

Yong Sik Ok

List of Publications by Year in descending order

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743
papers

73,935
citations

299

139
h-index

1190

228
g-index

765
all docs

765
docs citations

765
times ranked

38336
citing authors

#	ARTICLE	IF	CITATIONS
1	Biochar as a sorbent for contaminant management in soil and water: A review. Chemosphere, 2014, 99, 19-33.	8.2	3,175
2	Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbent – A critical review. Bioresource Technology, 2014, 160, 191-202.	9.6	1,736
3	Occurrences and removal of pharmaceuticals and personal care products (PPCPs) in drinking water and water/sewage treatment plants: A review. Science of the Total Environment, 2017, 596-597, 303-320.	8.0	1,131
4	Effects of pyrolysis temperature on soybean stover- and peanut shell-derived biochar properties and TCE adsorption in water. Bioresource Technology, 2012, 118, 536-544.	9.6	988
5	Engineered/designer biochar for contaminant removal/immobilization from soil and water: Potential and implication of biochar modification. Chemosphere, 2016, 148, 276-291.	8.2	959
6	A review of biochar as a low-cost adsorbent for aqueous heavy metal removal. Critical Reviews in Environmental Science and Technology, 2016, 46, 406-433.	12.8	945
7	Surface functional groups of carbon-based adsorbents and their roles in the removal of heavy metals from aqueous solutions: A critical review. Chemical Engineering Journal, 2019, 366, 608-621.	12.7	790
8	Soil amendments for immobilization of potentially toxic elements in contaminated soils: A critical review. Environment International, 2020, 134, 105046.	10.0	701
9	Review on nano zerovalent iron (nZVI): From synthesis to environmental applications. Chemical Engineering Journal, 2016, 287, 618-632.	12.7	699
10	Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation – A review. Earth-Science Reviews, 2017, 171, 621-645.	9.1	588
11	Biochar application to low fertility soils: A review of current status, and future prospects. Geoderma, 2019, 337, 536-554.	5.1	571
12	Cadmium stress in rice: toxic effects, tolerance mechanisms, and management: a critical review. Environmental Science and Pollution Research, 2016, 23, 17859-17879.	5.3	529
13	Competitive adsorption of heavy metals onto sesame straw biochar in aqueous solutions. Chemosphere, 2016, 142, 77-83.	8.2	516
14	Metal contamination and bioremediation of agricultural soils for food safety and sustainability. Nature Reviews Earth & Environment, 2020, 1, 366-381.	29.7	493
15	Biochar technology in wastewater treatment: A critical review. Chemosphere, 2020, 252, 126539.	8.2	482
16	Effect of bamboo and rice straw biochars on the mobility and redistribution of heavy metals (Cd, Cu, Tj ETQq0 0 0 rgBT /Overlock 10 Tf	7.8	471
17	Cadmium minimization in wheat: A critical review. Ecotoxicology and Environmental Safety, 2016, 130, 43-53.	6.0	436
18	Response of microbial communities to biochar-amended soils: a critical review. Biochar, 2019, 1, 3-22.	12.6	419

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19	Effect of metal and metal oxide nanoparticles on growth and physiology of globally important food crops: A critical review. <i>Journal of Hazardous Materials</i> , 2017, 322, 2-16.	12.4	408
20	Minireview of potential applications of hydrochar derived from hydrothermal carbonization of biomass. <i>Journal of Industrial and Engineering Chemistry</i> , 2018, 57, 15-21.	5.8	405
21	A review of biochar-based catalysts for chemical synthesis, biofuel production, and pollution control. <i>Bioresource Technology</i> , 2017, 246, 254-270.	9.6	398
22	Multifunctional iron-biochar composites for the removal of potentially toxic elements, inherent cations, and hetero-chloride from hydraulic fracturing wastewater. <i>Environment International</i> , 2019, 124, 521-532.	10.0	384
23	Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: a critical review. <i>Environmental Science and Pollution Research</i> , 2016, 23, 2230-2248.	5.3	366
24	Effect of biochar on cadmium bioavailability and uptake in wheat (<i>Triticum aestivum</i> L.) grown in a soil with aged contamination. <i>Ecotoxicology and Environmental Safety</i> , 2017, 140, 37-47.	6.0	360
25	Microplastics as pollutants in agricultural soils. <i>Environmental Pollution</i> , 2020, 265, 114980.	7.5	359
26	Wood-based biochar for the removal of potentially toxic elements in water and wastewater: a critical review. <i>International Materials Reviews</i> , 2019, 64, 216-247.	19.3	355
27	A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. <i>Chemosphere</i> , 2017, 182, 90-105.	8.2	352
28	Biochar soil amendment on alleviation of drought and salt stress in plants: a critical review. <i>Environmental Science and Pollution Research</i> , 2017, 24, 12700-12712.	5.3	352
29	Occurrence and Environmental Fate of Veterinary Antibiotics in the Terrestrial Environment. <i>Water, Air, and Soil Pollution</i> , 2011, 214, 163-174.	2.4	343
30	Particulate plastics as a vector for toxic trace-element uptake by aquatic and terrestrial organisms and human health risk. <i>Environment International</i> , 2019, 131, 104937.	10.0	337
31	Nanoarchitected Structure and Surface Biofunctionality of Mesoporous Silica Nanoparticles. <i>Advanced Materials</i> , 2020, 32, e1907035.	21.0	336
32	Biochar for crop production: potential benefits and risks. <i>Journal of Soils and Sediments</i> , 2017, 17, 685-716.	3.0	331
33	Production of bioplastic through food waste valorization. <i>Environment International</i> , 2019, 127, 625-644.	10.0	328
34	Applications of biochar in redox-mediated reactions. <i>Bioresource Technology</i> , 2017, 246, 271-281.	9.6	322
35	Trichloroethylene adsorption by pine needle biochars produced at various pyrolysis temperatures. <i>Bioresource Technology</i> , 2013, 143, 615-622.	9.6	319
36	A green biochar/iron oxide composite for methylene blue removal. <i>Journal of Hazardous Materials</i> , 2020, 384, 121286.	12.4	315

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37	Biochar-supported nZVI (nZVI/BC) for contaminant removal from soil and water: A critical review. <i>Journal of Hazardous Materials</i> , 2019, 373, 820-834.	12.4	307
38	Technologies and perspectives for achieving carbon neutrality. <i>Innovation(China)</i> , 2021, 2, 100180.	9.1	306
39	Enhanced sulfamethazine removal by steam-activated invasive plant-derived biochar. <i>Journal of Hazardous Materials</i> , 2015, 290, 43-50.	12.4	299
40	Integrated adsorption and photocatalytic degradation of volatile organic compounds (VOCs) using carbon-based nanocomposites: A critical review. <i>Chemosphere</i> , 2019, 218, 845-859.	8.2	299
41	Lignin valorization for the production of renewable chemicals: State-of-the-art review and future prospects. <i>Bioresource Technology</i> , 2018, 269, 465-475.	9.6	298
42	A critical review on bioremediation technologies for Cr(VI)-contaminated soils and wastewater. <i>Critical Reviews in Environmental Science and Technology</i> , 2019, 49, 1027-1078.	12.8	298
43	Arsenic removal by perilla leaf biochar in aqueous solutions and groundwater: An integrated spectroscopic and microscopic examination. <i>Environmental Pollution</i> , 2018, 232, 31-41.	7.5	297
44	Ball milling as a mechanochemical technology for fabrication of novel biochar nanomaterials. <i>Bioresource Technology</i> , 2020, 312, 123613.	9.6	293
45	Interaction of arsenic with biochar in soil and water: A critical review. <i>Carbon</i> , 2017, 113, 219-230.	10.3	292
46	How biochar works, and when it doesn't: A review of mechanisms controlling soil and plant responses to biochar. <i>GCB Bioenergy</i> , 2021, 13, 1731-1764.	5.6	286
47	Biochar for composting improvement and contaminants reduction. A review. <i>Bioresource Technology</i> , 2017, 246, 193-202.	9.6	282
48	A critical prospective analysis of the potential toxicity of trace element regulation limits in soils worldwide: Are they protective concerning health risk assessment? - A review. <i>Environment International</i> , 2019, 127, 819-847.	10.0	280
49	Biorenewable hydrogen production through biomass gasification: A review and future prospects. <i>Environmental Research</i> , 2020, 186, 109547.	7.5	280
50	Cellular Mechanisms in Higher Plants Governing Tolerance to Cadmium Toxicity. <i>Critical Reviews in Plant Sciences</i> , 2014, 33, 374-391.	5.7	279
51	Pyrolysis condition affected sulfamethazine sorption by tea waste biochars. <i>Bioresource Technology</i> , 2014, 166, 303-308.	9.6	279
52	Mercury speciation, transformation, and transportation in soils, atmospheric flux, and implications for risk management: A critical review. <i>Environment International</i> , 2019, 126, 747-761.	10.0	278
53	Effects of soil dilution and amendments (mussel shell, cow bone, and biochar) on Pb availability and phytotoxicity in military shooting range soil. <i>Ecotoxicology and Environmental Safety</i> , 2012, 79, 225-231.	6.0	276
54	Interactions between microplastics, pharmaceuticals and personal care products: Implications for vector transport. <i>Environment International</i> , 2021, 149, 106367.	10.0	276

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55	Cadmium phytoremediation potential of Brassica crop species: A review. <i>Science of the Total Environment</i> , 2018, 631-632, 1175-1191.	8.0	275
56	Biochar Aging: Mechanisms, Physicochemical Changes, Assessment, And Implications for Field Applications. <i>Environmental Science & Technology</i> , 2020, 54, 14797-14814.	10.0	273
57	Biochar-based engineered composites for sorptive decontamination of water: A review. <i>Chemical Engineering Journal</i> , 2019, 372, 536-550.	12.7	264
58	A critical review on sustainable biochar system through gasification: Energy and environmental applications. <i>Bioresource Technology</i> , 2017, 246, 242-253.	9.6	263
59	Assessment of sources of heavy metals in soil and dust at children's playgrounds in Beijing using GIS and multivariate statistical analysis. <i>Environment International</i> , 2019, 124, 320-328.	10.0	262
60	Green synthesis of gamma-valerolactone (GVL) through hydrogenation of biomass-derived levulinic acid using non-noble metal catalysts: A critical review. <i>Chemical Engineering Journal</i> , 2019, 372, 992-1006.	12.7	259
61	Progress on the lignocellulosic biomass pyrolysis for biofuel production toward environmental sustainability. <i>Fuel Processing Technology</i> , 2021, 223, 106997.	7.2	256
62	Persistent free radicals in carbon-based materials on transformation of refractory organic contaminants (ROCs) in water: A critical review. <i>Water Research</i> , 2018, 137, 130-143.	11.3	255
63	Impact of sugarcane bagasse-derived biochar on heavy metal availability and microbial activity: A field study. <i>Chemosphere</i> , 2018, 200, 274-282.	8.2	254
64	Engineered/designer biochar for the removal of phosphate in water and wastewater. <i>Science of the Total Environment</i> , 2018, 616-617, 1242-1260.	8.0	254
65	Alginate-based composites for environmental applications: a critical review. <i>Critical Reviews in Environmental Science and Technology</i> , 2019, 49, 318-356.	12.8	253
66	Biochar composition-dependent impacts on soil nutrient release, carbon mineralization, and potential environmental risk: A review. <i>Journal of Environmental Management</i> , 2019, 241, 458-467.	7.8	249
67	Green remediation of As and Pb contaminated soil using cement-free clay-based stabilization/solidification. <i>Environment International</i> , 2019, 126, 336-345.	10.0	249
68	Evaluating biochar and its modifications for the removal of ammonium, nitrate, and phosphate in water. <i>Water Research</i> , 2020, 186, 116303.	11.3	248
69	Heavy metal immobilization and microbial community abundance by vegetable waste and pine cone biochar of agricultural soils. <i>Chemosphere</i> , 2017, 174, 593-603.	8.2	245
70	Multifunctional applications of biochar beyond carbon storage. <i>International Materials Reviews</i> , 2022, 67, 150-200.	19.3	245
71	Designer carbon nanotubes for contaminant removal in water and wastewater: A critical review. <i>Science of the Total Environment</i> , 2018, 612, 561-581.	8.0	237
72	Recent advances in photodegradation of antibiotic residues in water. <i>Chemical Engineering Journal</i> , 2021, 405, 126806.	12.7	234

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73	Waste-derived biochar for water pollution control and sustainable development. <i>Nature Reviews Earth & Environment</i> , 2022, 3, 444-460.	29.7	233
74	Mobility and phytoavailability of As and Pb in a contaminated soil using pine sawdust biochar under systematic change of redox conditions. <i>Chemosphere</i> , 2017, 178, 110-118.	8.2	231
75	Speciation and phytoavailability of lead and antimony in a small arms range soil amended with mussel shell, cow bone and biochar: EXAFS spectroscopy and chemical extractions. <i>Chemosphere</i> , 2014, 95, 433-441.	8.2	230
76	Biochar production from date palm waste: Charring temperature induced changes in composition and surface chemistry. <i>Journal of Analytical and Applied Pyrolysis</i> , 2015, 115, 392-400.	5.5	230
77	A critical review of the effects of pretreatment methods on the exergetic aspects of lignocellulosic biofuels. <i>Energy Conversion and Management</i> , 2020, 212, 112792.	9.2	230
78	Remediation of mercury contaminated soil, water, and air: A review of emerging materials and innovative technologies. <i>Environment International</i> , 2020, 134, 105281.	10.0	228
79	Biochar-induced concomitant decrease in ammonia volatilization and increase in nitrogen use efficiency by wheat. <i>Chemosphere</i> , 2016, 142, 120-127.	8.2	224
80	Value-added chemicals from food supply chain wastes: State-of-the-art review and future prospects. <i>Chemical Engineering Journal</i> , 2019, 375, 121983.	12.7	218
81	Soil organic carbon dynamics: Impact of land use changes and management practices: A review. <i>Advances in Agronomy</i> , 2019, , 1-107.	5.2	216
82	Assembling biochar with various layered double hydroxides for enhancement of phosphorus recovery. <i>Journal of Hazardous Materials</i> , 2019, 365, 665-673.	12.4	216
83	Nanoparticle-plant interaction: Implications in energy, environment, and agriculture. <i>Environment International</i> , 2018, 119, 1-19.	10.0	212
84	Biochar-based adsorbents for carbon dioxide capture: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 119, 109582.	16.4	212
85	Engineered biochar “A sustainable solution for the removal of antibiotics from water. <i>Chemical Engineering Journal</i> , 2021, 405, 126926.	12.7	212
86	Biochar-induced changes in soil properties affected immobilization/mobilization of metals/metalloids in contaminated soils. <i>Journal of Soils and Sediments</i> , 2017, 17, 717-730.	3.0	211
87	A comprehensive review of engineered biochar: Production, characteristics, and environmental applications. <i>Journal of Cleaner Production</i> , 2020, 270, 122462.	9.3	207
88	SMART biochar technology“A shifting paradigm towards advanced materials and healthcare research. <i>Environmental Technology and Innovation</i> , 2015, 4, 206-209.	6.1	206
89	Influence of soil properties and feedstocks on biochar potential for carbon mineralization and improvement of infertile soils. <i>Geoderma</i> , 2018, 332, 100-108.	5.1	206
90	Biochar affects the dissolved and colloidal concentrations of Cd, Cu, Ni, and Zn and their phytoavailability and potential mobility in a mining soil under dynamic redox-conditions. <i>Science of the Total Environment</i> , 2018, 624, 1059-1071.	8.0	201

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91	New trends in biochar pyrolysis and modification strategies: feedstock, pyrolysis conditions, sustainability concerns and implications for soil amendment. <i>Soil Use and Management</i> , 2020, 36, 358-386.	4.9	200
92	Effect of biochar on heavy metal immobilization and uptake by lettuce (<i>Lactuca sativa</i> L.) in agricultural soil. <i>Environmental Earth Sciences</i> , 2015, 74, 1249-1259.	2.7	199
93	Pyrolysis process of agricultural waste using CO ₂ for waste management, energy recovery, and biochar fabrication. <i>Applied Energy</i> , 2017, 185, 214-222.	10.1	198
94	Valorization of biomass to hydroxymethylfurfural, levulinic acid, and fatty acid methyl ester by heterogeneous catalysts. <i>Chemical Engineering Journal</i> , 2017, 328, 246-273.	12.7	196
95	Advances and future directions of biochar characterization methods and applications. <i>Critical Reviews in Environmental Science and Technology</i> , 2017, 47, 2275-2330.	12.8	194
96	Biochar enhances the cadmium tolerance in spinach (<i>Spinacia oleracea</i>) through modification of Cd uptake and physiological and biochemical attributes. <i>Environmental Science and Pollution Research</i> , 2016, 23, 21385-21394.	5.3	192
97	Effects of rapeseed residue on lead and cadmium availability and uptake by rice plants in heavy metal contaminated paddy soil. <i>Chemosphere</i> , 2011, 85, 677-682.	8.2	191
98	Microwave vacuum pyrolysis of waste plastic and used cooking oil for simultaneous waste reduction and sustainable energy conversion: Recovery of cleaner liquid fuel and techno-economic analysis. <i>Renewable and Sustainable Energy Reviews</i> , 2019, 115, 109359.	16.4	191
99	Removal of hexavalent chromium in aqueous solutions using biochar: Chemical and spectroscopic investigations. <i>Science of the Total Environment</i> , 2018, 625, 1567-1573.	8.0	190
100	Sustainable in situ remediation of recalcitrant organic pollutants in groundwater with controlled release materials: A review. <i>Journal of Controlled Release</i> , 2018, 283, 200-213.	9.9	189
101	A sustainable biochar catalyst synergized with copper heteroatoms and CO ₂ for singlet oxygenation and electron transfer routes. <i>Green Chemistry</i> , 2019, 21, 4800-4814.	9.0	188
102	Fabrication and environmental applications of multifunctional mixed metal-biochar composites (MMBC) from red mud and lignin wastes. <i>Journal of Hazardous Materials</i> , 2019, 374, 412-419.	12.4	188
103	Impact of biochar properties on soil conditions and agricultural sustainability: A review. <i>Land Degradation and Development</i> , 2018, 29, 2124-2161.	3.9	184
104	Impacts of biochar application on upland agriculture: A review. <i>Journal of Environmental Management</i> , 2019, 234, 52-64.	7.8	184
105	Effect of biochar on alleviation of cadmium toxicity in wheat (<i>Triticum aestivum</i> L.) grown on Cd-contaminated saline soil. <i>Environmental Science and Pollution Research</i> , 2018, 25, 25668-25680.	5.3	180
106	Biochar as green additives in cement-based composites with carbon dioxide curing. <i>Journal of Cleaner Production</i> , 2020, 258, 120678.	9.3	180
107	Effects of natural and calcined oyster shells on Cd and Pb immobilization in contaminated soils. <i>Environmental Earth Sciences</i> , 2010, 61, 1301-1308.	2.7	178
108	Contrasting effects of biochar, compost and farm manure on alleviation of nickel toxicity in maize (<i>Zea mays</i> L.) in relation to plant growth, photosynthesis and metal uptake. <i>Ecotoxicology and Environmental Safety</i> , 2016, 133, 218-225.	6.0	178

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109	Lead and copper immobilization in a shooting range soil using soybean stover- and pine needle-derived biochars: Chemical, microbial and spectroscopic assessments. <i>Journal of Hazardous Materials</i> , 2016, 301, 179-186.	12.4	178
110	Advances in lignin valorization towards bio-based chemicals and fuels: Lignin biorefinery. <i>Bioresource Technology</i> , 2019, 291, 121878.	9.6	177
111	The application of machine learning methods for prediction of metal sorption onto biochars. <i>Journal of Hazardous Materials</i> , 2019, 378, 120727.	12.4	177
112	Heavy metal adsorption by a formulated zeolite-Portland cement mixture. <i>Journal of Hazardous Materials</i> , 2007, 147, 91-96.	12.4	176
113	Enhanced adsorption performance and governing mechanisms of ball-milled biochar for the removal of volatile organic compounds (VOCs). <i>Chemical Engineering Journal</i> , 2020, 385, 123842.	12.7	176
114	Arsenic removal by Japanese oak wood biochar in aqueous solutions and well water: Investigating arsenic fate using integrated spectroscopic and microscopic techniques. <i>Science of the Total Environment</i> , 2018, 621, 1642-1651.	8.0	175
115	Effect of biochar on reclaimed tidal land soil properties and maize (<i>Zea mays</i> L.) response. <i>Chemosphere</i> , 2016, 142, 153-159.	8.2	173
116	Kinetics, thermodynamics and mechanistic studies of carbofuran removal using biochars from tea waste and rice husks. <i>Chemosphere</i> , 2016, 150, 781-789.	8.2	169
117	Copper and zinc adsorption by softwood and hardwood biochars under elevated sulphate-induced salinity and acidic pH conditions. <i>Chemosphere</i> , 2016, 142, 64-71.	8.2	169
118	Remediation of poly- and perfluoroalkyl substances (PFAS) contaminated soils – To mobilize or to immobilize or to degrade?. <i>Journal of Hazardous Materials</i> , 2021, 401, 123892.	12.4	169
119	Eggshell and coral wastes as low cost sorbents for the removal of Pb ²⁺ , Cd ²⁺ and Cu ²⁺ from aqueous solutions. <i>Journal of Industrial and Engineering Chemistry</i> , 2012, 18, 198-204.	5.8	167
120	Recent progress in the development of biomass-derived nitrogen-doped porous carbon. <i>Journal of Materials Chemistry A</i> , 2021, 9, 3703-3728.	10.3	167
121	Roles of biochar-derived dissolved organic matter in soil amendment and environmental remediation: A critical review. <i>Chemical Engineering Journal</i> , 2021, 424, 130387.	12.7	167
122	Clay-biochar composites for sorptive removal of tetracycline antibiotic in aqueous media. <i>Journal of Environmental Management</i> , 2019, 238, 315-322.	7.8	164
123	Synthesis of MgO-coated corncob biochar and its application in lead stabilization in a soil washing residue. <i>Environment International</i> , 2019, 122, 357-362.	10.0	164
124	Soil biota, antimicrobial resistance and planetary health. <i>Environment International</i> , 2019, 131, 105059.	10.0	163
125	Remediation of arsenic-contaminated water using agricultural wastes as biosorbents. <i>Critical Reviews in Environmental Science and Technology</i> , 2016, 46, 467-499.	12.8	161
126	Lead-based paint remains a major public health concern: A critical review of global production, trade, use, exposure, health risk, and implications. <i>Environment International</i> , 2018, 121, 85-101.	10.0	160

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127	Veterinary antibiotics contamination in water, sediment, and soil near a swine manure composting facility. <i>Environmental Earth Sciences</i> , 2014, 71, 1433-1440.	2.7	159
128	Equilibrium and kinetic mechanisms of woody biochar on aqueous glyphosate removal. <i>Chemosphere</i> , 2016, 144, 2516-2521.	8.2	158
129	Customised fabrication of nitrogen-doped biochar for environmental and energy applications. <i>Chemical Engineering Journal</i> , 2020, 401, 126136.	12.7	158
130	Aluminium-biochar composites as sustainable heterogeneous catalysts for glucose isomerisation in a biorefinery. <i>Green Chemistry</i> , 2019, 21, 1267-1281.	9.0	157
131	Effect of gasification biochar application on soil quality: Trace metal behavior, microbial community, and soil dissolved organic matter. <i>Journal of Hazardous Materials</i> , 2019, 365, 684-694.	12.4	156
132	Photo-aging of polyvinyl chloride microplastic in the presence of natural organic acids. <i>Water Research</i> , 2020, 183, 116082.	11.3	156
133	A critical review on performance indicators for evaluating soil biota and soil health of biochar-amended soils. <i>Journal of Hazardous Materials</i> , 2021, 414, 125378.	12.4	155
134	Immobilization of lead in a Korean military shooting range soil using eggshell waste: An integrated mechanistic approach. <i>Journal of Hazardous Materials</i> , 2012, 209-210, 392-401.	12.4	149
135	Distribution and Accumulative Pattern of Tetracyclines and Sulfonamides in Edible Vegetables of Cucumber, Tomato, and Lettuce. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 398-405.	5.2	149
136	Heavy metal-induced oxidative stress on seed germination and seedling development: a critical review. <i>Environmental Geochemistry and Health</i> , 2019, 41, 1813-1831.	3.4	149
137	Current status of biogas upgrading for direct biomethane use: A review. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 149, 111343.	16.4	149
138	Effects of polyacrylamide, biopolymer, and biochar on decomposition of soil organic matter and plant residues as determined by ¹⁴ C and enzyme activities. <i>European Journal of Soil Biology</i> , 2012, 48, 1-10.	3.2	147
139	THE DARK SIDE OF BLACK GOLD: Ecotoxicological aspects of biochar and biochar-amended soils. <i>Journal of Hazardous Materials</i> , 2021, 403, 123833.	12.4	147
140	A combination of ferric nitrate/EDDS-enhanced washing and sludge-derived biochar stabilization of metal-contaminated soils. <i>Science of the Total Environment</i> , 2018, 616-617, 572-582.	8.0	146
141	Microwave-assisted low-temperature hydrothermal treatment of red seaweed (<i>Gracilaria</i>) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50 273, 251-258.	9.6	146
142	Sorption and transport of sulfamethazine in agricultural soils amended with invasive-plant-derived biochar. <i>Journal of Environmental Management</i> , 2014, 141, 95-103.	7.8	145
143	Biochars and the plant-soil interface. <i>Plant and Soil</i> , 2015, 395, 1-5.	3.7	145
144	Impact of soybean stover- and pine needle-derived biochars on Pb and As mobility, microbial community, and carbon stability in a contaminated agricultural soil. <i>Journal of Environmental Management</i> , 2016, 166, 131-139.	7.8	144

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145	The roles of biochar as green admixture for sediment-based construction products. <i>Cement and Concrete Composites</i> , 2019, 104, 103348.	10.7	144
146	Groundwater depletion and contamination: Spatial distribution of groundwater resources sustainability in China. <i>Science of the Total Environment</i> , 2019, 672, 551-562.	8.0	143
147	Occurrence of contaminants in drinking water sources and the potential of biochar for water quality improvement: A review. <i>Critical Reviews in Environmental Science and Technology</i> , 2020, 50, 549-611.	12.8	143
148	Adsorption of Cd by peanut husks and peanut husk biochar from aqueous solutions. <i>Ecological Engineering</i> , 2016, 87, 240-245.	3.6	142
149	Biochar-induced metal immobilization and soil biogeochemical process: An integrated mechanistic approach. <i>Science of the Total Environment</i> , 2020, 698, 134112.	8.0	139
150	Prediction of Soil Heavy Metal Immobilization by Biochar Using Machine Learning. <i>Environmental Science & Technology</i> , 2022, 56, 4187-4198.	10.0	138
151	Ameliorants to immobilize Cd in rice paddy soils contaminated by abandoned metal mines in Korea. <i>Environmental Geochemistry and Health</i> , 2011, 33, 23-30.	3.4	137
152	Chromium(VI) sorption efficiency of acid-activated banana peel over organo-montmorillonite in aqueous solutions. <i>International Journal of Phytoremediation</i> , 2017, 19, 605-613.	3.1	135
153	Microbial functional diversity and carbon use feedback in soils as affected by heavy metals. <i>Environment International</i> , 2019, 125, 478-488.	10.0	135
154	Kinetic study on phosphate removal from aqueous solution by biochar derived from peanut shell as renewable adsorptive media. <i>International Journal of Environmental Science and Technology</i> , 2015, 12, 3363-3372.	3.5	133
155	Production of 5-hydroxymethylfurfural from starch-rich food waste catalyzed by sulfonated biochar. <i>Bioresource Technology</i> , 2018, 252, 76-82.	9.6	132
156	Gasification biochar from biowaste (food waste and wood waste) for effective CO ₂ adsorption. <i>Journal of Hazardous Materials</i> , 2020, 391, 121147.	12.4	132
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#	ARTICLE	IF	CITATIONS
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