# Yong Sik Ok

#### List of Publications by Citations

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46,107 179 110 714 h-index g-index citations papers 8.8 8.36 58,944 765 L-index avg, IF ext. citations ext. papers

#	Paper	IF	Citations
714	Biochar as a sorbent for contaminant management in soil and water: a review. <i>Chemosphere</i> , <b>2014</b> , 99, 19-33	8.4	2439
713	Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbenta critical review. <i>Bioresource Technology</i> , <b>2014</b> , 160, 191-202	11	1406
712	Occurrences and removal of pharmaceuticals and personal care products (PPCPs) in drinking water and water/sewage treatment plants: A review. <i>Science of the Total Environment</i> , <b>2017</b> , 596-597, 303-320	10.2	805
711	Effects of pyrolysis temperature on soybean stover- and peanut shell-derived biochar properties and TCE adsorption in water. <i>Bioresource Technology</i> , <b>2012</b> , 118, 536-44	11	75 <sup>2</sup>
710	Engineered/designer biochar for contaminant removal/immobilization from soil and water: Potential and implication of biochar modification. <i>Chemosphere</i> , <b>2016</b> , 148, 276-91	8.4	703
709	A review of biochar as a low-cost adsorbent for aqueous heavy metal removal. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2016</b> , 46, 406-433	11.1	703
708	Review on nano zerovalent iron (nZVI): From synthesis to environmental applications. <i>Chemical Engineering Journal</i> , <b>2016</b> , 287, 618-632	14.7	500
707	Surface functional groups of carbon-based adsorbents and their roles in the removal of heavy metals from aqueous solutions: A critical review. <i>Chemical Engineering Journal</i> , <b>2019</b> , 366, 608-621	14.7	435
706	Trace elements in the soil-plant interface: Phytoavailability, translocation, and phytoremediation review. <i>Earth-Science Reviews</i> , <b>2017</b> , 171, 621-645	10.2	396
705	Competitive adsorption of heavy metals onto sesame straw biochar in aqueous solutions. <i>Chemosphere</i> , <b>2016</b> , 142, 77-83	8.4	374
704	Effect of bamboo and rice straw biochars on the mobility and redistribution of heavy metals (Cd, Cu, Pb and Zn) in contaminated soil. <i>Journal of Environmental Management</i> , <b>2017</b> , 186, 285-292	7.9	364
703	Cadmium stress in rice: toxic effects, tolerance mechanisms, and management: a critical review. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 17859-79	5.1	361
702	Biochar application to low fertility soils: A review of current status, and future prospects. <i>Geoderma</i> , <b>2019</b> , 337, 536-554	6.7	357
701	Soil amendments for immobilization of potentially toxic elements in contaminated soils: A critical review. <i>Environment International</i> , <b>2020</b> , 134, 105046	12.9	352
700	A review of biochar-based catalysts for chemical synthesis, biofuel production, and pollution control. <i>Bioresource Technology</i> , <b>2017</b> , 246, 254-270	11	300
699	Multifunctional iron-biochar composites for the removal of potentially toxic elements, inherent cations, and hetero-chloride from hydraulic fracturing wastewater. <i>Environment International</i> , <b>2019</b> , 124, 521-532	12.9	287
698	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> , <b>2017</b> , 322, 2-16	12.8	286

697	Occurrence and Environmental Fate of Veterinary Antibiotics in the Terrestrial Environment. <i>Water, Air, and Soil Pollution,</i> <b>2011</b> , 214, 163-174	2.6	280
696	Mechanisms of biochar-mediated alleviation of toxicity of trace elements in plants: a critical review. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 2230-48	5.1	279
695	Cadmium minimization in wheat: A critical review. <i>Ecotoxicology and Environmental Safety</i> , <b>2016</b> , 130, 43-53	7	276
694	Minireview of potential applications of hydrochar derived from hydrothermal carbonization of biomass. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2018</b> , 57, 15-21	6.3	268
693	Trichloroethylene adsorption by pine needle biochars produced at various pyrolysis temperatures. <i>Bioresource Technology</i> , <b>2013</b> , 143, 615-22	11	266
692	Effect of biochar on cadmium bioavailability and uptake in wheat (Triticum aestivum L.) grown in a soil with aged contamination. <i>Ecotoxicology and Environmental Safety</i> , <b>2017</b> , 140, 37-47	7	252
691	A critical review on effects, tolerance mechanisms and management of cadmium in vegetables. <i>Chemosphere</i> , <b>2017</b> , 182, 90-105	8.4	232
690	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> , <b>2012</b> , 79, 225-231	7	231
689	Wood-based biochar for the removal of potentially toxic elements in water and wastewater: a critical review. <i>International Materials Reviews</i> , <b>2019</b> , 64, 216-247	16.1	228
688	Enhanced sulfamethazine removal by steam-activated invasive plant-derived biochar. <i>Journal of Hazardous Materials</i> , <b>2015</b> , 290, 43-50	12.8	226
687	Pyrolysis condition affected sulfamethazine sorption by tea waste biochars. <i>Bioresource Technology</i> , <b>2014</b> , 166, 303-8	11	225
686	Biochar for crop production: potential benefits and risks. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 685-7	'1364	222
685	Arsenic removal by perilla leaf biochar in aqueous solutions and groundwater: An integrated spectroscopic and microscopic examination. <i>Environmental Pollution</i> , <b>2018</b> , 232, 31-41	9.3	222
684	Applications of biochar in redox-mediated reactions. <i>Bioresource Technology</i> , <b>2017</b> , 246, 271-281	11	218
683	Biochar soil amendment on alleviation of drought and salt stress in plants: a critical review. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 12700-12712	5.1	217
682	Biochar technology in wastewater treatment: A critical review. <i>Chemosphere</i> , <b>2020</b> , 252, 126539	8.4	209
681	Production of bioplastic through food waste valorization. <i>Environment International</i> , <b>2019</b> , 127, 625-644	412.9	200
680	Interaction of arsenic with biochar in soil and water: A critical review. <i>Carbon</i> , <b>2017</b> , 113, 219-230	10.4	200

679	Cellular Mechanisms in Higher Plants Governing Tolerance to Cadmium Toxicity. <i>Critical Reviews in Plant Sciences</i> , <b>2014</b> , 33, 374-391	5.6	197
6 <del>7</del> 8	A critical review on sustainable biochar system through gasification: Energy and environmental applications. <i>Bioresource Technology</i> , <b>2017</b> , 246, 242-253	11	188
677	Biochar for composting improvement and contaminants reduction. A review. <i>Bioresource Technology</i> , <b>2017</b> , 246, 193-202	11	187
676	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> , <b>2014</b> , 95, 433-41	8.4	186
675	Mobility and phytoavailability of As and Pb in a contaminated soil using pine sawdust biochar under systematic change of redox conditions. <i>Chemosphere</i> , <b>2017</b> , 178, 110-118	8.4	185
674	Engineered/designer biochar for the removal of phosphate in water and wastewater. <i>Science of the Total Environment</i> , <b>2018</b> , 616-617, 1242-1260	10.2	185
673	Heavy metal immobilization and microbial community abundance by vegetable waste and pine cone biochar of agricultural soils. <i>Chemosphere</i> , <b>2017</b> , 174, 593-603	8.4	184
672	Lignin valorization for the production of renewable chemicals: State-of-the-art review and future prospects. <i>Bioresource Technology</i> , <b>2018</b> , 269, 465-475	11	182
671	Designer carbon nanotubes for contaminant removal in water and wastewater: A critical review. <i>Science of the Total Environment</i> , <b>2018</b> , 612, 561-581	10.2	180
670	Cadmium phytoremediation potential of Brassica crop species: A review. <i>Science of the Total Environment</i> , <b>2018</b> , 631-632, 1175-1191	10.2	177
669	Response of microbial communities to biochar-amended soils: a critical review. <i>Biochar</i> , <b>2019</b> , 1, 3-22	10	175
668	Green remediation of As and Pb contaminated soil using cement-free clay-based stabilization/solidification. <i>Environment International</i> , <b>2019</b> , 126, 336-345	12.9	175
667	A critical review on bioremediation technologies for Cr(VI)-contaminated soils and wastewater. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2019</b> , 49, 1027-1078	11.1	171
666	Metal contamination and bioremediation of agricultural soils for food safety and sustainability. <i>Nature Reviews Earth &amp; Environment</i> , <b>2020</b> , 1, 366-381	30.2	171
665	Particulate plastics as a vector for toxic trace-element uptake by aquatic and terrestrial organisms and human health risk. <i>Environment International</i> , <b>2019</b> , 131, 104937	12.9	169
664	Impact of sugarcane bagasse-derived biochar on heavy metal availability and microbial activity: A field study. <i>Chemosphere</i> , <b>2018</b> , 200, 274-282	8.4	168
663	Effects of rapeseed residue on lead and cadmium availability and uptake by rice plants in heavy metal contaminated paddy soil. <i>Chemosphere</i> , <b>2011</b> , 85, 677-82	8.4	168
662	Integrated adsorption and photocatalytic degradation of volatile organic compounds (VOCs) using carbon-based nanocomposites: A critical review. <i>Chemosphere</i> , <b>2019</b> , 218, 845-859	8.4	165

### (2019-2020)

661	A green biochar/iron oxide composite for methylene blue removal. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 384, 121286	12.8	165	
660	Biochar-supported nZVI (nZVI/BC) for contaminant removal from soil and water: A critical review. Journal of Hazardous Materials, <b>2019</b> , 373, 820-834	12.8	164	
659	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> , <b>2019</b> , 127, 819-847	12.9	160	
658	Biochar-induced concomitant decrease in ammonia volatilization and increase in nitrogen use efficiency by wheat. <i>Chemosphere</i> , <b>2016</b> , 142, 120-7	8.4	159	
657	Persistent free radicals in carbon-based materials on transformation of refractory organic contaminants (ROCs) in water: A critical review. <i>Water Research</i> , <b>2018</b> , 137, 130-143	12.5	158	
656	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> , <b>2019</b> , 124, 320-328	12.9	157	
655	Biochar-based engineered composites for sorptive decontamination of water: A review. <i>Chemical Engineering Journal</i> , <b>2019</b> , 372, 536-550	14.7	157	
654	Valorization of biomass to hydroxymethylfurfural, levulinic acid, and fatty acid methyl ester by heterogeneous catalysts. <i>Chemical Engineering Journal</i> , <b>2017</b> , 328, 246-273	14.7	156	
653	SMART biochar technology A shifting paradigm towards advanced materials and healthcare research. <i>Environmental Technology and Innovation</i> , <b>2015</b> , 4, 206-209	7	155	
652	Effect of biochar on heavy metal immobilization and uptake by lettuce (Lactuca sativa L.) in agricultural soil. <i>Environmental Earth Sciences</i> , <b>2015</b> , 74, 1249-1259	2.9	153	
651	Nanoarchitectured Structure and Surface Biofunctionality of Mesoporous Silica Nanoparticles. <i>Advanced Materials</i> , <b>2020</b> , 32, e1907035	24	153	
650	Biochar production from date palm waste: Charring temperature induced changes in composition and surface chemistry. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2015</b> , 115, 392-400	6	152	
649	Mercury speciation, transformation, and transportation in soils, atmospheric flux, and implications for risk management: A critical review. <i>Environment International</i> , <b>2019</b> , 126, 747-761	12.9	149	
648	Contrasting effects of biochar, compost and farm manure on alleviation of nickel toxicity in maize (Zea mays L.) in relation to plant growth, photosynthesis and metal uptake. <i>Ecotoxicology and Environmental Safety</i> , <b>2016</b> , 133, 218-25	7	149	
647	Heavy metal adsorption by a formulated zeolite-Portland cement mixture. <i>Journal of Hazardous Materials</i> , <b>2007</b> , 147, 91-6	12.8	149	
646	Biochar-induced changes in soil properties affected immobilization/mobilization of metals/metalloids in contaminated soils. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 717-730	3.4	148	
645	Biochar composition-dependent impacts on soil nutrient release, carbon mineralization, and potential environmental risk: A review. <i>Journal of Environmental Management</i> , <b>2019</b> , 241, 458-467	7.9	145	
644	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> , <b>2019</b> , 372, 992-10	06 <sup>14.7</sup>	144	

643	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> , <b>2018</b> , 624, 1059-1071	10.2	144
642	Nanoparticle-plant interaction: Implications in energy, environment, and agriculture. <i>Environment International</i> , <b>2018</b> , 119, 1-19	12.9	143
641	A critical review of the effects of pretreatment methods on the exergetic aspects of lignocellulosic biofuels. <i>Energy Conversion and Management</i> , <b>2020</b> , 212, 112792	10.6	142
640	Influence of soil properties and feedstocks on biochar potential for carbon mineralization and improvement of infertile soils. <i>Geoderma</i> , <b>2018</b> , 332, 100-108	6.7	142
639	Pyrolysis process of agricultural waste using CO2 for waste management, energy recovery, and biochar fabrication. <i>Applied Energy</i> , <b>2017</b> , 185, 214-222	10.7	142
638	Effects of natural and calcined oyster shells on Cd and Pb immobilization in contaminated soils. <i>Environmental Earth Sciences</i> , <b>2010</b> , 61, 1301-1308	2.9	141
637	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> , <b>2016</b> , 301, 179-86	12.8	140
636	Removal of hexavalent chromium in aqueous solutions using biochar: Chemical and spectroscopic investigations. <i>Science of the Total Environment</i> , <b>2018</b> , 625, 1567-1573	10.2	139
635	Value-added chemicals from food supply chain wastes: State-of-the-art review and future prospects. <i>Chemical Engineering Journal</i> , <b>2019</b> , 375, 121983	14.7	138
634	Microplastics as pollutants in agricultural soils. <i>Environmental Pollution</i> , <b>2020</b> , 265, 114980	9.3	137
633	Eggshell and coral wastes as low cost sorbents for the removal of Pb2+, Cd2+ and Cu2+ from aqueous solutions. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2012</b> , 18, 198-204	6.3	137
632	Assembling biochar with various layered double hydroxides for enhancement of phosphorus recovery. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 365, 665-673	12.8	136
631	Biochar enhances the cadmium tolerance in spinach (Spinacia oleracea) through modification of Cd uptake and physiological and biochemical attributes. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 21385-21394	5.1	134
630	A sustainable biochar catalyst synergized with copper heteroatoms and CO2 for singlet oxygenation and electron transfer routes. <i>Green Chemistry</i> , <b>2019</b> , 21, 4800-4814	10	133
629	Effects of polyacrylamide, biopolymer, and biochar on decomposition of soil organic matter and plant residues as determined by 14C and enzyme activities. <i>European Journal of Soil Biology</i> , <b>2012</b> , 48, 1-10	2.9	133
628	Copper and zinc adsorption by softwood and hardwood biochars under elevated sulphate-induced salinity and acidic pH conditions. <i>Chemosphere</i> , <b>2016</b> , 142, 64-71	8.4	131
627	Immobilization of lead in a Korean military shooting range soil using eggshell waste: an integrated mechanistic approach. <i>Journal of Hazardous Materials</i> , <b>2012</b> , 209-210, 392-401	12.8	128
626	Advances and future directions of biochar characterization methods and applications. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2017</b> , 47, 2275-2330	11.1	128

# (2016-2016)

625	Kinetics, thermodynamics and mechanistic studies of carbofuran removal using biochars from tea waste and rice husks. <i>Chemosphere</i> , <b>2016</b> , 150, 781-789	8.4	127
624	Alginate-based composites for environmental applications: A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2018</b> , 49, 318-356	11.1	127
623	Ball milling as a mechanochemical technology for fabrication of novel biochar nanomaterials. <i>Bioresource Technology</i> , <b>2020</b> , 312, 123613	11	124
622	Aluminium-biochar composites as sustainable heterogeneous catalysts for glucose isomerisation in a biorefinery. <i>Green Chemistry</i> , <b>2019</b> , 21, 1267-1281	10	124
621	Remediation of arsenic-contaminated water using agricultural wastes as biosorbents. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2016</b> , 46, 467-499	11.1	123
620	Remediation of mercury contaminated soil, water, and air: A review of emerging materials and innovative technologies. <i>Environment International</i> , <b>2020</b> , 134, 105281	12.9	123
619	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> , <b>2018</b> , 621, 1642-1651	10.2	122
618	Sorption and transport of sulfamethazine in agricultural soils amended with invasive-plant-derived biochar. <i>Journal of Environmental Management</i> , <b>2014</b> , 141, 95-103	7.9	120
617	Ameliorants to immobilize Cd in rice paddy soils contaminated by abandoned metal mines in Korea. <i>Environmental Geochemistry and Health</i> , <b>2011</b> , 33 Suppl 1, 23-30	4.7	119
616	Impact of biochar properties on soil conditions and agricultural sustainability: A review. <i>Land Degradation and Development</i> , <b>2018</b> , 29, 2124-2161	4.4	118
615	Veterinary antibiotics contamination in water, sediment, and soil near a swine manure composting facility. <i>Environmental Earth Sciences</i> , <b>2014</b> , 71, 1433-1440	2.9	118
614	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> , <b>2019</b> , 115, 109359	16.2	116
613	Equilibrium and kinetic mechanisms of woody biochar on aqueous glyphosate removal. <i>Chemosphere</i> , <b>2016</b> , 144, 2516-21	8.4	115
612	Sustainable in situ remediation of recalcitrant organic pollutants in groundwater with controlled release materials: A review. <i>Journal of Controlled Release</i> , <b>2018</b> , 283, 200-213	11.7	115
611	Fabrication and environmental applications of multifunctional mixed metal-biochar composites (MMBC) from red mud and lignin wastes. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 374, 412-419	12.8	114
610	A combination of ferric nitrate/EDDS-enhanced washing and sludge-derived biochar stabilization of metal-contaminated soils. <i>Science of the Total Environment</i> , <b>2018</b> , 616-617, 572-582	10.2	114
609	Adsorption of Cd by peanut husks and peanut husk biochar from aqueous solutions. <i>Ecological Engineering</i> , <b>2016</b> , 87, 240-245	3.9	113
608	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> , <b>2016</b> , 166, 131-9	7.9	113

607	Advances in lignin valorization towards bio-based chemicals and fuels: Lignin biorefinery. <i>Bioresource Technology</i> , <b>2019</b> , 291, 121878	11	113
606	Synthesis of MgO-coated corncob biochar and its application in lead stabilization in a soil washing residue. <i>Environment International</i> , <b>2019</b> , 122, 357-362	12.9	111
605	Impacts of biochar application on upland agriculture: A review. <i>Journal of Environmental Management</i> , <b>2019</b> , 234, 52-64	7.9	110
604	Microwave-assisted low-temperature hydrothermal treatment of red seaweed (Gracilaria lemaneiformis) for production of levulinic acid and algae hydrochar. <i>Bioresource Technology</i> , <b>2019</b> , 273, 251-258	11	108
603	Immobilization of lead in contaminated firing range soil using biochar. <i>Environmental Science and Pollution Research</i> , <b>2013</b> , 20, 8464-71	5.1	107
602	Distribution and accumulative pattern of tetracyclines and sulfonamides in edible vegetables of cucumber, tomato, and lettuce. <i>Journal of Agricultural and Food Chemistry</i> , <b>2015</b> , 63, 398-405	5.7	107
601	Stabilization of Pb and Cd contaminated soils and soil quality improvements using waste oyster shells. <i>Environmental Geochemistry and Health</i> , <b>2011</b> , 33, 83-91	4.7	105
600	Effect of biochar on reclaimed tidal land soil properties and maize (Zea mays L.) response. <i>Chemosphere</i> , <b>2016</b> , 142, 153-9	8.4	102
599	The roles of biochar as green admixture for sediment-based construction products. <i>Cement and Concrete Composites</i> , <b>2019</b> , 104, 103348	8.6	101
598	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> , <b>2015</b> , 12, 3363-3372	3.3	101
597	Enhancement of chromate reduction in soils by surface modified biochar. <i>Journal of Environmental Management</i> , <b>2017</b> , 186, 277-284	7.9	100
596	Effect of gasification biochar application on soil quality: Trace metal behavior, microbial community, and soil dissolved organic matter. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 365, 684-694	12.8	100
595	New trends in biochar pyrolysis and modification strategies: feedstock, pyrolysis conditions, sustainability concerns and implications for soil amendment. <i>Soil Use and Management</i> , <b>2020</b> , 36, 358-3	8ĝ.1	100
594	Catalytic valorization of starch-rich food waste into hydroxymethylfurfural (HMF): Controlling relative kinetics for high productivity. <i>Bioresource Technology</i> , <b>2017</b> , 237, 222-230	11	99
593	Production of 5-hydroxymethylfurfural from starch-rich food waste catalyzed by sulfonated biochar. <i>Bioresource Technology</i> , <b>2018</b> , 252, 76-82	11	99
592	Biorenewable hydrogen production through biomass gasification: A review and future prospects. <i>Environmental Research</i> , <b>2020</b> , 186, 109547	7.9	99
591	Residual effects of monoammonium phosphate, gypsum and elemental sulfur on cadmium phytoavailability and translocation from soil to wheat in an effluent irrigated field. <i>Chemosphere</i> , <b>2017</b> , 174, 515-523	8.4	98
590	A comprehensive review of engineered biochar: Production, characteristics, and environmental applications. <i>Journal of Cleaner Production</i> , <b>2020</b> , 270, 122462	10.3	97

# (2019-2018)

589	Bamboo- and pig-derived biochars reduce leaching losses of dibutyl phthalate, cadmium, and lead from co-contaminated soils. <i>Chemosphere</i> , <b>2018</b> , 198, 450-459	8.4	97
588	Decline in extractable antibiotics in manure-based composts during composting. <i>Waste Management</i> , <b>2012</b> , 32, 110-6	8.6	97
587	Application of eggshell waste for the immobilization of cadmium and lead in a contaminated soil. <i>Environmental Geochemistry and Health</i> , <b>2011</b> , 33 Suppl 1, 31-9	4.7	97
586	Invasive plant-derived biochar inhibits sulfamethazine uptake by lettuce in soil. <i>Chemosphere</i> , <b>2014</b> , 111, 500-4	8.4	96
585	Effects of polyacrylamide, biopolymer and biochar on the decomposition of 14C-labelled maize residues and on their stabilization in soil aggregates. <i>European Journal of Soil Science</i> , <b>2013</b> , 64, 488-499	3.4	96
584	Biochar increased water holding capacity but accelerated organic carbon leaching from a sloping farmland soil in China. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 995-1006	5.1	94
583	Clay-biochar composites for sorptive removal of tetracycline antibiotic in aqueous media. <i>Journal of Environmental Management</i> , <b>2019</b> , 238, 315-322	7.9	94
582	Biochar as green additives in cement-based composites with carbon dioxide curing. <i>Journal of Cleaner Production</i> , <b>2020</b> , 258, 120678	10.3	93
581	Antimonate and antimonite adsorption by a polyvinyl alcohol-stabilized granular adsorbent containing nanoscale zero-valent iron. <i>Chemical Engineering Journal</i> , <b>2014</b> , 247, 250-257	14.7	93
580	Chromium(VI) sorption efficiency of acid-activated banana peel over organo-montmorillonite in aqueous solutions. <i>International Journal of Phytoremediation</i> , <b>2017</b> , 19, 605-613	3.9	93
579	Effects of calcium carbonate on pyrolysis of sewage sludge. <i>Energy</i> , <b>2018</b> , 153, 726-731	7.9	92
578	Biochar Aging: Mechanisms, Physicochemical Changes, Assessment, And Implications for Field Applications. <i>Environmental Science &amp; Environmental Scienc</i>	10.3	92
577	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> , <b>2018</b> , 121, 85-101	12.9	92
576	A critical review of ferrate(VI)-based remediation of soil and groundwater. <i>Environmental Research</i> , <b>2018</b> , 160, 420-448	7.9	91
575	Surface complexation modeling and spectroscopic evidence of antimony adsorption on iron-oxide-rich red earth soils. <i>Journal of Colloid and Interface Science</i> , <b>2013</b> , 406, 217-24	9.3	90
574	Effect of biochar on alleviation of cadmium toxicity in wheat (Triticum aestivum L.) grown on Cd-contaminated saline soil. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 25668-25680	5.1	89
573	Exploring the arsenic removal potential of various biosorbents from water. <i>Environment International</i> , <b>2019</b> , 123, 567-579	12.9	89
572	Soil organic carbon dynamics: Impact of land use changes and management practices: A review. <i>Advances in Agronomy</i> , <b>2019</b> , 1-107	7.7	88

571	The role of biochar, natural iron oxides, and nanomaterials as soil amendments for immobilizing metals in shooting range soil. <i>Environmental Geochemistry and Health</i> , <b>2015</b> , 37, 931-42	4.7	88
57°	Phosphate-assisted phytoremediation of arsenic by Brassica napus and Brassica juncea: Morphological and physiological response. <i>International Journal of Phytoremediation</i> , <b>2017</b> , 19, 670-678	3.9	87
569	Potential value of phosphate compounds in enhancing immobilization and reducing bioavailability of mixed heavy metal contaminants in shooting range soil. <i>Chemosphere</i> , <b>2017</b> , 184, 197-206	8.4	87
568	Biochar-induced metal immobilization and soil biogeochemical process: An integrated mechanistic approach. <i>Science of the Total Environment</i> , <b>2020</b> , 698, 134112	10.2	87
567	Soil biota, antimicrobial resistance and planetary health. <i>Environment International</i> , <b>2019</b> , 131, 105059	12.9	86
566	Carbon mineralization and nutrient availability in calcareous sandy soils amended with woody waste biochar. <i>Chemosphere</i> , <b>2015</b> , 138, 67-73	8.4	86
565	Enhanced adsorption performance and governing mechanisms of ball-milled biochar for the removal of volatile organic compounds (VOCs). <i>Chemical Engineering Journal</i> , <b>2020</b> , 385, 123842	14.7	86
564	Use of Maize (Zea mays L.) for phytomanagement of Cd-contaminated soils: a critical review. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 259-277	4.7	85
563	Remediation of heavy metal contaminated soils by using Solanum nigrum: A review. <i>Ecotoxicology and Environmental Safety</i> , <b>2017</b> , 143, 236-248	7	85
562	Acid-activated biochar increased sulfamethazine retention in soils. <i>Environmental Science and Pollution Research</i> , <b>2015</b> , 22, 2175-86	5.1	85
561	Heavy metal immobilization in soil near abandoned mines using eggshell waste and rapeseed residue. <i>Environmental Science and Pollution Research</i> , <b>2013</b> , 20, 1719-26	5.1	85
560	Evaluating biochar and its modifications for the removal of ammonium, nitrate, and phosphate in water. <i>Water Research</i> , <b>2020</b> , 186, 116303	12.5	84
559	Evaluation of phosphorus adsorption capacity of sesame straw biochar on aqueous solution: influence of activation methods and pyrolysis temperatures. <i>Environmental Geochemistry and Health</i> , <b>2015</b> , 37, 969-83	4.7	83
558	Phytomanagement of heavy metals in contaminated soils using sunflower: A review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2016</b> , 46, 1498-1528	11.1	82
557	Soil pollution assessment and identification of hyperaccumulating plants in chromated copper arsenate (CCA) contaminated sites, Korea. <i>Chemosphere</i> , <b>2012</b> , 87, 872-8	8.4	82
556	Electricity generation from rice straw using a microbial fuel cell. <i>International Journal of Hydrogen Energy</i> , <b>2014</b> , 39, 9490-9496	6.7	81
555	Biochar-based adsorbents for carbon dioxide capture: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2020</b> , 119, 109582	16.2	81
554	Nanoscale zero-valent iron for metal/metalloid removal from model hydraulic fracturing wastewater. <i>Chemosphere</i> , <b>2017</b> , 176, 315-323	8.4	80

### (2021-2017)

553	A review on waste-derived adsorbents from sugar industry for pollutant removal in water and wastewater. <i>Journal of Molecular Liquids</i> , <b>2017</b> , 240, 179-188	6	80	
552	Microbial functional diversity and carbon use feedback in soils as affected by heavy metals. <i>Environment International</i> , <b>2019</b> , 125, 478-488	12.9	80	
551	Characterization of bioenergy biochar and its utilization for metal/metalloid immobilization in contaminated soil. <i>Science of the Total Environment</i> , <b>2018</b> , 640-641, 704-713	10.2	80	
550	Valorization of cellulosic food waste into levulinic acid catalyzed by heterogeneous Brfisted acids: Temperature and solvent effects. <i>Chemical Engineering Journal</i> , <b>2017</b> , 327, 328-335	14.7	80	
549	Selective dissolution followed by EDDS washing of an e-waste contaminated soil: Extraction efficiency, fate of residual metals, and impact on soil environment. <i>Chemosphere</i> , <b>2017</b> , 166, 489-496	8.4	79	
548	Modeling adsorption kinetics of trichloroethylene onto biochars derived from soybean stover and peanut shell wastes. <i>Environmental Science and Pollution Research</i> , <b>2013</b> , 20, 8364-73	5.1	79	
547	Valorization of food waste into hydroxymethylfurfural: Dual role of metal ions in successive conversion steps. <i>Bioresource Technology</i> , <b>2016</b> , 219, 338-347	11	79	
546	Arsenic, chromium, molybdenum, and selenium: Geochemical fractions and potential mobilization in riverine soil profiles originating from Germany and Egypt. <i>Chemosphere</i> , <b>2017</b> , 180, 553-563	8.4	78	
545	Customised fabrication of nitrogen-doped biochar for environmental and energy applications. <i>Chemical Engineering Journal</i> , <b>2020</b> , 401, 126136	14.7	78	
544	Conocarpus Biochar Induces Changes in Soil Nutrient Availability and Tomato Growth Under Saline Irrigation. <i>Pedosphere</i> , <b>2016</b> , 26, 27-38	5	78	
543	Heavy metal-induced oxidative stress on seed germination and seedling development: a critical review. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1813-1831	4.7	78	
542	Recent advances in photodegradation of antibiotic residues in water. <i>Chemical Engineering Journal</i> , <b>2021</b> , 405, 126806	14.7	78	
541	Flexible and Self-Healing Aqueous Supercapacitors for Low Temperature Applications: Polyampholyte Gel Electrolytes with Biochar Electrodes. <i>Scientific Reports</i> , <b>2017</b> , 7, 1685	4.9	77	
540	Groundwater depletion and contamination: Spatial distribution of groundwater resources sustainability in China. <i>Science of the Total Environment</i> , <b>2019</b> , 672, 551-562	10.2	77	
539	COVID-19's unsustainable waste management. Science, 2020, 368, 1438	33.3	77	
538	Clay-polymer nanocomposites: Progress and challenges for use in sustainable water treatment. Journal of Hazardous Materials, <b>2020</b> , 383, 121125	12.8	77	
537	Effects of biochar, cow bone, and eggshell on Pb availability to maize in contaminated soil irrigated with saline water. <i>Environmental Earth Sciences</i> , <b>2014</b> , 71, 1289-1296	2.9	76	
536	Engineered biochar IA sustainable solution for the removal of antibiotics from water. <i>Chemical Engineering Journal</i> , <b>2021</b> , 405, 126926	14.7	75	

535	Stability of heavy metals in soil washing residue with and without biochar addition under accelerated ageing. <i>Science of the Total Environment</i> , <b>2018</b> , 619-620, 185-193	10.2	75
534	Interactions between microplastics, pharmaceuticals and personal care products: Implications for vector transport. <i>Environment International</i> , <b>2021</b> , 149, 106367	12.9	74
533	Characterization and quantification of electron donating capacity and its structure dependence in biochar derived from three waste biomasses. <i>Chemosphere</i> , <b>2018</b> , 211, 1073-1081	8.4	73
532	Experimental and theoretical aspects of biochar-supported nanoscale zero-valent iron activating HO for ciprofloxacin removal from aqueous solution. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 380, 120848	12.8	73
531	Surface-modified biochar in a bioretention system for Escherichia coli removal from stormwater. <i>Chemosphere</i> , <b>2017</b> , 169, 89-98	8.4	73
530	Cr(VI) Formation related to Cr(III)-muscovite and birnessite interactions in ultramafic environments. <i>Environmental Science &amp; Environmental Science &amp;</i>	10.3	73
529	Carbamazepine removal from water by carbon dot-modified magnetic carbon nanotubes. <i>Environmental Research</i> , <b>2019</b> , 169, 434-444	7.9	73
528	The application of machine learning methods for prediction of metal sorption onto biochars. Journal of Hazardous Materials, <b>2019</b> , 378, 120727	12.8	72
527	Phosphoric acid-activated wood biochar for catalytic conversion of starch-rich food waste into glucose and 5-hydroxymethylfurfural. <i>Bioresource Technology</i> , <b>2018</b> , 267, 242-248	11	72
526	Production and use of biochar from buffalo-weed (Ambrosia trifida L.) for trichloroethylene removal from water. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2014</b> , 89, 150-157	3.5	72
525	Mechanisms of antimony adsorption onto soybean stover-derived biochar in aqueous solutions. Journal of Environmental Management, <b>2015</b> , 151, 443-9	7.9	71
524	Adsorption of ammonium in aqueous solutions by pine sawdust and wheat straw biochars. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 25638-25647	5.1	71
523	Arsenic removal by natural and chemically modified water melon rind in aqueous solutions and groundwater. <i>Science of the Total Environment</i> , <b>2018</b> , 645, 1444-1455	10.2	71
522	Contrasting effects of engineered carbon nanotubes on plants: a review. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1421-1439	4.7	69
521	Effectiveness of zinc application to minimize cadmium toxicity and accumulation in wheat (Triticum aestivum L.). <i>Environmental Earth Sciences</i> , <b>2014</b> , 71, 1663-1672	2.9	69
520	Monitoring of selected veterinary antibiotics in environmental compartments near a composting facility in Gangwon Province, Korea. <i>Environmental Monitoring and Assessment</i> , <b>2011</b> , 174, 693-701	3.1	69
519	Designing advanced biochar products for maximizing greenhouse gas mitigation potential. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2016</b> , 46, 1367-1401	11.1	69
518	A critical review of risks, characteristics, and treatment strategies for potentially toxic elements in wastewater from shale gas extraction. <i>Environment International</i> , <b>2019</b> , 125, 452-469	12.9	69

517	Recent progress in the development of biomass-derived nitrogen-doped porous carbon. <i>Journal of Materials Chemistry A</i> , <b>2021</b> , 9, 3703-3728	13	69	
516	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> , <b>2020</b> , 50, 549-	6 <sup>1</sup> 11 <sup>1</sup>	67	
515	Propylene carbonate and Evalerolactone as green solvents enhance Sn(IV)-catalysed hydroxymethylfurfural (HMF) production from bread waste. <i>Green Chemistry</i> , <b>2018</b> , 20, 2064-2074	10	66	
514	Mechanistic evidence and efficiency of the Cr(VI) reduction in water by different sources of zerovalent irons. <i>Water Science and Technology</i> , <b>2007</b> , 55, 197-202	2.2	66	
513	Characterization and ecotoxicological investigation of biochar produced via slow pyrolysis: Effect of feedstock composition and pyrolysis conditions. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 365, 178-185	12.8	66	
512	Arsenic(V) biosorption by charred orange peel in aqueous environments. <i>International Journal of Phytoremediation</i> , <b>2016</b> , 18, 442-9	3.9	65	
511	Synthesis of nanomaterials from various wastes and their new age applications. <i>Journal of Cleaner Production</i> , <b>2018</b> , 197, 1190-1209	10.3	65	
510	Sorption process of municipal solid waste biochar-montmorillonite composite for ciprofloxacin removal in aqueous media. <i>Chemosphere</i> , <b>2019</b> , 236, 124384	8.4	65	
509	Roles of biochar-derived dissolved organic matter in soil amendment and environmental remediation: A critical review. <i>Chemical Engineering Journal</i> , <b>2021</b> , 424, 130387	14.7	65	
508	Sustainable remediation with an electroactive biochar system: mechanisms and perspectives. <i>Green Chemistry</i> , <b>2020</b> , 22, 2688-2711	10	64	
507	Biochar influences soil carbon pools and facilitates interactions with soil: A field investigation. <i>Land Degradation and Development</i> , <b>2018</b> , 29, 2162-2171	4.4	64	
506	Phosphorus Recovery and Reuse from Waste Streams. <i>Advances in Agronomy</i> , <b>2015</b> , 131, 173-250	7.7	64	
505	Sulfonated biochar as acid catalyst for sugar hydrolysis and dehydration. <i>Catalysis Today</i> , <b>2018</b> , 314, 52-	651.3	63	
504	Engineering pyrolysis biochar via single-step microwave steam activation for hazardous landfill leachate treatment. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 390, 121649	12.8	63	
503	Characterization of nanoparticles of biochars from different biomass. <i>Journal of Analytical and Applied Pyrolysis</i> , <b>2016</b> , 121, 165-172	6	63	
502	The potential of biochar as sorptive media for removal of hazardous benzene in air. <i>Chemical Engineering Journal</i> , <b>2019</b> , 361, 1576-1585	14.7	63	
501	Pyrolysis temperature and steam activation effects on sorption of phosphate on pine sawdust biochars in aqueous solutions. <i>Chemical Speciation and Bioavailability</i> , <b>2016</b> , 28, 42-50		62	
500	Gasification biochar from biowaste (food waste and wood waste) for effective CO adsorption.  Journal of Hazardous Materials, 2020, 391, 121147	12.8	62	

499	Progress on the lignocellulosic biomass pyrolysis for biofuel production toward environmental sustainability. <i>Fuel Processing Technology</i> , <b>2021</b> , 223, 106997	7.2	62
498	Lead contamination in Chinese surface soils: Source identification, spatial-temporal distribution and associated health risks. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2019</b> , 49, 1386-1423	11.1	61
497	Biochar enhanced thermophilic anaerobic digestion of food waste: Focusing on biochar particle size, microbial community analysis and pilot-scale application. <i>Energy Conversion and Management</i> , <b>2020</b> , 209, 112654	10.6	61
496	Effects of Lime-Based Waste Materials on Immobilization and Phytoavailability of Cadmium and Lead in Contaminated Soil. <i>Clean - Soil, Air, Water</i> , <b>2013</b> , 41, 1235-1241	1.6	61
495	Role of woody biochar and fungal-bacterial co-inoculation on enzyme activity and metal immobilization in serpentine soil. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 665-673	3.4	60
494	Chicken-manure-derived biochar reduced bioavailability of copper in a contaminated soil. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 741-750	3.4	60
493	Humic substances as a washing agent for Cd-contaminated soils. <i>Chemosphere</i> , <b>2017</b> , 181, 461-467	8.4	60
492	Redox-induced mobilization of Ag, Sb, Sn, and Tl in the dissolved, colloidal and solid phase of a biochar-treated and un-treated mining soil. <i>Environment International</i> , <b>2020</b> , 140, 105754	12.9	60
491	Mechanistic insights into red mud, blast furnace slag, or metakaolin-assisted stabilization/solidification of arsenic-contaminated sediment. <i>Environment International</i> , <b>2019</b> , 133, 105	52479	60
490	Dissolved organic matter characterization of biochars produced from different feedstock materials. Journal of Environmental Management, <b>2019</b> , 233, 393-399	7.9	60
489	Simultaneous production of syngas and magnetic biochar via pyrolysis of paper mill sludge using CO2 as reaction medium. <i>Energy Conversion and Management</i> , <b>2017</b> , 145, 1-9	10.6	59
488	Pyrogenic carbon and its role in contaminant immobilization in soils. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2017</b> , 47, 795-876	11.1	59
487	Recent advances in control technologies for non-point source pollution with nitrogen and phosphorous from agricultural runoff: current practices and future prospects. <i>Applied Biological Chemistry</i> , <b>2020</b> , 63,	2.9	59
486	Effect of compost addition on arsenic uptake, morphological and physiological attributes of maize plants grown in contrasting soils. <i>Journal of Geochemical Exploration</i> , <b>2017</b> , 178, 83-91	3.8	58
485	Thermodynamic Analysis of Nickel(II) and Zinc(II) Adsorption to Biochar. <i>Environmental Science &amp; Emp; Technology</i> , <b>2018</b> , 52, 6246-6255	10.3	58
484	Conventional and organic farming: Soil erosion and conservation potential for row crop cultivation. <i>Geoderma</i> , <b>2014</b> , 219-220, 89-105	6.7	58
483	Multifunctional applications of biochar beyond carbon storage. <i>International Materials Reviews</i> , <b>2022</b> , 1-51	16.1	58
482	Redox chemistry of vanadium in soils and sediments: Interactions with colloidal materials, mobilization, speciation, and relevant environmental implications- A review. <i>Advances in Colloid and Interface Science</i> , <b>2019</b> , 265, 1-13	14.3	58

# (2011-2018)

481	Selective Glucose Isomerization to Fructose via a Nitrogen-doped Solid Base Catalyst Derived from Spent Coffee Grounds. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 16113-16120	8.3	58
480	Recent advances in volatile organic compounds abatement by catalysis and catalytic hybrid processes: A critical review. <i>Science of the Total Environment</i> , <b>2020</b> , 719, 137405	10.2	57
479	Pine sawdust biomass and biochars at different pyrolysis temperatures change soil redox processes. <i>Science of the Total Environment</i> , <b>2018</b> , 625, 147-154	10.2	57
478	Release dynamics of As, Co, and Mo in a biochar treated soil under pre-definite redox conditions. <i>Science of the Total Environment</i> , <b>2019</b> , 657, 686-695	10.2	56
477	Biochar, a potential hydroponic growth substrate, enhances the nutritional status and growth of leafy vegetables. <i>Journal of Cleaner Production</i> , <b>2017</b> , 156, 581-588	10.3	55
476	Red mud-enhanced magnesium phosphate cement for remediation of Pb and As contaminated soil. Journal of Hazardous Materials, <b>2020</b> , 400, 123317	12.8	55
475	Sources, distribution, bioavailability, toxicity, and risk assessment of heavy metal(loid)s in complementary medicines. <i>Environment International</i> , <b>2017</b> , 108, 103-118	12.9	55
474	A critical review on performance indicators for evaluating soil biota and soil health of biochar-amended soils. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 414, 125378	12.8	55
473	Graphite oxide- and graphene oxide-supported catalysts for microwave-assisted glucose isomerisation in water. <i>Green Chemistry</i> , <b>2019</b> , 21, 4341-4353	10	54
472	Soil lead immobilization by biochars in short-term laboratory incubation studies. <i>Environment International</i> , <b>2019</b> , 127, 190-198	12.9	54
471	Impact of biochar on mobilization, methylation, and ethylation of mercury under dynamic redox conditions in a contaminated floodplain soil. <i>Environment International</i> , <b>2019</b> , 127, 276-290	12.9	54
470	Synergy effects of biochar and polyacrylamide on plants growth and soil erosion control. <i>Environmental Earth Sciences</i> , <b>2015</b> , 74, 2463-2473	2.9	54
469	Thermally treated zeolitic imidazolate framework-8 (ZIF-8) for visible light photocatalytic degradation of gaseous formaldehyde. <i>Chemical Science</i> , <b>2020</b> , 11, 6670-6681	9.4	54
468	Chemical stabilization of Cd-contaminated soil using biochar. <i>Applied Geochemistry</i> , <b>2018</b> , 88, 122-130	3.5	54
467	Remediation of poly- and perfluoroalkyl substances (PFAS) contaminated soils - To mobilize or to immobilize or to degrade?. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 401, 123892	12.8	54
466	Arsenic in cooked rice foods: Assessing health risks and mitigation options. <i>Environment International</i> , <b>2019</b> , 127, 584-591	12.9	53
465	An assessment of the utilization of waste resources for the immobilization of Pb and Cu in the soil from a Korean military shooting range. <i>Environmental Earth Sciences</i> , <b>2012</b> , 67, 1023-1031	2.9	53
464	Sulfate adsorption properties of acid-sensitive soils in the Athabasca oil sands region in Alberta, Canada. <i>Chemosphere</i> , <b>2011</b> , 84, 457-63	8.4	53

463	Metal-organic framework (MOF)-based advanced sensing platforms for the detection of hydrogen sulfide. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2018</b> , 105, 263-281	14.6	53
462	Functionalized fluorescent nanomaterials for sensing pollutants in the environment: A critical review. <i>TrAC - Trends in Analytical Chemistry</i> , <b>2017</b> , 97, 458-467	14.6	52
461	Performance of metal-organic frameworks for the adsorptive removal of potentially toxic elements in a water system: a critical review <i>RSC Advances</i> , <b>2019</b> , 9, 34359-34376	3.7	52
460	THE DARK SIDE OF BLACK GOLD: Ecotoxicological aspects of biochar and biochar-amended soils. Journal of Hazardous Materials, <b>2021</b> , 403, 123833	12.8	52
459	Municipal solid waste biochar-bentonite composite for the removal of antibiotic ciprofloxacin from aqueous media. <i>Journal of Environmental Management</i> , <b>2019</b> , 236, 428-435	7.9	51
458	Sustainable gasification biochar as a high efficiency adsorbent for CO2 capture: A facile method to designer biochar fabrication. <i>Renewable and Sustainable Energy Reviews</i> , <b>2020</b> , 124, 109785	16.2	51
457	Carbon and nitrogen mineralization and enzyme activities in soil aggregate-size classes: Effects of biochar, oyster shells, and polymers. <i>Chemosphere</i> , <b>2018</b> , 198, 40-48	8.4	51
456	Comparative analysis biochar and compost-induced degradation of di-(2-ethylhexyl) phthalate in soils. <i>Science of the Total Environment</i> , <b>2018</b> , 625, 987-993	10.2	51
455	A comparison of figure of merit (FOM) for various materials in adsorptive removal of benzene under ambient temperature and pressure. <i>Environmental Research</i> , <b>2019</b> , 168, 96-108	7.9	51
454	Sorption mechanisms of lead on silicon-rich biochar in aqueous solution: Spectroscopic investigation. <i>Science of the Total Environment</i> , <b>2019</b> , 672, 572-582	10.2	50
453	Cadmium solubility and bioavailability in soils amended with acidic and neutral biochar. <i>Science of the Total Environment</i> , <b>2018</b> , 610-611, 1457-1466	10.2	50
452	Integrating EDDS-enhanced washing with low-cost stabilization of metal-contaminated soil from an e-waste recycling site. <i>Chemosphere</i> , <b>2016</b> , 159, 426-432	8.4	50
451	Polar aprotic solvent-water mixture as the medium for catalytic production of hydroxymethylfurfural (HMF) from bread waste. <i>Bioresource Technology</i> , <b>2017</b> , 245, 456-462	11	50
450	Efficacy of woody biomass and biochar for alleviating heavy metal bioavailability in serpentine soil. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 391-401	4.7	50
449	Carbon-coated montmorillonite nanocomposite for the removal of chromium(VI) from aqueous solutions. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 368, 541-549	12.8	49
448	Photo-aging of polyvinyl chloride microplastic in the presence of natural organic acids. <i>Water Research</i> , <b>2020</b> , 183, 116082	12.5	49
447	The potential value of biochar in the mitigation of gaseous emission of nitrogen. <i>Science of the Total Environment</i> , <b>2018</b> , 612, 257-268	10.2	49
446	Thermal Properties of Biochars Derived from Waste Biomass Generated by Agricultural and Forestry Sectors. <i>Energies</i> , <b>2017</b> , 10, 469	3.1	49

### (2018-2017)

445	Potential impact of flowback water from hydraulic fracturing on agricultural soil quality: Metal/metalloid bioaccessibility, Microtox bioassay, and enzyme activities. <i>Science of the Total Environment</i> , <b>2017</b> , 579, 1419-1426	10.2	48
444	Enhancement of nitrate removal in constructed wetlands utilizing a combined autotrophic and heterotrophic denitrification technology for treating hydroponic wastewater containing high nitrate and low organic carbon concentrations. <i>Agricultural Water Management</i> , <b>2015</b> , 162, 1-14	5.9	48
443	Valorization of lignocellulosic fibres of paper waste into levulinic acid using solid and aqueous Bristed acid. <i>Bioresource Technology</i> , <b>2018</b> , 247, 387-394	11	48
442	Waste-derived compost and biochar amendments for stormwater treatment in bioretention column: Co-transport of metals and colloids. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 383, 121243	12.8	48
441	Date palm biochar-polymer composites: An investigation of electrical, mechanical, thermal and rheological characteristics. <i>Science of the Total Environment</i> , <b>2018</b> , 619-620, 311-318	10.2	48
440	Performance of dry water- and porous carbon-based sorbents for carbon dioxide capture. <i>Environmental Research</i> , <b>2019</b> , 174, 69-79	7.9	47
439	Aging effects on chemical transformation and metal(loid) removal by entrapped nanoscale zero-valent iron for hydraulic fracturing wastewater treatment. <i>Science of the Total Environment</i> , <b>2018</b> , 615, 498-507	10.2	47
438	Valorization of starchy, cellulosic, and sugary food waste into hydroxymethylfurfural by one-pot catalysis. <i>Chemosphere</i> , <b>2017</b> , 184, 1099-1107	8.4	47
437	Toxicity of synthetic chelators and metal availability in poultry manure amended Cd, Pb and As contaminated agricultural soil. <i>Journal of Hazardous Materials</i> , <b>2013</b> , 262, 1022-30	12.8	47
436	Competitive adsorption and selectivity sequence of heavy metals by chicken bone-derived biochar: Batch and column experiment. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , <b>2015</b> , 50, 1194-204	2.3	46
435	Recent advances in controlled modification of the size and morphology of metal-organic frameworks. <i>Nano Research</i> , <b>2018</b> , 11, 4441-4467	10	46
434	Role of chelating agents on release kinetics of metals and their uptake by maize from chromated copper arsenate-contaminated soil. <i>Environmental Technology (United Kingdom)</i> , <b>2013</b> , 34, 747-55	2.6	46
433	Influence of green solvent on levulinic acid production from lignocellulosic paper waste. <i>Bioresource Technology</i> , <b>2020</b> , 298, 122544	11	46
432	Combined application of EDDS and EDTA for removal of potentially toxic elements under multiple soil washing schemes. <i>Chemosphere</i> , <b>2018</b> , 205, 178-187	8.4	45
431	Effects of acidic and neutral biochars on properties and cadmium retention of soils. <i>Chemosphere</i> , <b>2017</b> , 180, 564-573	8.4	44
430	Identifying the best materials for the removal of airborne toluene based on performance metrics - A critical review. <i>Journal of Cleaner Production</i> , <b>2019</b> , 241, 118408	10.3	44
429	Chemical stabilisation of lead in shooting range soils with phosphate and magnesium oxide: Synchrotron investigation. <i>Journal of Hazardous Materials</i> , <b>2015</b> , 299, 395-403	12.8	44
428	Chelant-enhanced washing of CCA-contaminated soil: Coupled with selective dissolution or soil stabilization. <i>Science of the Total Environment</i> , <b>2018</b> , 612, 1463-1472	10.2	44

427	Potentially toxic elements in solid waste streams: Fate and management approaches. <i>Environmental Pollution</i> , <b>2019</b> , 253, 680-707	9.3	44
426	Thermal stability of biochar and its effects on cadmium sorption capacity. <i>Bioresource Technology</i> , <b>2017</b> , 246, 48-56	11	44
425	Tin-Functionalized Wood Biochar as a Sustainable Solid Catalyst for Glucose Isomerization in Biorefinery. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 4851-4860	8.3	44
424	Spherical Superstructure of Boron Nitride Nanosheets Derived from Boron-Containing Metal-Organic Frameworks. <i>Journal of the American Chemical Society</i> , <b>2020</b> , 142, 8755-8762	16.4	43
423	Pine sawdust biochar reduces GHG emission by decreasing microbial and enzyme activities in forest and grassland soils in a laboratory experiment. <i>Science of the Total Environment</i> , <b>2018</b> , 625, 1247-1256	10.2	43
422	Phytotoxicity attenuation in Vigna radiata under heavy metal stress at the presence of biochar and N fixing bacteria. <i>Journal of Environmental Management</i> , <b>2017</b> , 186, 293-300	7.9	43
421	Effect of Corn Residue Biochar on the Hydraulic Properties of Sandy Loam Soil. <i>Sustainability</i> , <b>2017</b> , 9, 266	3.6	43
420	Recent advances in mitigating membrane biofouling using carbon-based materials. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 382, 120976	12.8	43
419	Biochar industry to circular economy. Science of the Total Environment, 2021, 757, 143820	10.2	43
418	Targeted removal of organic foulants in landfill leachate in forward osmosis system integrated with biochar/activated carbon treatment. <i>Water Research</i> , <b>2019</b> , 160, 217-227	12.5	42
417	Sorption Process of Date Palm Biochar for Aqueous Cd (II) Removal: Efficiency and Mechanisms. <i>Water, Air, and Soil Pollution</i> , <b>2016</b> , 227, 1	2.6	42
416	Chemically modified biochar produced from conocarpus waste increases NO3 removal from aqueous solutions. <i>Environmental Geochemistry and Health</i> , <b>2016</b> , 38, 511-21	4.7	42
415	Applicability of the Charm II system for monitoring antibiotic residues in manure-based composts. <i>Waste Management</i> , <b>2011</b> , 31, 39-44	8.6	42
414	Reclamation of Abandoned Coal Mine Waste in Korea using Lime Cake By-Products. <i>Mine Water and the Environment</i> , <b>2006</b> , 25, 227-232	2.4	42
413	Field trials of phytomining and phytoremediation: A critical review of influencing factors and effects of additives. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 50, 2724-2774	11.1	42
412	Thermal properties of composite organic phase change materials (PCMs): A critical review on their engineering chemistry. <i>Applied Thermal Engineering</i> , <b>2020</b> , 181, 115960	5.8	42
411	Chemical speciation of silver (Ag) in soils under aerobic and anaerobic conditions: Ag nanoparticles vs. ionic Ag. <i>Journal of Hazardous Materials</i> , <b>2017</b> , 322, 318-324	12.8	41
410	Biochar provides a safe and value-added solution for hyperaccumulating plant disposal: A case study of Phytolacca acinosa Roxb. (Phytolaccaceae). <i>Chemosphere</i> , <b>2017</b> , 178, 59-64	8.4	41

409	Adsorption and thermodynamic mechanisms of manganese removal from aqueous media by biowaste-derived biochars. <i>Journal of Molecular Liquids</i> , <b>2018</b> , 266, 373-380	6	41
408	Positive regulation of rice RING E3 ligase OsHIR1 in arsenic and cadmium uptakes. <i>Plant Molecular Biology</i> , <b>2014</b> , 85, 365-79	4.6	41
407	Biochars as Potential Adsorbers of CH4, CO2 and H2S. Sustainability, 2017, 9, 121	3.6	41
406	Biochar-mediated sorption of antibiotics in pig manure. Journal of Hazardous Materials, 2019, 364, 663-	<b>67<u>9</u>.</b> 8	41
405	Reduction of Bromate by Cobalt-Impregnated Biochar Fabricated via Pyrolysis of Lignin Using CO as a Reaction Medium. <i>ACS Applied Materials &amp; Samp; Interfaces</i> , <b>2017</b> , 9, 13142-13150	9.5	40
404	Trace element dynamics of biosolids-derived microbeads. <i>Chemosphere</i> , <b>2018</b> , 199, 331-339	8.4	40
403	Removal of chlorinated organic solvents from hydraulic fracturing wastewater by bare and entrapped nanoscale zero-valent iron. <i>Chemosphere</i> , <b>2018</b> , 196, 9-17	8.4	40
402	Sensitivity to Acidification of Forest Soils in Two Watersheds with Contrasting Hydrological Regimes in the Oil Sands Region of Alberta. <i>Pedosphere</i> , <b>2007</b> , 17, 747-757	5	40
401	Sustainable removal of Hg(II) by sulfur-modified pine-needle biochar. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 388, 122048	12.8	40
400	Competitive sorption and availability of coexisting heavy metals in mining-contaminated soil: Contrasting effects of mesquite and fishbone biochars. <i>Environmental Research</i> , <b>2020</b> , 181, 108846	7.9	40
399	Effects of conocarpus biochar on hydraulic properties of calcareous sandy soil: influence of particle size and application depth. <i>Archives of Agronomy and Soil Science</i> , <b>2017</b> , 63, 185-197	2	39
398	Modified sequential extraction for biochar and petroleum coke: Metal release potential and its environmental implications. <i>Bioresource Technology</i> , <b>2017</b> , 236, 106-110	11	39
397	Role of Selenoproteins in Redox Regulation of Signaling and the Antioxidant System: A Review. <i>Antioxidants</i> , <b>2020</b> , 9,	7.1	39
396	Zeolite-supported nanoscale zero-valent iron for immobilization of cadmium, lead, and arsenic in farmland soils: Encapsulation mechanisms and indigenous microbial responses. <i>Environmental Pollution</i> , <b>2020</b> , 260, 114098	9.3	39
395	Bioaccumulation of potentially toxic elements by submerged plants and biofilms: A critical review. <i>Environment International</i> , <b>2019</b> , 131, 105015	12.9	39
394	Towards practical application of gasification: a critical review from syngas and biochar perspectives. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2018</b> , 48, 1165-1213	11.1	39
393	Coconut-fiber biochar reduced the bioavailability of lead but increased its translocation rate in rice plants: Elucidation of immobilization mechanisms and significance of iron plaque barrier on roots using spectroscopic techniques. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 389, 122117	12.8	38
392	Effects of natural and calcined poultry waste on Cd, Pb and As mobility in contaminated soil. <i>Environmental Earth Sciences</i> , <b>2013</b> , 69, 11-20	2.9	38

391	How biochar works, and when it doesn't: A review of mechanisms controlling soil and plant responses to biochar. <i>GCB Bioenergy</i> , <b>2021</b> , 13, 1731	5.6	38
390	Slow pyrolyzed biochars from crop residues for soil metal(loid) immobilization and microbial community abundance in contaminated agricultural soils. <i>Chemosphere</i> , <b>2017</b> , 177, 157-166	8.4	37
389	Plant and soil responses to hydrothermally converted sewage sludge (sewchar). <i>Chemosphere</i> , <b>2018</b> , 206, 338-348	8.4	37
388	Steam activation of biochars facilitates kinetics and pH-resilience of sulfamethazine sorption. Journal of Soils and Sediments, <b>2016</b> , 16, 889-895	3.4	37
387	Biochar soil amendment for sustainable agriculture with carbon and contaminant sequestration. <i>Carbon Management</i> , <b>2014</b> , 5, 255-257	3.3	37
386	Technologies and perspectives for achieving carbon neutrality. <i>Innovation(China)</i> , <b>2021</b> , 2, 100180	17.8	37
385	Waste shrimp shell-derived hydrochar as an emergent material for methyl orange removal in aqueous solutions. <i>Environment International</i> , <b>2020</b> , 134, 105340	12.9	37
384	In-situ biochar application conserves nutrients while simultaneously mitigating runoff and erosion of an Fe-oxide-enriched tropical soil. <i>Science of the Total Environment</i> , <b>2018</b> , 619-620, 665-671	10.2	37
383	Evaluating the effectiveness of various biochars as porous media for biodiesel synthesis via pseudo-catalytic transesterification. <i>Bioresource Technology</i> , <b>2017</b> , 231, 59-64	11	36
382	Effect of biochars pyrolyzed in N and CO, and feedstock on microbial community in metal(loid)s contaminated soils. <i>Environment International</i> , <b>2019</b> , 126, 791-801	12.9	36
381	Engineered tea-waste biochar for the removal of caffeine, a model compound in pharmaceuticals and personal care products (PPCPs), from aqueous media. <i>Environmental Technology and Innovation</i> , <b>2020</b> , 19, 100847	7	36
<b>3</b> 80	A field study of bioavailable polycyclic aromatic hydrocarbons (PAHs) in sewage sludge and biochar amended soils. <i>Journal of Hazardous Materials</i> , <b>2018</b> , 349, 27-34	12.8	36
379	Changes of biochemical properties and heavy metal bioavailability in soil treated with natural liming materials. <i>Environmental Earth Sciences</i> , <b>2013</b> , 70, 3411-3420	2.9	36
378	Pyrolysis of wastes generated through saccharification of oak tree by using CO 2 as reaction medium. <i>Applied Thermal Engineering</i> , <b>2017</b> , 110, 335-345	5.8	36
377	Recent advances in photocatalytic hydrogen evolution with high-performance catalysts without precious metals. <i>Renewable and Sustainable Energy Reviews</i> , <b>2020</b> , 132, 110040	16.2	36
376	Current status of biogas upgrading for direct biomethane use: A review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 149, 111343	16.2	36
375	Carbon nanotube-grafted chitosan and its adsorption capacity for phenol in aqueous solution. <i>Science of the Total Environment</i> , <b>2019</b> , 682, 340-347	10.2	35
374	Quantitative source tracking of heavy metals contained in urban road deposited sediments. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 393, 122362	12.8	35

#### (2009-2018)

373	Metal(loid) immobilization in soils with biochars pyrolyzed in N and CO environments. <i>Science of the Total Environment</i> , <b>2018</b> , 630, 1103-1114	10.2	35
372	Fate of fertilizer 15N in intensive ridge cultivation with plastic mulching under a monsoon climate.  Nutrient Cycling in Agroecosystems, 2013, 95, 57-72	3.3	35
371	Mechanistic insights of 2,4-D sorption onto biochar: Influence of feedstock materials and biochar properties. <i>Bioresource Technology</i> , <b>2017</b> , 246, 160-167	11	35
370	Stabilization of arsenic-contaminated mine tailings using natural and calcined oyster shells. <i>Environmental Earth Sciences</i> , <b>2011</b> , 64, 597-605	2.9	35
369	Genetic Variation in Cadmium Accumulation and Tolerance among Wheat Cultivars at the Seedling Stage. <i>Communications in Soil Science and Plant Analysis</i> , <b>2016</b> , 47, 554-562	1.5	35
368	Polystyrene-halloysite nano tube membranes for water purification. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2018</b> , 61, 169-180	6.3	35
367	N doped cobalt-carbon composite for reduction of p-nitrophenol and pendimethaline. <i>Journal of Alloys and Compounds</i> , <b>2017</b> , 703, 118-124	5.7	34
366	Effects of carbon nanotube and biochar on bioavailability of Pb, Cu and Sb in multi-metal contaminated soil. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1409-1420	4.7	34
365	Latent heat storage biocomposites of phase change material-biochar as feasible eco-friendly building materials. <i>Environmental Research</i> , <b>2019</b> , 172, 637-648	7.9	34
364	Risk evaluation of biochars produced from Cd-contaminated rice straw and optimization of its production for Cd removal. <i>Chemosphere</i> , <b>2019</b> , 233, 149-156	8.4	34
363	Sorption of lead in soil amended with coconut fiber biochar: Geochemical and spectroscopic investigations. <i>Geoderma</i> , <b>2019</b> , 350, 52-60	6.7	34
362	Carbon dioxide capture in biochar produced from pine sawdust and paper mill sludge: Effect of porous structure and surface chemistry. <i>Science of the Total Environment</i> , <b>2020</b> , 739, 139845	10.2	34
361	Applications of carbonaceous adsorbents in the remediation of polycyclic aromatic hydrocarbon-contaminated sediments: A review. <i>Journal of Cleaner Production</i> , <b>2020</b> , 255, 120263	10.3	34
360	Date palm waste-derived biochar composites with silica and zeolite: synthesis, characterization and implication for carbon stability and recalcitrant potential. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1687-1704	4.7	34
359	Multi-task prediction and optimization of hydrochar properties from high-moisture municipal solid waste: Application of machine learning on waste-to-resource. <i>Journal of Cleaner Production</i> , <b>2021</b> , 278, 123928	10.3	34
358	Study on susceptibility of CO2-assisted pyrolysis of various biomass to CO2. <i>Energy</i> , <b>2017</b> , 137, 510-517	7.9	33
357	Preliminary techno-economic analysis of biodiesel production over solid-biochar. <i>Bioresource Technology</i> , <b>2020</b> , 306, 123086	11	33
356	Soil nutrient bioavailability and nutrient content of pine trees (Pinus thunbergii) in areas impacted by acid deposition in Korea. <i>Environmental Monitoring and Assessment</i> , <b>2009</b> , 157, 43-50	3.1	33

355	(Im)mobilization and speciation of lead under dynamic redox conditions in a contaminated soil amended with pine sawdust biochar. <i>Environment International</i> , <b>2020</b> , 135, 105376	12.9	33
354	Green synthesis of graphitic nanobiochar for the removal of emerging contaminants in aqueous media. <i>Science of the Total Environment</i> , <b>2020</b> , 706, 135725	10.2	33
353	Microplastic's role in antibiotic resistance. <i>Science</i> , <b>2020</b> , 369, 1315	33.3	33
352	Pyrolysis of FeCl3-pretreated spent coffee grounds using CO2 as a reaction medium. <i>Energy Conversion and Management</i> , <b>2016</b> , 127, 437-442	10.6	33
351	Bioenergy-derived waste biochar for reducing mobility, bioavailability, and phytotoxicity of chromium in anthropized tannery soil. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 731-740	3.4	32
350	Residual perfluorochemicals in the biochar from sewage sludge. <i>Chemosphere</i> , <b>2015</b> , 134, 435-7	8.4	32
349	Stabilization of As-, Pb-, and Cu-contaminated soil using calcined oyster shells and steel slag. <i>Environmental Science and Pollution Research</i> , <b>2015</b> , 22, 11162-9	5.1	32
348	Adsorption performance of standard biochar materials against volatile organic compounds in air: A case study using benzene and methyl ethyl ketone. <i>Chemical Engineering Journal</i> , <b>2020</b> , 387, 123943	14.7	32
347	Arsenic biogeochemical cycling in paddy soil-rice system: Interaction with various factors, amendments and mineral nutrients. <i>Science of the Total Environment</i> , <b>2021</b> , 773, 145040	10.2	32
346	Sorption, kinetics and thermodynamics of phosphate sorption onto soybean stover derived biochar. <i>Environmental Technology and Innovation</i> , <b>2017</b> , 8, 113-125	7	31
345	Exfoliated Ni-Al LDH 2D nanosheets for intermediate temperature CO capture. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 374, 365-371	12.8	31
344	Effective Dispersion of MgO Nanostructure on Biochar Support as a Basic Catalyst for Glucose Isomerization. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2020</b> , 8, 6990-7001	8.3	31
343	Effects of excessive impregnation, magnesium content, and pyrolysis temperature on MgO-coated watermelon rind biochar and its lead removal capacity. <i>Environmental Research</i> , <b>2020</b> , 183, 109152	7.9	31
342	Dynamic variations in dissolved organic matter and the precursors of disinfection by-products leached from biochars: Leaching experiments simulating intermittent rain events. <i>Environmental Pollution</i> , <b>2018</b> , 242, 1912-1920	9.3	31
341	Characterization of biocomposite using coconut oil impregnated biochar as latent heat storage insulation. <i>Chemosphere</i> , <b>2019</b> , 236, 124269	8.4	31
340	Sorption of polycyclic aromatic hydrocarbons (PAHs) to lignin: effects of hydrophobicity and temperature. <i>Bulletin of Environmental Contamination and Toxicology</i> , <b>2014</b> , 93, 84-8	2.7	31
339	Effects of Synthetic Chelators and Low-Molecular-Weight Organic Acids on Chromium, Copper, and Arsenic Uptake and Translocation in Maize (Zea mays L.). <i>Soil Science</i> , <b>2012</b> , 177, 655-663	0.9	31
338	Management of biosolids-derived hydrochar (Sewchar): Effect on plant germination, and farmers' acceptance. <i>Journal of Environmental Management</i> , <b>2019</b> , 237, 200-214	7.9	31

# (2021-2020)

337	Photocatalytic behavior of biochar-modified carbon nitride with enriched visible-light reactivity. <i>Chemosphere</i> , <b>2020</b> , 239, 124713	8.4	31
336	Fe(III) loaded chitosan-biochar composite fibers for the removal of phosphate from water. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 415, 125464	12.8	31
335	Evaluation of sewage sludge incineration ash as a potential land reclamation material. <i>Journal of Hazardous Materials</i> , <b>2018</b> , 357, 63-72	12.8	30
334	Effects of carbon dioxide on pyrolysis of peat. <i>Energy</i> , <b>2017</b> , 120, 929-936	7.9	29
333	Nanostructured chitosan/molecular sieve-4A an emergent material for the synergistic adsorption of radioactive major pollutants cesium and strontium. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 392, 122494	4 <sup>12.8</sup>	29
332	Interface interactions between insecticide carbofuran and tea waste biochars produced at different pyrolysis temperatures. <i>Chemical Speciation and Bioavailability</i> , <b>2016</b> , 28, 110-118		29
331	Recent trends in green and sustainable chemistry: rethinking textile waste in a circular economy. <i>Current Opinion in Green and Sustainable Chemistry</i> , <b>2019</b> , 20, 1-10	7.9	29
330	Zero-valent iron for the abatement of arsenate and selenate from flowback water of hydraulic fracturing. <i>Chemosphere</i> , <b>2017</b> , 167, 163-170	8.4	29
329	Inhibitory effect of veterinary antibiotics on denitrification in groundwater: a microcosm approach. <i>Scientific World Journal, The</i> , <b>2014</b> , 2014, 879831	2.2	29
328	Nanobiochar: production, properties, and multifunctional applications. <i>Environmental Science: Nano</i> , <b>2020</b> , 7, 3279-3302	7.1	29
327	Halloysite nanoclay supported adsorptive removal of oxytetracycline antibiotic from aqueous media. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 384, 121301	12.8	29
326	Strategic CO 2 utilization for shifting carbon distribution from pyrolytic oil to syngas in pyrolysis of food waste. <i>Journal of CO2 Utilization</i> , <b>2017</b> , 20, 150-155	7.6	28
325	Fabrication of spherical biochar by a two-step thermal process from waste potato peel. <i>Science of the Total Environment</i> , <b>2018</b> , 626, 478-485	10.2	28
324	Synthesis of cobalt-impregnated carbon composite derived from a renewable resource: Characterization and catalytic performance evaluation. <i>Science of the Total Environment</i> , <b>2018</b> , 612, 103	- <del>1</del> 9 <del>0</del>	28
323	Nitrate-contaminated groundwater remediation by combined autotrophic and heterotrophic denitrification for sulfate and pH control: batch tests. <i>Environmental Science and Pollution Research</i> , <b>2013</b> , 20, 9084-91	5.1	28
322	Evaluation of SWAT sub-daily runoff estimation at small agricultural watershed in Korea. <i>Frontiers of Environmental Science and Engineering</i> , <b>2013</b> , 7, 109-119	5.8	28
321	Using the SWAT model to improve process descriptions and define hydrologic partitioning in South Korea. <i>Hydrology and Earth System Sciences</i> , <b>2014</b> , 18, 539-557	5.5	28
320	Insights into upstream processing of microalgae: A review. <i>Bioresource Technology</i> , <b>2021</b> , 329, 124870	11	28

319	Utilization of phosphorus loaded alkaline residue to immobilize lead in a shooting range soil. <i>Chemosphere</i> , <b>2016</b> , 162, 315-23	8.4	28
318	Mitigation of arsenic accumulation in rice: An agronomical, physico-chemical, and biological approach [A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 50, 31-71	11.1	28
317	Biomass facilitated phase transformation of natural hematite at high temperatures and sorption of Cd and Cu. <i>Environment International</i> , <b>2019</b> , 124, 473-481	12.9	27
316	Occurrence and cycling of trace elements in ultramafic soils and their impacts on human health: A critical review. <i>Environment International</i> , <b>2019</b> , 131, 104974	12.9	27
315	Stabilization of lead and copper contaminated firing range soil using calcined oyster shells and fly ash. <i>Environmental Geochemistry and Health</i> , <b>2013</b> , 35, 705-14	4.7	27
314	Characterization of hard- and softwood biochars pyrolyzed at high temperature. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 403-415	4.7	27
313	Natural and synthesised iron-rich amendments for As and Pb immobilisation in agricultural soil. <i>Chemistry and Ecology</i> , <b>2014</b> , 30, 267-279	2.3	27
312	Adsorption of acetone and cyclohexane onto CO activated hydrochars. <i>Chemosphere</i> , <b>2020</b> , 245, 125664	<b>1</b> 8.4	27
311	Environmental transformation and nano-toxicity of engineered nano-particles (ENPs) in aquatic and terrestrial organisms. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 50, 2523-2581	11.1	27
310	Date palm waste biochars alter a soil respiration, microbial biomass carbon, and heavy metal mobility in contaminated mined soil. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1705-1722	4.7	27
309	A critical review on remediation of bisphenol S (BPS) contaminated water: Efficacy and mechanisms. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 50, 476-522	11.1	27
308	Metal organic framework derived Cullarbon composite: An efficient non-noble metal catalyst for reduction of hexavalent chromium and pendimethalin. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2017</b> , 52, 331-337	6.3	26
307	Characteristics of biochars derived from fruit tree pruning wastes and their effects on lead adsorption <b>2015</b> , 58, 751-760		26
306	Comparison of single and competitive metal adsorption by pepper stem biochar. <i>Archives of Agronomy and Soil Science</i> , <b>2016</b> , 62, 617-632	2	26
305	Enhancement of energy recovery from chicken manure by pyrolysis in carbon dioxide. <i>Journal of Cleaner Production</i> , <b>2017</b> , 164, 146-152	10.3	26
304	Alleviation of Salt Stress in Eggplant (Solanum melongena L.) by Plant-Growth-Promoting Rhizobacteria. <i>Communications in Soil Science and Plant Analysis</i> , <b>2012</b> , 43, 1303-1315	1.5	26
303	Stabilization of Pb[]+ and Cu[]+ contaminated firing range soil using calcined oyster shells and waste cow bones. <i>Chemosphere</i> , <b>2013</b> , 91, 1349-54	8.4	26
302	Combined toxicity of endosulfan and phenanthrene mixtures and induced molecular changes in adult Zebrafish (Danio rerio). <i>Chemosphere</i> , <b>2018</b> , 194, 30-41	8.4	26

301	Effect of biochar particle size on hydrophobic organic compound sorption kinetics: Applicability of using representative size. <i>Science of the Total Environment</i> , <b>2018</b> , 619-620, 410-418	10.2	26	
300	Biosolids application affects the competitive sorption and lability of cadmium, copper, nickel, lead, and zinc in fluvial and calcareous soils. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1365-1379	4.7	25	
299	Phosphorus sorption capacity of biochars varies with biochar type and salinity level. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 25799-25812	5.1	25	
298	Insights into aqueous carbofuran removal by modified and non-modified rice husk biochars. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 22755-22763	5.1	25	
297	Design and fabrication of exfoliated Mg/Al layered double hydroxides on biochar support. <i>Journal of Cleaner Production</i> , <b>2021</b> , 289, 125142	10.3	25	
296	Trace elements in surface sediments of the Hooghly (Ganges) estuary: distribution and contamination risk assessment. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1245-1258	4.7	24	
295	Influence of physico-chemical properties of soil clay fractions on the retention of dissolved organic carbon. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1335-1350	4.7	24	
294	Novel M (Mg/Ni/Cu)-Al-CO layered double hydroxides synthesized by aqueous miscible organic solvent treatment (AMOST) method for CO capture. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 373, 285-293	12.8	24	
293	Interactive effects of rice straw biochar and EAlO on immobilization of Zn. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 373, 250-257	12.8	24	
292	Interactions of food waste compost with metals and metal-chelant complexes during soil remediation. <i>Journal of Cleaner Production</i> , <b>2018</b> , 192, 199-206	10.3	24	
291	Fabrication of a novel magnetic carbon nanocomposite adsorbent via pyrolysis of sugar. <i>Chemosphere</i> , <b>2016</b> , 163, 305-312	8.4	24	
290	Accelerated metolachlor degradation in soil by zerovalent iron and compost amendments. <i>Bulletin of Environmental Contamination and Toxicology</i> , <b>2010</b> , 84, 459-64	2.7	24	
289	A critical review on biochar-based engineered hierarchical porous carbon for capacitive charge storage. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 145, 111029	16.2	24	
288	Biochar heavy metal removal in aqueous solution depends on feedstock type and pyrolysis purging gas. <i>Environmental Pollution</i> , <b>2021</b> , 281, 117094	9.3	24	
287	Utilization of Biowaste for Mine Spoil Rehabilitation. <i>Advances in Agronomy</i> , <b>2016</b> , 138, 97-173	7.7	24	
286	CO2-looping in pyrolysis of horse manure using CaCO3. <i>Journal of Cleaner Production</i> , <b>2018</b> , 174, 616-62	40.3	24	
285	Application of surface complexation modeling to trace metals uptake by biochar-amended agricultural soils. <i>Applied Geochemistry</i> , <b>2018</b> , 88, 103-112	3.5	24	
284	Rapid biodiesel synthesis from waste pepper seeds without lipid isolation step. <i>Bioresource Technology</i> , <b>2017</b> , 239, 17-20	11	23	

283	Microbe mediated immobilization of arsenic in the rice rhizosphere after incorporation of silica impregnated biochar composites. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 398, 123096	12.8	23
282	Engineered biochar derived from eggshell-treated biomass for removal of aqueous lead. <i>Ecological Engineering</i> , <b>2018</b> , 121, 124-129	3.9	23
281	Performance and mass transfer of aqueous fluoride removal by a magnetic alumina aerogel. <i>RSC Advances</i> , <b>2016</b> , 6, 112988-112999	3.7	23
280	Amelioration of Horticultural Growing Media Properties Through Rice Hull Biochar Incorporation. Waste and Biomass Valorization, <b>2017</b> , 8, 483-492	3.2	23
279	Energy density enhancement via pyrolysis of paper mill sludge using CO2. <i>Journal of CO2 Utilization</i> , <b>2017</b> , 17, 305-311	7.6	22
278	Insights into the subsurface transport of As(V) and Se(VI) in produced water from hydraulic fracturing using soil samples from Qingshankou Formation, Songliao Basin, China. <i>Environmental Pollution</i> , <b>2017</b> , 223, 449-456	9.3	22
277	Mild hydrothermal conditioning prior to torrefaction and slow pyrolysis of low-value biomass. <i>Bioresource Technology</i> , <b>2016</b> , 217, 104-12	11	22
276	Treatment of abandoned coal mine discharged waters using lime wastes. <i>Geosciences Journal</i> , <b>2007</b> , 11, 111-114	1.4	22
275	Enhancement of phosphorus removal with near-neutral pH utilizing steel and ferronickel slags for application of constructed wetlands. <i>Ecological Engineering</i> , <b>2016</b> , 95, 612-621	3.9	22
274	Efficient succinic acid production using a biochar-treated textile waste hydrolysate in an in situ fibrous bed bioreactor. <i>Biochemical Engineering Journal</i> , <b>2019</b> , 149, 107249	4.2	21
273	Determination of biomarkers for polycyclic aromatic hydrocarbons (PAHs) toxicity to earthworm (Eisenia fetida). <i>Environmental Geochemistry and Health</i> , <b>2015</b> , 37, 943-51	4.7	21
272	Enhanced sonophotocatalytic degradation of bisphenol A using bimetal sulfide-intercalated MXenes, 2D/2D nanocomposite. <i>Separation and Purification Technology</i> , <b>2020</b> , 250, 117178	8.3	21
271	Carbon dioxide as a carrier gas and mixed feedstock pyrolysis decreased toxicity of sewage sludge biochar. <i>Science of the Total Environment</i> , <b>2020</b> , 723, 137796	10.2	21
270	Assessment of Soil Health in Urban Agriculture: Soil Enzymes and Microbial Properties. <i>Sustainability</i> , <b>2017</b> , 9, 310	3.6	21
269	Influence of bioenergy waste biochar on proton- and ligand-promoted release of Pb and Cu in a shooting range soil. <i>Science of the Total Environment</i> , <b>2018</b> , 625, 547-554	10.2	21
268	Biochar Effects on Rice Paddy: Meta-analysis. <i>Advances in Agronomy</i> , <b>2018</b> , 1-32	7.7	21
267	Simultaneous stabilization of arsenic, lead, and copper in contaminated soil using mixed waste resources. <i>Environmental Earth Sciences</i> , <b>2013</b> , 69, 1813-1820	2.9	21
266	Contrasting Roles of Maleic Acid in Controlling Kinetics and Selectivity of Sn(IV)- and Cr(III)-Catalyzed Hydroxymethylfurfural Synthesis. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2018</b> , 6, 14264-14274	8.3	21

### (2021-2021)

265	The COVID-19 pandemic necessitates a shift to a plastic circular economy. <i>Nature Reviews Earth &amp; Environment</i> , <b>2021</b> , 1-2	30.2	21
264	Risk mitigation by waste-based permeable reactive barriers for groundwater pollution control at e-waste recycling sites. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 75-88	4.7	20
263	Soil pollution - speed up global mapping. <i>Nature</i> , <b>2019</b> , 566, 455	50.4	20
262	The convertion of sewage sludge to biochar as a sustainable tool of PAHs exposure reduction during agricultural utilization of sewage sludges. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 392, 122416	12.8	20
261	Effects of anionic polyacrylamide on maize growth: a short term 14C labeling study. <i>Plant and Soil</i> , <b>2012</b> , 350, 311-322	4.2	20
<b>2</b> 60	Utilizing CO2 to suppress the generation of harmful chemicals from thermal degradation of polyvinyl chloride. <i>Journal of Cleaner Production</i> , <b>2017</b> , 162, 1465-1471	10.3	20
259	The Effects of Biochar Amendment on Soil Fertility. SSSA Special Publication Series, 2015, 123-144	Ο	20
258	Monitoring Antibiotic Residues and Corresponding Antibiotic Resistance Genes in an Agroecosystem. <i>Journal of Chemistry</i> , <b>2015</b> , 2015, 1-7	2.3	20
257	The ratio of H/C is a useful parameter to predict adsorption of the herbicide metolachlor to biochars. <i>Environmental Research</i> , <b>2020</b> , 184, 109324	7.9	19
256	Assessment of waste oyster shells and coal mine drainage sludge for the stabilization of As-, Pb-, and Cu-contaminated soil. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 2362-70	5.1	19
255	Effects of soil type and fertilizer on As speciation in rice paddy contaminated with As-containing pesticide. <i>Environmental Earth Sciences</i> , <b>2014</b> , 71, 837-847	2.9	19
254	Catalytic pyrolytic platform for scrap tires using CO2 and steel slag. <i>Applied Energy</i> , <b>2020</b> , 259, 114164	10.7	19
253	Effects of selenium on the uptake of toxic trace elements by crop plants: A review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 1-36	11.1	19
252	Carbonaceous inserts from lignocellulosic and non-lignocellulosic sources in cement mortar: Preparation conditions and its effect on hydration kinetics and physical properties. <i>Construction and Building Materials</i> , <b>2020</b> , 264, 120214	6.7	19
251	A universal approach for the synthesis of mesoporous gold, palladium and platinum films for applications in electrocatalysis. <i>Nature Protocols</i> , <b>2020</b> , 15, 2980-3008	18.8	19
250	Hydrometallurgical processes for heavy metals recovery from industrial sludges. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 1-41	11.1	19
249	Roles of Biochar and CO2 Curing in Sustainable Magnesia Cement-Based Composites. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 8603-8610	8.3	19
248	Applied Machine Learning for Prediction of CO Adsorption on Biomass Waste-Derived Porous Carbons. <i>Environmental Science &amp; Environmental Science &amp; Env</i>	10.3	19

247	Long-term performance of vertical-flow and horizontal-flow constructed wetlands as affected by season, N load, and operating stage for treating nitrogen from domestic sewage. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 1108-19	5.1	18
246	Organo-layered double hydroxides for the removal of polycyclic aromatic hydrocarbons from soil washing effluents containing high concentrations of surfactants. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 373, 678-686	12.8	18
245	Effect of biochar derived from barley straw on soil physicochemical properties, crop growth, and nitrous oxide emission in an upland field in South Korea. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 25813-25821	5.1	18
244	Sorption of acidic organic solute onto kaolinitic soils from methanol-water mixtures. <i>Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes</i> , <b>2012</b> , 47, 22-9	2.2	18
243	Detecting oxidized contaminants in water using sulfur-oxidizing bacteria. <i>Environmental Science &amp; Environmental &amp; Environment</i>	10.3	18
242	Capacity of Cr(VI) reduction in an aqueous solution using different sources of zerovalent irons. <i>Korean Journal of Chemical Engineering</i> , <b>2006</b> , 23, 935-939	2.8	18
241	Efficiency of Poultry Manure Biochar for Stabilization of Metals in Contaminated Soil. <i>Journal of Applied Biological Chemistry</i> , <b>2015</b> , 58, 39-50	0.7	18
240	Polyethyleneimine modification of activated fly ash and biochar for enhanced removal of natural organic matter from water via adsorption. <i>Chemosphere</i> , <b>2020</b> , 243, 125454	8.4	18
239	Sorption of copper(II) from synthetic oil sands process-affected water (OSPW) by pine sawdust biochars: effects of pyrolysis temperature and steam activation. <i>Journal of Soils and Sediments</i> , <b>2016</b> , 16, 2081-2089	3.4	18
238	Sulphamethazine in poultry manure changes carbon and nitrogen mineralisation in soils. <i>Chemistry and Ecology</i> , <b>2016</b> , 32, 899-918	2.3	18
237	Geo- and nano-materials affect the mono-metal and competitive sorption of Cd, Cu, Ni, and Zn in a sewage sludge-treated alkaline soil. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 379, 120567	12.8	17
236	General Formation of Macro-/Mesoporous Nanoshells from Interfacial Assembly of Irregular Mesostructured Nanounits. <i>Angewandte Chemie - International Edition</i> , <b>2020</b> , 59, 19663-19668	16.4	17
235	Biochar for urban agriculture: Impacts on soil chemical characteristics and on Brassica rapa growth, nutrient content and metabolism over multiple growth cycles. <i>Science of the Total Environment</i> , <b>2020</b> , 727, 138742	10.2	17
234	Soil Enzyme Activities in Waste Biochar Amended Multi-Metal Contaminated Soil; Effect of Different Pyrolysis Temperatures and Application Rates. <i>Communications in Soil Science and Plant Analysis</i> , <b>2018</b> , 49, 635-643	1.5	17
233	Acute toxicity and gene responses induced by endosulfan in zebrafish (Danio rerio) embryos. <i>Chemical Speciation and Bioavailability</i> , <b>2016</b> , 28, 103-109		17
232	Using CO2 to mitigate evolution of harmful chemical compounds during thermal degradation of printed circuit boards. <i>Journal of CO2 Utilization</i> , <b>2017</b> , 20, 66-72	7.6	17
231	Improving the humification and phosphorus flow during swine manure composting: A trial for enhancing the beneficial applications of hazardous biowastes. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 425, 127906	12.8	17
230	Heart developmental toxicity by carbon black waste generated from oil refinery on zebrafish embryos (Danio rerio): Combined toxicity on heart function by nickel and vanadium. <i>Journal of Hazardous Materials</i> <b>2019</b> , 363, 127-137	12.8	17

229	COVID-19 discarded disposable gloves as a source and a vector of pollutants in the environment. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 417, 125938	12.8	17	
228	Crosslinking of polyethylene with peroxide and multifunctional monomers during extrusion. European Polymer Journal, <b>1992</b> , 28, 1487-1491	5.2	16	
227	Comparative analysis of speciation and bioaccessibility of arsenic in rice grains and complementary medicines. <i>Chemosphere</i> , <b>2017</b> , 182, 433-440	8.4	16	
226	Supercritical Carbon Dioxide Extraction of Value-Added Products and Thermochemical Synthesis of Platform Chemicals from Food Waste. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 2821-2829	8.3	16	
225	Organic Acid-Regulated Lewis Acidity for Selective Catalytic Hydroxymethylfurfural Production from Rice Waste: An ExperimentalComputational Study. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2019</b> , 7, 1437-1446	8.3	16	
224	Efficacy and limitations of low-cost adsorbents for in-situ stabilisation of contaminated marine sediment. <i>Journal of Cleaner Production</i> , <b>2019</b> , 212, 420-427	10.3	16	
223	Elucidating the redox-driven dynamic interactions between arsenic and iron-impregnated biochar in a paddy soil using geochemical and spectroscopic techniques. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 422, 126808	12.8	16	
222	Speciation and bioavailability of lead in complementary medicines. <i>Science of the Total Environment</i> , <b>2016</b> , 539, 304-312	10.2	15	
221	Application of half-order kinetics to sulfur-utilizing autotrophic denitrification for groundwater remediation. <i>Environmental Earth Sciences</i> , <b>2015</b> , 73, 3445-3450	2.9	15	
220	Enhancement of syngas for H2 production via catalytic pyrolysis of orange peel using CO2 and bauxite residue. <i>Applied Energy</i> , <b>2019</b> , 254, 113803	10.7	15	
219	Selective adsorption of the golddyanide complex from waste rinse water using Dowex 21K XLT resin. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2014</b> , 20, 1308-1312	6.3	15	
218	Commercial versus synthesized polymers for soil erosion control and growth of Chinese cabbage. <i>SpringerPlus</i> , <b>2013</b> , 2, 534		15	
217	Biochar affects the dissipation of antibiotics and abundance of antibiotic resistance genes in pig manure. <i>Bioresource Technology</i> , <b>2020</b> , 315, 123782	11	15	
216	Solid biofuel production from spent coffee ground wastes: Process optimisation, characterisation and kinetic studies. <i>Fuel</i> , <b>2021</b> , 292, 120309	7.1	15	
215	Global Plastic Pollution Observation System to Aid Policy. <i>Environmental Science &amp; Environmental Scie</i>	10.3	15	
214	Potential toxicity of trace elements and nanomaterials to Chinese cabbage in arsenic- and lead-contaminated soil amended with biochars. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1777	-17791	15	
213	Tuneable functionalities in layered double hydroxide catalysts for thermochemical conversion of biomass-derived glucose to fructose. <i>Chemical Engineering Journal</i> , <b>2020</b> , 383, 122914	14.7	15	
212	Evaluating the efficiency of different natural clay sediments for the removal of chlortetracycline from aqueous solutions. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 384, 121500	12.8	15	

211	New mechanistic insight into rapid adsorption of pharmaceuticals from water utilizing activated biochar. <i>Environmental Research</i> , <b>2021</b> , 202, 111693	7.9	15
210	Processed Bamboo as a Novel Formaldehyde-Free High-Performance Furniture Biocomposite. <i>ACS Applied Materials &amp; Discomposite (Materials &amp; Discomposi</i>	9.5	14
209	Removal of organic acids from water using biochar and petroleum coke. <i>Environmental Technology and Innovation</i> , <b>2016</b> , 6, 141-151	7	14
208	Sulfur crosslinks from thermal degradation of chitosan dithiocarbamate derivatives and thermodynamic study for sorption of copper and cadmium from aqueous system. <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 1050-9	5.1	14
207	A weighted, multi-method approach for accurate basin-wide streamflow estimation in an ungauged watershed. <i>Journal of Hydrology</i> , <b>2013</b> , 494, 72-82	6	14
206	A Review of Environmental Contamination and Remediation Strategies for Heavy Metals at Shooting Range Soils <b>2012</b> , 437-451		14
205	New insights into CO2 sorption on biochar/Fe oxyhydroxide composites: Kinetics, mechanisms, and in situ characterization. <i>Chemical Engineering Journal</i> , <b>2020</b> , 384, 123289	14.7	14
204	Effects of aging and weathering on immobilization of trace metals/metalloids in soils amended with biochar. <i>Environmental Sciences: Processes and Impacts</i> , <b>2020</b> , 22, 1790-1808	4.3	14
203	Biochar Surface Functionality Plays a Vital Role in (Im)Mobilization and Phytoavailability of Soil Vanadium. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 6864-6874	8.3	14
202	Stabilization of dissolvable biochar by soil minerals: Release reduction and organo-mineral complexes formation. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 412, 125213	12.8	14
201	Biochar composites: Emerging trends, field successes and sustainability implications. <i>Soil Use and Management</i> , <b>2022</b> ,	3.1	14
200	Biochar utilisation in the anaerobic digestion of food waste for the creation of a circular economy via biogas upgrading and digestate treatment. <i>Bioresource Technology</i> , <b>2021</b> , 333, 125190	11	14
199	Unraveling iron speciation on Fe-biochar with distinct arsenic removal mechanisms and depth distributions of As and Fe. <i>Chemical Engineering Journal</i> , <b>2021</b> , 425, 131489	14.7	14
198	Chlorpyrifos-induced biomarkers in Japanese medaka (Oryzias latipes). <i>Environmental Science and Pollution Research</i> , <b>2016</b> , 23, 1071-80	5.1	13
197	Sustainability likelihood of remediation options for metal-contaminated soil/sediment. <i>Chemosphere</i> , <b>2017</b> , 174, 421-427	8.4	13
196	Effect of biosolid hydrochar on toxicity to earthworms and brine shrimp. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1351-1364	4.7	13
195	Decomposition of soil organic matter as affected by clay types, pedogenic oxides and plant residue addition rates. <i>Journal of Hazardous Materials</i> , <b>2019</b> , 374, 11-19	12.8	13
194	Examination of Three Different Organic Waste Biochars as Soil Amendment for Metal-Contaminated Agricultural Soils. <i>Water, Air, and Soil Pollution</i> , <b>2015</b> , 226, 1	2.6	13

193	Establishing a green platform for biodiesel synthesis via strategic utilization of biochar and dimethyl carbonate. <i>Bioresource Technology</i> , <b>2017</b> , 241, 1178-1181	11	13
192	Release of toxic elements in fishpond sediments under dynamic redox conditions: Assessing the potential environmental risk for a safe management of fisheries systems and degraded waterlogged sediments. <i>Journal of Environmental Management</i> , <b>2020</b> , 255, 109778	7.9	13
191	Review on upgrading organic waste to value-added carbon materials for energy and environmental applications. <i>Journal of Environmental Management</i> , <b>2021</b> , 296, 113128	7.9	13
190	Catalytic pyrolysis of brown algae using carbon dioxide and oyster shell. <i>Journal of CO2 Utilization</i> , <b>2019</b> , 34, 668-675	7.6	12
189	An efficient phosphorus scavenging from aqueous solution using magnesiothermally modified bio-calcite. <i>Environmental Technology (United Kingdom)</i> , <b>2018</b> , 39, 1638-1649	2.6	12
188	Contribution of pyrolytic gas medium to the fabrication of co-impregnated biochar. <i>Journal of CO2 Utilization</i> , <b>2018</b> , 26, 476-486	7.6	12
187	Impact of natural and calcined starfish (Asterina pectinifera) on the stabilization of Pb, Zn and As in contaminated agricultural soil. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 431-441	4.7	12
186	Carbonaceous Resin Capsule for Vapor-phase Monitoring of Volatile Monoaromatic Hydrocarbons in Soil. <i>Soil and Sediment Contamination</i> , <b>2011</b> , 20, 205-220	3.2	12
185	Challenges and opportunities in sustainable management of microplastics and nanoplastics in the environment. <i>Environmental Research</i> , <b>2021</b> , 207, 112179	7.9	12
184	Catalytic level identification of ZSM-5 on biomass pyrolysis and aromatic hydrocarbon formation. <i>Chemosphere</i> , <b>2021</b> , 271, 129510	8.4	12
183	Effect of barley straw biochar application on greenhouse gas emissions from upland soil for Chinese cabbage cultivation in short-term laboratory experiments. <i>Journal of Mountain Science</i> , <b>2016</b> , 13, 693-702	2.1	12
182	Effect of Biochar Application on Rice Yield and Greenhouse Gas Emission under Different Nutrient Conditions from Paddy Soil. <i>Journal of Environmental Engineering, ASCE</i> , <b>2016</b> , 142, 04016046	2	12
181	Adsorption antagonism and synergy of arsenate(V) and cadmium(II) onto Fe-modified rice straw biochars. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1755-1766	4.7	12
180	Mechanistic insights into the (im)mobilization of arsenic, cadmium, lead, and zinc in a multi-contaminated soil treated with different biochars. <i>Environment International</i> , <b>2021</b> , 156, 106638	12.9	12
179	Effects of biochar and polyacrylamide on decomposition of soil organic matter and 14C-labeled alfalfa residues. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 611-620	3.4	11
178	Enhancing anti-microbial properties of wood-plastic composites produced from timber and plastic wastes. <i>Environmental Science and Pollution Research</i> , <b>2017</b> , 24, 12227-12237	5.1	11
177	Distribution characteristics of Cd in different types of leaves of Festuca arundinacea intercropped with Cicer arietinum L.: A new strategy to remove pollutants by harvesting senescent and dead leaves. <i>Environmental Research</i> , <b>2019</b> , 179, 108801	7.9	11
176	Metal sorption by biochars: A trade-off between phosphate and carbonate concentration as governed by pyrolysis conditions. <i>Journal of Environmental Management</i> , <b>2019</b> , 246, 496-504	7.9	11

175	Impact of biosolid application rates on competitive sorption and distribution coefficients of Cd, Cu, Ni, Pb, and Zn in an Alfisol and an Entisol. <i>Chemical Engineering Research and Design</i> , <b>2018</b> , 115, 38-48	5.5	11
174	Short-term biochar application induced variations in C and N mineralization in a compost-amended tropical soil. <i>Environmental Science and Pollution Research</i> , <b>2018</b> , 25, 25715-25725	5.1	11
173	Effects of elevated CO on the phytoremediation efficiency of Noccaea caerulescens. <i>Environmental Pollution</i> , <b>2019</b> , 255, 113169	9.3	11
172	Effect of Rapeseed Green Manure Amendment on Soil Properties and Rice Productivity. <i>Communications in Soil Science and Plant Analysis</i> , <b>2014</b> , 45, 751-764	1.5	11
171	Pyrolysis of waste surgical masks into liquid fuel and its life-cycle assessment <i>Bioresource Technology</i> , <b>2021</b> , 126582	11	11
170	Ball-milled, solvent-free Sn-functionalisation of wood waste biochar for sugar conversion in food waste valorisation. <i>Journal of Cleaner Production</i> , <b>2020</b> , 268, 122300	10.3	11
169	Catalytic degradation of waste rubbers and plastics over zeolites to produce aromatic hydrocarbons. <i>Journal of Cleaner Production</i> , <b>2021</b> , 309, 127469	10.3	11
168	Recent trends in biochar integration with anaerobic fermentation: Win-win strategies in a closed-loop. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 149, 111371	16.2	11
167	Catalytic pyrolysis of low-rank coal using Fe-carbon composite as a catalyst. <i>Energy Conversion and Management</i> , <b>2019</b> , 199, 111978	10.6	10
166	Effectively remediating spiramycin from production wastewater through hydrolyzing its functional groups using solid superacid TiO/SO. <i>Environmental Research</i> , <b>2019</b> , 175, 393-401	7.9	10
165	Amelioration of acidic soil using various renewable waste resources. <i>Environmental Science and Pollution Research</i> , <b>2014</b> , 21, 774-80	5.1	10
164	Critical loads and H+ budgets of forest soils affected by air pollution from oil sands mining in Alberta, Canada. <i>Atmospheric Environment</i> , <b>2013</b> , 69, 56-64	5.3	10
163	Adsorptive Removal of Trichloroethylene in Water by Crop Residue Biochars Pyrolyzed at Contrasting Temperatures: Continuous Fixed-Bed Experiments. <i>Journal of Chemistry</i> , <b>2015</b> , 2015, 1-6	2.3	10
162	Effects of Surface Iron Hydroxyl Group Site Densities on Arsenate Adsorption by Iron Oxide Nanocomposites. <i>Nanoscience and Nanotechnology Letters</i> , <b>2016</b> , 8, 1020-1027	0.8	10
161	Characterization of Burcucumber Biochar and its Potential as an Adsorbent for Veterinary Antibiotics in Water. <i>Journal of Applied Biological Chemistry</i> , <b>2014</b> , 57, 65-72	0.7	10
160	Carbon-based adsorbents for fluoroquinolone removal from water and wastewater: A critical review. <i>Environmental Research</i> , <b>2021</b> , 197, 111091	7.9	10
159	Assessment of benzene, toluene, ethyl-benzene, and xylene (BTEX) toxicity in soil using sulfur-oxidizing bacterial (SOB) bioassay. <i>Chemosphere</i> , <b>2019</b> , 220, 651-657	8.4	10
158	Effects of field scale in situ biochar incorporation on soil environment in a tropical highly weathered soil. <i>Environmental Pollution</i> , <b>2021</b> , 272, 116009	9.3	10

157	Nanomaterials for sustainable remediation of chemical contaminants in water and soil. <i>Critical Reviews in Environmental Science and Technology</i> ,1-50	11.1	10
156	The role of soils in the disposition, sequestration and decontamination of environmental contaminants. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , <b>2021</b> , 376, 20200177	, 5.8	10
155	A remediation approach to chromium-contaminated water and soil using engineered biochar derived from peanut shell. <i>Environmental Research</i> , <b>2021</b> , 204, 112125	7.9	10
154	A review of source tracking techniques for fine sediment within a catchment. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1221-1243	4.7	9
153	Stabilization of lead (Pb) and zinc (Zn) in contaminated rice paddy soil using starfish: A preliminary study. <i>Chemosphere</i> , <b>2018</b> , 199, 459-467	8.4	9
152	Carbon mineralization and biochemical effects of short-term wheat straw in crude oil contaminated sandy soil. <i>Applied Geochemistry</i> , <b>2018</b> , 88, 276-287	3.5	9
151	Special Issue on Biochar: Production, Characterization and Applications - Beyond Soil Applications. <i>Bioresource Technology</i> , <b>2017</b> , 246, 1	11	9
150	Biomarkers indicate mixture toxicities of fluorene and phenanthrene with endosulfan toward earthworm (Eisenia fetida). <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 307-317	4.7	9
149	Nitrification and denitrification using biofilters packed with sulfur and limestone at a pilot-scale municipal wastewater treatment plant. <i>Environmental Technology (United Kingdom)</i> , <b>2012</b> , 33, 1271-8	2.6	9
148	Pristine and engineered biochar for the removal of contaminants co-existing in several types of industrial wastewaters: A critical review. <i>Science of the Total Environment</i> , <b>2021</b> , 151120	10.2	9
147	The ongoing cut-down of the Amazon rainforest threatens the climate and requires global tree planting projects: A short review. <i>Environmental Research</i> , <b>2020</b> , 181, 108887	7.9	9
146	Energy, economic, and environmental impacts of sustainable biochar systems in rural China. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 1-29	11.1	9
145	Adsorption and visible-light photocatalytic degradation of organic pollutants by functionalized biochar: Role of iodine doping and reactive species. <i>Environmental Research</i> , <b>2021</b> , 197, 111026	7.9	9
144	Biochar as an (Im)mobilizing Agent for the Potentially Toxic Elements in Contaminated Soils <b>2019</b> , 255-2	274	9
143	Enhancing copper binding property of compost-derived humic substances by biochar amendment: Further insight from two-dimensional correlation spectroscopy. <i>Journal of Hazardous Materials</i> , <b>2020</b> , 390, 121128	12.8	9
142	Biochar-impacted sulfur cycling affects methylmercury phytoavailability in soils under different redox conditions. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 407, 124397	12.8	9
141	Biodegradable chito-beads replacing non-biodegradable microplastics for cosmetics. <i>Green Chemistry</i> , <b>2021</b> , 23, 6953-6965	10	9
140	Co-hydrothermal carbonization of swine and chicken manure: Influence of cross-interaction on hydrochar and liquid characteristics. <i>Science of the Total Environment</i> , <b>2021</b> , 786, 147381	10.2	9

139	Pig carcass-derived biochar caused contradictory effects on arsenic mobilization in a contaminated paddy soil under fluctuating controlled redox conditions. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 421, 126	5647	9
138	Removal of antimonate and antimonite from water by schwertmannite granules. <i>Desalination and Water Treatment</i> , <b>2016</b> , 57, 25639-25652		8
137	The stability and removal of water-dispersed CdSe/CdS core-shell quantum dots from water. <i>Chemosphere</i> , <b>2017</b> , 185, 926-933	8.4	8
136	Effect of acrylonitrile content of styrene-co-acrylonitrile (SAN) on morphology and electrooptical properties of polymer/liquid crystal composite films. <i>Journal of Applied Polymer Science</i> , <b>1993</b> , 49, 1769.	- <del>17</del> 75	8
135	Sustainability-inspired upcycling of waste polyethylene terephthalate plastic into porous carbon for CO2 capture. <i>Green Chemistry</i> , <b>2022</b> ,	10	8
134	Sorption of pharmaceuticals and personal care products (PPCPs) from water and wastewater by carbonaceous materials: A review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 1-40	11.1	8
133	Stabilization of arsenic and lead by magnesium oxide (MgO) in different seawater concentrations. <i>Environmental Pollution</i> , <b>2018</b> , 233, 952-959	9.3	8
132	A critical review on second- and third-generation bioethanol production using microwaved-assisted heating (MAH) pretreatment. <i>Renewable and Sustainable Energy Reviews</i> , <b>2021</b> , 152, 111679	16.2	8
131	Machine learning exploration of the direct and indirect roles of Fe impregnation on Cr(VI) removal by engineered biochar. <i>Chemical Engineering Journal</i> , <b>2022</b> , 428, 131967	14.7	8
130	Emerging waste valorisation techniques to moderate the hazardous impacts, and their path towards sustainability. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 423, 127023	12.8	8
129	Prediction of Soil Heavy Metal Immobilization by Biochar Using Machine Learning <i>Environmental Science &amp; Environmental Scien</i>	10.3	8
128	Functional modification of hydrothermal liquefaction products of microalgal biomass using CO2. <i>Energy</i> , <b>2017</b> , 137, 412-418	7.9	7
127	Sustainable approach to biodiesel synthesis via thermally induced transesterification using biochar as surrogate porous media. <i>Energy Conversion and Management</i> , <b>2017</b> , 151, 601-606	10.6	7
126	Heavy metal dissolution mechanisms from electrical industrial sludge. <i>Science of the Total Environment</i> , <b>2019</b> , 696, 133922	10.2	7
125	Sustainable sludge management by removing emerging contaminants from urban wastewater using carbon nanotubes <b>2019</b> , 553-571		7
124	Soil and geologic formations as antidotes for CO2 sequestration?. <i>Soil Use and Management</i> , <b>2020</b> , 36, 355-357	3.1	7
123	Accumulation and Toxicity of Germanium in Cucumber under Different Types of Germaniums. <i>Communications in Soil Science and Plant Analysis</i> , <b>2013</b> , 44, 3006-3019	1.5	7
122	First predatory journals, now conferences: The need to establish lists of fake conferences. <i>Science of the Total Environment</i> , <b>2020</b> , 715, 136990	10.2	7

# (2016-2020)

121	Tailoring acidity and porosity of alumina catalysts via transition metal doping for glucose conversion in biorefinery. <i>Science of the Total Environment</i> , <b>2020</b> , 704, 135414	10.2	7
120	Sustainable use of biochar for resource recovery and pharmaceutical removal from human urine: A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2020</b> , 1-33	11.1	7
119	COVID-19: Resource recovery from plastic waste against plastic pollution. <i>Cogent Environmental Science</i> , <b>2020</b> , 6, 1801220	1.6	7
118	Lead sorption characteristics of various chicken bone part-derived chars. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1675-1685	4.7	7
117	Zn phytoextraction and recycling of alfalfa biomass as potential Zn-biofortified feed crop. <i>Science of the Total Environment</i> , <b>2021</b> , 760, 143424	10.2	7
116	Pyrolysis of waste oils for the production of biofuels: A critical review. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 424, 127396	12.8	7
115	National-scale distribution of micro(meso)plastics in farmland soils across China: Implications for environmental impacts. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 424, 127283	12.8	7
114	Recycling of lithium iron phosphate batteries: Status, technologies, challenges, and prospects. <i>Renewable and Sustainable Energy Reviews</i> , <b>2022</b> , 163, 112515	16.2	7
113	Scavenger-free and self-powered photocathodic sensing system for aqueous hydrogen peroxide monitoring by CuO/ZnO nanostructure. <i>Chemical Engineering Science</i> , <b>2020</b> , 226, 115886	4.4	6
112	Limitations for phytoextraction management on metal-polluted soils with poplar short rotation coppice-evidence from a 6-year field trial. <i>International Journal of Phytoremediation</i> , <b>2018</b> , 20, 8-15	3.9	6
111	Comparative evaluation for the sorption capacity of four carbonaceous sorbents to phenol. <i>Chemical Speciation and Bioavailability</i> , <b>2016</b> , 28, 18-25		6
110	Determining soil quality in urban agricultural regions by soil enzyme-based index. <i>Environmental Geochemistry and Health</i> , <b>2017</b> , 39, 1531-1544	4.7	6
109	Enhancement of biodegradability of EDTA by gamma-ray treatment. <i>Journal of Radioanalytical and Nuclear Chemistry</i> , <b>2004</b> , 262, 371-374	1.5	6
108	Effects of microplastics on the terrestrial environment: A critical review <i>Environmental Research</i> , <b>2022</b> , 209, 112734	7.9	6
107	Structure-dependent surface catalytic degradation of cephalosporin antibiotics on the aged polyvinyl chloride microplastics. <i>Water Research</i> , <b>2021</b> , 206, 117732	12.5	6
106	Application of biochars and solid fraction of digestate to decrease soil solution Cd, Pb and Zn concentrations in contaminated sandy soils. <i>Environmental Geochemistry and Health</i> , <b>2020</b> , 42, 1589-160	o <del>d</del> ∙7	6
105	Carbon sequestration value of biosolids applied to soil: A global meta-analysis. <i>Journal of Environmental Management</i> , <b>2021</b> , 284, 112008	7.9	6
104	Phosphorus Recovery From[Wastes# <b>2016</b> , 687-705		6

103	Engineered/designer hierarchical porous carbon materials for organic pollutant removal from water and wastewater: A critical review. <i>Critical Reviews in Environmental Science and Technology</i> , <b>2021</b> , 51, 2295-2328	11.1	6
102	Fast hydropyrolysis of biomass Conversion: A comparative review. <i>Bioresource Technology</i> , <b>2021</b> , 342, 126067	11	6
101	Microwave-assisted gasification of biomass for sustainable and energy-efficient biohydrogen and biosyngas production: A state-of-the-art review. <i>Chemosphere</i> , <b>2022</b> , 287, 132014	8.4	6
100	Green remediation of benzene contaminated groundwater using persulfate activated by biochar composite loaded with iron sulfide minerals. <i>Chemical Engineering Journal</i> , <b>2022</b> , 429, 132292	14.7	6
99	Engineered macroalgal and microalgal adsorbents: Synthesis routes and adsorptive performance on hazardous water contaminants. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 423, 126921	12.8	6
98	Optimizing extraction procedures for better removal of potentially toxic elements during EDTA-assisted soil washing. <i>Journal of Soils and Sediments</i> , <b>2020</b> , 20, 3417-3426	3.4	5
97	Study of glucose isomerisation to fructose over three heterogeneous carbon-based aluminium-impregnated catalysts. <i>Journal of Cleaner Production</i> , <b>2020</b> , 268, 122378	10.3	5
96	Biochar alters chemical and microbial properties of microplastic-contaminated soil <i>Environmental Research</i> , <b>2022</b> , 112807	7.9	5
95	Removal of phosphate from water by paper mill sludge biochar. <i>Environmental Pollution</i> , <b>2021</b> , 293, 11	85231	5
94	Co-liquefaction of mixed biomass feedstocks for bio-oil production: A critical review. <i>Renewable and Sustainable Energy Reviews</i> , <b>2022</b> , 154, 111814	16.2	5
93	A systematic review on adsorptive removal of hexavalent chromium from aqueous solutions: Recent advances. <i>Science of the Total Environment</i> , <b>2021</b> , 809, 152055	10.2	5
92	Monitoring of Selected Veterinary Antibiotics in Animal Carcass Disposal Site and Adjacent Agricultural Soil. <i>Journal of Applied Biological Chemistry</i> , <b>2014</b> , 57, 189-196	0.7	5
91	Heavy Metal Stabilization in Soils using Waste Resources - A Critical Review. <i>Journal of Applied Biological Chemistry</i> , <b>2015</b> , 58, 157-174	0.7	5
90	Enhancement of Cadmium Phytoextraction from Contaminated Soils with Artemisia princeps var. orientalis. <i>Journal of Applied Sciences</i> , <b>2007</b> , 7, 263-268	0.3	5
89	Co-pyrolysis of microalgae and other biomass wastes for the production of high-quality bio-oil: Progress and prospective. <i>Bioresource Technology</i> , <b>2022</b> , 344, 126096	11	5
88	Effect of Fly Ash Fertilizer on Paddy Soil Quality and Rice Growth. <i>Journal of Applied Biological Chemistry</i> , <b>2013</b> , 56, 229-234	0.7	5
87	An integrated approach of rice hull biochar-alternative water management as a promising tool to decrease inorganic arsenic levels and to sustain essential element contents in rice. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 405, 124188	12.8	5
86	Natural and engineered clays and clay minerals for the removal of poly- and perfluoroalkyl substances from water: State-of-the-art and future perspectives. <i>Advances in Colloid and Interface Science</i> , <b>2021</b> , 297, 102537	14.3	5

85	Biochar for Waste Management and Environmental Sustainability <b>2016</b> , 273-291		4
84	Trade war threatens sustainability. <i>Science</i> , <b>2019</b> , 364, 1242-1243	33.3	4
83	EPR characterization of the catalytic activity of clays for PCE removal by gamma-radiation induced by acid and thermal treatments. <i>Chemosphere</i> , <b>2004</b> , 57, 1383-7	8.4	4
82	Wet wastes to bioenergy and biochar: A critical review with future perspectives <i>Science of the Total Environment</i> , <b>2022</b> , 817, 152921	10.2	4
81	State-of-the-art of the pyrolysis and co-pyrolysis of food waste: Progress and challenges. <i>Science of the Total Environment</i> , <b>2021</b> , 151170	10.2	4
80	Management of Municipal Solid Waste Landfill Leachate: A Global Environmental Issue <b>2014</b> , 263-288		4
79	Development of a novel fluorescent biosensor for dynamic monitoring of metabolic methionine redox status in cells and tissues. <i>Biosensors and Bioelectronics</i> , <b>2021</b> , 178, 113031	11.8	4
78	Rice genotype's responses to arsenic stress and cancer risk: The effects of integrated birnessite-modified rice hull biochar-water management applications. <i>Science of the Total Environment</i> , <b>2021</b> , 768, 144531	10.2	4
77	Adsorption of Cd, Cu and Zn from aqueous solutions onto ferronickel slag under different potentially toxic metal combination. <i>Water Science and Technology</i> , <b>2016</b> , 73, 993-9	2.2	4
76	Time to ban lead hunting ammunition. <i>Science</i> , <b>2019</b> , 366, 961-962	33.3	4
75	Preparation of ammonium-modified cassava waste-derived biochar and its evaluation for synergistic adsorption of ternary antibiotics from aqueous solution. <i>Journal of Environmental Management</i> , <b>2021</b> , 298, 113530	7.9	4
74	Scoring environment pillar in environmental, social, and governance (ESG) assessment. <i>Sustainable Environment</i> , <b>2021</b> , 7, 1960097		4
73	Valorization of animal manure via pyrolysis for bioenergy: A review. <i>Journal of Cleaner Production</i> , <b>2022</b> , 343, 130965	10.3	4
72	Kinetics of Hg adsorption onto noncrystalline Al hydroxide as influenced by low-molecular-weight organic ligands. <i>Archives of Agronomy and Soil Science</i> , <b>2017</b> , 63, 124-135	2	3
71	Sorption of polycyclic aromatic hydrocarbons (PAHs) by dietary fiber extracted from wheat bran. <i>Chemical Speciation and Bioavailability</i> , <b>2016</b> , 28, 13-17		3
70	Pig slurry needs modifications to be a sustainable fertilizer in crop production. <i>Environmental Research</i> , <b>2019</b> , 178, 108718	7.9	3
69	Assessment of natural and calcined starfish for the amelioration of acidic soil. <i>Environmental Science and Pollution Research</i> , <b>2014</b> , 21, 9931-8	5.1	3
68	Interactive effects of biochar and polyacrylamide on decomposition of maize rhizodeposits: implications from 14C labeling and microbial metabolic quotient. <i>Journal of Soils and Sediments</i> , <b>2017</b> , 17, 621-631	3.4	3

67	Preparation of Activated and Non-Activated Carbon from Conocarpus Pruning Waste as Low-Cost Adsorbent for Removal of Heavy Metal Ions from Aqueous Solution. <i>BioResources</i> , <b>2015</b> , 11,	1.3	3
66	Electroactive Fe-biochar for redox-related remediation of arsenic and chromium: Distinct redox nature with varying iron/carbon speciation. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 430, 128479	12.8	3
65	Ball-milled magnetite for efficient arsenic decontamination: Insights into oxidation-adsorption mechanism <i>Journal of Hazardous Materials</i> , <b>2021</b> , 427, 128117	12.8	3
64	A sensitive environmental forensic method that determines bisphenol S and A exposure within receipt-handling through fingerprint analysis. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 424, 127410	12.8	3
63	Potentially Toxic Element Contamination and Its Impact on Soil Biological Quality in Urban Agriculture: A Critical Review. <i>Soil Biology</i> , <b>2015</b> , 81-101	1	3
62	Magnetic biochar production alters the molecular characteristics and biological response of pyrolysis volatile-derived water-soluble organic matter. <i>Science of the Total Environment</i> , <b>2021</b> , 778, 140	514 <del>2</del>	3
61	Redox-Mediated Biochar-Contaminant Interactions in Soil <b>2019</b> , 409-419		3
60	Spectroscopic and Modeling Investigation of Sorption of Pb(II) to ZSM-5 Zeolites. <i>ACS ES&amp;T Water</i> , <b>2021</b> , 1, 108-116		3
59	Strong, Multifaceted Guanidinium-Based Adhesion of Bioorganic Nanoparticles to Wet Biological Tissue. <i>Jacs Au</i> , <b>2021</b> , 1, 1399-1411		3
58	Recent advancements in sustainable upcycling of solid waste into porous carbons for carbon dioxide capture. <i>Renewable and Sustainable Energy Reviews</i> , <b>2022</b> , 162, 112413	16.2	3
57	Biowaste for energy recovery and environmental remediation. <i>Chemical Engineering Research and Design</i> , <b>2018</b> , 115, 1	5.5	2
56	Environmental consequences of dam construction: a case study from Saudi Arabia. <i>Arabian Journal of Geosciences</i> , <b>2018</b> , 11, 1	1.8	2
55	Aviation, melting sea-ice and polar bears. Environment International, 2019, 133, 105279	12.9	2
54	Carbonaceous resin capsule for vapor-phase monitoring of volatile hydrocarbons in soil: partitioning and kinetic model verification. <i>Environmental Geochemistry and Health</i> , <b>2013</b> , 35, 715-25	4.7	2
53	Effects of natural and calcined oyster shells on antimony solubility in shooting range soil <b>2013</b> , 56, 461-	464	2
52	Efficacy of rapeseed residue and eggshell waste on enzyme activity and soil quality in rice paddy. <i>Chemistry and Ecology</i> , <b>2013</b> , 29, 501-510	2.3	2
51	Potential of Biochar to Immobilize Nickel in Contaminated Soils <b>2018</b> , 293-318		2
50	Enhancing microbial lipids yield for biodiesel production by oleaginous yeast Lipomyces starkeyi fermentation: A review. <i>Bioresource Technology</i> , <b>2022</b> , 344, 126294	11	2

49	Recycling Polymeric Solid Wastes for Energy-Efficient Water Purification, Organic Distillation, and Oil Spill Cleanup (Small 46/2021). <i>Small</i> , <b>2021</b> , 17, 2170244	11	2
48	Biodegradation and effects of EDDS and NTA on Zn in soil solution during phytoextraction by alfalfa in soils with three Zn levels <i>Chemosphere</i> , <b>2022</b> , 133519	8.4	2
47	Effect of carbon and nitrogen mobilization from livestock mortalities on nitrogen dynamics in soil. <i>Chemical Engineering Research and Design</i> , <b>2019</b> , 122, 153-160	5.5	2
46	Establishment of optimal barley straw biochar application conditions for rice cultivation in a paddy field. <i>Environmental Geochemistry and Health</i> , <b>2019</b> , 41, 1793-1803	4.7	2
45	Recycling Polymeric Solid Wastes for Energy-Efficient Water Purification, Organic Distillation, and Oil Spill Cleanup. <i>Small</i> , <b>2021</b> , 17, e2102459	11	2
44	Biochars ages differently depending on the feedstock used for their production: Willow-versus sewage sludge-derived biochars. <i>Science of the Total Environment</i> , <b>2021</b> , 789, 147458	10.2	2
43	GenX is not always a better fluorinated organic compound than PFOA: A critical review on aqueous phase treatability by adsorption and its associated cost. <i>Water Research</i> , <b>2021</b> , 205, 117683	12.5	2
42	Arsenic bioaccumulation and biotransformation in aquatic organisms <i>Environment International</i> , <b>2022</b> , 163, 107221	12.9	2
41	Green synthesis of graphite-based photo-Fenton nanocatalyst from waste tar via a self-reduction and solvent-free strategy <i>Science of the Total Environment</i> , <b>2022</b> , 824, 153772	10.2	2
40	Critical evaluation of biochar utilization effect on mitigating global warming in whole rice cropping boundary <i>Science of the Total Environment</i> , <b>2022</b> , 827, 154344	10.2	2
39	Sustainable management of plastic wastes in COVID-19 pandemic: The biochar solution. <i>Environmental Research</i> , <b>2022</b> , 113495	7.9	2
38	South Koreal big move to hydrogen society. <i>Cogent Environmental Science</i> , <b>2020</b> , 6, 1856459	1.6	1
37	Cu phytoextraction and biomass utilization as essential trace element feed supplements for livestock. <i>Environmental Pollution</i> , <b>2021</b> , 294, 118627	9.3	1
36	Application of X-ray Absorption Spectroscopy (XAS) in the Field of Stabilization of As and Heavy Metal Contaminated Soil. <i>Journal of Applied Biological Chemistry</i> , <b>2015</b> , 58, 65-74	0.7	1
35	The Effect of Morphactin (Methyl 2-Chloro-9-hydroxyfluorene-9-carboxylate) on the Growth and Anatomical Features in Soybean (Glycine max (L). Merril) Cultivar. <i>Asian Journal of Plant Sciences</i> , <b>2009</b> , 8, 536-543	0.6	1
34	A Study of Burcucumber Biochars to Remediate Soil Pb Considering GWP (Global Warming Potential). <i>Daehan Hwan@yeong Gonghag Hoeji</i> , <b>2015</b> , 37, 432-440	0.6	1
33	Feasibility Study of Different Biochars as Adsorbent for Cadmium and Lead. <i>Hanguk Tøyang Piryo Hakhoe Chi Hanguk Tøyang Piryo Hakhoe</i> , <b>2015</b> , 48, 332-339	0.2	1
32	Enhanced removal of ammonium from water using sulfonated reed waste biochar-A lab-scale investigation. <i>Environmental Pollution</i> , <b>2022</b> , 292, 118412	9.3	1

31	Comparing Bioavailability of Cadmium and Arsenic in Agricultural Soil Under Varied pH Condition. Hanguk Tøyang Piryo Hakhoe Chi Hanguk Tøyang Piryo Hakhoe, <b>2015</b> , 48, 57-63	0.2	1
30	Effects of Flurenol on Soybean (Glycine max L. Merrill) Productivity and Electrophoretic Analysis of Seed and Root Nodule Proteins. <i>Journal of Agronomy</i> , <b>2009</b> , 8, 93-99	0.4	1
29	Development of Rapid Detection Method for Volatilized Formaldehyde from Wood. <i>Journal of Applied Biological Chemistry</i> , <b>2012</b> , 55, 55-59	0.7	1
28	The research and development of waste-to-hydrogen technologies and systems. <i>Applied Energy</i> , <b>2020</b> , 268, 115015	10.7	1
27	Set sustainable goals for the Arctic gateway coordinated international governance is required to resist yet another tipping point. <i>Science of the Total Environment</i> , <b>2021</b> , 776, 146003	10.2	1
26	Selective Aerobic Upgrading of Lignin-Derived Compound Using a Recyclable Dual-Functional TPO-Loaded Cu-BTC Catalyst. <i>Waste and Biomass Valorization</i> , <b>2021</b> , 12, 673-685	3.2	1
25	Syntrophic interactions in anaerobic digestion: how biochar properties affect them?. <i>Sustainable Environment</i> , <b>2021</b> , 7, 1945282		1
24	Molecular characterization and environmental impacts of water-soluble organic compounds of bio-oil from the thermochemical treatment of domestic sewage sludge. <i>Science of the Total Environment</i> , <b>2021</b> , 756, 144050	10.2	1
23	Iron modification to silicon-rich biochar and alternative water management to decrease arsenic accumulation in rice (Oryza sativa L.). <i>Environmental Pollution</i> , <b>2021</b> , 286, 117661	9.3	1
22	Lead (Pb) sorption to hydrophobic and hydrophilic zeolites in the presence and absence of MTBE. <i>Journal of Hazardous Materials</i> , <b>2021</b> , 420, 126528	12.8	1
21	Mulched drip irrigation and biochar application reduce gaseous nitrogen emissions, but increase nitrogen uptake and peanut yield <i>Science of the Total Environment</i> , <b>2022</b> , 154753	10.2	1
20	Global Arsenic dilemma and sustainability. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 129197	12.8	1
19	Modeling nitrous oxide emissions in membrane bioreactors: Advancements, challenges and perspectives. <i>Science of the Total Environment</i> , <b>2022</b> , 806, 151394	10.2	O
18	Seafood safety data support the United Nations Sustainable Development Goals. <i>Chemosphere</i> , <b>2021</b> , 277, 130221	8.4	O
17	Carbon precursors in coal tar: Extraction and preparation of carbon materials. <i>Science of the Total Environment</i> , <b>2021</b> , 788, 147697	10.2	0
16	Ni/Hydrochar Nanostructures Derived from Biomass as Catalysts for H2 Production through Aqueous-Phase Reforming of Methanol. <i>ACS Applied Nano Materials</i> , <b>2021</b> , 4, 8958-8971	5.6	O
15	Soil plastisphere: Exploration methods, influencing factors, and ecological insights. <i>Journal of Hazardous Materials</i> , <b>2022</b> , 430, 128503	12.8	О
14	Preparation and thermal conductivity enhancement of a paraffin wax-based composite phase change material doped with garlic stem biochar microparticles <i>Science of the Total Environment</i> , <b>2022</b> , 154341	10.2	O

#### LIST OF PUBLICATIONS

13	Unintentional release of antibiotics associated with nutrients recovery from source-separated human urine by biochar <i>Chemosphere</i> , <b>2022</b> , 299, 134426	8.4	О
12	Nitrogen transformation in slightly polluted surface water by a novel biofilm reactor: Long-term performance and microbial population characteristics <i>Science of the Total Environment</i> , <b>2022</b> , 154623	10.2	O
11	Nanoplastic stimulates metalloid leaching from historically contaminated soil via indirect displacement <i>Water Research</i> , <b>2022</b> , 218, 118468	12.5	O
10	Customizing high-performance molten salt biochar from wood waste for CO2/N2 separation. <i>Fuel Processing Technology</i> , <b>2022</b> , 234, 107319	7.2	O
9	General Formation of Macro-/Mesoporous Nanoshells from Interfacial Assembly of Irregular Mesostructured Nanounits. <i>Angewandte Chemie</i> , <b>2020</b> , 132, 19831-19836	3.6	
8	Be cautious applying carbon-fluorine bonds in drug delivery. <i>Chemosphere</i> , <b>2020</b> , 248, 125971	8.4	
7	Occurrence and Remediation of Pollutants in the Environment. <i>Journal of Chemistry</i> , <b>2015</b> , 2015, 1-2	2.3	
6	Biochemical changes in dehydrogenase, hydroxylase and tyrosinase of a permethrin-resistant strain of housefly larvae, Musca domestica L. <i>Environmental Toxicology and Pharmacology</i> , <b>2005</b> , 20, 258-63	5.8	
5	Evaluating Efficiency of Coal Combustion Products (CCPs) and Polyacrylamide (PAM) for Mine Hazard Prevention and Revegetation in Coal Mine Area. <i>Hanguk Tøyang Piryo Hakhoe Chi Hanguk Tøyang Piryo Hakhoe</i> , <b>2014</b> , 47, 525-532	0.2	
4	Environmental management of two of the world's most endangered marine and terrestrial predators: Vaquita and cheetah. <i>Environmental Research</i> , <b>2020</b> , 190, 109966	7.9	
3	Selective copper recovery from ammoniacal waste streams using a systematic biosorption process. <i>Chemosphere</i> , <b>2022</b> , 286, 131935	8.4	
2	Animal carcass burial management: implications for sustainable biochar use <i>Applied Biological Chemistry</i> , <b>2021</b> , 64, 91	2.9	

Engineered biochar as a potential adsorbent for carbon dioxide capture **2022**, 345-359