Heechul Choi

List of Publications by Year
in descending order

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100 papers	7,357 citations	61857 43 h-index	53109 85 g-index
101 all docs	101 docs citations	101 times ranked	7743 citing authors

#	Article	IF	Citations
1	Enhanced antibacterial properties and suppressed biofilm growth on multi-walled carbon nanotube (MWCNT) blended polyethersulfone (PES) membranes. Journal of Environmental Chemical Engineering, 2021, 9, 104755.	3.3	16
2	Electrically Polarized Graphene-Blended Spacers for Organic Fouling Reduction in Forward Osmosis. Membranes, 2021, 11, 36.	1.4	7
3	Multiwalled Carbon Nanotube Buckypaper/Polyacrylonitrile Nanofiber Composite Membranes for Electromagnetic Interference Shielding. ACS Applied Nano Materials, 2021, 4, 729-738.	2.4	29
4	Efficacy of Electrically-Polarized 3D Printed Graphene-blended Spacers on the Flux Enhancement and Scaling Resistance of Water Filtration Membranes. ACS Sustainable Chemistry and Engineering, 2021, 9, 6623-6631.	3.2	11
5	Complete arsenite removal from groundwater by UV activated potassium persulfate and iron oxide impregnated granular activated carbon. Chemosphere, 2021, 277, 130225.	4.2	30
6	Thin film composite forward osmosis membranes based on thermally treated PAN hydrophilized PVDF electrospun nanofiber substrates for improved performance. Journal of Environmental Chemical Engineering, 2021, 9, 106240.	3.3	15
7	Solar-assisted smart nanofibrous membranes for atmospheric water harvesting. Chemical Engineering Journal, 2021, 425, 131601.	6.6	37
8	Toward greener membranes with 3D printing technology. Environmental Engineering Research, 2021, 26, 200027-0.	1.5	16
9	Bio-mimetically inspired 3D-printed honeycombed support (spacer) for the reduction of reverse solute flux and fouling of osmotic energy driven membranes. Journal of Industrial and Engineering Chemistry, 2020, 83, 343-350.	2.9	26
10	Adsorptive Removal of Arsenic by Mesoporous Iron Oxide in Aquatic Systems. Water (Switzerland), 2020, 12, 3147.	1.2	15
11	A New era of water treatment technologies: 3D printing for membranes. Journal of Industrial and Engineering Chemistry, 2020, 91, 1-14.	2.9	67
12	High performance nanofiber-supported thin film composite forward osmosis membranes based on continuous thermal-rolling pretreated electrospun PES/PAN blend substrates. Chemosphere, 2020, 261, 127687.	4.2	26
13	Boron Nitride Nanotube (BNNT) Membranes for Energy and Environmental Applications. Membranes, 2020, 10, 430.	1.4	19
14	Parametrization Study of Electrospun Nanofiber Including LiCl Using Response Surface Methodology (RSM) for Water Treatment Application. Applied Sciences (Switzerland), 2020, 10, 7295.	1.3	8
15	Omni-Directional Protected Nanofiber Membranes by Surface Segregation of PDMS-Terminated Triblock Copolymer for High-Efficiency Oil/Water Emulsion Separation. ACS Applied Materials & Interfaces, 2020, 12, 25324-25333.	4.0	31
16	Anti-biofouling effect of a thin film nanocomposite membrane with a functionalized-carbon-nanotube-blended polymeric support for the pressure-retarded osmosis process. RSC Advances, 2020, 10, 5697-5703.	1.7	11
17	Fabrication of functionalized halloysite nanotube blended ultrafiltration membranes for high flux and fouling resistance. Environmental Engineering Research, 2020, 25, 771-778.	1.5	19
18	Switchable Wettability of Thermoresponsive Coreâ€“Shell Nanofibers for Water Capture and Release. ACS Sustainable Chemistry and Engineering, 2019, 7, 19870-19879.	3.2	14

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19	Nanofiber-Based Proton Exchange Membranes: Development of Aligned Electrospun Nanofibers for Polymer Electrolyte Fuel Cell Applications. ACS Sustainable Chemistry and Engineering, 2019, 7, 1808-1825.	3.2	72
20	Capillary effect in Janus electrospun nanofiber membrane for oil/water emulsion separation. Chemosphere, 2019, 221, 479-485.	4.2	81
21	Investigation of the performance behavior of a forward osmosis membrane system using various feed spacer materials fabricated by 3D printing technique. Chemosphere, 2018, 202, 708-715.	4.2	53
22	Removal of As(V) and Sb(V) in aqueous solution by Mg/Al-layered double hydroxide-incorporated polyethersulfone polymer beads (PES-LDH). Environmental Geochemistry and Health, 2018, 40, 2119-2129.	1.8	16
23	Removal of As(V) and Sb(V) in water using magnetic nanoparticle-supported layered double hydroxide nanocomposites. Journal of Geochemical Exploration, 2018, 184, 247-254.	1.5	35
24	Continuous thermal-rolling of electrospun nanofiber for polyamide layer deposition and its detection by engineered osmosis. Polymer, 2018, 145, 281-285.	1.8	12
25	Influence of extreme concentrations of hydrophilic pore-former on reinforced polyethersulfone ultrafiltration membranes for reduction of humic acid fouling. Chemosphere, 2017, 179, 194-201.	4.2	29
26	Integrating seawater desalination and wastewater reclamation forward osmosis process using thin-film composite mixed matrix membrane with functionalized carbon nanotube blended polyethersulfone support layer. Chemosphere, 2017, 185, 1181-1188.	4.2	57
27	Efficacy of piezoelectric electrospun nanofiber membrane for water treatment. Chemical Engineering Journal, 2017, 307, 670-678.	6.6	64
28	Nanotechnology in Engineered Membranes. , 2017, , 802-824.		0
29	Adsorption dynamics of methyl violet onto granulated mesoporous carbon: Facile synthesis and adsorption kinetics. Water Research, 2016, 101, 187-194.	5.3	56
30	Mechanically enhanced PES electrospun nanofiber membranes (ENMs) for microfiltration: The effects of ENM properties on membrane performance. Water Research, 2016, 105, 406-412.	5.3	49
31	Thin-film nanocomposite membrane with vertically embedded carbon nanotube for forward osmosis. Desalination and Water Treatment, 2016, 57, 26670-26679.	1.0	12
32	Simultaneous attenuation of pharmaceuticals, organic matter, and nutrients in wastewater effluent through managed aquifer recharge: Batch and column studies. Chemosphere, 2016, 143, 135-141.	4.2	10
33	Fate of veterinary antibiotics in riverine soils: evaluation of applicability in riverbank filtration. Desalination and Water Treatment, 2016, 57, 20457-20463.	1.0	1
34	Thin-film nanocomposite membrane with CNT positioning in support layer for energy harvesting from saline water. Chemical Engineering Journal, 2016, 284, 68-77.	6.6	85
35	Efficacy of synthesis conditions on functionalized carbon nanotube blended cellulose acetate membrane for desalination. Desalination and Water Treatment, 2016, 57, 7545-7554.	1.0	19
36	Alginate fouling reduction of functionalized carbon nanotube blended cellulose acetate membrane in forward osmosis. Chemosphere, 2015, 136, 204-210.	4.2	63

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37	Improved antifouling performance of polyethersulfone (PES) membrane via surface modification by CNTs bound polyelectrolyte multilayers. RSC Advances, 2015, 5, 7340-7348.	1.7	26
38	Efficacy of carbon nanotube positioning in the polyethersulfone support layer on the performance of thin-film composite membrane for desalination. Chemical Engineering Journal, 2015, 266, 376-384.	6.6	117
39	Development of a mathematical model to predict different parameters during pharmaceutical wastewater treatment using TiO2 coated membrane. Ecotoxicology and Environmental Safety, 2015, 121, 193-198.	2.9	24
40	Simultaneous photooxidation and sorptive removal of As(III) by TiO2 supported layered double hydroxide. Journal of Environmental Management, 2015, 161, 228-236.	3.8	22
41	Removal of Organic Matter and Pharmaceuticals in Wastewater Effluent through Managed Aquifer Recharge. Daehan Hwan'gyeong Gonghag Hoeji, 2015, 37, 182-190.	0.4	0
42	Involvement of process parameters and various modes of application of TiO₂ nanoparticles in heterogeneous photocatalysis of pharmaceutical wastes â€“ a short review. RSC Advances, 2014, 4, 57250-57266.	1.7	63
43	Application of ANFIS model to optimise the photocatalytic degradation of chlorhexidine digluconate. RSC Advances, 2014, 4, 21141.	1.7	15
44	Removal of 12 selected pharmaceuticals by granular mesoporous silica SBA-15 in aqueous phase. Chemical Engineering Journal, 2014, 256, 475-485.	6.6	59
45	Efficacy of CNT-bound polyelectrolyte membrane by spray-assisted layer-by-layer (LbL) technique on water purification. RSC Advances, 2014, 4, 32858-32865.	1.7	26
46	Remediation of Antiseptic Components in Wastewater by Photocatalysis Using TiO₂ Nanoparticles. Industrial & Engineering Chemistry Research, 2014, 53, 3012-3020.	1.8	58
47	Iron Oxide Nanoparticle-Impregnated Alumina for Catalytic Ozonation of para-Chlorobenzoic Acid in Aqueous Solution. Water, Air, and Soil Pollution, 2014, 225, 1.	1.1	10
48	Optimized Synthesis Conditions of Polyethersulfone Support Layer for Enhanced Water Flux for Thin Film Composite Membrane. Environmental Engineering Research, 2014, 19, 339-344.	1.5	16
49	Adsorption of pharmaceuticals onto trimethylsilylated mesoporous SBA-15. Journal of Hazardous Materials, 2013, 254-255, 345-353.	6.5	62
50	Modeling and study of the mechanism of mobilization of arsenic contamination in the groundwater of Nepal in South Asia. Clean Technologies and Environmental Policy, 2013, 15, 1077-1082.	2.1	7
51	Fabrication of ultra-thin polyelectrolyte/carbon nanotube membrane by spray-assisted layer-by-layer technique: characterization and its anti-protein fouling properties for water treatment. Desalination and Water Treatment, 2013, 51, 6194-6200.	1.0	58
52	Reactive Ceramic Membrane Incorporated with Iron Oxide Nanoparticle for Fouling Control. Daehan Hwan'gyeong Gonghag Hoeji, 2013, 35, 144-150.	0.4	0
53	Characterization of natural organic matter treated by iron oxide nanoparticle incorporated ceramic membrane-ozonation process. Water Research, 2012, 46, 5861-5870.	5.3	84
54	Removal of trichloroethylene DNAPL trapped in porous media using nanoscale zerovalent iron and bimetallic nanoparticles: Direct observation and quantification. Journal of Hazardous Materials, 2012, 213-214, 299-310.	6.5	16

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55	Carbon nanotube blended polyethersulfone membranes for fouling control in water treatment. Water Research, 2011, 45, 274-282.	5.3	453
56	As(III) removal by hybrid reactive membrane process combined with ozonation. Water Research, 2011, 45, 1933-1940.	5.3	29
57	Protein fouling behavior of carbon nanotube/polyethersulfone composite membranes during water filtration. Water Research, 2011, 45, 5287-5294.	5.3	159
58	Mobilization and deposition of iron nano and sub-micrometer particles in porous media: A glass micromodel study. Journal of Hazardous Materials, 2011, 192, 1466-1475.	6.5	17
59	Organically functionalized mesoporous SBA-15 as sorbents for removal of selected pharmaceuticals from water. Journal of Hazardous Materials, 2011, 193, 156-163.	6.5	84
60	Carbon Nanotube/Polyethersulfone Composite Membranes for Water Filtration. ACS Symposium Series, 2011, , 257-269.	0.5	5
61	Geometric and Hydrodynamic Characteristics of Three-dimensional Saturated Prefractal Porous Media Determined with Lattice Boltzmann Modeling. Transport in Porous Media, 2011, 90, 831-846.	1.2	10
62	Reduction of highly concentrated nitrate using nanoscale zero-valent iron: Effects of aggregation and catalyst on reactivity. Applied Catalysis B: Environmental, 2011, 105, 128-135.	10.8	143
63	Arsenic Removal by Nano-scale Zero Valent Iron and how it is Affected by Natural Organic Matter. ACS Symposium Series, 2010, , 135-161.	0.5	8
64	Preparation and properties of visible light responsive ZrTiO4/Bi2O3 photocatalysts for 4-chlorophenol decomposition. Journal of Hazardous Materials, 2010, 182, 557-562.	6.5	53
65	Influence of ionic strength, anions, cations, and natural organic matter on the adsorption of pharmaceuticals to silica. Chemosphere, 2010, 80, 681-686.	4.2	129
66	Aging Study on the Structure of Fe⁰-Nanoparticles: Stabilization, Characterization, and Reactivity. Journal of Physical Chemistry C, 2010, 114, 2027-2033.	1.5	94
67	Synthesis of Nanoparticles and One-Dimensional Nanomaterials. , 2009, , 14-42.		0
68	Controllable synthesis, characterization, and magnetic properties of nanoscale zerovalent iron with specific high Brunauerâ€“Emmettâ€“Teller surface area. Journal of Nanoparticle Research, 2009, 11, 749-755.	0.8	48
69	As(V) remediation using electrochemically synthesized maghemite nanoparticles. Journal of Nanoparticle Research, 2009, 11, 1981-1989.	0.8	54
70	Adsorptive removal of selected pharmaceuticals by mesoporous silica SBA-15. Journal of Hazardous Materials, 2009, 168, 602-608.	6.5	322
71	Aqueous Ethanol modified Nanoscale Zerovalent Iron in Bromate Reduction: Synthesis, Characterization, and Reactivity. Environmental Science & Technology, 2009, 43, 3292-3299.	4.6	159
72	Ultrasonic-assisted pH Swing Method for the Synthesis of Highly Efficient TiO2 Nano-size Photocatalysts. Catalysis Letters, 2008, 125, 183-191.	1.4	30

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73	Effect of soil organic matter (SOM) and soil texture on the fatality of indigenous microorganisms in intergrated ozonation and biodegradation. Journal of Hazardous Materials, 2008, 150, 809-817.	6.5	29
74	Synthesis of nanosized biogenic magnetite and comparison of its catalytic activity in ozonation. Applied Catalysis B: Environmental, 2008, 83, 208-213.	10.8	42
75	Comment on â€œManipulating the Size and Dispersibility of Zerovalent Iron Nanoparticles by Use of Carboxymethyl Cellulose Stabilizersâ€• Environmental Science & Technology, 2008, 42, 3479-3479.	4.6	6
76	Photochemical Oxidation of Arsenic(III) to Arsenic(V) using Peroxydisulfate Ions as an Oxidizing Agent. Environmental Science & Technology, 2008, 42, 6179-6184.	4.6	74
77	Anomalous diffusion in two-dimensional Euclidean and prefractal geometrical models of heterogeneous porous media. Water Resources Research, 2007, 43, .	1.7	14
78	Preparation of Biotic and Abiotic Iron Oxide Nanoparticles (IOnPs) and Their Properties and Applications in Heterogeneous Catalytic Oxidation. Environmental Science & Technology, 2007, 41, 4741-4747.	4.6	69
79	Adsorption of Humic Acid onto Nanoscale Zerovalent Iron and Its Effect on Arsenic Removal. Environmental Science & Technology, 2007, 41, 2022-2027.	4.6	448
80	Synthesis and characterization of ZrO2â€“TiO2 binary oxide semiconductor nanoparticles: Application and interparticle electron transfer process. Applied Catalysis A: General, 2007, 333, 264-271.	2.2	216
81	Transport of surface-modified iron nanoparticle in porous media and application to arsenic(III) remediation. Journal of Nanoparticle Research, 2007, 9, 725-735.	0.8	226
82	Removal of Arsenic(III) from Groundwater using Low-Cost Industrial By-products-Blast Furnace Slag. Water Quality Research Journal of Canada, 2006, 41, 130-139.	1.2	63
83	Arsenic(V) Removal from Groundwater Using Nano Scale Zero-Valent Iron as a Colloidal Reactive Barrier Material. Environmental Science & Technology, 2006, 40, 2045-2050.	4.6	644
84	Catalytic decomposition of ozone and para-Chlorobenzoic acid (pCBA) in the presence of nanosized ZnO. Applied Catalysis B: Environmental, 2006, 66, 288-294.	10.8	102
85	Laboratory-scale application of fiber optic transflection dip probe (FOTDP) for in situ monitoring of gas phase ozone in unsaturated porous media. Journal of Contaminant Hydrology, 2006, 82, 133-144.	1.6	3
86	EARTHWORM TOXICITY DURING CHEMICAL OXIDATION OF DIESEL-CONTAMINATED SAND. Environmental Toxicology and Chemistry, 2005, 24, 1924.	2.2	30
87	Monitoring of petroleum hydrocarbon degradative potential of indigenous microorganisms in ozonated soil. Biodegradation, 2005, 16, 45-56.	1.5	35
88	Effects of in-situ ozonation on indigenous microorganisms in diesel contaminated soil: Survival and regrowth. Chemosphere, 2005, 61, 923-932.	4.2	32
89	Removal of Arsenic(III) from Groundwater by Nanoscale Zero-Valent Iron. Environmental Science & Technology, 2005, 39, 1291-1298.	4.6	1,051
90	Removal Mechanism of Natural Organic Matter and Organic Acid by Ozone in the Presence of Goethite. Ozone: Science and Engineering, 2004, 26, 141-151.	1.4	36

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91	Reaction Kinetics of Ozone in Variably Saturated Porous Media. Journal of Environmental Engineering, ASCE, 2004, 130, 432-441.	0.7	22
92	Comparative Removal of Polycyclic Aromatic Hydrocarbons Using Iron Oxide and Hydrogen Peroxide in Soil Slurries. Environmental Engineering Science, 2004, 21, 741-751.	0.8	27
93	Effect of Fenton-like oxidation on enhanced oxidative degradation of para-chlorobenzoic acid by ultrasonic irradiation. Ultrasonics Sonochemistry, 2004, 11, 273-279.	3.8	88
94	Kinetic decomposition of ozone and para-chlorobenzoic acid (pCBA) during catalytic ozonation. Water Research, 2004, 38, 2285-2292.	5.3	146
95	Heterogeneous Catalytic Oxidation of Phenanthrene by Hydrogen Peroxide in Soil Slurry: Kinetics, Mechanism, and Implication. Soil and Sediment Contamination, 2003, 12, 101-117.	1.1	58
96	Effects ofIn SituOzonation on Structural Change of Soil Organic Matter. Environmental Engineering Science, 2003, 20, 289-299.	0.8	31
97	Sonolytic degradation of methyl tert-butyl ether: the role of coupled fenton process and persulphate ion. Water Research, 2002, 36, 4699-4708.	5.3	149
98	Modeling in situ ozonation for the remediation of nonvolatile PAH-contaminated unsaturated soils. Journal of Contaminant Hydrology, 2002, 55, 261-285.	1.6	60
99	Transport characteristics of gas phase ozone in unsaturated porous media for in-situ chemical oxidation. Journal of Contaminant Hydrology, 2002, 57, 81-98.	1.6	85
100	Nanotechnology in Engineered Membranes. Advances in Environmental Engineering and Green Technologies Book Series, 0, , 50-71.	0.3	0