

Chia-hung Hou

List of Publications by Year in descending order

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97
papers

4,324
citations

81743

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118652

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docs citations

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times ranked

4969
citing authors

#	ARTICLE	IF	CITATIONS
1	An integrated active biochar filter and capacitive deionization system for high-performance removal of arsenic from groundwater. <i>Journal of Hazardous Materials</i> , 2022, 423, 127084.	6.5	34
2	Technological and economic perspectives of membrane capacitive deionization (MCDI) systems in high-tech industries: From tap water purification to wastewater reclamation for water sustainability. <i>Resources, Conservation and Recycling</i> , 2022, 177, 106012.	5.3	9
3	Carbon nanotubes/activated carbon hybrid as a high-performance suspension electrode for the electrochemical desalination of wastewater. <i>Desalination</i> , 2022, 522, 115440.	4.0	26
4	O, N-doped porous biochar by air oxidation for enhancing heavy metal removal: The role of O, N functional groups. <i>Chemosphere</i> , 2022, 293, 133622.	4.2	21
5	In situ engineering of highly conductive TiO ₂ /carbon heterostructure fibers for enhanced electrocatalytic degradation of water pollutants. <i>Journal of Hazardous Materials</i> , 2022, 429, 128328.	6.5	21
6	Electrochemical membrane technology for environmental remediation. , 2022, , 227-263.		0
7	Redox-flow battery with four-channel architecture for continuous and efficient desalination over a wide salinity working range. <i>Desalination</i> , 2022, 534, 115783.	4.0	13
8	Electrically regenerated ion-exchange technology: Leveraging faradaic reactions and assessing the effect of co-ion sorption. <i>Journal of Colloid and Interface Science</i> , 2022, 623, 985-991.	5.0	3
9	Nickel hexacyanoferrate incorporated with reduced graphene oxide for highly efficient intercalation desalination. <i>Separation and Purification Technology</i> , 2022, 295, 121351.	3.9	13
10	Shifts of microbial community structure along substrate concentration gradients in immobilized biomass for nitrogen removal. <i>Npj Clean Water</i> , 2022, 5, .	3.1	3
11	Cation selectivity of activated carbon and nickel hexacyanoferrate electrode materials in capacitive deionization: A comparison study. <i>Chemosphere</i> , 2022, 307, 135613.	4.2	9
12	Exploring the electrosorption selectivity of nitrate over chloride in capacitive deionization (CDI) and membrane capacitive deionization (MCDI). <i>Desalination</i> , 2021, 497, 114764.	4.0	58
13	Effective electrochemically controlled removal of fluoride ions using electrodeposited polyaniline-carbon nanotube composite electrodes. <i>Separation and Purification Technology</i> , 2021, 254, 117561.	3.9	30
14	Active MnO ₂ /biochar composite for efficient As(III) removal: Insight into the mechanisms of redox transformation and adsorption. <i>Water Research</i> , 2021, 188, 116495.	5.3	128
15	Development of a membrane capacitive deionization stack for domestic wastewater reclamation: A pilot-scale feasibility study. <i>Desalination</i> , 2021, 500, 114851.	4.0	29
16	Exploring the electrosorption selectivity and recovery of indium ions with capacitive deionization in acidic solution. <i>Journal of Colloid and Interface Science</i> , 2021, 586, 819-829.	5.0	17
17	Mercury vapor adsorption and sustainable recovery using novel electrothermal swing system with gold-electrodeposited activated carbon fiber cloth. <i>Journal of Hazardous Materials</i> , 2021, 410, 124586.	6.5	8
18	A critical review on biochar-based engineered hierarchical porous carbon for capacitive charge storage. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 145, 111029.	8.2	105

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19	The effect of redox potential on the removal characteristic of divalent cations during activated carbon-based capacitive deionization. <i>Chemosphere</i> , 2021, 274, 129762.	4.2	19
20	Enhanced electrosorption selectivity of phosphate using an anion-exchange resin-coated activated carbon electrode. <i>Journal of Colloid and Interface Science</i> , 2021, 600, 199-208.	5.0	15
21	Development of an integrated capacitive-electrodialysis process (CapED) for continuous, low-energy electrochemical deionization. <i>Separation and Purification Technology</i> , 2021, 274, 119063.	3.9	10
22	Direct electrochemical lithium recovery from acidic lithium-ion battery leachate using intercalation electrodes. <i>Resources, Conservation and Recycling</i> , 2021, 175, 105837.	5.3	25
23	Longitudinal and quantitative assessment platform for concurrent analysis of anti-tumor efficacy and cardiotoxicity of nano-formulated medication in vivo. <i>Analytica Chimica Acta</i> , 2020, 1095, 129-137.	2.6	10
24	Diatom-assisted bioreactor targeting the complete removal of perfluorinated compounds. <i>Journal of Hazardous Materials</i> , 2020, 384, 121491.	6.5	18
25	Artificial peptide-controlled protein release of Zn ²⁺ -triggered, self-assembled histidine-tagged protein microparticle. <i>Colloids and Surfaces B: Biointerfaces</i> , 2020, 187, 110644.	2.5	18
26	Enhanced desalination of electrospun activated carbon fibers with controlled pore structures in the electrosorption process. <i>Environmental Science: Water Research and Technology</i> , 2020, 6, 312-320.	1.2	11
27	Asymmetric Redox-Polymer Interfaces for Electrochemical Reactive Separations: Synergistic Capture and Conversion of Arsenic. <i>Advanced Materials</i> , 2020, 32, e1906877.	11.1	77
28	Assessment of agricultural waste-derived activated carbon in multiple applications. <i>Environmental Research</i> , 2020, 191, 110176.	3.7	34
29	Opportunities for nanotechnology to enhance electrochemical treatment of pollutants in potable water and industrial wastewater – a perspective. <i>Environmental Science: Nano</i> , 2020, 7, 2178-2194.	2.2	74
30	Hierarchical porous carbon derived from activated biochar as an eco-friendly electrode for the electrosorption of inorganic ions. <i>Separation and Purification Technology</i> , 2020, 242, 116813.	3.9	62
31	Characterization of endogenous fluorescence in nonsmall lung cancerous cells: A comparison with nonmalignant lung normal cells. <i>Journal of Biophotonics</i> , 2020, 13, e201960210.	1.1	9
32	Electrochemical Reactive Separation: Asymmetric Redox-Polymer Interfaces for Electrochemical Reactive Separations: Synergistic Capture and Conversion of Arsenic (Adv. Mater. 6/2020). <i>Advanced Materials</i> , 2020, 32, 2070040.	11.1	1
33	Hotspot analysis and improvement schemes for capacitive deionization (CDI) using life cycle assessment. <i>Desalination</i> , 2019, 468, 114087.	4.0	20
34	Meso/micropore-controlled hierarchical porous carbon derived from activated biochar as a high-performance adsorbent for copper removal. <i>Science of the Total Environment</i> , 2019, 692, 844-853.	3.9	81
35	Membrane capacitive deionization for low-salinity desalination in the reclamation of domestic wastewater effluents. <i>Chemosphere</i> , 2019, 235, 413-422.	4.2	30
36	Additive Manufacturing of Electrodes for Desalination. <i>Procedia Manufacturing</i> , 2019, 34, 252-259.	1.9	5

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37	Integrating a supercapacitor with capacitive deionization for direct energy recovery from the desalination of brackish water. <i>Applied Energy</i> , 2019, 252, 113417.	5.1	38
38	Enhancing the water desalination and electricity generation of a microbial desalination cell with a three-dimensional macroporous carbon nanotube-chitosan sponge anode. <i>Science of the Total Environment</i> , 2019, 675, 41-50.	3.9	49
39	Studying the electrosorption performance of activated carbon electrodes in batch-mode and single-pass capacitive deionization. <i>Separation and Purification Technology</i> , 2019, 215, 403-409.	3.9	75
40	Improved bauxite residue dealkalization by combination of aerated washing and electro dialysis. <i>Journal of Hazardous Materials</i> , 2019, 364, 682-690.	6.5	16
41	Enhanced desalination performance via mixed capacitive-Faradaic ion storage using RuO ₂ -activated carbon composite electrodes. <i>Electrochimica Acta</i> , 2019, 295, 769-777.	2.6	54
42	Incorporating Manganese Dioxide in Carbon Nanotube-Chitosan as a Pseudocapacitive Composite Electrode for High-Performance Desalination. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 3196-3205.	3.2	45
43	Calculation of Electrical Double Layer Potential Profiles in Nanopores from Grand Canonical Monte Carlo Simulations. <i>Journal of Chemical & Engineering Data</i> , 2018, 63, 2557-2566.	1.0	9
44	Water-Energy Nexus for Multi-Criteria Decision Making in Water Resource Management: A Case Study of Choshui River Basin in Taiwan. <i>Water (Switzerland)</i> , 2018, 10, 1740.	1.2	21
45	Curved Fragmented Graphenic Hierarchical Architectures for Extraordinary Charging Capacities. <i>Small</i> , 2018, 14, e1702054.	5.2	12
46	High performance capacitive deionization using modified ZIF-8-derived, N-doped porous carbon with improved conductivity. <i>Nanoscale</i> , 2018, 10, 14852-14859.	2.8	97
47	Optimizing the energetic performance of capacitive deionization devices with unipolar and bipolar connections under constant current charging. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 93, 201-210.	2.7	10
48	Highly porous activated carbon with multi-channeled structure derived from loofa sponge as a capacitive electrode material for the deionization of brackish water. <i>Chemosphere</i> , 2018, 208, 285-293.	4.2	59
49	Multifunctional silver nanocluster-hybrid oligonucleotide vehicle for cell imaging and microRNA-targeted gene silencing. <i>Colloids and Surfaces B: Biointerfaces</i> , 2017, 152, 423-431.	2.5	13
50	Bio-templated silica composites for next-generation biomedical applications. <i>Advances in Colloid and Interface Science</i> , 2017, 249, 272-289.	7.0	50
51	Capacitive deionization of arsenic-contaminated groundwater in a single-pass mode. <i>Chemosphere</i> , 2017, 184, 924-931.	4.2	62
52	(Invited) An Integrated Microbial Desalination Cell-Driven Capacitive Deionization System as an Electrochemical Means for Wastewater Treatment, Electricity Generation and Desalination. <i>ECS Transactions</i> , 2017, 77, 91-97.	0.3	3
53	Integrating cost-effective microbial fuel cells and energy-efficient capacitive deionization for advanced domestic wastewater treatment. <i>Chemical Engineering Journal</i> , 2017, 330, 1-10.	6.6	66
54	Water-energy nexus for urban water systems: A comparative review on energy intensity and environmental impacts in relation to global water risks. <i>Applied Energy</i> , 2017, 205, 589-601.	5.1	192

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55	Mesoporous TiO ₂ Embedded with a Uniform Distribution of CuO Exhibit Enhanced Charge Separation and Photocatalytic Efficiency. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42425-42429.	4.0	62
56	(Invited) An Integrated Microbial Desalination Cell-Driven Capacitive Deionization System as an Electrochemical Means for Wastewater Treatment, Electricity Generation and Desalination. <i>ECS Meeting Abstracts</i> , 2017, . .	0.0	0
57	Carbon-Based Materials for Photo-Triggered Theranostic Applications. <i>Molecules</i> , 2016, 21, 1585.	1.7	47
58	Predicting the outcomes for out-of-hospital cardiac arrest patients using multiple biomarkers and suspension microarray assays. <i>Scientific Reports</i> , 2016, 6, 27187.	1.6	20
59	A highly efficient bead extraction technique with low bead number for digital microfluidic immunoassay. <i>Biomicrofluidics</i> , 2016, 10, 011901.	1.2	21
60	An NAD(P)H:quinone oxidoreductase 1 (NQO1) enzyme responsive nanocarrier based on mesoporous silica nanoparticles for tumor targeted drug delivery in vitro and in vivo. <i>Nanoscale</i> , 2016, 8, 12307-12317.	2.8	50
61	Integration of a guided-mode resonance filter with microposts for in-cell protein detection. <i>Analyst</i> , 2016, 141, 4189-4195.	1.7	25
62	Pseudo-multicolor carbon dots emission and the dilution-induced reversible fluorescence shift. <i>RSC Advances</i> , 2016, 6, 44024-44028.	1.7	24
63	Plant Cell Wall-Penetrable, Redox-Responsive Silica Nanoprobe for the Imaging of Starvation-Induced Vesicle Trafficking. <i>Analytical Chemistry</i> , 2016, 88, 10231-10236.	3.2	5
64	The detection of multiple illicit street drugs in liquid samples by direct analysis in real time (DART) coupled to Q-orbitrap tandem mass spectrometry. <i>Forensic Science International</i> , 2016, 267, 1-6.	1.3	21
65	Life cycle assessment of environmental impacts and energy demand for capacitive deionization technology. <i>Desalination</i> , 2016, 399, 53-60.	4.0	72
66	Electrodeposited Manganese Dioxide/Activated Carbon Composite As a High-Performance Electrode Material for Capacitive Deionization. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 4762-4770.	3.2	119
67	ZIF-8 Derived, Nitrogen-Doped Porous Electrodes of Carbon Polyhedron Particles for High-Performance Electrosorption of Salt Ions. <i>Scientific Reports</i> , 2016, 6, 28847.	1.6	55
68	Cellulose Framework Directed Construction of Hierarchically Porous Carbons Offering High-Performance Capacitive Deionization of Brackish Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 1885-1893.	3.2	95
69	Electro-removal of arsenic(III) and arsenic(V) from aqueous solutions by capacitive deionization. <i>Journal of Hazardous Materials</i> , 2016, 312, 208-215.	6.5	146
70	Application of a multiwalled carbon nanotube-chitosan composite as an electrode in the electrosorption process for water purification. <i>Chemosphere</i> , 2016, 146, 113-120.	4.2	64
71	Differential in situ sensing of extra- and intracellular glutathione by a novel redox-responsive silica matrix-Au nanoprobe. <i>Analytica Chimica Acta</i> , 2016, 902, 196-204.	2.6	9
72	When cells divide: Label-free multimodal spectral imaging for exploratory molecular investigation of living cells during cytokinesis. <i>Scientific Reports</i> , 2015, 5, 17541.	1.6	37

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73	Optimization of highly microporous activated carbon preparation from Moso bamboo using central composite design approach. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2015, 50, 266-275.	2.7	46
74	Removal of bisphenol A from aqueous solutions by electrochemical polymerization on a carbon aerogel electrode. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2015, 51, 103-108.	2.7	16
75	In vitro investigation of methylene blue-bearing, electrostatically assembled aptamer-silica nanocomposites as potential photodynamic therapeutics. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 135, 217-224.	2.5	13
76	Biothiol-triggered, self-disassembled silica nanobeads for intracellular drug delivery. <i>Acta Biomaterialia</i> , 2015, 23, 263-270.	4.1	15
77	Highly porous activated carbons from resource-recovered <i>Leucaena leucocephala</i> wood as capacitive deionization electrodes. <i>Chemosphere</i> , 2015, 141, 71-79.	4.2	60
78	Improved performance in capacitive deionization of activated carbon electrodes with a tunable mesopore and micropore ratio. <i>Desalination</i> , 2015, 367, 60-68.	4.0	215
79	Graphene Oxide Based Nanocarrier Combined with a pH-Sensitive Tracer: A Vehicle for Concurrent pH Sensing and pH-Responsive Oligonucleotide Delivery. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 11467-11475.	4.0	26
80	Quinone-Modified Mn-Doped ZnS Quantum Dots for Room-Temperature Phosphorescence Sensing of Human Cancer Cells That Overexpress NQO1. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25961-25969.	4.0	35
81	Performance of integrated membrane filtration and electro dialysis processes for copper recovery from wafer polishing wastewater. <i>Journal of Water Process Engineering</i> , 2014, 4, 149-158.	2.6	36
82	Development of multi-walled carbon nanotube/poly(vinyl alcohol) composite as electrode for capacitive deionization. <i>Separation and Purification Technology</i> , 2014, 130, 7-14.	3.9	74
83	Oligonucleotides as "bio-solvent"™ for in situ extraction and functionalisation of carbon nanoparticles. <i>Journal of Materials Chemistry B</i> , 2014, 2, 4100-4107.	2.9	4
84	Electro-enhanced removal of copper ions from aqueous solutions by capacitive deionization. <i>Journal of Hazardous Materials</i> , 2014, 278, 8-15.	6.5	142
85	Application of capacitive deionization technology to the removal of sodium chloride from aqueous solutions. <i>International Journal of Environmental Science and Technology</i> , 2013, 10, 753-760.	1.8	65
86	A comparative study of electrosorption selectivity of ions by activated carbon electrodes in capacitive deionization. <i>Desalination</i> , 2013, 314, 124-129.	4.0	250
87	A microbial fuel cell driven capacitive deionization technology for removal of low level dissolved ions. <i>Chemosphere</i> , 2013, 91, 623-628.	4.2	46
88	Non-metallic nanomaterials in cancer theranostics: a review of silica- and carbon-based drug delivery systems. <i>Science and Technology of Advanced Materials</i> , 2013, 14, 044407.	2.8	66
89	Preparation of activated carbon sheet electrode assisted electrosorption process. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2012, 43, 473-479.	2.7	75
90	Adsorption and dissociation of N ₂ O molecule on Fe(1 1 1) surface: A DFT study. <i>Computational Materials Science</i> , 2011, 50, 3311-3314.	1.4	16

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91	Molecular-Sieving Capabilities of Mesoporous Carbon Membranes. Journal of Physical Chemistry B, 2008, 112, 8563-8570.	1.2	28
92	Comparison between Effective Electrode/Electrolyte Interface Potential and Applied Potential for Gold Electrodes. Industrial & Engineering Chemistry Research, 2008, 47, 3525-3531.	1.8	6
93	Electrosorption selectivity of ions from mixtures of electrolytes inside nanopores. Journal of Chemical Physics, 2008, 129, 224703.	1.2	60
94	Monte Carlo simulation of electrical double-layer formation from mixtures of electrolytes inside nanopores. Journal of Chemical Physics, 2008, 128, 044705.	1.2	35
95	Electrosorption capacitance of nanostructured carbon-based materials. Journal of Colloid and Interface Science, 2006, 302, 54-61.	5.0	149
96	RCA combined nanoparticle-based optical detection technique for protein microarray: a novel approach. Biosensors and Bioelectronics, 2004, 20, 123-126.	5.3	43
97	Assessment of sludge dewaterability using rheological properties. Journal of the Chinese Institute of Engineers, Transactions of the Chinese Institute of Engineers, Series A/Chung-kuo Kung Ch'eng Hsueh K'an, 2003, 26, 221-226.	0.6	14