Seungkwan Hong

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/6919867/publications.pdf

Version: 2024-02-01

38742 32842 10,662 141 50 100 citations h-index g-index papers 141 141 141 5939 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Critical review and comprehensive analysis of trace organic compound (TOrC) removal with polyamide RO/NF membranes: Mechanisms and materials. Chemical Engineering Journal, 2022, 427, 130957.	12.7	46
2	Electrode for selective bromide removal in membrane capacitive deionisation. Chemosphere, 2022, 287, 132169.	8.2	9
3	Mechanistic insights into the potential applicability of a sulfate-based advanced oxidation process for the control of transparent exopolymer particles in membrane-based desalination. Desalination, 2022, 522, 115437.	8.2	12
4	Integrating electrochemical oxidation and flow-electrode capacitive deionization for enhanced organic degradation and perchlorate removal in high salinity waters. Separation and Purification Technology, 2022, 285, 120335.	7.9	3
5	Elucidation of physicochemical scaling mechanisms in membrane distillation (MD): Implication to the control of inorganic fouling. Desalination, 2022, 527, 115573.	8.2	16
6	Enhanced capacitive deionization using a biochar-integrated novel flow-electrode. Desalination, 2022, 528, 115636.	8.2	14
7	Dual role of N-doped graphene film as a cathode material for anodic organic oxidation and persulfate production and as a planar carbocatalyst for non-electrochemical persulfate activation. Environmental Science: Nano, 2022, 9, 1662-1674.	4.3	4
8	TiO2 nanotube electrode for organic degradation coupled with flow-electrode capacitive deionization for brackish water desalination. Npj Clean Water, 2022, 5, .	8.0	7
9	Mitigation of fouling and wetting in membrane distillation by electrical repulsion using a multi-layered single-wall carbon nanotube/polyvinylidene fluoride membrane. Journal of Membrane Science, 2022, 653, 120519.	8.2	18
10	Improving the performance of membrane contactors for carbon dioxide stripping from water: Experimental and theoretical analysis. Journal of Membrane Science, 2022, 654, 120552.	8.2	7
11	Fouling mechanisms in ultrafiltration under constant flux: Effect of feed spacer design. Chemical Engineering Journal, 2022, 446, 136563.	12.7	12
12	Brine management systems using membrane concentrators: Future directions for membrane development in desalination. Desalination, 2022, 535, 115839.	8.2	10
13	Ultraviolet light-activated peroxymonosulfate (UV/PMS) system for humic acid mineralization: Effects of ionic matrix and feasible application in seawater reverse osmosis desalination. Environmental Pollution, 2022, 307, 119513.	7.5	23
14	Black-TiO2 based photoelectrochemical oxidation of flue-gas desulfurization wastewater for effective reuse in flow-electrode CDI. Desalination, 2022, 538, 115899.	8.2	5
15	Sulfate radical-based advanced oxidation process for algal toxin mineralization in seawater desalination. Desalination, 2022, 539, 115974.	8.2	5
16	Experimental and theoretical investigation of a high performance PTFE membrane for vacuum-membrane distillation. Journal of Membrane Science, 2021, 617, 118524.	8.2	29
17	Application of fouling index for forward osmosis hybrid system: A pilot demonstration. Journal of Membrane Science, 2021, 617, 118624.	8.2	10
18	High-performance and durable pressure retarded osmosis membranes fabricated using hydrophilized polyethylene separators. Journal of Membrane Science, 2021, 619, 118796.	8.2	31

#	Article	IF	Citations
19	Recent developments in forward osmosis and its implication in expanding applications. , 2021, , 149-186.		1
20	Fundamentals and application of reverse osmosis membrane processes., 2021, , 17-52.		3
21	Chloride-Mediated Enhancement in Heat-Induced Activation of Peroxymonosulfate: New Reaction Pathways for Oxidizing Radical Production. Environmental Science & Environmental Science & 2021, 55, 5382-5392.	10.0	86
22	Improving the feasibility and applicability of flow-electrode capacitive deionization (FCDI): Review of process optimization and energy efficiency. Desalination, 2021, 502, 114930.	8.2	64
23	Enhancing the applicability of forward osmosis membrane process utilizing food additives as draw solutes. Journal of Membrane Science, 2021, 638, 119705.	8.2	7
24	Comprehensive review of osmotic dilution/concentration using FO membranes for practical applications. Desalination, 2021, 515, 115190.	8.2	17
25	Variation of free volume and thickness by high pressure applied on thin film composite reverse osmosis membrane. Desalination, 2021, 520, 115365.	8.2	12
26	ASTM Standard Modified Fouling Index for Seawater Reverse Osmosis Desalination Process: Status, Limitations, and Perspectives. Separation and Purification Reviews, 2020, 49, 55-67.	5.5	9
27	Towards a low-energy seawater reverse osmosis desalination plant: A review and theoretical analysis for future directions. Journal of Membrane Science, 2020, 595, 117607.	8.2	154
28	Quantitative analysis of the irreversible membrane fouling of forward osmosis during wastewater reclamation: Correlation with the modified fouling index. Journal of Membrane Science, 2020, 597, 117757.	8.2	28
29	Comprehensive analysis of a hybrid FO/crystallization/RO process for improving its economic feasibility to seawater desalination. Water Research, 2020, 171, 115426.	11.3	34
30	Impacts of feed spacer design on UF membrane cleaning efficiency. Journal of Membrane Science, 2020, 616, 118571.	8.2	14
31	Improving energy efficiency of pretreatment for seawater desalination during algal blooms using a novel meshed tube filtration process. Desalination, 2020, 486, 114477.	8.2	16
32	Application of two-stage reverse osmosis system for desalination of high-salinity and high-temperature seawater with improved stability and performance. Desalination, 2020, 492, 114645.	8.2	30
33	Application of MFI-UF on an ultrapure water production system to monitor the stable performance of RO process. Desalination, 2020, 491, 114565.	8.2	10
34	Retardation of wetting for membrane distillation by adjusting major components of seawater. Water Research, 2020, 175, 115677.	11.3	36
35	Electrochemical Oxidation–Membrane Distillation Hybrid Process: Utilizing Electric Resistance Heating for Distillation and Membrane Defouling through Thermal Activation of Anodically Formed Persulfate. Environmental Science & Technology, 2020, 54, 1867-1877.	10.0	48
36	Staged voltage mode in membrane capacitive deionization: Comparison with constant voltage and constant current modes. Desalination, 2020, 479, 114327.	8.2	5

#	Article	IF	CITATIONS
37	Feasibility study of reverse osmosis–flow capacitive deionization (RO-FCDI) for energy-efficient desalination using seawater as the flow-electrode aqueous electrolyte. Desalination, 2020, 479, 114326.	8.2	34
38	Optimization of two-stage seawater reverse osmosis membrane processes with practical design aspects for improving energy efficiency. Journal of Membrane Science, 2020, 601, 117889.	8.2	24
39	Efficient recovery of nitrate from municipal wastewater via MCDI using anion-exchange polymer coated electrode embedded with nitrate selective resin. Desalination, 2020, 484, 114425.	8.2	25
40	Draw solutes for FO: Model, polymer hydrogels, and nanoparticles. , 2020, , 37-56.		1
41	Pilot-scale membrane capacitive deionisation for effective bromide removal and high water recovery in seawater desalination. Desalination, 2020, 479, 114309.	8.2	40
42	A comprehensive review of energy consumption of seawater reverse osmosis desalination plants. Applied Energy, 2019, 254, 113652.	10.1	284
43	UV-LED/PMS preoxidation to control fouling caused by harmful marine algae in the UF pretreatment of seawater desalination. Desalination, 2019, 467, 219-228.	8.2	39
44	Cold-cathode X-ray irradiation pre-treatment for fouling control of reverse osmosis (RO) in shale gas produced water (SGPW) treatment. Chemical Engineering Journal, 2019, 374, 49-58.	12.7	18
45	Evaluation of ethanol as draw solute for forward osmosis (FO) process of highly saline (waste)water. Desalination, 2019, 456, 23-31.	8.2	17
46	Bromide and iodide selectivity in membrane capacitive deionisation, and its potential application to reduce the formation of disinfection by-products in water treatment. Chemosphere, 2019, 234, 536-544.	8.2	19
47	Effect of Brine Water on Discharge of Cations in Membrane Capacitive Deionization and Its Implications on Nitrogen Recovery from Wastewater. ACS Sustainable Chemistry and Engineering, 2019, 7, 11474-11484.	6.7	10
48	Fabrication of high performance and durable forward osmosis membranes using mussel-inspired polydopamine-modified polyethylene supports. Journal of Membrane Science, 2019, 584, 89-99.	8.2	54
49	An integrated system for CO2 capture and water treatment by forward osmosis driven by an amine-based draw solution. Journal of Membrane Science, 2019, 581, 9-17.	8.2	21
50	Reuse of municipal wastewater via membrane capacitive deionization using ion-selective polymer-coated carbon electrodes in pilot-scale. Chemical Engineering Journal, 2019, 372, 241-250.	12.7	57
51	Membrane capacitive deionization-reverse electrodialysis hybrid system for improving energy efficiency of reverse osmosis seawater desalination. Desalination, 2019, 462, 19-28.	8.2	68
52	Phosphorus removal mechanisms from domestic wastewater by membrane capacitive deionization and system optimization for enhanced phosphate removal. Chemical Engineering Research and Design, 2019, 126, 44-52.	5.6	53
53	Sustainable dewatering of grapefruit juice through forward osmosis: Improving membrane performance, fouling control, and product quality. Journal of Membrane Science, 2019, 578, 53-60.	8.2	59
54	Evaluation of a real-time visualization system for scaling detection during DCMD, and its correlation with wetting. Desalination, 2019, 454, 59-70.	8.2	21

#	Article	IF	CITATIONS
55	Indexing fouling reversibility in forward osmosis and its implications for sustainable operation of wastewater reclamation. Journal of Membrane Science, 2019, 574, 262-269.	8.2	17
56	Applications of capacitive deionization: Desalination, softening, selective removal, and energy efficiency. Desalination, 2019, 449, 118-130.	8.2	257
57	Optimal Flow Rate Evaluation for Low Energy, High Efficiency Cleaning of Forward Osmosis (FO). Membrane Journal, 2019, 29, 339-347.	0.4	2
58	Comparison of filtration and treatment performance between polymeric and ceramic membranes in anaerobic membrane bioreactor treatment of domestic wastewater. Separation and Purification Technology, 2018, 199, 182-188.	7.9	68
59	Membrane capacitive deionisation as an alternative to the 2nd pass for seawater reverse osmosis desalination plant for bromide removal. Desalination, 2018, 433, 113-119.	8.2	56
60	Treatment of medical radioactive liquid waste using Forward Osmosis (FO) membrane process. Journal of Membrane Science, 2018, 556, 238-247.	8.2	38
61	New industrial application of forward osmosis (FO): Precious metal recovery from printed circuit board (PCB) plant wastewater. Journal of Membrane Science, 2018, 552, 234-242.	8.2	57
62	A novel single-pass reverse osmosis configuration for high-purity water production and low energy consumption in seawater desalination. Desalination, 2018, 429, 142-154.	8.2	87
63	Osmotically enhanced dewatering-reverse osmosis (OED-RO) hybrid system: Implications for shale gas produced water treatment. Journal of Membrane Science, 2018, 554, 282-290.	8.2	36
64	Analysis of an osmotically-enhanced dewatering process for the treatment of highly saline (waste)waters. Journal of Membrane Science, 2018, 548, 685-693.	8.2	39
65	Evaluation on suitability of osmotic dewatering through forward osmosis (FO) for xylose concentration. Separation and Purification Technology, 2018, 191, 225-232.	7.9	29
66	Palladium Recovery through Membrane Capacitive Deionization from Metal Plating Wastewater. ACS Sustainable Chemistry and Engineering, 2018, 6, 1692-1701.	6.7	44
67	Recovery of water and minerals from shale gas produced water by membrane distillation crystallization. Water Research, 2018, 129, 447-459.	11.3	119
68	Relating Organic Fouling in Membrane Distillation to Intermolecular Adhesion Forces and Interfacial Surface Energies. Environmental Science & Environm	10.0	87
69	Optimizing seawater reverse osmosis with internally staged design to improve product water quality and energy efficiency. Journal of Membrane Science, 2018, 568, 76-86.	8.2	41
70	UV radiation pretreatment for reverse osmosis (RO) process in ultrapure water (UPW) production. Desalination, 2018, 439, 138-146.	8.2	25
71	Draw Solute Selection., 2018,, 87-122.		2
72	Treatment of industrial wastewater produced by desulfurization process in a coal-fired power plant via FO-MD hybrid process. Chemosphere, 2018, 210, 44-51.	8.2	75

#	Article	IF	CITATIONS
73	Understanding possible underlying mechanism in declining germicidal efficiency of UV-LED reactor. Journal of Photochemistry and Photobiology B: Biology, 2018, 185, 136-142.	3.8	16
74	Thin film composite reverse osmosis membranes prepared via layered interfacial polymerization. Journal of Membrane Science, 2017, 527, 121-128.	8.2	117
75	New approach for scaling control in forward osmosis (FO) by using an antiscalant-blended draw solution. Journal of Membrane Science, 2017, 530, 95-103.	8.2	36
76	Dewatering of activated sludge by forward osmosis (FO) with ultrasound for fouling control. Desalination, 2017, 421, 79-88.	8.2	34
77	Understanding the possible underlying mechanisms for low fouling tendency of the forward osmosis and pressure assisted osmosis processes. Desalination, 2017, 421, 89-98.	8.2	36
78	Preparation, characterization and application of low-cost pyrophyllite-alumina composite ceramic membranes for treating low-strength domestic wastewater. Journal of Membrane Science, 2017, 536, 108-115.	8.2	51
79	Analysis of enhancing water flux and reducing reverse solute flux in pressure assisted forward osmosis process. Desalination, 2017, 421, 61-71.	8.2	23
80	Environmental and economic impacts of fertilizer drawn forward osmosis and nanofiltration hybrid system. Desalination, 2017, 416, 76-85.	8.2	70
81	Pilot-scale evaluation of FO-RO osmotic dilution process for treating wastewater from coal-fired power plant integrated with seawater desalination. Journal of Membrane Science, 2017, 540, 78-87.	8.2	77
82	Evaluation of fertilizer-drawn forward osmosis for coal seam gas reverse osmosis brine treatment and sustainable agricultural reuse. Journal of Membrane Science, 2017, 537, 22-31.	8.2	54
83	Application of multiple modified fouling index (MFI) measurements at full-scale SWRO plant. Desalination, 2017, 407, 24-32.	8.2	25
84	Review on methodology for determining forward osmosis (FO) membrane characteristics: Water permeability (A), solute permeability (B), and structural parameter (S). Desalination, 2017, 422, 5-16.	8.2	121
85	Membrane distillation (MD) integrated with crystallization (MDC) for shale gas produced water (SGPW) treatment. Desalination, 2017, 403, 172-178.	8.2	110
86	Capacitive deionization (CDI) integrated with monovalent cation selective membrane for producing divalent cation-rich solution. Desalination, 2016, 400, 38-46.	8.2	84
87	Recent transitions in ultrapure water (UPW) technology: Rising role of reverse osmosis (RO). Desalination, 2016, 399, 185-197.	8.2	71
88	Fouling evaluation and mechanisms in a FO-RO hybrid process for direct potable reuse. Journal of Membrane Science, 2016, 520, 89-98.	8.2	58
89	Changing membrane orientation in pressure retarded osmosis for sustainable power generation with low fouling. Desalination, 2016, 389, 197-206.	8.2	44
90	Fertiliser drawn forward osmosis process: Pilot-scale desalination of mine impaired water for fertigation. Journal of Membrane Science, 2016, 508, 22-31.	8.2	85

#	Article	IF	Citations
91	A comprehensive review of hybrid forward osmosis systems: Performance, applications and future prospects. Journal of Membrane Science, 2016, 497, 430-449.	8.2	277
92	Evaluation of membrane-based desalting processes for RO brine treatment. Desalination and Water Treatment, 2016, 57, 7432-7439.	1.0	12
93	Multiple MFI measurements for the evaluation of organic fouling in SWRO desalination. Desalination, 2015, 365, 136-143.	8.2	16
94	Fouling potential evaluation by cake fouling index: Theoretical development, measurements, and its implications for fouling mechanisms. Journal of Membrane Science, 2015, 490, 57-64.	8.2	30
95	Membrane Fouling in Forward Osmosis Processes. , 2015, , 217-240.		1
96	Pressure assisted fertiliser drawn osmosis process to enhance final dilution of the fertiliser draw solution beyond osmotic equilibrium. Journal of Membrane Science, 2015, 481, 63-72.	8.2	74
97	Effects of NF treated water on corrosion of pipe distribution system and its implications to blending with conventionally treated water. Desalination, 2015, 360, 138-145.	8.2	19
98	Role of transparent exopolymer particles (TEP) in initial bacterial deposition and biofilm formation on reverse osmosis (RO) membrane. Journal of Membrane Science, 2015, 494, 25-31.	8.2	19
99	Evaluation of poly (aspartic acid sodium salt) as a draw solute for forward osmosis. Water Research, 2015, 80, 294-305.	11.3	83
100	Surface chemical heterogeneity of polyamide RO membranes: Measurements and implications. Desalination, 2015, 367, 154-160.	8.2	13
101	Pressure retarded osmosis (PRO) for integrating seawater desalination and wastewater reclamation: Energy consumption and fouling. Journal of Membrane Science, 2015, 483, 34-41.	8.2	126
102	Evaluation of apparent membrane performance parameters in pressure retarded osmosis processes under varying draw pressures and with draw solutions containing organics. Journal of Membrane Science, 2015, 493, 636-644.	8.2	39
103	Organic fouling mechanisms in forward osmosis membrane process under elevated feed and draw solution temperatures. Desalination, 2015, 355, 169-177.	8.2	70
104	Combined organic and colloidal fouling in forward osmosis: Fouling reversibility and the role of applied pressure. Journal of Membrane Science, 2014, 460, 206-212.	8.2	152
105	Nano-colloidal fouling mechanisms in seawater reverse osmosis process evaluated by cake resistance simulator-modified fouling index nanofiltration. Desalination, 2014, 343, 88-96.	8.2	27
106	A novel analysis of reverse draw and feed solute fluxes in forward osmosis membrane process. Desalination, 2014, 352, 128-135.	8.2	41
107	Membrane scaling and flux decline during fertiliser-drawn forward osmosis desalination of brackish groundwater. Water Research, 2014, 57, 172-182.	11.3	101
108	Fouling distribution in forward osmosis membrane process. Journal of Environmental Sciences, 2014, 26, 1348-1354.	6.1	27

#	Article	IF	Citations
109	Osmotic equilibrium in the forward osmosis process: Modelling, experiments and implications for process performance. Journal of Membrane Science, 2014, 453, 240-252.	8.2	110
110	Effect of hydraulic pressure and membrane orientation on water flux and reverse solute flux in pressure assisted osmosis. Journal of Membrane Science, 2014, 465, 159-166.	8.2	82
111	Forward osmosis desalination of brackish groundwater: Meeting water quality requirements for fertigation by integrating nanofiltration. Journal of Membrane Science, 2013, 436, 1-15.	8.2	125
112	Fouling control in a forward osmosis process integrating seawater desalination and wastewater reclamation. Journal of Membrane Science, 2013, 444, 148-156.	8.2	214
113	Biofouling control by quorum sensing inhibition and its dependence on membrane surface. Water Science and Technology, 2012, 66, 1424-1430.	2.5	25
114	Influence of solution chemistry on the surface heterogeneity of reverse osmosis membrane. Desalination and Water Treatment, 2012, 43, 308-313.	1.0	3
115	Application of osmotic backwashing in forward osmosis: mechanisms and factors involved. Desalination and Water Treatment, 2012, 43, 314-322.	1.0	36
116	Blended Fertilizers as Draw Solutions for Fertilizer-Drawn Forward Osmosis Desalination. Environmental Science & Environmental	10.0	170
117	Influence of temperature and temperature difference in the performance of forward osmosis desalination process. Journal of Membrane Science, 2012, 415-416, 734-744.	8.2	130
118	Boron transport in forward osmosis: Measurements, mechanisms, and comparison with reverse osmosis. Journal of Membrane Science, 2012, 419-420, 42-48.	8.2	80
119	Colloidal fouling in forward osmosis: Role of reverse salt diffusion. Journal of Membrane Science, 2012, 390-391, 277-284.	8.2	169
120	Membrane characterization by dynamic hysteresis: Measurements, mechanisms, and implications for membrane fouling. Journal of Membrane Science, 2011, 366, 17-24.	8.2	31
121	A novel low energy fertilizer driven forward osmosis desalination for direct fertigation: Evaluating the performance of fertilizer draw solutions. Journal of Membrane Science, 2011, 375, 172-181.	8.2	384
122	A new approach to the characterization of reverse osmosis membrane by dynamic hysteresis. Desalination and Water Treatment, 2010, 18, 257-263.	1.0	13
123	Comparison of fouling behavior in forward osmosis (FO) and reverse osmosis (RO). Journal of Membrane Science, 2010, 365, 34-39.	8.2	645
124	Evaluation of membrane fouling potential by multiple membrane array system (MMAS): Measurements and applications. Journal of Membrane Science, 2010, 362, 279-288.	8.2	35
125	Effect of solution chemistry on organic fouling of reverse osmosis membranes in seawater desalination. Journal of Membrane Science, 2010, 351, 205-213.	8.2	69
126	Role of Foulant-Membrane Interactions in Organic Fouling of RO Membranes with Respect to Membrane Properties. Separation Science and Technology, 2010, 45, 948-955.	2.5	14

#	Article	IF	Citations
127	A systematic approach to determine the fouling index for a RO/NF membrane process. Desalination, 2009, 238, 117-127.	8.2	69
128	Effect of solution chemistry on the surface property of reverse osmosis membranes under seawater conditions. Desalination, 2009, 247, 148-161.	8.2	29
129	Effect of cake layer structure on colloidal fouling in reverse osmosis membranes. Desalination, 2008, 220, 335-344.	8.2	46
130	Effects of blending on surface characteristics of copper corrosion products in drinking water distribution systems. Corrosion Science, 2007, 49, 449-468.	6.6	38
131	Characteristics of iron corrosion scales established under blending of ground, surface, and saline waters and their impacts on iron release in the pipe distribution system. Corrosion Science, 2006, 48, 322-342.	6.6	114
132	Effect of varying blends of finished RO, surface and ground waters on solid lead surfaces. Corrosion Science, 2006, 48, 3413-3427.	6.6	12
133	Impacts of blending ground, surface, and saline waters on lead release in drinking water distribution systems. Water Research, 2006, 40, 943-950.	11.3	37
134	Variation and prediction of membrane fouling index under various feed water characteristics. Journal of Membrane Science, 2006, 284, 248-254.	8.2	77
135	Monitoring of Distribution Water Qualities Under Various Source Water Blending. Environmental Monitoring and Assessment, 2006, 117, 59-71.	2.7	16
136	Variations in backwash efficiency during colloidal filtration of hollow-fiber microfiltration membranes. Desalination, 2005, 173, 257-268.	8.2	30
137	Simulations of Full-Scale Reverse Osmosis Membrane Process. Journal of Environmental Engineering, ASCE, 2002, 128, 960-966.	1.4	53
138	Influence of membrane surface properties on initial rate of colloidal fouling of reverse osmosis and nanofiltration membranes. Journal of Membrane Science, 2001, 188, 115-128.	8.2	1,010
139	Role of membrane surface morphology in colloidal fouling of cellulose acetate and composite aromatic polyamide reverse osmosis membranes. Journal of Membrane Science, 1997, 127, 101-109.	8.2	517
140	Chemical and physical aspects of natural organic matter (NOM) fouling of nanofiltration membranes. Journal of Membrane Science, 1997, 132, 159-181.	8.2	1,153
141	Kinetics of Permeate Flux Decline in Crossflow Membrane Filtration of Colloidal Suspensions. Journal of Colloid and Interface Science, 1997, 196, 267-277.	9.4	129