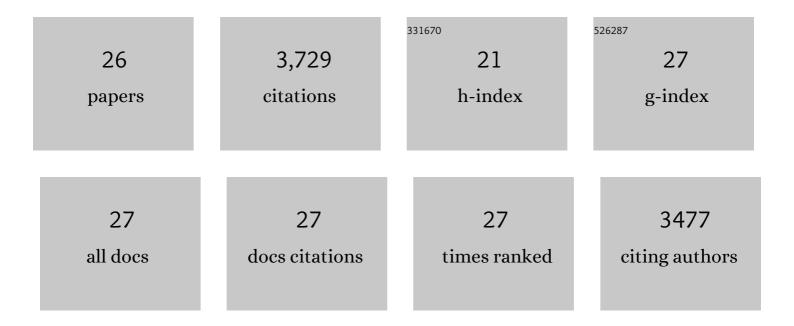
Akshay Deshmukh

List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Membrane distillation at the water-energy nexus: limits, opportunities, and challenges. Energy and Environmental Science, 2018, 11, 1177-1196.	30.8	740
2	The Critical Need for Increased Selectivity, Not Increased Water Permeability, for Desalination Membranes. Environmental Science and Technology Letters, 2016, 3, 112-120.	8.7	527
3	Nanophotonics-enabled solar membrane distillation for off-grid water purification. Proceedings of the United States of America, 2017, 114, 6936-6941.	7.1	348
4	Pressure-retarded osmosis for power generation from salinity gradients: is it viable?. Energy and Environmental Science, 2016, 9, 31-48.	30.8	289
5	High-Pressure Reverse Osmosis for Energy-Efficient Hypersaline Brine Desalination: Current Status, Design Considerations, and Research Needs. Environmental Science and Technology Letters, 2018, 5, 467-475.	8.7	213
6	Comparison of energy consumption in desalination by capacitive deionization and reverse osmosis. Desalination, 2019, 455, 100-114.	8.2	210
7	The relative insignificance of advanced materials in enhancing the energy efficiency of desalination technologies. Energy and Environmental Science, 2020, 13, 1694-1710.	30.8	206
8	Mechanism of Heterogeneous Fenton Reaction Kinetics Enhancement under Nanoscale Spatial Confinement. Environmental Science & Technology, 2020, 54, 10868-10875.	10.0	188
9	Desalination by forward osmosis: Identifying performance limiting parameters through module-scale modeling. Journal of Membrane Science, 2015, 491, 159-167.	8.2	111
10	Can batch or semi-batch processes save energy in reverse-osmosis desalination?. Desalination, 2017, 402, 109-122.	8.2	105
11	Minimal and zero liquid discharge with reverse osmosis using low-salt-rejection membranes. Water Research, 2020, 170, 115317.	11.3	102
12	Understanding the impact of membrane properties and transport phenomena on the energetic performance of membrane distillation desalination. Journal of Membrane Science, 2017, 539, 458-474.	8.2	100
13	Multifunctional nanocoated membranes for high-rate electrothermal desalination of hypersaline waters. Nature Nanotechnology, 2020, 15, 1025-1032.	31.5	88
14	Relating Selectivity and Separation Performance of Lamellar Two-Dimensional Molybdenum Disulfide (MoS ₂) Membranes to Nanosheet Stacking Behavior. Environmental Science & Technology, 2020, 54, 9640-9651.	10.0	82
15	Monte Carlo Simulations of Framework Defects in Layered Two-Dimensional Nanomaterial Desalination Membranes: Implications for Permeability and Selectivity. Environmental Science & Technology, 2019, 53, 6214-6224.	10.0	80
16	Novel Positively Charged Metal-Coordinated Nanofiltration Membrane for Lithium Recovery. ACS Applied Materials & Interfaces, 2021, 13, 16906-16915.	8.0	70
17	Economic performance of membrane distillation configurations in optimal solar thermal desalination systems. Desalination, 2019, 472, 114164.	8.2	53
18	Asymmetric membranes for membrane distillation and thermo-osmotic energy conversion. Desalination 2019 452 141-148	8.2	46

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#	Article	IF	CITATIONS
19	Techno-economic assessment of a closed-loop osmotic heat engine. Journal of Membrane Science, 2017, 535, 178-187.	8.2	37
20	Membrane distillation assisted by heat pump for improved desalination energy efficiency. Desalination, 2020, 496, 114694.	8.2	27
21	Enhancing the Permselectivity of Thin-Film Composite Membranes Interlayered with MoS ₂ Nanosheets via Precise Thickness Control. Environmental Science & Technology, 2022, 56, 8807-8818.	10.0	27
22	Response to comments on "comparison of energy consumption in desalination by capacitive deionization and reverse osmosis― Desalination, 2019, 462, 48-55.	8.2	22
23	Solute displacement in the aqueous phase of water–NaCl–organic ternary mixtures relevant to solvent-driven water treatment. RSC Advances, 2020, 10, 29516-29527.	3.6	18
24	Thermodynamics of solvent-driven water extraction from hypersaline brines using dimethyl ether. Chemical Engineering Journal, 2022, 434, 134391.	12.7	17
25	Membrane desalination performance governed by molecular reflection at the liquid-vapor interface. International Journal of Heat and Mass Transfer, 2019, 140, 1006-1022.	4.8	13
26	Multicomponent Fickian solution-diffusion model for osmotic transport through membranes. Journal of Membrane Science, 2021, 640, 119819.	8.2	7