So-Ryong Chae

List of Publications by Year
in descending order

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67 papers	5,161 citations	185998 28 h-index	106150 65 g-index
67 all docs	67 docs citations	67 times ranked	5899 citing authors

#	Article	IF	Citations
1	Recent advances in membrane bioreactors (MBRs): Membrane fouling and membrane material. Water Research, 2009, 43, 1489-1512.	5.3	1,577
2	Fouling in membrane bioreactors: An updated review. Water Research, 2017, 114, 151-180.	5.3	773
3	Long-Term Transformation and Fate of Manufactured Ag Nanoparticles in a Simulated Large Scale Freshwater Emergent Wetland. Environmental Science & Technology, 2012, 46, 7027-7036.	4.6	351
4	Legionellosis and Recent Advances in Technologies for Legionella Control in Premise Plumbing Systems: A Review. Water (Switzerland), 2020, 12, 676.	1.2	351
5	Synthesis and characterization of a carbon nanotube/polymer nanocomposite membrane for water treatment. Desalination, 2011, 272, 46-50.	4.0	221
6	Recent advances in proton exchange membranes for fuel cell applications. Chemical Engineering Journal, 2012, 204-206, 87-97.	6.6	149
7	Mitigated membrane fouling in a vertical submerged membrane bioreactor (VSMBR). Journal of Membrane Science, 2006, 280, 572-581.	4.1	113
8	Removal of natural organic matter in water using functionalised carbon nanotube buckypaper. Carbon, 2013, 59, 160-166.	5.4	88
9	Effects of fullerene nanoparticles on Escherichia coli K12 respiratory activity in aqueous suspension and potential use for membrane biofouling control. Journal of Membrane Science, 2009, 329, 68-74.	4.1	87
10	Biogenic deterioration of concrete and its mitigation technologies. Construction and Building Materials, 2017, 149, 575-586.	3.2	84
11	Recent Advances in Membrane Bioreactors: Configuration Development, Pollutant Elimination, and Sludge Reduction. Environmental Engineering Science, 2012, 29, 139-160.	0.8	77
12	Heterogeneities in Fullerene Nanoparticle Aggregates Affecting Reactivity, Bioactivity, and Transport. ACS Nano, 2010, 4, 5011-5018.	7.3	69
13	High flux and high selectivity carbon nanotube composite membranes for natural organic matter removal. Separation and Purification Technology, 2016, 163, 109-119.	3.9	69
14	Membrane capacitive deionization-reverse electrodialysis hybrid system for improving energy efficiency of reverse osmosis seawater desalination. Desalination, 2019, 462, 19-28.	4.0	68
15	Comparison of fouling characteristics of two different poly-vinylidene fluoride microfiltration membranes in a pilot-scale drinking water treatment system using pre-coagulation/sedimentation, sand filtration, and chlorination. Water Research, 2008, 42, 2029-2042.	5.3	62
16	Metaproteomic Analysis of Biocake Proteins To Understand Membrane Fouling in a Submerged Membrane Bioreactor. Environmental Science & Technology, 2015, 49, 1068-1077.	4.6	57
17	Simultaneous high-strength organic and nitrogen removal with combined anaerobic upflow bed filter and aerobic membrane bioreactor. Desalination, 2007, 202, 114-121.	4.0	53
18	Effective removal of emerging dissolved cyanotoxins from water using hybrid photocatalytic composites. Water Research, 2019, 149, 421-431.	5.3	49

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19	Transition in fouling mechanism in microfiltration of a surface water. Water Research, 2007, 41, 3812-3822.	5.3	48
20	Different susceptibilities of bacterial community to silver nanoparticles in wastewater treatment systems. Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering, 2014, 49, 685-693.	0.9	47
21	Evaluation of the Oxidation of Organic Compounds by Aqueous Suspensions of Photosensitized Hydroxylated-C₆₀ Fullerene Aggregates. Environmental Science & Technology, 2009, 43, 6208-6213.	4.6	44
22	Fouling characteristics of pressurized and submerged PVDF (polyvinylidene fluoride) microfiltration membranes in a pilot-scale drinking water treatment system under low and high turbidity conditions. Desalination, 2009, 244, 215-226.	4.0	42
23	Effects of humic acid and electrolytes on photocatalytic reactivity and transport of carbon nanoparticle aggregates in water. Water Research, 2012, 46, 4053-4062.	5.3	38
24	Development of an innovative vertical submerged membrane bioreactor (VSMBR) for simultaneous removal of organic matter and nutrients. Water Research, 2006, 40, 2161-2167.	5.3	36
25	Comparative photochemical reactivity of spherical and tubular fullerene nanoparticles in water under ultraviolet (UV) irradiation. Water Research, 2011, 45, 308-314.	5.3	35
26	Positive roles of biofilm during the operation of membrane bioreactor for water reuse. Desalination, 2007, 202, 129-134.	4.0	33
27	Quantification of fullerene (C60) in aqueous samples and use of C70 as surrogate standard. Chemical Engineering Journal, 2011, 170, 555-561.	6.6	30
28	Membrane filtration of fullerene nanoparticle suspensions: Effects of derivatization, pressure, electrolyte species and concentration. Journal of Colloid and Interface Science, 2010, 346, 296-302.	5.0	29
29	Comparison of the photosensitivity and bacterial toxicity of spherical and tubular fullerenes of variable aggregate size. Journal of Nanoparticle Research, 2011, 13, 5121-5127.	0.8	29
30	Non-covalent functionalization of graphene with poly(diallyl dimethylammonium) chloride: Effect of a non-ionic surfactant. International Journal of Hydrogen Energy, 2015, 40, 1541-1547.	3.8	27
31	Surface morphology-dependent spontaneous bacterial behaviors on graphene oxide membranes. Separation and Purification Technology, 2019, 226, 68-74.	3.9	27
32	Aging of fullerene C60 nanoparticle suspensions in the presence of microbes. Water Research, 2014, 65, 282-289.	5.3	26
33	Porous carbon-coated graphite electrodes for energy production from salinity gradient using reverse electrodialysis. Journal of Physics and Chemistry of Solids, 2016, 91, 34-40.	1.9	25
34	Effects of Divalent Cations on Electrical Membrane Resistance in Reverse Electrodialysis for Salinity Power Generation. Industrial & Engineering Chemistry Research, 2018, 57, 15803-15810.	1.8	25
35	Phosphate recovery from water using cellulose enhanced magnesium carbonate pellets: Kinetics, isotherms, and desorption. Chemical Engineering Journal, 2018, 352, 612-624.	6.6	25
36	Effects of silver nanoparticles on biological nitrogen removal processes. Water Science and Technology, 2012, 65, 1298-1303.	1.2	22

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37	Microbial Transformation of Biomacromolecules in a Membrane Bioreactor: Implications for Membrane Fouling Investigation. PLoS ONE, 2012, 7, e42270.	1.1	21
38	Comparison of Methods for Fullerene Detection and Measurements of Reactive Oxygen Production in Cosmetic Products. Environmental Engineering Science, 2010, 27, 797-804.	0.8	19
39	Comparison of chemical cleaning reagents and characterization of foulants of nanofiltration membranes used in surface water treatment. Desalination, 2012, 296, 1-6.	4.0	18
40	Electrically heatable carbon nanotube point-of-use filters for effective separation and in-situ inactivation of Legionella pneumophila. Chemical Engineering Journal, 2019, 366, 21-26.	6.6	15
41	Innovative Biofouling Control for Membrane Bioreactors in Cold Regions by Inducing Environmental Adaptation in Quorum-Quenching Bacteria. Environmental Science & Technology, 2022, 56, 4396-4403.	4.6	15
42	A multi-parametric approach assessing microbial viability and organic matter characteristics during managed aquifer recharge. Science of the Total Environment, 2015, 524-525, 290-299.	3.9	14
43	Removal of Selected Micropollutants During Conventional and Advanced Water Treatment Processes. Environmental Engineering Science, 2017, 34, 752-761.	0.8	13
44	The influence of geometrical characteristics on the photocatalytic activity of TiO2 nanotube arrays for degradation of refractory organic pollutants in wastewater. Water Science and Technology, 2015, 71, 1301-1309.	1.2	12
45	Optimization of chemical cleaning for reverse osmosis membranes with organic fouling using statistical design tools. Environmental Engineering Research, 2018, 23, 474-484.	1.5	12
46	Applications of nisin for biofouling mitigation of reverse osmosis membranes. Desalination, 2018, 429, 52-59.	4.0	11
47	Enhancement of Physical Characteristics of Styreneâ€“Acrylonitrile Nanofiber Membranes Using Various Post-Treatments for Membrane Distillation. Membranes, 2021, 11, 969.	1.4	10
48	High reuse potential of effluent from an innovative vertical submerged membrane bioreactor treating municipal wastewater. Desalination, 2007, 202, 83-89.	4.0	9
49	Thermally crosslinked and quaternized polybenzimidazole ionomer binders for solid alkaline fuel cells. International Journal of Hydrogen Energy, 2020, 45, 11773-11783.	3.8	9
50	Environmental implications and applications of carbon nanomaterials in water treatment. Water Science and Technology, 2013, 67, 2582-2586.	1.2	8
51	Possible Applications of Fullerene Nanomaterials in Water Treatment and Reuse. , 2014, , 329-338.		8
52	Functionalization of multiwall carbon nanotubes with nitrogen containing polyelectrolyte by a simple method. Journal of Physics and Chemistry of Solids, 2015, 85, 155-159.	1.9	8
53	Effects of natural organic matter on separation of the hydroxylated fullerene nanoparticles by cross-flow ultrafiltration membranes from water. Separation and Purification Technology, 2015, 140, 61-68.	3.9	8
54	Proton-Conducting Composite Membranes Derived from Ferroxane-Polyvinyl Alcohol Complex. Environmental Engineering Science, 2012, 29, 124-132.	0.8	7

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55	Advanced Phosphorus Recovery from Municipal Wastewater using Anoxic/Aerobic Membrane Bioreactors and Magnesium Carbonate-Based Pellets. ACS ES&T Water, 2021, 1, 1657-1664.	2.3	7
56	Opportunities for Treatment and Reuse of Agricultural Drainage in the United States. ACS ES&T Engineering, 2022, 2, 292-305.	3.7	7
57	Full-Scale Implementation of a Vertical Membrane Bioreactor for Simultaneous Removal of Organic Matter and Nutrients from Municipal Wastewater. Water (Switzerland), 2015, 7, 1164-1172.	1.2	6
58	Correlation between the feed composition and membrane wetting in a direct contact membrane distillation process. Environmental Science: Water Research and Technology, 2021, 7, 1020-1031.	1.2	6
59	Heatable carbon nanotube composite membranes for sustainable recovery from biofouling. Biofouling, 2017, 33, 847-854.	0.8	5
60	Active Control of Irreversible Faradic Reactions to Enhance the Performance of Reverse Electrodialysis for Energy Production from Salinity Gradients. Environmental Science & Technology, 2021, 55, 11388-11396.	4.6	5
61	Fate and Transport of Cyanotoxins and Natural Organic Matter through Virgin and Reactivated Granular Activated Carbons. ACS ES&T Water, 2021, 1, 2513-2522.	2.3	5
62	Behaviors of Intercellular Materials and Nutrients in Biological Nutrient Removal Process Supplied with Domestic Wastewater and Food Waste. Water Environment Research, 2004, 76, 272-279.	1.3	4
63	Recycling of coal seam gas-associated water using vacuum membrane distillation. Water Science and Technology, 2015, 72, 908-916.	1.2	4
64	Modeling of a monopolar ion-exchange membrane for nutrient salts removal. Desalination and Water Treatment, 2015, 53, 2825-2830.	1.0	3
65	Possible Applications of Fullerene Nanomaterials in Water Treatment and Reuse. , 2009, , 167-177.		2
66	Treatment and reuse of electronic wastewater using activated carbon based solid-phase advanced oxidation process. Desalination and Water Treatment, 2015, 54, 1038-1043.	1.0	2
67	Efficient Phosphorus Recovery from Municipal Wastewater Using Enhanced Biological Phosphorus Removal in an Anaerobic/Anoxic/Aerobic Membrane Bioreactor and Magnesium-Based Pellets. Membranes, 2022, 12, 210.	1.4	2