Hocheol Song

List of Publications by Year in descending order

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Version: 2024-02-01

108 papers	7,839 citations	38660 50 h-index	53109 85 g-index
108 all docs	108 docs citations	108 times ranked	8352 citing authors

#	Article	IF	Citations
1	Biochar application to low fertility soils: A review of current status, and future prospects. Geoderma, 2019, 337, 536-554.	2.3	571
2	Reduction of Chlorinated Ethanes by Nanosized Zero-Valent Iron:â€‰ Kinetics, Pathways, and Effects of Reaction Conditions. Environmental Science & Technology, 2005, 39, 6237-6245.	4.6	328
3	Production of bioplastic through food waste valorization. Environment International, 2019, 127, 625-644.	4.8	328
4	Lignin valorization for the production of renewable chemicals: State-of-the-art review and future prospects. Bioresource Technology, 2018, 269, 465-475.	4.8	298
5	Defluoridation from aqueous solutions by granular ferric hydroxide (GFH). Water Research, 2009, 43, 490-498.	5.3	259
6	Cadmium stress in plants: A critical review of the effects, mechanisms, and tolerance strategies. Critical Reviews in Environmental Science and Technology, 2022, 52, 675-726.	6.6	196
7	Reduction of p-nitrophenol by magnetic Co-carbon composites derived from metal organic frameworks. Chemical Engineering Journal, 2016, 298, 183-190.	6.6	194
8	Fabrication and environmental applications of multifunctional mixed metal-biochar composites (MMBC) from red mud and lignin wastes. Journal of Hazardous Materials, 2019, 374, 412-419.	6.5	188
9	Aluminium-biochar composites as sustainable heterogeneous catalysts for glucose isomerisation in a biorefinery. Green Chemistry, 2019, 21, 1267-1281.	4.6	157
10	Magnetic chitosan composite for adsorption of cationic and anionic dyes in aqueous solution. Journal of Industrial and Engineering Chemistry, 2015, 28, 60-66.	2.9	154
11	A novel chitosan/clay/magnetite composite for adsorption of Cu(II) and As(V). Chemical Engineering Journal, 2012, 200-202, 654-662.	6.6	152
12	Iron-modified biochar and water management regime-induced changes in plant growth, enzyme activities, and phytoavailability of arsenic, cadmium and lead in a paddy soil. Journal of Hazardous Materials, 2021, 407, 124344.	6.5	150
13	A review of recent advancements in utilization of biomass and industrial wastes into engineered biochar. Journal of Hazardous Materials, 2020, 400, 123242.	6.5	149
14	Halonitromethane formation potentials in drinking waters. Water Research, 2010, 44, 105-114.	5.3	148
15	Concurrent adsorption and micro-electrolysis of Cr(VI) by nanoscale zerovalent iron/biochar/Ca-alginate composite. Environmental Pollution, 2019, 247, 410-420.	3.7	145
16	Production of 5-hydroxymethylfurfural from starch-rich food waste catalyzed by sulfonated biochar. Bioresource Technology, 2018, 252, 76-82.	4.8	132
17	Fabrication of engineered biochar from paper mill sludge and its application into removal of arsenic and cadmium in acidic water. Bioresource Technology, 2017, 246, 69-75.	4.8	129
18	Effect of amorphous silica and silica sand on removal of chromium(VI) by zero-valent iron. Chemosphere, 2007, 66, 858-865.	4.2	122

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19	Machine learning for the selection of carbon-based materials for tetracycline and sulfamethoxazole adsorption. Chemical Engineering Journal, 2021, 406, 126782.	6.6	119
20	Phosphoric acid-activated wood biochar for catalytic conversion of starch-rich food waste into glucose and 5-hydroxymethylfurfural. Bioresource Technology, 2018, 267, 242-248.	4.8	114
21	Comparative Analysis of Halonitromethane and Trihalomethane Formation and Speciation in Drinking Water: The Effects of Disinfectants, pH, Bromide, and Nitrite. Environmental Science & Technology, 2010, 44, 794-799.	4.6	112
22	Adsorption of nitrate and Cr(VI) by cationic polymer-modified granular activated carbon. Chemical Engineering Journal, 2011, 175, 298-305.	6.6	112
23	A review on functional polymer-clay based nanocomposite membranes for treatment of water. Journal of Hazardous Materials, 2019, 379, 120584.	6.5	104
24	The impact of bromide/iodide concentration and ratio on iodinated trihalomethane formation and speciation. Water Research, 2012, 46, 11-20.	5.3	96
25	Engineered biochar for environmental decontamination in aquatic and soil systems: a review. , 2022, 1, .		93
26	Photoautotrophic hydrogen production by eukaryotic microalgae under aerobic conditions. Nature Communications, 2014, 5, 3234.	5.8	92
27	Fabrication of magnetic biochar as a treatment medium for As(V) via pyrolysis of FeCl 3 -pretreated spent coffee ground. Environmental Pollution, 2017, 229, 942-949.	3.7	92
28	Sulfonated biochar as acid catalyst for sugar hydrolysis and dehydration. Catalysis Today, 2018, 314, 52-61.	2.2	92
29	Degradation of antibiotics by modified vacuum-UV based processes: Mechanistic consequences of H2O2 and K2S2O8 in the presence of halide ions. Science of the Total Environment, 2019, 664, 312-321.	3.9	92
30	Mechanistic insights into red mud, blast furnace slag, or metakaolin-assisted stabilization/solidification of arsenic-contaminated sediment. Environment International, 2019, 133, 105247.	4.8	91
31	Biochar influences soil carbon pools and facilitates interactions with soil: A field investigation. Land Degradation and Development, 2018, 29, 2162-2171.	1.8	89
32	Catalytic hydrodechlorination of chlorinated ethenes by nanoscale zero-valent iron. Applied Catalysis B: Environmental, 2008, 78, 53-60.	10.8	86
33	Selective Glucose Isomerization to Fructose via a Nitrogen-doped Solid Base Catalyst Derived from Spent Coffee Grounds. ACS Sustainable Chemistry and Engineering, 2018, 6, 16113-16120.	3.2	86
34	Propylene carbonate and Î³-valerolactone as green solvents enhance Sn(<scp>iv</scp>)-catalysed hydroxymethylfurfural (HMF) production from bread waste. Green Chemistry, 2018, 20, 2064-2074.	4.6	85
35	Enhancement of fermentative bioenergy (ethanol/hydrogen) production using ultrasonication of Scenedesmus obliquus YSW15 cultivated in swine wastewater effluent. Energy and Environmental Science, 2011, 4, 3513.	15.6	82
36	Carbon dioxide assisted sustainability enhancement of pyrolysis of waste biomass: A case study with spent coffee ground. Bioresource Technology, 2015, 189, 1-6.	4.8	81

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37	Simultaneous production of syngas and magnetic biochar via pyrolysis of paper mill sludge using CO 2 as reaction medium. Energy Conversion and Management, 2017, 145, 1-9.	4.4	80
38	Insights into upstream processing of microalgae: A review. Bioresource Technology, 2021, 329, 124870.	4.8	79
39	Soil contamination by potentially toxic elements and the associated human health risk in geo- and anthropogenic contaminated soils: A case study from the temperate region (Germany) and the arid region (Egypt). Environmental Pollution, 2020, 262, 114312.	3.7	77
40	The effects of pH, bromide and nitrite on halonitromethane and trihalomethane formation from amino acids and amino sugars. Chemosphere, 2012, 86, 323-328.	4.2	73
41	I-THM Formation and Speciation: Preformed Monochloramine versus Prechlorination Followed by Ammonia Addition. Environmental Science & Technology, 2011, 45, 10429-10437.	4.6	69
42	The potential value of biochar in the mitigation of gaseous emission of nitrogen. Science of the Total Environment, 2018, 612, 257-268.	3.9	69
43	Synthesis of functionalised biochar using red mud, lignin, and carbon dioxide as raw materials. Chemical Engineering Journal, 2019, 361, 1597-1604.	6.6	68
44	Perchlorate removal from aqueous solutions by granular ferric hydroxide (GFH). Chemical Engineering Journal, 2010, 159, 84-90.	6.6	63
45	Adsorption of As(V) and Ni(II) by Fe-Biochar composite fabricated by co-pyrolysis of orange peel and red mud. Environmental Research, 2020, 188, 109809.	3.7	59
46	Synthesis of hydrous zirconium oxide-impregnated chitosan beads and their application for removal of fluoride and lead. Applied Surface Science, 2016, 372, 13-19.	3.1	58
47	Efficient removal of diclofenac and cephalexin from aqueous solution using Anthriscus sylvestris-derived activated biochar. Science of the Total Environment, 2020, 745, 140789.	3.9	58
48	Design and fabrication of exfoliated Mg/Al layered double hydroxides on biochar support. Journal of Cleaner Production, 2021, 289, 125142.	4.6	56
49	Removal of toxic elements from aqueous environments using nano zero-valent iron- and iron oxide-modified biochar: a review. Biochar, 2022, 4, 1.	6.2	54
50	Reduction of Chlorinated Methanes by Nano-Sized Zero-Valent Iron. Kinetics, Pathways, and Effect of Reaction Conditions. Environmental Engineering Science, 2006, 23, 272-284.	0.8	53
51	Review of biotreatment techniques for volatile sulfur compounds with an emphasis on dimethyl sulfide. Process Biochemistry, 2014, 49, 1543-1554.	1.8	51
52	Reduction of Bromate by Cobalt-Impregnated Biochar Fabricated via Pyrolysis of Lignin Using CO₂ as a Reaction Medium. ACS Applied Materials & Interfaces, 2017, 9, 13142-13150.	4.0	50
53	Halonitromethanes formation in wastewater treatment plant effluents. Chemosphere, 2010, 79, 174-179.	4.2	49
54	Catalytic decoloration of commercial azo dyes by copper-carbon composites derived from metal organic frameworks. Journal of Alloys and Compounds, 2016, 689, 625-631.	2.8	49

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55	N doped cobalt-carbon composite for reduction of p-nitrophenol and pendimethaline. Journal of Alloys and Compounds, 2017, 703, 118-124.	2.8	49
56	HAA formation during chloraminationâ€"significance of monochloramine's direct reaction with DOM. Journal - American Water Works Association, 2007, 99, 57-69.	0.2	47
57	Pilot-scale passive bioreactors for the treatment of acid mine drainage: Efficiency of mushroom compost vs. mixed substrates for metal removal. Journal of Environmental Management, 2012, 111, 150-158.	3.8	46
58	Synthesis of cobalt-impregnated carbon composite derived from a renewable resource: Characterization and catalytic performance evaluation. Science of the Total Environment, 2018, 612, 103-110.	3.9	40
59	The effects of selected preoxidation strategies on I-THM formation and speciation. Water Research, 2012, 46, 5491-5498.	5.3	37
60	Effect of biochar aging and co-existence of diethyl phthalate on the mono-sorption of cadmium and zinc to biochar-treated soils. Journal of Hazardous Materials, 2021, 408, 124850.	6.5	37
61	Multi-metal resistance and plant growth promotion potential of a wastewater bacterium Pseudomonas aeruginosa and its synergistic benefits. Environmental Geochemistry and Health, 2017, 39, 1583-1593.	1.8	35
62	Fabrication of a novel magnetic carbon nanocomposite adsorbent via pyrolysis of sugar. Chemosphere, 2016, 163, 305-312.	4.2	34
63	Preparation of Calcined Zirconia-Carbon Composite from Metal Organic Frameworks and Its Application to Adsorption of Crystal Violet and Salicylic Acid. Materials, 2016, 9, 261.	1.3	33
64	Thermochemical conversion of cobalt-loaded spent coffee grounds for production of energy resource and environmental catalyst. Bioresource Technology, 2018, 270, 346-351.	4.8	33
65	Valorization of hazardous COVID-19 mask waste while minimizing hazardous byproducts using catalytic gasification. Journal of Hazardous Materials, 2022, 423, 127222.	6.5	33
66	Metal organic framework derived Cuâ€"carbon composite: An efficient non-noble metal catalyst for reduction of hexavalent chromium and pendimethalin. Journal of Industrial and Engineering Chemistry, 2017, 52, 331-337.	2.9	32
67	Isolation and fractionation of natural organic matter: evaluation of reverse osmosis performance and impact of fractionation parameters. Environmental Monitoring and Assessment, 2009, 153, 307-321.	1.3	31
68	Co-pyrolysis of paper mill sludge and spend coffee ground using CO2 as reaction medium. Journal of CO2 Utilization, 2017, 21, 572-579.	3.3	31
69	Engineered biochar composite fabricated from red mud and lipid waste and synthesis of biodiesel using the composite. Journal of Hazardous Materials, 2019, 366, 293-300.	6.5	31
70	Evaluation of phosphate fertilizers and red mud in reducing plant availability of Cd, Pb, and Zn in mine tailings. Environmental Earth Sciences, 2015, 74, 2659-2668.	1.3	30
71	Use of carbon dioxide as a reaction medium in the thermo-chemical process for the enhanced generation of syngas and tuning adsorption ability of biochar. Energy Conversion and Management, 2016, 117, 106-114.	4.4	30
72	Co-pyrolysis route of chlorella sp. and bauxite tailings to fabricate metal-biochar as persulfate activator. Chemical Engineering Journal, 2022, 428, 132578.	6.6	29

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73	Amendment of hydroxyapatite in reduction of tetrachloroethylene by zero-valent zinc: Its rate enhancing effect and removal of Zn(II). Chemosphere, 2008, 73, 1420-1427.	4.2	28
74	Contrasting Roles of Maleic Acid in Controlling Kinetics and Selectivity of Sn(IV)- and Cr(III)-Catalyzed Hydroxymethylfurfural Synthesis. ACS Sustainable Chemistry and Engineering, 2018, 6, 14264-14274.	3.2	28
75	Tuneable functionalities in layered double hydroxide catalysts for thermochemical conversion of biomass-derived glucose to fructose. Chemical Engineering Journal, 2020, 383, 122914.	6.6	28
76	Recyclable aqueous metal adsorbent: Synthesis and Cu(II) sorption characteristics of ternary nanocomposites of Fe3O4 nanoparticles@grapheneâ€“poly-N-phenylglycine nanofibers. Journal of Hazardous Materials, 2021, 401, 123283.	6.5	28
77	Reduction of Nitrate in Groundwater by Fe(0)/Magnetite Nanoparticles Entrapped in Ca-Alginate Beads. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	27
78	The influences of the amount of organic substrate on the performance of pilot-scale passive bioreactors for acid mine drainage treatment. Environmental Earth Sciences, 2015, 73, 4717-4727.	1.3	26
79	Preparation of nitrogen-doped Cu-biochar and its application into catalytic reduction of p-nitrophenol. Environmental Geochemistry and Health, 2019, 41, 1729-1737.	1.8	25
80	Ambient NO2 adsorption removal by Mgâ€“Al layered double hydroxides and derived mixed metal oxides. Journal of Cleaner Production, 2021, 313, 127956.	4.6	25
81	Effects of Heavy Metals on Biodegradation of Fluorene by aSphingobacteriumsp. Strain (KM-02) Isolated from Polycyclic Aromatic Hydrocarbon-Contaminated Mine Soil. Environmental Engineering Science, 2015, 32, 891-898.	0.8	23
82	The effect of granular ferric hydroxide amendment on the reduction of nitrate in groundwater by zero-valent iron. Chemosphere, 2013, 93, 2767-2773.	4.2	21
83	Enhancement of syngas for H2 production via catalytic pyrolysis of orange peel using CO2 and bauxite residue. Applied Energy, 2019, 254, 113803.	5.1	20
84	Catalytic pyrolysis of low-rank coal using Fe-carbon composite as a catalyst. Energy Conversion and Management, 2019, 199, 111978.	4.4	20
85	Photo-Fenton abatement of aqueous organics using metal-organic frameworks: An advancement from benchmark zeolite. Science of the Total Environment, 2018, 644, 389-397.	3.9	17
86	Contribution of pyrolytic gas medium to the fabrication of co-impregnated biochar. Journal of CO2 Utilization, 2018, 26, 476-486.	3.3	17
87	Catalytic thermolysis of oak sawdust using Fe-based catalyst and CO2. Journal of CO2 Utilization, 2019, 32, 269-275.	3.3	17
88	Pyrolysis of aquatic carbohydrates using CO2 as reactive gas medium: A case study of chitin. Energy, 2019, 177, 136-143.	4.5	17
89	Valorization of plastics and paper mill sludge into carbon composite and its catalytic performance for acarbon material consisted of the multi-layerzo dye oxidation. Journal of Hazardous Materials, 2020, 398, 123173.	6.5	16
90	Coupling carbon dioxide and magnetite for the enhanced thermolysis of polyvinyl chloride. Science of the Total Environment, 2019, 696, 133951.	3.9	15

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91	Valorization of plastics and goethite into iron-carbon composite as persulfate activator for amaranth oxidation. Chemical Engineering Journal, 2021, 407, 127188.	6.6	15
92	Fabrication of Fe/Mn oxide composite adsorbents for adsorptive removal of zinc and phosphate. Journal of Soils and Sediments, 2018, 18, 946-956.	1.5	14
93	Facile synthesis of polyoxometalate-modified metal organic frameworks for eliminating tetrabromobisphenol-A from water. Journal of Hazardous Materials, 2020, 399, 122946.	6.5	14
94	Effects of quenching methods on HAA determination in chloraminated waters. Journal - American Water Works Association, 2008, 100, 89-99.	0.2	13
95	Tailoring acidity and porosity of alumina catalysts via transition metal doping for glucose conversion in biorefinery. Science of the Total Environment, 2020, 704, 135414.	3.9	13
96	Zirconia-Assisted Pyrolysis of Coffee Waste in CO2 Environment for the Simultaneous Production of Fuel Gas and Composite Adsorbent. Journal of Hazardous Materials, 2020, 386, 121989.	6.5	13
97	Recycling of a spent alkaline battery as a catalyst for the total oxidation of hydrocarbons. Journal of Hazardous Materials, 2021, 403, 123929.	6.5	13
98	Efficiency assessment of cascade aerator in a passive treatment system for Fe(II) oxidation in ferruginous mine drainage of net alkaline. Environmental Earth Sciences, 2015, 73, 5363-5373.	1.3	11
99	Influence of humic acid on the long-term performance of direct contact membrane distillation. Energy and Environment, 2019, 30, 109-120.	2.7	11
100	Synergistic effects of blending seafood wastes as Co-pyrolysis feedstock on syngas production and biochar properties. Chemical Engineering Journal, 2022, 429, 132487.	6.6	11
101	Treatment of Simulated Coalbed Methane Produced Water Using Direct Contact Membrane Distillation. Water (Switzerland), 2016, 8, 194.	1.2	9
102	Enhanced Reduction of Nitrate in Groundwater by Zero-valent Iron with Activated Red Mud. Geosystem Engineering, 2011, 14, 65-70.	0.7	8
103	Sustainable Valorization of E-Waste Plastic through Catalytic Pyrolysis Using CO₂. ACS Sustainable Chemistry and Engineering, 2022, 10, 8443-8451.	3.2	8
104	Effect of Mn substitution on the oxidation/adsorption abilities of iron(III) oxyhydroxides. Clean Technologies and Environmental Policy, 2018, 20, 2201-2208.	2.1	7
105	Sustainable valorization of styrofoam and CO2 into syngas. Science of the Total Environment, 2022, 834, 155384.	3.9	5
106	Valorizing plastic toy wastes to flammable gases through CO2-mediated pyrolysis with a Co-based catalyst. Journal of Hazardous Materials, 2022, 434, 128850.	6.5	3
107	HAA Formation and Speciation during Chloramination. ACS Symposium Series, 2008, , 124-140.	0.5	2
108	Biowaste for environmental remediation and sustainable waste management. Clean Technologies and Environmental Policy, 2018, 20, 2155-2155.	2.1	0