Choonsoo Kim

List of Publications by Year
in descending order

51 papers	3,228 citations	172457 29 h-index	189892 50 g-index
51 all docs	51 docs citations	51 times ranked	2400 citing authors

#	Article	IF	Citations
1	Hybrid capacitive deionization to enhance the desalination performance of capacitive techniques. Energy and Environmental Science, 2014, 7, 3683-3689.	30.8	517
2	The effect of electrode material on the generation of oxidants and microbial inactivation in the electrochemical disinfection processes. Water Research, 2009, 43, 895-901.	11.3	345
3	Na2FeP2O7 as a Novel Material for Hybrid Capacitive Deionization. Electrochimica Acta, 2016, 203, 265-271.	5.2	217
4	Faradaic deionization of brackish and sea water via pseudocapacitive cation and anion intercalation into few-layered molybdenum disulfide. Journal of Materials Chemistry A, 2017, 5, 15640-15649.	10.3	167
5	Highly selective lithium recovery from brine using a Î»-MnO2â€“Ag battery. Physical Chemistry Chemical Physics, 2013, 15, 7690.	2.8	164
6	Influence of pore structure and cell voltage of activated carbon cloth as a versatile electrode material for capacitive deionization. Carbon, 2017, 122, 329-335.	10.3	149
7	Titanium Disulfide: A Promising Low-Dimensional Electrode Material for Sodium Ion Intercalation for Seawater Desalination. Chemistry of Materials, 2017, 29, 9964-9973.	6.7	112
8	TiO2 solâ€“gel spray method for carbon electrode fabrication to enhance desalination efficiency of capacitive deionization. Desalination, 2014, 342, 70-74.	8.2	106
9	Blue TiO2 Nanotube Array as an Oxidant Generating Novel Anode Material Fabricated by Simple Cathodic Polarization. Electrochimica Acta, 2014, 141, 113-119.	5.2	98
10	Capacitive and Oxidant Generating Properties of Black-Colored TiO₂ Nanotube Array Fabricated by Electrochemical Self-Doping. ACS Applied Materials & Interfaces, 2015, 7, 7486-7491.	8.0	98
11	Capacitive deionization with Ca-alginate coated-carbon electrode for hardness control. Desalination, 2016, 392, 46-53.	8.2	89
12	Pseudocapacitive Desalination of Brackish Water and Seawater with Vanadiumâ€Pentoxideâ€Decorated Multiwalled Carbon Nanotubes. ChemSusChem, 2017, 10, 3611-3623.	6.8	89
13	Concentrationâ€Gradient Multichannel Flowâ€Stream Membrane Capacitive Deionization Cell for High Desalination Capacity of Carbon Electrodes. ChemSusChem, 2017, 10, 4914-4920.	6.8	69
14	Selective phosphate removal using layered double hydroxide/reduced graphene oxide (LDH/rGO) composite electrode in capacitive deionization. Journal of Colloid and Interface Science, 2020, 564, 1-7.	9.4	68
15	High-Desalination Performance via Redox Couple Reaction in the Multichannel Capacitive Deionization System. ACS Sustainable Chemistry and Engineering, 2019, 7, 16182-16189.	6.7	67
16	Hydrogen peroxide generation in flow-mode capacitive deionization. Journal of Electroanalytical Chemistry, 2016, 776, 101-104.	3.8	60
17	High performance electrochemical saline water desalination using silver and silver-chloride electrodes. Desalination, 2020, 476, 114216.	8.2	57
18	Effect of doping level of colored TiO₂ nanotube arrays fabricated by electrochemical self-doping on electrochemical properties. Physical Chemistry Chemical Physics, 2016, 18, 14370-14375.	2.8	51

#	Article	IF	Citations
19	Semi-continuous capacitive deionization using multi-channel flow stream and ion exchange membranes. Desalination, 2018, 425, 104-110.	8.2	51
20	Confined Redox Reactions of Iodide in Carbon Nanopores for Fast and Energyâ€Efficient Desalination of Brackish Water and Seawater. ChemSusChem, 2018, 11, 3460-3472.	6.8	46
21	Sodium ion removal by hydrated vanadyl phosphate for electrochemical water desalination. Journal of Materials Chemistry A, 2019, 7, 4175-4184.	10.3	46
22	Enhanced desalination via cell voltage extension of membrane capacitive deionization using an aqueous/organic bi-electrolyte. Desalination, 2018, 443, 56-61.	8.2	39
23	Electrochemical lithium recovery system through the simultaneous lithium enrichment via sustainable redox reaction. Chemical Engineering Journal, 2021, 420, 127715.	12.7	39
24	Effective adsorbent for arsenic removal: core/shell structural nano zero-valent iron/manganese oxide. Environmental Science and Pollution Research, 2017, 24, 24235-24242.	5.3	35
25	Hybrid Electrochemical Desalination System Combined with an Oxidation Process. ACS Sustainable Chemistry and Engineering, 2018, 6, 1620-1626.	6.7	34
26	Potentialâ€Dependent, Switchable Ion Selectivity in Aqueous Media Using Titanium Disulfide. ChemSusChem, 2018, 11, 2091-2100.	6.8	33
27	Short Review of Multichannel Membrane Capacitive Deionization: Principle, Current Status, and Future Prospect. Applied Sciences (Switzerland), 2020, 10, 683.	2.5	33
28	Enhancement in Desalination Performance of Battery Electrodes via Improved Mass Transport Using a Multichannel Flow System. ACS Applied Materials & Interfaces, 2019, 11, 36580-36588.	8.0	30
29	Redox-mediated electrochemical desalination for waste valorization in dairy production. Chemical Engineering Journal, 2022, 428, 131082.	12.7	30
30	Performance analysis of the multi-channel membrane capacitive deionization with porous carbon electrode stacks. Desalination, 2020, 479, 114315.	8.2	29
31	RuO2 coated blue TiO2 nanotube array (blue TNA-RuO2) as an effective anode material in electrochemical chlorine generation. Journal of Industrial and Engineering Chemistry, 2018, 66, 478-483.	5.8	28
32	Facile detection of photogenerated reactive oxygen species in TiO2 nanoparticles suspension using colorimetric probe-assisted spectrometric method. Chemosphere, 2013, 93, 2011-2015.	8.2	26
33	Performance analysis of hydrated Zr(IV) oxide nanoparticle-impregnated anion exchange resin for selective phosphate removal. Journal of Colloid and Interface Science, 2021, 586, 741-747.	9.4	25
34	Parametric investigation of the desalination performance in multichannel membrane capacitive deionization (MC-MCDI). Desalination, 2021, 503, 114950.	8.2	24
35	A short review on electrochemically self-doped TiO2 nanotube arrays: Synthesis and applications. Korean Journal of Chemical Engineering, 2019, 36, 1753-1766.	2.7	20
36	A Review of Chlorine Evolution Mechanism on Dimensionally Stable Anode (DSA^{Â®}). Korean Chemical Engineering Research, 2015, 53, 531-539.	0.2	19

#	Article	IF	Citations
37	Effect of Annealing Temperature on the Capacitive and Oxidant-generating Properties of an Electrochemically Reduced TiO2 Nanotube Array. Electrochimica Acta, 2016, 222, 1578-1584.	5.2	18
38	Electrochemical ozone production in inert supporting electrolytes on a boron-doped diamond electrode with a solid polymer electrolyte electrolyzer. Desalination and Water Treatment, 2016, 57, 10152-10158.	1.0	15
39	Novel Reuse Strategy in Flow-Electrode Capacitive Deionization with Switch Cycle Operation To Enhance Desalination Performance. Environmental Science and Technology Letters, 2019, 6, 739-744.	8.7	15
40	Enhanced desalination performance of nitrogen-doped porous carbon electrode in redox-mediated deionization. Desalination, 2021, 520, 115333.	8.2	12
41	Enhancing the Desalination Performance of Capacitive Deionization Using a Layered Double Hydroxide Coated Activated Carbon Electrode. Applied Sciences (Switzerland), 2020, 10, 403.	2.5	10
42	Ir0.11Fe0.25O0.64 as a highly efficient electrode for electrochlorination in dilute chloride solutions. Journal of Industrial and Engineering Chemistry, 2021, 102, 155-162.	5.8	9
43	Improvement in the desalination performance of membrane capacitive deionization with a bipolar electrode via an energy recovery process. Chemical Engineering Journal, 2022, 439, 135603.	12.7	9
44	Parametric study of multichannel desalination battery for low-energy electrochemical deionization of brackish water. Desalination, 2021, 515, 115188.	8.2	8
45	Evaluation of thin-film nanocomposite RO membranes using TiO₂nanotubes and TiO₂nanoparticles: a comparative study. Desalination and Water Treatment, 2016, 57, 24674-24681.	1.0	6
46	The Effect of Preparation Parameters in Thermal Decomposition of Ruthenium Dioxide Electrodes on Chlorine Electroâ€Catalytic Activity. Bulletin of the Korean Chemical Society, 2015, 36, 1411-1417.	1.9	5
47	Electrochemical softening using capacitive deionization (CDI) with zeolite modified carbon electrode (ZMCE). Desalination and Water Treatment, 2016, 57, 24682-24687.	1.0	5
48	High chlorine evolution performance of electrochemically reduced TiO₂ nanotube array coated with a thin RuO₂ layer by the self-synthetic method. RSC Advances, 2021, 11, 12107-12116.	3.6	4
49	Sonoelectrodeposition of RuO2 electrodes for high chlorine evolution efficiencies. Journal of the Korean Society of Water and Wastewater, 2017, 31, 397-407.	0.3	1
50	Development of templated RuO2 nanorod and nanosheet electrodes to improve the electrocatalytic activities for chlorine evolution. Journal of the Korean Society of Water and Wastewater, 2017, 31, 373-381.	0.3	1
51	Effects of chloride and other anions on electrochemical chlorine evolution over self-doped TiO2 nanotube array. Korean Journal of Chemical Engineering, 2021, 38, 756-762.	2.7	0