Razi Epsztein

List of Publications by Year in Descending Order

30 papers	1,296 citations	15 h-index	34 g-index
34 ext. papers	1,954 ext. citations	11.4 avg, IF	5.18 L-index

#	Paper	IF	Citations
30	Machine learning reveals key ion selectivity mechanisms in polymeric membranes with subnanometer pores.. *Science Advances*, **2022**, 8, eabl5771	14.3	6
29	Indications of ion dehydration in diffusion-only and pressure-driven nanofiltration. *Journal of Membrane Science*, **2022**, 648, 120358	9.6	3
28	Enthalpic and Entropic Selectivity of Water and Small Ions in Polyamide Membranes. *Environmental Science & Technology*, **2021**, 55, 14863-14875	10.3	7
27	Selective Fluoride Transport in Subnanometer TiO Pores. *ACS Nano*, **2021**, 15, 16828-16838	16.7	2
26	A pressurized hydrogenotrophic denitrification reactor system for removal of nitrates at high concentrations. *Journal of Water Process Engineering*, **2021**, 42, 102140	6.7	1
25	Desalinated brackish water with improved mineral composition using monovalent-selective nanofiltration followed by reverse osmosis. *Desalination*, **2021**, 520, 115364	10.3	0
24	Towards single-species selectivity of membranes with subnanometre pores. *Nature Nanotechnology* , **2020**, 15, 426-436	28.7	138
23	The relative insignificance of advanced materials in enhancing the energy efficiency of desalination technologies. *Energy and Environmental Science*, **2020**, 13, 1694-1710	35.4	105
22	Energy barriers to anion transport in polyelectrolyte multilayer nanofiltration membranes: Role of intra-pore diffusion. *Journal of Membrane Science*, **2020**, 603, 117921	9.6	26
21	Induced Charge Anisotropy: A Hidden Variable Affecting Ion Transport through Membranes. *Matter* , **2020**, 2, 735-750	12.7	14
20	Similarities and differences between potassium and ammonium ions in liquid water: a first-principles study. *Physical Chemistry Chemical Physics*, **2020**, 22, 2540-2548	3.6	16
19	Capacitive deionization for simultaneous removal of salt and uncharged organic contaminants from water. *Separation and Purification Technology*, **2020**, 237, 116388	8.3	6
18	Intrapore energy barriers govern ion transport and selectivity of desalination membranes. *Science Advances*, **2020**, 6,	14.3	58
17	Comparison of energy consumption in desalination by capacitive deionization and reverse osmosis. *Desalination*, **2019**, 455, 100-114	10.3	149
16	Critical Knowledge Gaps in Mass Transport through Single-Digit Nanopores: A Review and Perspective. *Journal of Physical Chemistry C*, **2019**, 123, 21309-21326	3.8	121
15	Controlling pore structure of polyelectrolyte multilayer nanofiltration membranes by tuning polyelectrolyte-salt interactions. *Journal of Membrane Science*, **2019**, 581, 413-420	9.6	40
14	Response to comments on □omparison of energy consumption in desalination by capacitive deionization and reverse osmosis□*Desalination*, **2019**, 462, 48-55	10.3	14

List of Publications

13	Activation behavior for ion permeation in ion-exchange membranes: Role of ion dehydration in selective transport. *Journal of Membrane Science*, **2019**, 580, 316-326	9.6	77
12	Role of Ionic Charge Density in Donnan Exclusion of Monovalent Anions by Nanofiltration. *Environmental Science & Technology*, **2018**, 52, 4108-4116	10.3	113
11	Selective removal of divalent cations by polyelectrolyte multilayer nanofiltration membrane: Role of polyelectrolyte charge, ion size, and ionic strength. *Journal of Membrane Science*, **2018**, 559, 98-106	9.6	140
10	Pressurized hydrogenotrophic denitrification reactor for small water systems. *Journal of Environmental Management*, **2018**, 216, 315-319	7.9	8
9	Biocatalytic and salt selective multilayer polyelectrolyte nanofiltration membrane. *Journal of Membrane Science*, **2018**, 549, 357-365	9.6	42
8	Elucidating the mechanisms underlying the difference between chloride and nitrate rejection in nanofiltration. *Journal of Membrane Science*, **2018**, 548, 694-701	9.6	31
7	Co-reduction of nitrate and perchlorate in a pressurized hydrogenotrophic reactor with complete H2 utilization. *Chemical Engineering Journal*, **2017**, 328, 133-140	14.7	4
6	High-rate hydrogenotrophic denitrification in a pressurized reactor. *Chemical Engineering Journal*, **2016**, 286, 578-584	14.7	15
5	Simplified model for hydrogenotrophic denitrification in an unsaturated-flow pressurized reactor. *Chemical Engineering Journal*, **2016**, 306, 233-241	14.7	5
4	Submerged bed versus unsaturated flow reactor: A pressurized hydrogenotrophic denitrification reactor as a case study. *Chemosphere*, **2016**, 161, 151-156	8.4	2
3	Selective nitrate removal from groundwater using a hybrid nanofiltration□everse osmosis filtration scheme. *Chemical Engineering Journal*, **2015**, 279, 372-378	14.7	130
2	Rethinking the role of in-line coagulation in tertiary membrane filtration of municipal effluents. *Separation and Purification Technology*, **2014**, 125, 11-20	8.3	9
1	Optimization of coagulation step in membrane treatment of municipal secondary effluents. *Desalination and Water Treatment*, **2011**, 35, 62-67		6