

Tzahi Y Cath

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/2715259/tzahi-y-cath-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

114
papers

11,202
citations

50
h-index

105
g-index

118
ext. papers

12,337
ext. citations

9
avg, IF

6.73
L-index

#	Paper	IF	Citations
114	Performance of reverse osmosis membrane with large feed pressure fluctuations from a wave-driven desalination system. <i>Desalination</i> , 2022 , 527, 115546	10.3	0
113	Membrane Bioreactor Pretreatment of High-Salinity O&G Produced Water. <i>ACS ES&T Water</i> , 2022 , 2, 484-494		0
112	Desalinating a real hyper-saline pre-treated produced water via direct-heat vacuum membrane distillation.. <i>Water Research</i> , 2022 , 218, 118503	12.5	1
111	Net Zero Urban Water from Concept to Applications: Integrating Natural, Built, and Social Systems for Responsive and Adaptive Solutions. <i>ACS ES&T Water</i> , 2021 , 1, 518-529		2
110	Evaluation of sequencing batch bioreactor followed by media filtration for organic carbon and nitrogen removal in produced water. <i>Journal of Water Process Engineering</i> , 2021 , 40, 101863	6.7	3
109	Computational fluid dynamics simulations of unsteady mixing in spacer-filled direct contact membrane distillation channels. <i>Journal of Membrane Science</i> , 2021 , 622, 118931	9.6	3
108	Membrane distillation crystallization of ammonium nitrate solutions to enable sustainable cold storage: Electrical conductivity as an in-situ saturation indicator. <i>Journal of Membrane Science</i> , 2021 , 631, 119321	9.6	3
107	Mass Transport in Osmotically Driven Membrane Processes. <i>Membranes</i> , 2021 , 11,	3.8	2
106	Effect of produced water treatment technologies on irrigation-induced metal and salt accumulation in wheat (<i>Triticum aestivum</i>) and sunflower (<i>Helianthus annuus</i>). <i>Science of the Total Environment</i> , 2020 , 740, 140003	10.2	5
105	Enhancement of activated sludge wastewater treatment with hydraulic selection. <i>Separation and Purification Technology</i> , 2020 , 250, 117214	8.3	7
104	A hybrid catalytic hydrogenation/membrane distillation process for nitrogen resource recovery from nitrate-contaminated waste ion exchange brine. <i>Water Research</i> , 2020 , 175, 115688	12.5	14
103	Hybrid statistical-machine learning ammonia forecasting in continuous activated sludge treatment for improved process control. <i>Journal of Water Process Engineering</i> , 2020 , 37, 101389	6.7	7
102	Mineral Scale Prevention on Electrically Conducting Membrane Distillation Membranes Using Induced Electrophoretic Mixing. <i>Environmental Science & Technology</i> , 2020 , 54, 3678-3690	10.3	22
101	Emergence and fate of volatile iodinated organic compounds during biological treatment of oil and gas produced water. <i>Science of the Total Environment</i> , 2020 , 699, 134202	10.2	13
100	Case studies in real-time fault isolation in a decentralized wastewater treatment facility. <i>Journal of Water Process Engineering</i> , 2020 , 38, 101556	6.7	0
99	Fault isolation for a complex decentralized waste water treatment facility. <i>Journal of the Royal Statistical Society Series C: Applied Statistics</i> , 2020 , 69, 931-951	1.5	5
98	Computational fluid dynamics simulations of polarization phenomena in direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2019 , 591, 117150	9.6	24

97	Antiwetting and Antifouling Janus Membrane for Desalination of Saline Oily Wastewater by Membrane Distillation. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 18456-18465	9.5	71
96	Potential for Beneficial Reuse of Oil and Gas-Derived Produced Water in Agriculture: Physiological and Morphological Responses in Spring Wheat (<i>Triticum aestivum</i>). <i>Environmental Toxicology and Chemistry</i> , 2019 , 38, 1756-1769	3.8	18
95	Data-driven performance analyses of wastewater treatment plants: A review. <i>Water Research</i> , 2019 , 157, 498-513	12.5	127
94	Removal of per- and polyfluoroalkyl substances using super-fine powder activated carbon and ceramic membrane filtration. <i>Journal of Hazardous Materials</i> , 2019 , 366, 160-168	12.8	46
93	Comparison of membrane distillation and high-temperature nanofiltration processes for treatment of silica-saturated water. <i>Journal of Membrane Science</i> , 2019 , 570-571, 258-269	9.6	8
92	Prevention and management of silica scaling in membrane distillation using pH adjustment. <i>Journal of Membrane Science</i> , 2018 , 554, 366-377	9.6	42
91	Decision support toolkit for integrated analysis and design of reclaimed water infrastructure. <i>Water Research</i> , 2018 , 134, 234-252	12.5	14
90	Electrochemical Stripping to Recover Nitrogen from Source-Separated Urine. <i>Environmental Science & Technology</i> , 2018 , 52, 1453-1460	10.3	111
89	Osmotic Power Generation 2018 , 481-489		
88	Produced water impact on membrane integrity during extended pilot testing of forward osmosis □ reverse osmosis treatment. <i>Desalination</i> , 2018 , 440, 99-110	10.3	46
87	Tracking oil and gas wastewater-derived organic matter in a hybrid biofilter membrane treatment system: A multi-analytical approach. <i>Science of the Total Environment</i> , 2018 , 613-614, 208-217	10.2	35
86	The role of nanotechnology in industrial water treatment. <i>Nature Nanotechnology</i> , 2018 , 13, 670-672	28.7	92
85	Multistate multivariate statistical process control. <i>Applied Stochastic Models in Business and Industry</i> , 2018 , 34, 880-892	1.1	5
84	Novel Hydraulic Selection Technology for the Improvement of Sludge Setting and Aerobic Granular Sludge Startup. <i>Proceedings of the Water Environment Federation</i> , 2018 , 2018, 3832-3835		
83	Novel thermal efficiency-based model for determination of thermal conductivity of membrane distillation membranes. <i>Journal of Membrane Science</i> , 2018 , 548, 298-308	9.6	31
82	Temporal characterization and statistical analysis of flowback and produced waters and their potential for reuse. <i>Science of the Total Environment</i> , 2018 , 619-620, 654-664	10.2	50
81	iDST: An integrated decision support tool for treatment and beneficial use of non-traditional water supplies [Part I. Methodology. <i>Journal of Water Process Engineering</i> , 2018 , 25, 236-246	6.7	18
80	iDST: An integrated decision support tool for treatment and beneficial use of non-traditional water supplies [Part II. Marcellus and Barnett Shale case studies. <i>Journal of Water Process Engineering</i> , 2018 , 25, 258-268	6.7	18

79	Closed circuit desalination of O&G produced water: An evaluation of NF/RO performance and integrity. <i>Desalination</i> , 2018 , 442, 51-61	10.3	26
78	Enhanced biofiltration of O&G produced water comparing granular activated carbon and nutrients. <i>Science of the Total Environment</i> , 2018 , 640-641, 419-428	10.2	21
77	Comparative life-cycle assessment of a novel osmotic heat engine and an organic Rankine cycle for energy production from low-grade heat. <i>Journal of Cleaner Production</i> , 2018 , 191, 490-501	10.3	20
76	Assessing the feasibility of using produced water for irrigation in Colorado. <i>Science of the Total Environment</i> , 2018 , 640-641, 619-628	10.2	44
75	Microbial electrochemical nutrient recovery in anaerobic osmotic membrane bioreactors. <i>Water Research</i> , 2017 , 114, 181-188	12.5	66
74	Techno-economic assessment of a closed-loop osmotic heat engine. <i>Journal of Membrane Science</i> , 2017 , 535, 178-187	9.6	27
73	Tailored water treatment using enhanced primary clarification for nutrient recovery and production of water for turfgrass irrigation. <i>Environmental Science: Water Research and Technology</i> , 2017 , 3, 671-685 ^{4.2}	4.2	1
72	Biologically active filtration for fracturing flowback and produced water treatment. <i>Journal of Water Process Engineering</i> , 2017 , 18, 29-40	6.7	46
71	Co-treatment of residential and oil and gas production wastewater with a hybrid sequencing batch reactor-membrane bioreactor process. <i>Journal of Water Process Engineering</i> , 2017 , 17, 82-94	6.7	23
70	Hypoeration of activated sludge to reduce energy requirements at distributed reclaimed water plants: studies at bench and pilot scales. <i>Environmental Science: Water Research and Technology</i> , 2017 , 3, 235-248	4.2	1
69	Enhanced Flux and Electrochemical Cleaning of Silicate Scaling on Carbon Nanotube-Coated Membrane Distillation Membranes Treating Geothermal Brines. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 38594-38605	9.5	58
68	Produced water treatment using forward osmosis membranes: Evaluation of extended-time performance and fouling. <i>Journal of Membrane Science</i> , 2017 , 525, 77-88	9.6	88
67	Hybrid membrane bio-systems for sustainable treatment of oil and gas produced water and fracturing flowback water. <i>Separation and Purification Technology</i> , 2016 , 171, 297-311	8.3	70
66	Membrane distillation for concentration of hypersaline brines from the Great Salt Lake: Effects of scaling and fouling on performance, efficiency, and salt rejection. <i>Separation and Purification Technology</i> , 2016 , 170, 78-91	8.3	60
65	Evaluation of forward osmosis membrane performance and fouling during long-term osmotic membrane bioreactor study. <i>Journal of Membrane Science</i> , 2016 , 517, 1-13	9.6	59
64	A liter-scale microbial capacitive deionization system for the treatment of shale gas wastewater. <i>Environmental Science: Water Research and Technology</i> , 2016 , 2, 353-361	4.2	14
63	Solid-phase extraction followed by gas chromatography-mass spectrometry for the quantitative analysis of semi-volatile hydrocarbons in hydraulic fracturing wastewaters. <i>Analytical Methods</i> , 2016 , 8, 2058-2068	3.2	20
62	Life-cycle assessment of two potable water reuse technologies: MF/RO/UV/OP treatment and hybrid osmotic membrane bioreactors. <i>Journal of Membrane Science</i> , 2016 , 507, 165-178	9.6	64

61	Assessment of alternative draw solutions for optimized performance of a closed-loop osmotic heat engine. <i>Journal of Membrane Science</i> , 2016 , 504, 162-175	9.6	37
60	Assessing the current state of commercially available membranes and spacers for energy production with pressure retarded osmosis. <i>Desalination</i> , 2016 , 389, 108-118	10.3	56
59	Evaluation of the transport parameters and physiochemical properties of forward osmosis membranes after treatment of produced water. <i>Journal of Membrane Science</i> , 2016 , 499, 491-502	9.6	33
58	Comparison of linear and nonlinear dimension reduction techniques for automated process monitoring of a decentralized wastewater treatment facility. <i>Stochastic Environmental Research and Risk Assessment</i> , 2016 , 30, 1527-1544	3.5	22
57	Use of drinking water treatment solids for arsenate removal from desalination concentrate. <i>Journal of Colloid and Interface Science</i> , 2015 , 445, 252-261	9.3	27
56	Scaling control during membrane distillation of coal seam gas reverse osmosis brine. <i>Journal of Membrane Science</i> , 2015 , 493, 673-682	9.6	81
55	Optimising thermal efficiency of direct contact membrane distillation by brine recycling for small-scale seawater desalination. <i>Desalination</i> , 2015 , 374, 1-9	10.3	82
54	The osmotic membrane bioreactor: a critical review. <i>Environmental Science: Water Research and Technology</i> , 2015 , 1, 581-605	4.2	92
53	Life cycle and economic assessments of engineered osmosis and osmotic dilution for desalination of Haynesville shale pit water. <i>Desalination</i> , 2015 , 369, 188-200	10.3	43
52	Impact of virus surface characteristics on removal mechanisms within membrane bioreactors. <i>Water Research</i> , 2015 , 84, 144-52	12.5	29
51	Selectivity and Mass Transfer Limitations in Pressure-Retarded Osmosis at High Concentrations and Increased Operating Pressures. <i>Environmental Science & Technology</i> , 2015 , 49, 12551-9	10.3	37
50	The Critical Role of Pore Characteristics on the Performance of Novel Membrane Processes for Water Treatment and Desalination. <i>World Scientific Series in Nanoscience and Nanotechnology</i> , 2015 , 389-399	0.1	
49	Long-term pilot scale investigation of novel hybrid ultrafiltration-osmotic membrane bioreactors. <i>Desalination</i> , 2015 , 363, 64-74	10.3	119
48	Evaluating air-blown gasification for energy recovery from wastewater solids: Impact of biological treatment and point of generation on energy recovery. <i>Sustainable Energy Technologies and Assessments</i> , 2015 , 9, 22-29	4.7	3
47	Treatment of RO brine from CSG produced water by spiral-wound air gap membrane distillation □ A pilot study. <i>Desalination</i> , 2015 , 366, 121-129	10.3	156
46	Disturbance and temporal partitioning of the activated sludge metacommunity. <i>ISME Journal</i> , 2015 , 9, 425-35	11.9	80
45	Mixed draw solutions for improved forward osmosis performance. <i>Journal of Membrane Science</i> , 2015 , 491, 121-131	9.6	54
44	Forward osmosis desalination of oil and gas wastewater: Impacts of membrane selection and operating conditions on process performance. <i>Journal of Membrane Science</i> , 2015 , 488, 40-55	9.6	101

43	Life cycle energy and greenhouse gas assessment of the co-production of biosolids and biochar for land application. <i>Journal of Cleaner Production</i> , 2015 , 91, 118-127	10.3	44
42	Indirect determination of zeta potential at high ionic strength: Specific application to semipermeable polymeric membranes. <i>Journal of Membrane Science</i> , 2015 , 478, 58-64	9.6	55
41	A novel membrane distillation-thermophilic bioreactor system: biological stability and trace organic compound removal. <i>Bioresource Technology</i> , 2014 , 159, 334-41	11	61
40	Rejection and fate of trace organic compounds (TrOCs) during membrane distillation. <i>Journal of Membrane Science</i> , 2014 , 453, 636-642	9.6	87
39	The sweet spot of forward osmosis: Treatment of produced water, drilling wastewater, and other complex and difficult liquid streams. <i>Desalination</i> , 2014 , 333, 23-35	10.3	290
38	Coalbed methane produced water screening tool for treatment technology and beneficial use. <i>Journal of Unconventional Oil and Gas Resources</i> , 2014 , 5, 22-34		30
37	Sustainable operation of membrane distillation for enhancement of mineral recovery from hypersaline solutions. <i>Journal of Membrane Science</i> , 2014 , 454, 426-435	9.6	106
36	Rejection of trace organic compounds by forward osmosis membranes: a literature review. <i>Environmental Science & Technology</i> , 2014 , 48, 3612-24	10.3	151
35	Removal of trace organic chemicals and performance of a novel hybrid ultrafiltration-osmotic membrane bioreactor. <i>Environmental Science & Technology</i> , 2014 , 48, 10859-68	10.3	110
34	Techno-economic analysis of wastewater sludge gasification: a decentralized urban perspective. <i>Bioresource Technology</i> , 2014 , 161, 385-94	11	37
33	Hybrid pressure retarded osmosis-membrane distillation system for power generation from low-grade heat: thermodynamic analysis and energy efficiency. <i>Environmental Science & Technology</i> , 2014 , 48, 5306-13	10.3	114
32	Forward osmosis: Novel desalination of produced water and fracturing flowback. <i>Journal - American Water Works Association</i> , 2014 , 106, E55-E66	0.5	39
31	Selective removal of arsenic and monovalent ions from brackish water reverse osmosis concentrate. <i>Journal of Hazardous Materials</i> , 2013 , 260, 885-91	12.8	78
30	Effects of transmembrane hydraulic pressure on performance of forward osmosis membranes. <i>Environmental Science & Technology</i> , 2013 , 47, 2386-93	10.3	130
29	Critical Review of Desalination Concentrate Management, Treatment and Beneficial Use. <i>Environmental Engineering Science</i> , 2013 , 30, 502-514	2	95
28	Towards direct potable reuse with forward osmosis: Technical assessment of long-term process performance at the pilot scale. <i>Journal of Membrane Science</i> , 2013 , 445, 34-46	9.6	113
27	Standard Methodology for Evaluating Membrane Performance in Osmotically Driven Membrane Processes. <i>Desalination</i> , 2013 , 312, 31-38	10.3	304
26	Forward osmosis treatment of drilling mud and fracturing wastewater from oil and gas operations. <i>Desalination</i> , 2013 , 312, 60-66	10.3	254

25	A comparative life cycle assessment of hybrid osmotic dilution desalination and established seawater desalination and wastewater reclamation processes. <i>Water Research</i> , 2012 , 46, 1145-54	12.5	133
24	Treatment of saline aqueous solutions using direct contact membrane distillation. <i>Desalination and Water Treatment</i> , 2011 , 32, 234-241		38
23	Comprehensive bench- and pilot-scale investigation of trace organic compounds rejection by forward osmosis. <i>Environmental Science & Technology</i> , 2011 , 45, 8483-90	10.3	152
22	A scaling mitigation approach during direct contact membrane distillation. <i>Separation and Purification Technology</i> , 2011 , 80, 315-322	8.3	137
21	Bidirectional permeation of electrolytes in osmotically driven membrane processes. <i>Environmental Science & Technology</i> , 2011 , 45, 10642-51	10.3	85
20	Forward Osmosis Reverse Osmosis Process Offers a Novel Hybrid Solution for Water Purification and Reuse. <i>IDA Journal of Desalination and Water Reuse</i> , 2010 , 2, 16-20		9
19	Osmotically and thermally driven membrane processes for enhancement of water recovery in desalination processes. <i>Desalination and Water Treatment</i> , 2010 , 15, 279-286		41
18	Development of the Direct Osmotic Concentration System 2010 ,		4
17	Selection of inorganic-based draw solutions for forward osmosis applications. <i>Journal of Membrane Science</i> , 2010 , 364, 233-241	9.6	533
16	A multi-barrier osmotic dilution process for simultaneous desalination and purification of impaired water. <i>Journal of Membrane Science</i> , 2010 , 362, 417-426	9.6	256
15	Power generation with pressure retarded osmosis: An experimental and theoretical investigation. <i>Journal of Membrane Science</i> , 2009 , 343, 42-52	9.6	574
14	High recovery of concentrated RO brines using forward osmosis and membrane distillation. <i>Journal of Membrane Science</i> , 2009 , 331, 31-39	9.6	417
13	The forward osmosis membrane bioreactor: A low fouling alternative to MBR processes. <i>Desalination</i> , 2009 , 239, 10-21	10.3	644
12	Solute coupled diffusion in osmotically driven membrane processes. <i>Environmental Science & Technology</i> , 2009 , 43, 6769-75	10.3	362
11	THE NOVEL OSMOTIC MEMBRANE BIOREACTOR FOR WASTEWATER TREATMENT. <i>Proceedings of the Water Environment Federation</i> , 2008 , 2008, 6210-6221		2
10	Direct Osmotic Concentration System for Spacecraft Wastewater Recycling 2007 ,		2
9	Forward osmosis for concentration of anaerobic digester centrate. <i>Water Research</i> , 2007 , 41, 4005-14	12.5	431
8	Evaluation of Membrane Processes for Reducing Total Dissolved Solids Discharged to the Truckee River. <i>Journal of Environmental Engineering, ASCE</i> , 2007 , 133, 1136-1144	2	8

7	Forward osmosis: Principles, applications, and recent developments. <i>Journal of Membrane Science</i> , 2006 , 281, 70-87	9.6	1819
6	Removal of natural steroid hormones from wastewater using membrane contactor processes. <i>Environmental Science & Technology</i> , 2006 , 40, 7381-6	10.3	159
5	New Concepts and Performance of the Direct Osmotic Concentration Process for Wastewater Recovery in Advanced Life Support Systems 2006 ,		2
4	Membrane contactor processes for wastewater reclamation in space: II. Combined direct osmosis, osmotic distillation, and membrane distillation for treatment of metabolic wastewater. <i>Journal of Membrane Science</i> , 2005 , 257, 111-119	9.6	198
3	Membrane contactor processes for wastewater reclamation in space: Part I. Direct osmotic concentration as pretreatment for reverse osmosis. <i>Journal of Membrane Science</i> , 2005 , 257, 85-98	9.6	194
2	Experimental study of desalination using direct contact membrane distillation: a new approach to flux enhancement. <i>Journal of Membrane Science</i> , 2004 , 228, 5-16	9.6	299
1	Oil and Gas Produced Water Reuse: Opportunities, Treatment Needs, and Challenges. <i>ACS ES&T Engineering</i> ,		2