# Zhangxin Wang

List of Publications by Year
in descending order



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|---|---|---|---|
| 33 papers | 3,586 citations | 236833 25 h-index | 414303 32 g-index |
| 33 all docs | 33 docs citations | 33 times ranked | 3044 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Viability of Harvesting Salinity Gradient (Blue) Energy by Nanopore-Based Osmotic Power Generation. Engineering, 2022, 9, 51-60. | 3.2 | 21 |
| 2 | One-pot synthesis of magnetic Prussian blue for the highly selective removal of thallium(I) from wastewater: Mechanism and implications. Journal of Hazardous Materials, 2022, 423, 126972. | 6.5 | 12 |
| 3 | Module-scale analysis of low-salt-rejection reverse osmosis: Design guidelines and system performance. Water Research, 2022, 209, 117936. | 5.3 | 9 |
| 4 | Interpreting contact angles of surfactant solutions on microporous hydrophobic membranes. , 2022, 2, 100015. | | 7 |
| 5 | Negative Pressure Membrane Distillation for Excellent Gypsum Scaling Resistance and Flux Enhancement. Environmental Science & Technology, 2022, 56, 1405-1412. | 4.6 | 26 |
| 6 | Distinct impacts of natural organic matter and colloidal particles on gypsum crystallization. Water Research, 2022, 218, 118500. | 5.3 | 22 |
| 7 | Wetting, Scaling, and Fouling in Membrane Distillation: State-of-the-Art Insights on Fundamental Mechanisms and Mitigation Strategies. ACS ES&T Engineering, 2021, 1, 117-140. | 3.7 | 217 |
| 8 | Comparison of Energy Consumption of Osmotically Assisted Reverse Osmosis and Low-Salt-Rejection Reverse Osmosis for Brine Management. Environmental Science & Technology, 2021, 55, 10714-10723. | 4.6 | 25 |
| 9 | Janus Membrane with a Dense Hydrophilic Surface Layer for Robust Fouling and Wetting Resistance in Membrane Distillation: New Insights into Wetting Resistance. Environmental Science & Technology, 2021, 55, 14156-14164. | 4.6 | 57 |
| 10 | Colloidal interactions between model foulants and engineered surfaces: Interplay between roughness and surface energy. Chemical Engineering Journal Advances, 2021, 8, 100138. | 2.4 | 18 |
| 11 | Nanopore-Based Power Generation from Salinity Gradient: Why It Is Not Viable. ACS Nano, 2021, 15, 4093-4107. | 7.3 | 101 |
| 12 | Minimal and zero liquid discharge with reverse osmosis using low-salt-rejection membranes. Water Research, 2020, 170, 115317. | 5.3 | 102 |
| 13 | Membrane distillation assisted by heat pump for improved desalination energy efficiency. Desalination, 2020, 496, 114694. | 4.0 | 27 |
| 14 | Intrapore energy barriers govern ion transport and selectivity of desalination membranes. Science Advances, 2020, 6, . | 4.7 | 161 |
| 15 | The relative insignificance of advanced materials in enhancing the energy efficiency of desalination technologies. Energy and Environmental Science, 2020, 13, 1694-1710. | 15.6 | 206 |
| 16 | Pathways and challenges for efficient solar-thermal desalination. Science Advances, 2019, 5, eaax0763. | 4.7 | 311 |
| 17 | Significance of surface excess concentration in the kinetics of surfactant-induced pore wetting in membrane distillation. Desalination, 2019, 450, 46-53. | 4.0 | 40 |
| 18 | Hydrophilic surface coating on hydrophobic PTFE membrane for robust anti-oil-fouling membrane distillation. Applied Surface Science, 2018, 450, 57-65. | 3.1 | 118 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Mechanism of pore wetting in membrane distillation with alcohol vs. surfactant. Journal of Membrane Science, 2018, 559, 183-195. | 4.1 | 109 |
| 20 | Composite membrane with electrospun multiscale-textured surface for robust oil-fouling resistance in membrane distillation. Journal of Membrane Science, 2018, 546, 179-187. | 4.1 | 83 |
| 21 | Nanoparticle-templated nanofiltration membranes for ultrahigh performance desalination. Nature Communications, 2018, 9, 2004. | 5.8 | 457 |
| 22 | Kinetic model for surfactant-induced pore wetting in membrane distillation. Journal of Membrane Science, 2018, 564, 275-288. | 4.1 | 54 |
| 23 | Membrane fouling and wetting in membrane distillation and their mitigation by novel membranes with special wettability. Water Research, 2017, 112, 38-47. | 5.3 | 248 |
| 24 | Coaxially electrospun super-amphiphobic silica-based membrane for anti-surfactant-wetting membrane distillation. Journal of Membrane Science, 2017, 531, 122-128. | 4.1 | 100 |
| 25 | The impact of low-surface-energy functional groups on oil fouling resistance in membrane distillation. Journal of Membrane Science, 2017, 527, 68-77. | 4.1 | 58 |
| 26 | Novel Janus Membrane for Membrane Distillation with Simultaneous Fouling and Wetting Resistance. Environmental Science & Technology, 2017, 51, 13304-13310. | 4.6 | 227 |
| 27 | Probing Pore Wetting in Membrane Distillation Using Impedance: Early Detection and Mechanism of Surfactant-Induced Wetting. Environmental Science and Technology Letters, 2017, 4, 505-510. | 3.9 | 79 |
| 28 | Composite Membrane with Underwater-Oleophobic Surface for Anti-Oil-Fouling Membrane Distillation. Environmental Science & Technology, 2016, 50, 3866-3874. | 4.6 | 190 |
| 29 | Tailoring surface charge and wetting property for robust oil-fouling mitigation in membrane distillation. Journal of Membrane Science, 2016, 516, 113-122. | 4.1 | 119 |
| 30 | Gross vs. net energy: Towards a rational framework for assessing the practical viability of pressure retarded osmosis. Journal of Membrane Science, 2016, 503, 132-147. | 4.1 | 31 |
| 31 | Environmental Applications of Interfacial Materials with Special Wettability. Environmental Science & Technology, 2016, 50, 2132-2150. | 4.6 | 273 |
| 32 | Humic acid fouling mitigation by ultrasonic irradiation in membrane distillation process. Separation and Purification Technology, 2015, 154, 328-337. | 3.9 | 41 |
| 33 | Ultrasonic assisted direct contact membrane distillation hybrid process for membrane scaling mitigation. Desalination, 2015, 375, 33-39. | 4.0 | 37 |