmental Management</i> , 2022, 69, 196-212.	1.2	5
273	Pyrolysis temperature affects pore characteristics of rice straw and canola stalk biochars and biochar-amended soils. <i>Geoderma</i> , 2021, 397, 115097.	2.3	62
274	Can biochar be an effective and reliable biostimulating agent for the remediation of hydrocarbon-contaminated soils?. <i>Environment International</i> , 2021, 154, 106553.	4.8	40

#	ARTICLE	IF	CITATIONS
275	A Predictive Physico-chemical Model of Biochar Oxidation. <i>Energy & Fuels</i> , 2021, 35, 14894-14912.	2.5	7
276	Assessment of Pyrolytic Biochar as a Solar Absorber Material for Cost-Effective Water Evaporation Enhancement. <i>Environmental Engineering Science</i> , 2021, 38, 1120-1128.	0.8	3
277	Non-Catalytic Dissolution of Biochar Obtained by Hydrothermal Carbonization of Sawdust in Hydrogen Donor Solvent. <i>Energies</i> , 2021, 14, 5890.	1.6	4
278	Biochar from the mixture of poultry litter and charcoal fines as soil conditioner: Optimization of preparation conditions via response surface methodology. <i>Bioresource Technology Reports</i> , 2021, 15, 100800.	1.5	4
279	Phosphorus and potassium in aggregates of degraded soils: changes caused by biochar application. <i>Clean - Soil, Air, Water</i> , 0, , 2000366.	0.7	1
280	Biochar derived from agricultural wastes and wood residues for sustainable agricultural and environmental applications. <i>International Soil and Water Conservation Research</i> , 2022, 10, 335-341.	3.0	39
281	Reusing biochar as a filler or cement replacement material in cementitious composites: A review. <i>Construction and Building Materials</i> , 2021, 300, 124295.	3.2	54
282	A Review on Current Status of Biochar Uses in Agriculture. <i>Molecules</i> , 2021, 26, 5584.	1.7	54
283	Effects of different pretreatment methods on biochar properties from pyrolysis of corn stover. <i>Journal of the Energy Institute</i> , 2021, 98, 294-302.	2.7	16
284	Caffeine adsorption on activated biochar derived from macrophytes (<i>Eichornia crassipes</i>). <i>Journal of Molecular Liquids</i> , 2021, 340, 117206.	2.3	19
285	Mechanistic interaction of ciprofloxacin on zeolite modified seaweed (<i>Sargassum crassifolium</i>) derived biochar: Kinetics, isotherm and thermodynamics. <i>Chemosphere</i> , 2021, 281, 130676.	4.2	69
286	Conversion of food waste to energy: A focus on sustainability and life cycle assessment. <i>Fuel</i> , 2021, 302, 121069.	3.4	62
287	Production and beneficial impact of biochar for environmental application: A comprehensive review. <i>Bioresource Technology</i> , 2021, 337, 125451.	4.8	180
288	Novel K-enriched organomineral fertilizer from sewage sludge-biochar: Chemical, physical and mineralogical characterization. <i>Waste Management</i> , 2021, 135, 98-108.	3.7	15
289	Biochar as a Partial Cement Replacement Material for Developing Sustainable Concrete: An Overview. <i>Journal of Materials in Civil Engineering</i> , 2021, 33, .	1.3	25
290	Efficiency of CH ₄ N ₂ Sâ”modified biochar derived from potato peel on the adsorption and fractionation of cadmium, zinc and copper in contaminated acidic soil. <i>Environmental Nanotechnology, Monitoring and Management</i> , 2021, 16, 100468.	1.7	4
291	Research progress and prospects for using biochar to mitigate greenhouse gas emissions during composting: A review. <i>Science of the Total Environment</i> , 2021, 798, 149294.	3.9	82
292	The co-combustion of torrefied municipal solid waste and coal in bubbling fluidised bed combustor under atmospheric and elevated pressure. <i>Renewable Energy</i> , 2021, 179, 828-841.	4.3	18

#	ARTICLE	IF	CITATIONS
293	CO2 capture by adsorption on biomass-derived activated char: A review. <i>Science of the Total Environment</i> , 2021, 798, 149296.	3.9	87
294	Biochar-induced priming effects in soil via modifying the status of soil organic matter and microflora: A review. <i>Science of the Total Environment</i> , 2022, 805, 150304.	3.9	42
295	Transformation of biochar into extracted humic substances under short-term laboratory incubation conditions: Evidence from stable carbon isotopes. <i>Soil and Tillage Research</i> , 2022, 215, 105189.	2.6	12
296	Justification of the use of forest waste in the power industry as one of the components OF BIO-coal-water suspension fuel. <i>Energy</i> , 2022, 239, 121677.	4.5	4
297	Phosphate adsorption characteristics of La(OH) ₃ -modified, canna-derived biochar. <i>Chemosphere</i> , 2022, 286, 131773.	4.2	42
298	Magnetic-watermelon rinds biochar for uranium-contaminated water treatment using an electromagnetic semi-batch column with removal mechanistic investigations. <i>Chemosphere</i> , 2022, 286, 131776.	4.2	70
299	Biochar-based activation of peroxide: multivariate-controlled performance, modulatory surface reactive sites and tunable oxidative species. <i>Chemical Engineering Journal</i> , 2022, 428, 131233.	6.6	37
300	Utilization of Biochar as a Multifunctional Additive in Cement-Based Materials. <i>RILEM Bookseries</i> , 2021, , 343-353.	0.2	2
301	State-of-the-Art Char Production with a Focus on Bark Feedstocks: Processes, Design, and Applications. <i>Processes</i> , 2021, 9, 87.	1.3	14
302	Effects of Chemical Composition and Pyrolysis Process Variables on Biochar Yields: Correlation and Principal Component Analysis. <i>Floresta E Ambiente</i> , 2021, 28, .	0.1	5
303	Removal of Arsenic by Wheat Straw Biochar from Soil. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2022, 108, 415-422.	1.3	40
304	Adsorption of methyl orange: A review on adsorbent performance. <i>Current Research in Green and Sustainable Chemistry</i> , 2021, 4, 100179.	2.9	110
305	Recent Development in Bioremediation of Soil Pollutants Through Biochar for Environmental Sustainability. , 2020, , 123-140.		14
306	Hydrothermal carbonization as a sustainable strategy for integral valorisation of apple waste. <i>Bioresource Technology</i> , 2020, 309, 123395.	4.8	36
307	Food waste biorefinery advocating circular economy: Bioethanol and distilled beverage from sweet potato. <i>Journal of Cleaner Production</i> , 2020, 268, 121788.	4.6	41
308	Phosphorus adsorption behaviors of MgO modified biochars derived from waste woody biomass resources. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 103723.	3.3	78
309	Physicochemical and structural characterization of biochar derived from the pyrolysis of biosolids, cattle manure and spent coffee grounds. <i>Journal of the Energy Institute</i> , 2020, 93, 2063-2073.	2.7	66
310	Effects of Biochar Amendment on Soil Problems and Improving Rice Production under Salinity Conditions. <i>Advanced Journal of Graduate Research</i> , 2019, 7, 45-63.	0.5	10

#	ARTICLE	IF	CITATIONS
311	Carbon family nanomaterials " new applications and technologies. Acta Chimica Slovaca, 2020, 13, 77-87.	0.5	2
312	Characterization of Tablets Made from Mixture of Charred Agricultural Residues with and Without Embedded Fertilizer. Acta Technologica Agriculturae, 2019, 22, 70-74.	0.2	5
313	Impact of Pyrolysis Temperature on the Properties of Eucalyptus Wood-Derived Biochar. Materials, 2020, 13, 5841.	1.3	42
314	Effects of Pyrolysis Temperature and Residence Time on Rice Straw-derived Biochar for Soil Application. International Journal of Plant & Soil Science, 2018, 23, 1-11.	0.2	7
316	Intensive Exploration the Fuel Characteristics of Biomass and Biochar from Oil Palm Trunk and Oil Palm Fronds for Supporting Increasing Demand of Solid Biofuels in Thailand. SSRN Electronic Journal, 0, , .	0.4	0
317	Sustainable production of value-added sulfonated biochar by sulfuric acid carbonization reduction of rice husks. Environmental Technology and Innovation, 2021, 24, 102025.	3.0	7
318	Effect of Biochar Amendment in Woodchip Denitrifying Bioreactors for Nitrate and Phosphate Removal in Tile Drainage Flow. Water (Switzerland), 2021, 13, 2883.	1.2	0
319	Phosphate adsorption using biochar derived from solid digestate. Bioresource Technology Reports, 2021, 16, 100864.	1.5	12
320	A laboratory investigation of coastal sand stabilization using biochar-enhanced alkali-activated slag. Japanese Geotechnical Society Special Publication, 2021, 9, 292-295.	0.2	0
321	Effect of Pyrolysis Temperature and Wood Species on the Properties of Biochar Pellets. Energies, 2021, 14, 6529.	1.6	15
322	Sustainable green nanoadsorbents for remediation of pharmaceuticals from water and wastewater: A critical review. Environmental Research, 2022, 204, 112243.	3.7	57
323	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
324	Cement Replacement and Improved Hydration in Ultra-High Performance Concrete Using Biochar. RILEM Bookseries, 2020, , 222-229.	0.2	2
325	CHARACTERIZATION OF ASHES FROM FOREST BIOMASS COMBUSTION IN BOILERS: A SYSTEMIC VIEW OF POTENTIAL APPLICATIONS. Floresta, 2019, 50, 1081.	0.1	0
326	From Waste to Chemicals: Bio-Oils Production Through Microwave-Assisted Pyrolysis. Biofuels and Biorefineries, 2020, , 207-231.	0.5	1
327	Piroliz s caklÄ±Ä±n biyoÄsarlarÄ±n bazÄ± fiziksel ve kimyasal Äzellikleri Äzerine etkileri. Toprak Bilimi Ve Bitki Besleme Dergisi, 1900, 8, 1-13.	0,4	2
328	Biochar production from the pyrolysis of tomato processing residues. , 2022, , 171-200.		4
329	Optimization of the Microwave-Assisted Carbothermal Reduction Process for Metals from Electric Arc Furnace Dust with Biochar. Metals, 2021, 11, 1765.	1.0	2

#	ARTICLE	IF	CITATIONS
330	Using corncob-based biochar to intercept BTEX in stormwater filtration systems. <i>Water Science and Technology</i> , 2020, 82, 1858-1867.	1.2	1
331	In situ catalytic fast pyrolysis of lignin over biochar and activated carbon derived from the identical process. <i>Fuel Processing Technology</i> , 2022, 227, 107103.	3.7	14
332	Processing of fique bagasse waste into modified biochars for adsorption of caffeine and sodium diclofenac. <i>Brazilian Journal of Chemical Engineering</i> , 2022, 39, 933-948.	0.7	5
333	Recent advances in the application of biochar in microbial electrochemical cells. <i>Fuel</i> , 2022, 311, 122501.	3.4	43
334	Ammonia volatilization from manure mixed with biochar. <i>Canadian Journal of Soil Science</i> , 0, , .	0.5	4
335	Applying Cassava Stems Biochar Produced from Agronomical Waste to Enhance the Yield and Productivity of Maize in Unfertile Soil. <i>Fermentation</i> , 2021, 7, 277.	1.4	4
336	Xerogel-like Materials from Sustainable Sources: Properties and Electrochemical Performances. <i>Energies</i> , 2021, 14, 7977.	1.6	6
337	Confirmation of Pore Formation Mechanisms in Biochars and Activated Carbons by Dual Isotherm Analysis. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0
340	Effects of synthesis method, feedstock type, and pyrolysis temperature on physicochemical properties of biochar nanoparticles. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 13859-13869.	2.9	5
341	Sorption of Cd(II) and Ni(II) on biochars produced in nitrogen and air-limitation environments with various pyrolysis temperatures: Comparison in mechanism and performance. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022, 635, 128100.	2.3	5
342	Recent advances of carbon-based nano zero valent iron for heavy metals remediation in soil and water: A critical review. <i>Journal of Hazardous Materials</i> , 2022, 426, 127993.	6.5	100
343	Sustainable biochar: A facile strategy for soil and environmental restoration, energy generation, mitigation of global climate change and circular bioeconomy. <i>Chemosphere</i> , 2022, 293, 133474.	4.2	47
344	Preparation of nano-biochar from conventional biorefineries for high-value applications. <i>Renewable and Sustainable Energy Reviews</i> , 2022, 157, 112057.	8.2	35
345	Impact of biochar use on agricultural production and climate change. A review. <i>Agronomia Colombiana</i> , 2020, 38, 367-381.	0.1	5
346	Modulating the porosity of carbons for improved adsorption of hydrogen, carbon dioxide, and methane: a review. <i>Materials Advances</i> , 2022, 3, 1905-1930.	2.6	21
347	Sustainable Production of Biochar, Bio-Gas and Bio-Oil from Lignocellulosic Biomass and Biomass Waste. <i>Energy, Environment, and Sustainability</i> , 2022, , 177-205.	0.6	1
349	Real wastewater micropollutant removal by wood waste biomass biochars: A mechanistic interpretation related to various biochar physico-chemical properties. <i>Bioresource Technology Reports</i> , 2022, 17, 100966.	1.5	1
350	Biochar and microbes for sustainable soil quality management. , 2022, , 289-311.		5

#	ARTICLE	IF	CITATIONS
351	Biochar reduces the toxicity of silver to barley (<i>Hordeum vulgare</i>) and springtails (<i>Folsomia candida</i>) in a natural soil. <i>Environmental Science and Pollution Research</i> , 2022, , 1.	2.7	2
352	Machine Learning and Natural Language Processing Enable a Data-Oriented Experimental Design Approach for Producing Biochar and Hydrochar from Biomass. <i>Chemistry of Materials</i> , 2022, 34, 979-990.	3.2	28
353	Assessment of biochar application in decontamination of water and wastewater. , 2022, , 69-74.		3
354	Mechanism of biochar functional groups in the catalytic reduction of tetrachloroethylene by sulfides. <i>Environmental Pollution</i> , 2022, 300, 118921.	3.7	9
355	Pinewood sawdust biochar as an effective biosorbent for PAHs removal from wastewater. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 13443-13459.	2.9	6
356	A critical review on production, modification and utilization of biochar. <i>Journal of Analytical and Applied Pyrolysis</i> , 2022, 161, 105405.	2.6	68
357	Review on Self-Heating of Biomass Materials: Understanding and Description. <i>Energy & Fuels</i> , 2022, 36, 731-761.	2.5	18
358	The potential of using corn straw biochar to compensate the loss of available soil organic matter. <i>E3S Web of Conferences</i> , 2022, 341, 01002.	0.2	0
359	Elemental mercury (Hg ⁰) emission, hazards, and control: A brief review. <i>Journal of Hazardous Materials Advances</i> , 2022, 5, 100049.	1.2	14
360	An insight into long-term effects of biochar application on forest soils. <i>European Journal of Forest Research</i> , 2022, 141, 213.	1.1	2
361	Biochar-filled plastics: Effect of feedstock on thermal and mechanical properties. <i>Biomass Conversion and Biorefinery</i> , 2022, 12, 4349-4360.	2.9	10
362	Characteristics and chlorine reactivity of biochar-derived dissolved organic matter: Effects of feedstock type and pyrolysis temperature. <i>Water Research</i> , 2022, 211, 118044.	5.3	31
363	The composition, energy, and carbon stability characteristics of biochars derived from thermo-conversion of biomass in air-limitation, CO ₂ , and N ₂ at different temperatures. <i>Waste Management</i> , 2022, 141, 136-146.	3.7	12
364	Pepsin immobilization: Influence of carbon support functionalization. <i>International Journal of Biological Macromolecules</i> , 2022, 203, 67-79.	3.6	10
365	Life-cycle assessment to unravel co-benefits and trade-offs of large-scale biochar deployment in Norwegian agriculture. <i>Resources, Conservation and Recycling</i> , 2022, 179, 106030.	5.3	22
366	Carbon-based catalyst for environmental bioremediation and sustainability: Updates and perspectives on techno-economics and life cycle assessment. <i>Environmental Research</i> , 2022, 209, 112793.	3.7	18
367	Physicochemical characteristics and combustion reactivity of reed stalk hydrochar obtained under dilute black liquor condition. <i>Biomass Conversion and Biorefinery</i> , 2024, 14, 955-969.	2.9	0
368	Metal-Supported Biochar Catalysts for Sustainable Biorefinery, Electrocatalysis, and Energy Storage Applications: A Review. <i>Catalysts</i> , 2022, 12, 207.	1.6	31

#	ARTICLE	IF	CITATIONS
369	Pyrolysis of Sewage Sludge: Physical, Chemical, Morphological and Mineralogical Transformations. Brazilian Archives of Biology and Technology, 0, 65, .	0.5	4
370	Confirmation of pore formation mechanisms in biochars and activated carbons by dual isotherm analysis. Materials Advances, 2022, 3, 3961-3971.	2.6	11
371	Artificial Neural Networks for the Prediction of Biochar Yield: A Comparative Study of Metaheuristic Algorithms. SSRN Electronic Journal, 0, , .	0.4	1
372	Green Diesel Production Via Catalytic Deoxygenation of Pfad Using Mo-Ag Supported Activated Carbon Under H2 Free Ambient and Solventless Conditions. SSRN Electronic Journal, 0, , .	0.4	0
373	Production and environmental applications of activated sludge biochar. , 2022, , 387-406.		1
374	Effect of Biochar and Microbial Inoculation on P, Fe, and Zn Bioavailability in a Calcareous Soil. Processes, 2022, 10, 343.	1.3	12
375	Soil health and crop response of biochar: an updated analysis. Archives of Agronomy and Soil Science, 2023, 69, 1085-1110.	1.3	16
376	Combustion behavior of furfurylated wood in the presence of montmorillonite and its char characteristics. Wood Science and Technology, 2022, 56, 623-648.	1.4	6
377	Biomass-derived biochar: From production to application in removing heavy metal-contaminated water. Chemical Engineering Research and Design, 2022, 160, 704-733.	2.7	86
378	Potential and future prospects of biochar-based materials and their applications in removal of organic contaminants from industrial wastewater. Journal of Material Cycles and Waste Management, 2022, 24, 852-876.	1.6	42
379	Potential of biochar reinforced concrete as neutron shielding material. Nuclear Engineering and Technology, 2022, 54, 3448-3451.	1.1	8
381	Catalytic fast pyrolysis of agricultural residues and dedicated energy crops for the production of high energy density transportation biofuels. Part II: Catalytic research. Renewable Energy, 2022, 189, 315-338.	4.3	18
382	Influence of Biomass Composition and Microwave Pyrolysis Conditions on Biochar Yield and its Properties: a Machine Learning Approach. Bioenergy Research, 2023, 16, 138-150.	2.2	8
383	Nickel-loaded shrimp shell biochar enhances batch anaerobic digestion of food waste. Bioresource Technology, 2022, 352, 127092.	4.8	26
384	The chemical compositions and carbon structures of pine sawdust- and wheat straw-derived biochars produced in air-limitation, carbon dioxide, and nitrogen atmospheres, and their variation with charring temperature. Fuel, 2022, 315, 122852.	3.4	4
385	The role of biochar on alleviating ammonia toxicity in anaerobic digestion of nitrogen-rich wastes: A review. Bioresource Technology, 2022, 351, 126924.	4.8	53
386	Review on arsenic removal using biochar-based materials. Groundwater for Sustainable Development, 2022, 17, 100740.	2.3	26
387	Impact of the biomass precursor composition in the hard carbon properties and performance for application in a Na-ion battery. Fuel Processing Technology, 2022, 231, 107223.	3.7	13

#	ARTICLE	IF	CITATIONS
388	Characterization of charcoals produced from Acacia, Albizia and Leucaena for application in ironmaking. Fuel, 2022, 320, 123991.	3.4	9
389	Joint effects of bacterium and biochar in remediation of antibiotic-heavy metal contaminated soil and responses of resistance gene and microbial community. Chemosphere, 2022, 299, 134333.	4.2	27
390	Biochar: From by-products of agro-industrial lignocellulosic waste to tailored carbon-based catalysts for biomass thermochemical conversions. Chemical Engineering Journal, 2022, 441, 135972.	6.6	69
391	A comparison between the characteristics of a biochar-NPK granule and a commercial NPK granule for application in the soil. Science of the Total Environment, 2022, 832, 155021.	3.9	5
392	Grain yield, plant nitrogen content and nitrogen use efficiency as affected by controlled-release urea and straw biochar in a rice field. Journal of Plant Nutrition, 2022, 45, 1393-1402.	0.9	5
393	Removal of Hydrophobic Contaminants from the Soil by Adsorption onto Carbon Materials and Microbial Degradation. Journal of Carbon Research, 2021, 7, 83.	1.4	9
394	Recent Developments in the Immobilization of Laccase on Carbonaceous Supports for Environmental Applications - A Critical Review. Frontiers in Bioengineering and Biotechnology, 2021, 9, 778239.	2.0	23
395	A data synthesis on the biochar properties and implications for air, soil, and water quality in Brazil. Environmental Quality Management, 2023, 32, 27-41.	1.0	3
396	Biochar Derived from Pyrolysis of Common Agricultural Waste Feedstocks and Co-pyrolysis with Low-Density Polyethylene Mulch Film. Waste and Biomass Valorization, 2022, 13, 3913-3932.	1.8	8
397	A comparative study on morphology, composition, kinetics, thermal behaviour and thermodynamic parameters of Prosopis Juliflora and its biochar derived from vacuum pyrolysis. Bioresource Technology Reports, 2022, 18, 101053.	1.5	5
398	Artificial neural networks for the prediction of biochar yield: A comparative study of metaheuristic algorithms. Bioresource Technology, 2022, 355, 127215.	4.8	54
399	Application of biochar for the removal of actinides and lanthanides from aqueous solutions. , 2022, , 321-359.		1
400	Arsenic removal from household drinking water by biochar and biochar composites: A focus on scale-up. , 2022, , 277-320.		0
401	Emerging application of biochar as a renewable and superior filler in polymer composites. RSC Advances, 2022, 12, 13938-13949.	1.7	15
402	Biochar characterization for water and wastewater treatments. , 2022, , 135-152.		0
403	Nanobiochar for aqueous contaminant removal. , 2022, , 667-704.		2
404	The Role of Biochar Systems in the Circular Economy: Biomass Waste Valorization and Soil Remediation. , 0, , .		1
405	Evaluation of the Use of Sewage Sludge Biochar as a Soil Amendmentâ€™A Review. Sustainability, 2022, 14, 5309.	1.6	20

#	ARTICLE	IF	CITATIONS
406	Performance and mechanisms of biochar for promoting the removal efficiency of organic solids in the vermi-wetland during the recycling of excess sludge. <i>Journal of Cleaner Production</i> , 2022, 360, 132172.	4.6	8
407	A review on combustion and mechanical behaviour of pyrolysis biochar. <i>Materials Today Communications</i> , 2022, 31, 103629.	0.9	14
408	Tunable syngas production from biomass: Synergistic effect of steam, Ni–CaO catalyst, and biochar. <i>Energy</i> , 2022, 254, 123904.	4.5	8
409	Biochar produced by combining lignocellulosic feedstock and mushroom reduces its heterogeneity. <i>Bioresource Technology</i> , 2022, 355, 127231.	4.8	4
410	Biochar-supported nZVI for the removal of Cr(VI) from soil and water: Advances in experimental research and engineering applications. <i>Journal of Environmental Management</i> , 2022, 316, 115211.	3.8	30
411	Intensive exploration of the fuel characteristics of biomass and biochar from oil palm trunk and oil palm fronds for supporting increasing demand of solid biofuels in Thailand. <i>Energy Reports</i> , 2022, 8, 5640-5652.	2.5	23
412	Synthesis of nitrogen-enriched hydrochar via co-hydrothermal reaction of liquid digestate and corn stalk. <i>Science of the Total Environment</i> , 2022, 836, 155572.	3.9	10
413	Magnetic biochar for removal of perfluorooctane sulphonate (PFOS): Interfacial interaction and adsorption mechanism. <i>Environmental Technology and Innovation</i> , 2022, 28, 102593.	3.0	16
414	Modified Biochars and Their Effects on Soil Quality: A Review. <i>Environments - MDPI</i> , 2022, 9, 60.	1.5	25
415	Effects of biochar and polypropylene fibre on mechanical behaviour of cement–solidified sludge. <i>Soil Use and Management</i> , 2022, 38, 1667-1678.	2.6	2
416	Biochar: A sustainable solution for the management of agri-wastes and environment. , 2022, , 361-379.		1
417	Biochar nanoparticles: interactions with and impacts on soil and water microorganisms. , 2022, , 139-154.		1
418	Antibiotic bioremediation by new generation biochar: Recent updates. <i>Bioresource Technology</i> , 2022, 358, 127384.	4.8	34
419	Review on effect of biochar on soil strength: Towards exploring usage of biochar in geo-engineering infrastructure. <i>Biomass Conversion and Biorefinery</i> , 0, , .	2.9	15
420	Life Cycle Based Climate Emissions of Charcoal Conditioning Routes for the Use in the Ferro-Alloy Production. <i>Energies</i> , 2022, 15, 3933.	1.6	4
421	Effects of different low temperature pretreatments on properties of corn stover biochar for precursors of sulfonated solid acid catalysts. <i>Bioresource Technology</i> , 2022, 357, 127342.	4.8	7
422	Application of biochar in modification of fillers in bioretention cells: A review. <i>Ecological Engineering</i> , 2022, 181, 106689.	1.6	12
423	Biomass production, storage, and pretreatment for the production of solid biofuels. , 2022, , 339-380.		0

#	ARTICLE	IF	CITATIONS
424	Pyrolyzed biomass-derived nanoparticles: a review of surface chemistry, contaminant mobility, and future research avenues to fill the gaps. <i>Biochar</i> , 2022, 4, .	6.2	7
425	Optimized production conditions and activation of biochar for effective promotion of long-chain fatty acid degradation in anaerobic digestion. <i>Bioresource Technology</i> , 2022, 358, 127393.	4.8	16
426	Pore development during CO ₂ and H ₂ O activation associated with the catalytic role of inherent inorganics in sewage sludge char and its performance during the reforming of volatiles. <i>Chemical Engineering Journal</i> , 2022, 446, 137298.	6.6	6
427	Biochar and its potential use for bioremediation of contaminated soils. , 2022, , 169-183.		1
428	Biorenewable Nanocomposite Materials for Wastewater Treatment. <i>ACS Symposium Series</i> , 0, , 281-311.	0.5	0
429	Soybean Yield Response of Biochar-Regulated Soil Properties and Root Growth Strategy. <i>Agronomy</i> , 2022, 12, 1412.	1.3	11
430	Effect of Production Technique on Corncob Biochar Quality. <i>IOP Conference Series: Earth and Environmental Science</i> , 2022, 1038, 012007.	0.2	0
431	Interactive Effect of Biochar and Bio-Compost on Starting Growth and Physiologic Parameters of Argan. <i>Sustainability</i> , 2022, 14, 7270.	1.6	5
432	Variations in composition and stability of biochars derived from different feedstock types at varying pyrolysis temperature. <i>Journal of the Saudi Society of Agricultural Sciences</i> , 2023, 22, 25-34.	1.0	14
433	Recent Advances in Biochar Polymer Composites. <i>Polymers</i> , 2022, 14, 2506.	2.0	30
434	Recent Advances and Prospects of Biochar-based Adsorbents for Malachite Green Removal: A Comprehensive Review. <i>Chemistry Africa</i> , 2023, 6, 579-608.	1.2	11
435	Valorization of fruit waste-based biochar for arsenic removal in soils. <i>Environmental Research</i> , 2022, 213, 113710.	3.7	31
436	Combined Effect of Prickly Pear Waste Biochar and Azolla on Soil Fertility, Growth, and Yield of Roselle (<i>Hibiscus sabdariffa</i> L.) Plants. <i>Journal of Soil Science and Plant Nutrition</i> , 2022, 22, 3541-3552.	1.7	8
437	Influence of pyrolysis atmosphere and temperature co-regulation on the sorption of tetracycline onto biochar: structure-performance relationship variation. <i>Bioresource Technology</i> , 2022, 360, 127647.	4.8	17
438	A perspective on the interaction between biochar and soil microbes: A way to regain soil eminence. <i>Environmental Research</i> , 2022, 214, 113832.	3.7	19
439	Treatment of faecal sludge and sewage effluent by pinewood biochar to reduce wastewater bacteria and inorganic contaminants leaching. <i>Water Research</i> , 2022, 221, 118775.	5.3	13
440	Heavy metals migration and antibiotics removal in anaerobic digestion of swine manure with biochar addition. <i>Environmental Technology and Innovation</i> , 2022, 27, 102735.	3.0	12
441	High-purity syngas production by cascaded catalytic reforming of biomass pyrolysis vapors. <i>Applied Energy</i> , 2022, 322, 119501.	5.1	16

#	ARTICLE	IF	CITATIONS
442	Methods for the conversion of biomass waste into value-added carbon nanomaterials: Recent progress and applications. <i>Progress in Energy and Combustion Science</i> , 2022, 92, 101023.	15.8	53
443	Energy-saving drying strategy of spent coffee grounds for co-firing fuel by adding biochar for carbon sequestration to approach net zero. <i>Fuel</i> , 2022, 326, 124984.	3.4	17
444	Influence of indirectly heated steam-blown gasification process conditions on biochar physico-chemical properties. <i>Fuel Processing Technology</i> , 2022, 235, 107347.	3.7	7
445	Guishe biochar as heterogeneous catalyst for biodiesel production: synthesis and transesterification modeling. <i>Reaction Kinetics, Mechanisms and Catalysis</i> , 2022, 135, 2643-2661.	0.8	2
446	Catalytic conversion of lignocellulosic biomass into chemicals and fuels. <i>Green Energy and Environment</i> , 2023, 8, 10-114.	4.7	151
447	Stable polycyclic aromatic carbon (SPAC) formation in wildfire chars and engineered biochars. <i>Science of the Total Environment</i> , 2022, 849, 157610.	3.9	5
448	A quantitative evaluation of the biochar's influence on plant disease suppress: a global meta-analysis. <i>Biochar</i> , 2022, 4, .	6.2	15
450	Enhanced adsorption performance of sulfamethoxazole and tetracycline in aqueous solutions by MgFe ₂ O ₄ -magnetic biochar. <i>Water Science and Technology</i> , 2022, 86, 568-583.	1.2	8
451	Biochar: Production, Applications, and Market Prospects in Portugal. <i>Environments - MDPI</i> , 2022, 9, 95.	1.5	18
452	Perspectives of Engineered Biochar for Environmental Applications: A Review. <i>Energy & Fuels</i> , 2022, 36, 7940-7986.	2.5	31
453	Iron-modified biochar derived from sugarcane bagasse for adequate removal of aqueous imidacloprid: sorption mechanism study. <i>Environmental Science and Pollution Research</i> , 2023, 30, 4754-4768.	2.7	12
454	Physico-chemical properties of waste derived biochar from community scale faecal sludge treatment plants. <i>Gates Open Research</i> , 0, 6, 96.	2.0	8
455	Adsorption of phenol by sugarcane biochar@bentonite. <i>Environmental Geotechnics</i> , 0, , 1-13.	1.3	0
456	Biochar: A Sustainable Alternative in the Development of Electrochemical Printed Platforms. <i>Chemosensors</i> , 2022, 10, 344.	1.8	14
457	Porous materials for the recovery of rare earth elements, platinum group metals, and other valuable metals: a review. <i>Environmental Chemistry Letters</i> , 2022, 20, 3697-3746.	8.3	29
458	Production of biochar from crop residues and its application for biofuel production processes – An overview. <i>Bioresource Technology</i> , 2022, 361, 127740.	4.8	31
459	Comprehensive investigation of the CO ₂ gasification process of biomass wastes using TG-MS and lab-scale experimental research. <i>Fuel</i> , 2022, 330, 125566.	3.4	10
460	Machine learning prediction of specific capacitance in biomass derived carbon materials: Effects of activation and biochar characteristics. <i>Fuel</i> , 2023, 331, 125718.	3.4	31

#	ARTICLE	IF	CITATIONS
461	Effect of heating rate and H ₃ PO ₄ as catalyst on the pyrolysis of agricultural residues. Journal of Analytical and Applied Pyrolysis, 2022, 168, 105724.	2.6	9
462	Pyrolysis of lignocellulosic, algal, plastic, and other biomass wastes for biofuel production and circular bioeconomy: A review of thermogravimetric analysis (TGA) approach. Renewable and Sustainable Energy Reviews, 2022, 169, 112914.	8.2	94
463	A critical review on retaining antibiotics in liquid digestate: Potential risk and removal technologies. Science of the Total Environment, 2022, 853, 158550.	3.9	6
464	Advanced techniques in the production of biochar from lignocellulosic biomass and environmental applications. Cleaner Materials, 2022, 6, 100137.	1.9	23
465	Biochar technology: A promising approach to mitigate environmental pollutants. , 2022, , 273-288.		0
466	Characterization of Engineered Biochar: Proximate Analyses, Ultimate Analyses, Physicochemical Analyses, Surface Analyses, and Molecular Analyses. , 2022, , 127-148.		1
467	Advances in preparation, application in contaminant removal, and environmental risks of biochar-based catalysts: a review. Biochar, 2022, 4, .	6.2	19
468	Brewerâ€™s Spent Grain Biochar: Grinding Method Matters. Journal of Carbon Research, 2022, 8, 46.	1.4	5
469	Application of biochar on soil bioelectrochemical remediation: behind roles, progress, and potential. Critical Reviews in Biotechnology, 2024, 44, 120-138.	5.1	5
470	Formable porous biochar loaded with La-Fe(hydr)oxides/montmorillonite for efficient removal of phosphorus in wastewater: process and mechanisms. Biochar, 2022, 4, .	6.2	15
471	Evaluation of the Impact of Activated Biochar-Manure Compost Pellet Fertilizer on Volatile Organic Compound Emissions and Heavy Metal Saturation. International Journal of Environmental Research and Public Health, 2022, 19, 12405.	1.2	2
472	Nonmetal function groups of biochar for pollutants removal: A review. Journal of Hazardous Materials Advances, 2022, 8, 100171.	1.2	4
474	An overview of pyrolysis of de-oiled cakes for the production of biochar, bio-oil, and pyro-gas: Current status, challenges, and future perspective. Bioresource Technology Reports, 2022, 19, 101205.	1.5	8
475	Pyrolysis of pistachio shell, orange peel and saffron petals for bioenergy production. Bioresource Technology Reports, 2022, 19, 101209.	1.5	8
476	Effect of heating rate and feedstock nature on electrical conductivity of biochar and biochar-based composites. Applications in Energy and Combustion Science, 2022, 12, 100089.	0.9	3
477	Effects of pyrolysis temperature and feedstock type on biochar characteristics pertinent to soil carbon and soil health: A meta-analysis. Soil Use and Management, 2023, 39, 43-52.	2.6	23
478	Optimizing biochar and conductive carbon black composites as cathode catalysts for microbial fuel cells to improve isopropanol removal and power generation. Renewable Energy, 2022, 199, 1318-1328.	4.3	6
479	The emerging role of biochar in the carbon materials family for hydrogen production. Chemical Engineering Research and Design, 2022, 188, 209-228.	2.7	10

#	ARTICLE	IF	CITATIONS
480	Effects of Ash Composition and Combustion Temperature on Reduced Particulate Matter Emission by Biomass Carbonization. <i>Bioenergy Research</i> , 2023, 16, 1629-1638.	2.2	3
481	Lauric Acid Treatments to Oxidized and Control Biochars and Their Effects on Rubber Composite Tensile Properties. <i>Journal of Carbon Research</i> , 2022, 8, 58.	1.4	1
482	Pyrolyzed sewage sludge used in the decontamination of landfill leachate: ammonium adsorption. <i>International Journal of Environmental Science and Technology</i> , 0, , .	1.8	0
483	A review of antibiotics and antibiotic resistance genes (ARGs) adsorption by biochar and modified biochar in water. <i>Science of the Total Environment</i> , 2023, 858, 159815.	3.9	54
484	Biochar for Supercapacitor Application: A Comparative Study. <i>Chemistry - an Asian Journal</i> , 2022, 17, .	1.7	3
485	Impact of biochar on anaerobic digestion: Meta-analysis and economic evaluation. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 108870.	3.3	7
486	Towards local circular economy through <i>Opuntia Ficus Indica</i> cladodes conversion into renewable biofuels and biochars: Product distribution and kinetic modelling. <i>Fuel</i> , 2023, 332, 126056.	3.4	6
487	Biochar application as a soil potassium management strategy: A review. <i>Science of the Total Environment</i> , 2023, 858, 159782.	3.9	28
488	Impact of biochar colloids on thallium(I) transport in water-saturated porous media: Effects of pH and ionic strength. <i>Chemosphere</i> , 2023, 311, 137152.	4.2	7
489	Manganese ferrite modified agricultural waste-derived biochars for copper ions adsorption. <i>Bioresource Technology</i> , 2023, 367, 128303.	4.8	24
490	Development of Meso- and Macro-Pore Carbonization Technology from Biochar in Treating the Stumps of Representative Trees in Taiwan. <i>Sustainability</i> , 2022, 14, 14792.	1.6	2
491	Biochar and Application of Machine Learning: A Review. , 0, , .		3
492	Possible Utilization of Distillery Waste in the Carbonization Process. <i>Materials</i> , 2022, 15, 7853.	1.3	0
493	Chemical modification of biochars as a method to improve its surface properties and efficiency in removing xenobiotics from aqueous media. <i>Chemosphere</i> , 2023, 312, 137238.	4.2	13
494	Various biomass pyrolysis conditions influence the porosity and pore size distribution of biochar. <i>Energy</i> , 2023, 263, 126128.	4.5	41
495	Binding characteristics of Pb and Zn to low-temperature feces-based biochar-derived DOM revealed by EEM-PARAFAC combined with general and moving-window two-dimensional correlation analyses. <i>Environmental Science and Pollution Research</i> , 2023, 30, 27525-27538.	2.7	1
497	Adsorption Characteristics of Dimethylated Arsenicals on Iron Oxide-Modified Rice Husk Biochar. <i>Toxics</i> , 2022, 10, 703.	1.6	2
498	Surface functional groups and degree of carbonization of selected chars from different processes and feedstock. <i>PLoS ONE</i> , 2022, 17, e0277365.	1.1	7

#	ARTICLE	IF	CITATIONS
499	Electrochemical determination of nitrites and sulfites by using waste-derived nanobiochar. Journal of Electroanalytical Chemistry, 2023, 928, 117071.	1.9	15
500	Biochar catalysts for efficiently 5-Hydroxymethylfurfural (HMF) synthesis in aqueous natural deep eutectic solvent (A-NADES). Industrial Crops and Products, 2023, 192, 115953.	2.5	10
501	Effect of fresh and aged biochar on electrogenic hydrocarbon degradation in soil microbial electrochemical remediation. Electrochimica Acta, 2023, 440, 141713.	2.6	8
502	Discussion of "Effects of Biochar and Residual Plastic Film on Soil Properties and Root of Flue-Cured Tobacco" by Chao Gao, Xiaohou Shao, Xu Yang, Xiuneng Li, and Wenbo Wu. Journal of Irrigation and Drainage Engineering - ASCE, 2023, 149, .	0.6	0
503	Magnetic hydrothermal biochar for efficient enrichment of uranium(VI) by embedding Fe ₃ O ₄ nanoparticles on bamboo materials from "one-can" strategy. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2023, 658, 130748.	2.3	9
504	Magnetically engineered sulfurized peat-based activated carbon for remediation of emerging pharmaceutical contaminants. Bioresource Technology, 2023, 369, 128399.	4.8	7
505	A sustainable approach for the multi-dimensional exploitation of mixed biochar based nano-composites. Fuel, 2023, 336, 126930.	3.4	3
506	Optimal Antenna Pairing of A Miniaturized Radar Array for Smart Sensing of Soil Carbon Content. , 2022, , .		2
508	Green Belt Implementation in Arid Lands through Soil Reconditioning and Landscape Design: The Case of Hermosillo, Mexico. Land, 2022, 11, 2130.	1.2	2
509	Highly Active Ag-Cu Nanocrystal Catalyst-Coated Brewer's Spent Grain Biochar for the Mineralization of Methyl Orange and Methylene Blue Dye Mixture. Catalysts, 2022, 12, 1475.	1.6	7
510	Agricultural Biomass-Based Power Generation Potential in Sri Lanka: A Techno-Economic Analysis. Energies, 2022, 15, 8984.	1.6	6
511	Biochar covering to mitigate the ammonia emissions from the manure storage tank: Effect of the pyrolysis temperature. , 2022, , .		0
512	Physico-chemical properties of waste derived biochar from community scale faecal sludge treatment plants. Gates Open Research, 0, 6, 96.	2.0	0
513	Modelling and Optimization of Biochar-Based Adsorbent Derived from Wheat Straw Using Response Surface Methodology on Adsorption of Pb ²⁺ . International Journal of Environmental Research, 2023, 17, .	1.1	3
514	A Novel Approach to Charcoal Fine Waste: Sustainable Use as Filling of Polymeric Matrices. Polymers, 2022, 14, 5525.	2.0	0
515	Lavanta (Lavandula x intermedia) Bitkisi Distilasyon Atıkların Silajlık Materyali Bitkisinin Gelişim Aşamalarına Etkisi. Ziraat Mühendisliği, 0, , .	0.3	0
516	Phosphorus Removal from Dirty Farmyard Water by Activated Anaerobic-Digestion-Derived Biochar. Industrial & Engineering Chemistry Research, 0, , .	1.8	4
517	Hyperspectral Inversion Model of Relative Heavy Metal Content in Pennisetum sinense Roxb via EEMD-db3 Algorithm. Remote Sensing, 2023, 15, 251.	1.8	1

#	ARTICLE	IF	CITATIONS
518	Repurposing Disposable Bamboo Chopsticks Waste as Biochar for Agronomical Application. <i>Energies</i> , 2023, 16, 771.	1.6	4
519	Production and application of biochar in a UV radiation-curable epoxy paint as a substitute for graphite. <i>Journal of Coatings Technology Research</i> , 0, , .	1.2	0
520	Symbiosis Mechanisms and Usage of Other Additives Like Biochar in Soil Quality Management. <i>Climate Change Management</i> , 2023, , 271-305.	0.6	0
521	Nanobiochar for the remediation of contaminated soil and water: challenges and opportunities. <i>Biochar</i> , 2023, 5, .	6.2	30
522	Recent progress on production technologies of food waste-based biochar and its fabrication method as electrode materials in energy storage application. <i>Biomass Conversion and Biorefinery</i> , 2023, 13, 14341-14357.	2.9	4
523	Machine learning in the evaluation and prediction models of biochar application: A review. <i>Science Progress</i> , 2023, 106, 003685042211488.	1.0	7
524	Biochar for the Removal of Emerging Pollutants from Aquatic Systems: A Review. <i>International Journal of Environmental Research and Public Health</i> , 2023, 20, 1679.	1.2	18
525	Evaluation of Biochar Production Temperature in Interaction with Elastomers of Different Polarities. <i>Materials Research</i> , 0, 26, .	0.6	2
526	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. <i>Energy Conversion and Management</i> , 2023, 277, 116658.	4.4	10
527	Biochar application: A sustainable approach to improve soil health. <i>Journal of Agriculture and Food Research</i> , 2023, 11, 100498.	1.2	6
528	Evaluating corn-based biochar as an alternative to carbon black in styrene-butadiene rubber composites. <i>Materials Today Communications</i> , 2023, 34, 105218.	0.9	1
529	A novel strategy to reduce trace element supplementation in the semi-solid anaerobic digestion with gradient ammonia concentration: the role of biochar. <i>Fuel</i> , 2023, 338, 127332.	3.4	11
530	The influencing mechanism of O ₂ , H ₂ O, and CO ₂ on the H ₂ S removal of food waste digestate-derived biochar with abundant minerals. <i>Biochar</i> , 2022, 4, .	6.2	2
531	One-step chemical activation for the production of engineered orange peel biochar. <i>Emergent Materials</i> , 2023, 6, 211-221.	3.2	16
532	Sustainable production and application of biochar for energy storage and conversion. , 2023, , 333-364.		1
533	Biochar as Sustainable Alternative and Green Adsorbent for the Remediation of Noxious Pollutants: A Comprehensive Review. <i>Toxics</i> , 2023, 11, 117.	1.6	32
534	Role of biochar in polyaromatic hydrocarbons remediation and environment management. , 2023, , 365-385.		0
535	Environmental sustainability-based comparison for production, properties, and applications of biochar and hydrochar. , 2023, , 387-414.		0

#	ARTICLE	IF	CITATIONS
536	Bioconversion of hazardous organic wastes using invertebrates. , 2023, , 297-357.		0
537	Microwave-assisted rapid pyrolysis of woodblock without adding susceptor and detailed product analysis. Biomass Conversion and Biorefinery, 0, , .	2.9	2
538	Elaboration and Characterization of a Biochar from Wastewater Sludge and Olive Mill Wastewater. Sustainability, 2023, 15, 2409.	1.6	0
539	Tomato waste biochar in the framework of circular economy. Science of the Total Environment, 2023, 871, 161959.	3.9	8
540	Biochar Integrated Nutrient Application Improves Crop Productivity, Sustainability and Profitability of Maizeâ€“Wheat Cropping System. Sustainability, 2023, 15, 2232.	1.6	3
541	The use of biochar made from biomass and biosolids as a substrate for green infrastructure: A review. Sustainable Chemistry and Pharmacy, 2023, 32, 100999.	1.6	7
542	Shape-stabilized and form-stable PCMs. , 2023, , 369-410.		0
543	Development, evaluation, and optimization of portable pyrolysis system for the production of biochar from tender coconut husk. Biomass Conversion and Biorefinery, 0, , .	2.9	1
544	An Assessment of the Conversion of Biomass and Industrial Waste Products to Activated Carbon. Energies, 2023, 16, 1606.	1.6	9
545	Magnetic biochar modified with crosslinked chitosan and EDTA for removing cobalt from aqueous solutions. Journal of Radioanalytical and Nuclear Chemistry, 0, , .	0.7	0
546	Can surfaceâ€“applied biochar improve soil health and plant performance in a perennial coolâ€“season grass forage system?. Soil Science Society of America Journal, 2023, 87, 656-668.	1.2	0
547	Porous carbon derived from waste corrugated paper with KOH-NaOH mixture and its adsorption property for methylene blue. Carbon Letters, 2023, 33, 1205-1215.	3.3	5
548	Syntrophic consortium with the aid of coconut shell-derived biochar enhances methane recovery from ammonia-inhibited anaerobic digestion. Science of the Total Environment, 2023, 872, 162182.	3.9	19
549	Design strategy of food residues biorefineries based on multifeedstocks analysis for increasing sustainability of value chains. Biochemical Engineering Journal, 2023, 194, 108857.	1.8	4
550	Pyrolysis of banana peel with microwave and furnace as the heating sources: The distinct impacts on evolution of the pyrolytic products. Chemical Engineering Research and Design, 2023, 173, 373-383.	2.7	2
551	Valorization of waste cassava peel into biochar: An alternative to electrically-powered process. , 2023, 6, 100029.		19
552	Trace elements' deficiency in energy production through methanogenesis process: Focus on the characteristics of organic solid wastes. Science of the Total Environment, 2023, 878, 163116.	3.9	3
553	Recent advance for NO removal with carbonaceous material for low-temperature NH3-SCR reaction. Catalysis Today, 2023, 418, 114053.	2.2	8

#	ARTICLE	IF	CITATIONS
554	Insights into direct reduction iron using bamboo biomass as a green and renewable reducer: Reduction behavior study and kinetics analysis. <i>Science of the Total Environment</i> , 2023, 880, 163393.	3.9	0
555	Co-composting poultry carcasses with wood-based, distillers' grain and cow manure biochar to increase core compost temperatures and reduce leachate's COD. <i>Waste Management</i> , 2023, 161, 84-91.	3.7	3
556	Comparative analysis of the properties of biochars produced from different pecan feedstocks and pyrolysis temperatures. <i>Industrial Crops and Products</i> , 2023, 197, 116638.	2.5	14
557	A comparative analysis of second-generation biofuels and its potentials for large-scale production in arid and semi-arid regions. <i>Fuel</i> , 2023, 343, 127893.	3.4	3
558	Production and beneficial impact of biochar for environmental application: A review on types of feedstocks, chemical compositions, operating parameters, techno-economic study, and life cycle assessment. <i>Fuel</i> , 2023, 343, 127968.	3.4	30
559	Biochar-immobilized <i>Bacillus</i> spp. for heavy metals bioremediation: A review on immobilization techniques, bioremediation mechanisms and effects on soil. <i>Science of the Total Environment</i> , 2023, 881, 163385.	3.9	12
560	Biosourced adsorbent prepared with rice husk part 1: A complete understanding of the structure of materials, the major role of mineral impurities for metal extraction. <i>Sustainable Materials and Technologies</i> , 2023, 36, e00601.	1.7	0
561	Nano-biochar: Properties and prospects for sustainable agriculture. <i>Land Degradation and Development</i> , 2023, 34, 2445-2463.	1.8	10
562	Responses of Soil Humus Composition and Humic Acid Structural Characteristics to the Addition of Different Types of Biochar in Phaeozems. <i>Journal of Soil Science and Plant Nutrition</i> , 2023, 23, 1611-1618.	1.7	1
563	Microbial reduction of Fe(III) in nontronite: Role of biochar as a redox mediator. <i>Geochimica Et Cosmochimica Acta</i> , 2023, 345, 102-116.	1.6	17
564	A sustainable approach for soil amendment; available plant nutrients in rice straws. <i>Journal of the Indian Chemical Society</i> , 2023, 100, 100938.	1.3	1
565	Soil amendments for vanadium remediation: a review of remediation of vanadium in soil through chemical stabilization and bioremediation. <i>Environmental Geochemistry and Health</i> , 2023, 45, 4107-4125.	1.8	4
566	Development of a Dual-Chamber Pyrolyzer for Biochar Production from Agricultural Waste in Sri Lanka. <i>Energies</i> , 2023, 16, 1819.	1.6	6
567	Advances and prospects of biochar in improving soil fertility, biochemical quality, and environmental applications. <i>Frontiers in Environmental Science</i> , 0, 11, .	1.5	17
568	Unravelling the Recent Developments in the Production Technology and Efficient Applications of Biochar for Agro-Ecosystems. <i>Agriculture (Switzerland)</i> , 2023, 13, 512.	1.4	7
569	Biochar as a novel technology for treatment of onsite domestic wastewater: A critical review. <i>Frontiers in Environmental Science</i> , 0, 11, .	1.5	7
570	Physicochemical and nutritional features of <i>Gleditsia japonica</i> shell biochar under different pyrolysis conditions. <i>Journal of Material Cycles and Waste Management</i> , 2023, 25, 1434-1443.	1.6	3
571	Effect of Chemical Fertilizer and Tobacco Stalks-derived Biochar on FCV Tobacco Yield, Nutrient Use Efficiency and Carbon Management Index in a Light Textured Alfisol. <i>International Journal of Plant & Soil Science</i> , 2023, 35, 88-107.	0.2	0

#	ARTICLE	IF	CITATIONS
572	Comparison of radon adsorption properties under dynamic radon exhalation condition and characteristics of three biochar. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , 2023, 332, 2285-2292.	0.7	2
573	Pyrolysis temperature has greater effects on carbon and nitrogen biogeochemistry than biochar feedstock when applied to a sandy forest soil. <i>Forest Ecology and Management</i> , 2023, 534, 120881.	1.4	2
574	Recent Advances in the Investigation of Poly(lactic acid) (PLA) Nanocomposites: Incorporation of Various Nanofillers and their Properties and Applications. <i>Polymers</i> , 2023, 15, 1196.	2.0	34
575	Understanding the Influence of Biochar Augmentation in Anaerobic Digestion by Principal Component Analysis. <i>Energies</i> , 2023, 16, 2523.	1.6	0
576	Properties and Uses of Biochars Incorporated into Mortars. <i>Environments - MDPI</i> , 2023, 10, 47.	1.5	3
577	Facile Functionalization of Charcoal by a Green Approach. <i>Crystals</i> , 2023, 13, 476.	1.0	0
578	Research progress on the preparation process of biochar-based catalyst support for dry reforming of methane. <i>Journal of Fuel Chemistry and Technology</i> , 2023, 51, 273-293.	0.9	2
579	Chromium adsorption studies using brewer's spent grain biochar: kinetics, isotherm and thermodynamics. <i>Ciencia Rural</i> , 2023, 53, .	0.3	0
580	Bamboo: A Sustainable Alternative for Biochar Production. <i>Environmental Footprints and Eco-design of Products and Processes</i> , 2023, , 265-295.	0.7	1
581	Thermochemical co-conversion of biomass-plastic waste to biochar: a review. <i>Green Chemical Engineering</i> , 2024, 5, 31-49.	3.3	18
582	A Critical Review of Biochar Application for the Remediation of Greenhouse Gas Emissions and Nutrient Loss in Rice Paddies: Characteristics, Mechanisms, and Future Recommendations. <i>Agronomy</i> , 2023, 13, 893.	1.3	5
583	Camellia oleifera Shell Biochar as a Robust Adsorbent for Aqueous Mercury Removal. <i>Fermentation</i> , 2023, 9, 295.	1.4	1
584	Assessment of hemp hurd-derived biochar produced through different thermochemical processes and evaluation of its potential use as soil amendment. <i>Heliyon</i> , 2023, 9, e14698.	1.4	0
585	Biochar and sustainable environmental development towards adsorptive removal of pollutants: Modern advancements and future insight. <i>Chemical Engineering Research and Design</i> , 2023, 173, 715-728.	2.7	18
586	Predicting the speciation of ionizable antibiotic ciprofloxacin by biochars with varying carbonization degrees. <i>RSC Advances</i> , 2023, 13, 9892-9902.	1.7	0
587	Study on Utilization of Biochar Prepared from Crop Straw with Enhanced Carbon Sink Function in Northeast China. <i>Sustainability</i> , 2023, 15, 6104.	1.6	3
588	PALM NUTSHELL BIOCHAR QUALITY CORRELATION WITH PYROLYSIS TEMPERATURE. , 2022, , .		0
589	Variations in microscopic properties of biomass char: Implications for biochar characterization. <i>International Journal of Coal Geology</i> , 2023, 271, 104235.	1.9	3

#	ARTICLE	IF	CITATIONS
590	Biochar Feedstocks, Synthesis and Interaction with Soil Microorganisms. Sustainable Agriculture Reviews, 2023, , 355-373.	0.6	0
591	Biochar as an Additive for Enhancement of Anaerobic Digestion Process. Journal of Environmental and Natural Studies, 2023, 5, 1-27.	0.5	0
592	Exploring the synergistic effects of biochar and arbuscular mycorrhizal fungi on phosphorus acquisition in tomato plants by using gene expression analyses. Science of the Total Environment, 2023, 884, 163506.	3.9	3
593	Biochar-Based Remediation of Heavy Metal Polluted Land. Environmental Contamination Remediation and Management, 2023, , 317-352.	0.5	2
594	Biochar for Improvement of Soil Properties. Environmental Contamination Remediation and Management, 2023, , 403-444.	0.5	1
596	Biochar-Derived Green Catalysts for Biofuel Production. , 2022, , 1-12.		0
622	Co-Processing Biomass With Fossil Fuels. , 2023, , .		0
625	Application of Farmyard Manure in Sustainable Utilization of Animal Wastes to Reclaim Salt Degraded Lands. , 2023, , 333-353.		0
630	Production and analysis of biochar from date palm residue. AIP Conference Proceedings, 2023, , .	0.3	0
631	A multivariate approach and water quality index for evaluating the changes in water quality of Tigris River. AIP Conference Proceedings, 2023, , .	0.3	2
636	Comparative Investigation of Biochar-Based Nanocomposites Over Pristine Biochar: An Overview. Advances in Science, Technology and Innovation, 2023, , 57-68.	0.2	0
637	Elemental Analysis of Breadnut Seed Biochar and Its Potential Application as a Soil Amendment. Springer Proceedings in Physics, 2023, , 727-734.	0.1	0
638	Engineered Biochar-Based Nanocomposites: A Sustainable Solution for Smart Agriculture. Advances in Science, Technology and Innovation, 2023, , 119-131.	0.2	0
642	Biofilters and bioretention systems: the role of biochar in the blue-green city concept for stormwater management. Environmental Science: Water Research and Technology, 2023, 9, 3103-3119.	1.2	3
649	Water entrainment and sorptivity characteristics of biochar clay bricks. AIP Conference Proceedings, 2023, , .	0.3	0
652	Application of Clay-Biochar Composites as Adsorbents for Water Treatment. Advances in Material Research and Technology, 2023, , 113-142.	0.3	0
657	Recent advances on value-added biocarbon preparation by the pyrolysis of renewable and waste biomass, their structure and properties: a move toward an ecofriendly alternative to carbon black. Environmental Science Advances, 2023, 2, 1282-1301.	1.0	6
660	Machine learning and computational chemistry to improve biochar fertilizers: a review. Environmental Chemistry Letters, 2023, 21, 3159-3244.	8.3	3

#	ARTICLE	IF	CITATIONS
674	Pesticide contamination remediation by biochar-immobilized microorganisms: a review. International Journal of Environmental Science and Technology, 0, ,	1.8	2
677	Biochar: A Potent Adsorbent. Materials Horizons, 2023, , 49-72.	0.3	0
682	New Trends in Biocharâ€“Mineral Composites. Materials Horizons, 2023, , 169-184.	0.3	0
683	Effect of biomass-based materials on enzyme activities in heavy metal-contaminated environment. , 2023, , 241-386.		0
684	Biochar mechanisms of metal sorption. , 2023, , 57-84.		0
695	Sustainability in residue management: a review with special reference to Indian agriculture. Paddy and Water Environment, 0, ,	1.0	0
708	Exogenous Application of Biostimulants and Commercial Utilization. , 2023, , 281-294.		0
717	Mercury Remediation: Easing Biochar Approach. Environmental Science and Engineering, 2023, , 249-270.	0.1	0
725	Conferring Plant Tolerance to Drought and Salinity by the Application of Biochar. , 2023, , 451-461.		0
728	Biochar-Assisted Remediation of Contaminated Land: Prospects and Challenges. , 2023, , 231-252.		0
734	Biochar for Adsorptive Removal of Pharmaceuticals from Environmental Water. Handbook of Environmental Engineering, 2024, , 199-225.	0.2	0
738	Sludge-based biochar adsorbent: pore tuning mechanisms, challenges, and role in carbon sequestration. Biochar, 2023, 5, .	6.2	0
744	Biochar-thermoplastic Polymer Composites: Recent Advances and Perspectives. , 2023, , 35-58.		0
756	Biocharâ€“Ms effect on soil properties. , 2024, , 45-80.		0
764	Biochar-augmented binders for sustainable stabilization/solidification of wastes. , 2024, , 163-190.		0
771	Perspective Chapter: The Role of Biochar in Soil Amelioration. , 0, ,		0
796	Role of biochar in removal of contaminants from organic wastes. , 2024, , 135-153.		0
798	Application of Biochar in Agricultural Soil Green Remediation and Sustainable Development. , 2024, , 249-277.		0

#	ARTICLE	IF	CITATIONS
800	Role of Biochar as a Sustainable Sorbent for Fipronil Removal from Aqueous and Soil Environments. , 2024, , 187-207.		0