

Shuaifei S Zhao

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

7,284
citations

50276

46
h-index

58581

82
g-index

111
all docs

111
docs citations

111
times ranked

4862
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Recent developments in forward osmosis: Opportunities and challenges. <i>Journal of Membrane Science</i> , 2012, 396, 1-21. | 8.2 | 1,141 |
| 2 | Status and progress of membrane contactors in post-combustion carbon capture: A state-of-the-art review of new developments. <i>Journal of Membrane Science</i> , 2016, 511, 180-206. | 8.2 | 249 |
| 3 | Specially Wetttable Membranes for Oil/Water Separation. <i>Advanced Materials Interfaces</i> , 2018, 5, 1800576. | 3.7 | 212 |
| 4 | Brackish water desalination by a hybrid forward osmosis/nanofiltration system using divalent draw solute. <i>Desalination</i> , 2012, 284, 175-181. | 8.2 | 208 |
| 5 | Relating solution physicochemical properties to internal concentration polarization in forward osmosis. <i>Journal of Membrane Science</i> , 2011, 379, 459-467. | 8.2 | 201 |
| 6 | Conventional Ultrafiltration As Effective Strategy for Dye/Salt Fractionation in Textile Wastewater Treatment. <i>Environmental Science & Technology</i> , 2018, 52, 10698-10708. | 10.0 | 201 |
| 7 | Effects of working temperature on separation performance, membrane scaling and cleaning in forward osmosis desalination. <i>Desalination</i> , 2011, 278, 157-164. | 8.2 | 196 |
| 8 | Engineering antifouling reverse osmosis membranes: A review. <i>Desalination</i> , 2021, 499, 114857. | 8.2 | 192 |
| 9 | Effects of membrane orientation on process performance in forward osmosis applications. <i>Journal of Membrane Science</i> , 2011, 382, 308-315. | 8.2 | 170 |
| 10 | Organic fouling in pressure retarded osmosis: Experiments, mechanisms and implications. <i>Journal of Membrane Science</i> , 2013, 428, 181-189. | 8.2 | 155 |
| 11 | Advanced desalination of dye/NaCl mixtures by a loose nanofiltration membrane for digital ink-jet printing. <i>Separation and Purification Technology</i> , 2018, 197, 27-35. | 7.9 | 144 |
| 12 | Polyaniline-based adsorbents for aqueous pollutants removal: A review. <i>Chemical Engineering Journal</i> , 2021, 418, 129425. | 12.7 | 108 |
| 13 | Simultaneous heat and water recovery from flue gas by membrane condensation: Experimental investigation. <i>Applied Thermal Engineering</i> , 2017, 113, 843-850. | 6.0 | 100 |
| 14 | Transport membrane condenser for water and heat recovery from gaseous streams: Performance evaluation. <i>Journal of Membrane Science</i> , 2015, 484, 10-17. | 8.2 | 97 |
| 15 | Enhancing water permeability and fouling resistance of polyvinylidene fluoride membranes with carboxylated nanodiamonds. <i>Journal of Membrane Science</i> , 2018, 556, 154-163. | 8.2 | 96 |
| 16 | Integrated absorption-mineralisation for low-energy CO ₂ capture and sequestration. <i>Applied Energy</i> , 2018, 225, 356-366. | 10.1 | 93 |
| 17 | Structures and antifouling properties of polyvinyl chloride/poly(methyl methacrylate) membranes. <i>Journal of Membrane Science</i> , 2017, 524, 235-244. | 8.2 | 85 |
| 18 | Effective dye purification using tight ceramic ultrafiltration membrane. <i>Journal of Membrane Science</i> , 2018, 566, 151-160. | 8.2 | 85 |

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|----|---|------|-----------|
| 19 | Improved antifouling properties of polyvinyl chloride blend membranes by novel phosphate based-zwitterionic polymer additive. <i>Journal of Membrane Science</i> , 2017, 528, 326-335. | 8.2 | 84 |
| 20 | Positively charged nanofiltration membrane based on cross-linked polyvinyl chloride copolymer. <i>Journal of Membrane Science</i> , 2019, 572, 28-37. | 8.2 | 81 |
| 21 | Relating water vapor transfer to ammonia recovery from biogas slurry by vacuum membrane distillation. <i>Separation and Purification Technology</i> , 2018, 191, 182-191. | 7.9 | 78 |
| 22 | Scalable fabrication of robust superhydrophobic membranes by one-step spray-coating for gravitational water-in-oil emulsion separation. <i>Separation and Purification Technology</i> , 2020, 231, 115898. | 7.9 | 78 |
| 23 | Fabrication and characterization of TiO ₂ /ZrO ₂ ceramic membranes for nanofiltration. <i>Microporous and Mesoporous Materials</i> , 2018, 260, 125-131. | 4.4 | 76 |
| 24 | Developing new adsorptive membrane by modification of support layer with iron oxide microspheres for arsenic removal. <i>Journal of Colloid and Interface Science</i> , 2018, 514, 760-768. | 9.4 | 75 |
| 25 | Sustainable management of landfill leachate concentrate through recovering humic substance as liquid fertilizer by loose nanofiltration. <i>Water Research</i> , 2019, 157, 555-563. | 11.3 | 75 |
| 26 | Thin-Film Composite Membrane with Interlayer Decorated Metal-Organic Framework UiO-66 toward Enhanced Forward Osmosis Performance. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 195-206. | 3.7 | 73 |
| 27 | Insights into Carbonation Kinetics of Fly Ash from Victorian Lignite for CO ₂ Sequestration. <i>Energy & Fuels</i> , 2018, 32, 4569-4578. | 5.1 | 70 |
| 28 | Self-assembly enabled nano-intercalation for stable high-performance MXene membranes. <i>Journal of Membrane Science</i> , 2021, 635, 119464. | 8.2 | 70 |
| 29 | High-flux nanofiltration membranes tailored by bio-inspired co-deposition of hydrophilic g-C ₃ N ₄ nanosheets for enhanced selectivity towards organics and salts. <i>Environmental Science: Nano</i> , 2019, 6, 2958-2967. | 4.3 | 68 |
| 30 | Loose nanofiltration-based electrodialysis for highly efficient textile wastewater treatment. <i>Journal of Membrane Science</i> , 2020, 608, 118182. | 8.2 | 68 |
| 31 | Comparing the antifouling effects of activated carbon and TiO ₂ in ultrafiltration membrane development. <i>Journal of Colloid and Interface Science</i> , 2018, 515, 109-118. | 9.4 | 67 |
| 32 | Enhancing wetting resistance of poly(vinylidene fluoride) membranes for vacuum membrane distillation. <i>Desalination</i> , 2017, 415, 58-66. | 8.2 | 66 |
| 33 | Condensation studies in membrane evaporation and sweeping gas membrane distillation. <i>Journal of Membrane Science</i> , 2014, 462, 9-16. | 8.2 | 62 |
| 34 | Robust bio-inspired superhydrophilic and underwater superoleophobic membranes for simultaneously fast water and oil recovery. <i>Journal of Membrane Science</i> , 2021, 623, 119041. | 8.2 | 62 |
| 35 | Polyvinylidene fluoride membrane functionalized with zero valent iron for highly efficient degradation of organic contaminants. <i>Separation and Purification Technology</i> , 2020, 250, 117266. | 7.9 | 60 |
| 36 | Hierarchically superhydrophilic poly(vinylidene fluoride) membrane with self-cleaning fabricated by surface mineralization for stable separation of oily wastewater. <i>Journal of Membrane Science</i> , 2021, 640, 119864. | 8.2 | 60 |

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|----|--|------|-----------|
| 37 | CO ₂ removal from biogas by using green amino acid salts: Performance evaluation. <i>Fuel Processing Technology</i> , 2015, 129, 203-212. | 7.2 | 58 |
| 38 | Enhancing co-catalysis of MoS ₂ for persulfate activation in Fe ³⁺ -based advanced oxidation processes via defect engineering. <i>Chemical Engineering Journal</i> , 2021, 417, 127987. | 12.7 | 58 |
| 39 | Perfluorinated superhydrophobic and oleophobic SiO ₂ @PTFE nanofiber membrane with hierarchical nanostructures for oily fume purification. <i>Journal of Membrane Science</i> , 2020, 594, 117473. | 8.2 | 57 |
| 40 | Effects of fly ash properties on carbonation efficiency in CO ₂ mineralisation. <i>Fuel Processing Technology</i> , 2019, 188, 79-88. | 7.2 | 56 |
| 41 | Significant roles of substrate properties in forward osmosis membrane performance: A review. <i>Desalination</i> , 2022, 528, 115615. | 8.2 | 55 |
| 42 | Biogas upgrading by CO ₂ removal with a highly selective natural amino acid salt in gas-liquid membrane contactor. <i>Chemical Engineering and Processing: Process Intensification</i> , 2014, 85, 125-135. | 3.6 | 54 |
| 43 | Multichannel Tubular Ceramic Membrane for Water and Heat Recovery from Waste Gas Streams. <i>Industrial & Engineering Chemistry Research</i> , 2016, 55, 2615-2622. | 3.7 | 54 |
| 44 | Renewable CO ₂ absorbent for carbon capture and biogas upgrading by membrane contactor. <i>Separation and Purification Technology</i> , 2018, 194, 207-215. | 7.9 | 53 |
| 45 | Simple Amphoteric Charge Strategy to Reinforce Superhydrophilic Polyvinylidene Fluoride Membrane for Highly Efficient Separation of Various Surfactant-Stabilized Oil-in-Water Emulsions. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47018-47028. | 8.0 | 52 |
| 46 | Integrated absorption-mineralisation for energy-efficient CO ₂ sequestration: Reaction mechanism and feasibility of using fly ash as a feedstock. <i>Chemical Engineering Journal</i> , 2018, 352, 151-162. | 12.7 | 51 |
| 47 | Hierarchically Active Poly(vinylidene fluoride) Membrane Fabricated by In Situ Generated Zero-Valent Iron for Fouling Reduction. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 10993-11004. | 8.0 | 49 |
| 48 | Innovative Use of Membrane Contactor as Condenser for Heat Recovery in Carbon Capture. <i>Environmental Science & Technology</i> , 2015, 49, 2532-2540. | 10.0 | 47 |
| 49 | Janus Membrane with Unparalleled Forward Osmosis Performance. <i>Environmental Science and Technology Letters</i> , 2019, 6, 79-85. | 8.7 | 47 |
| 50 | Entropy generation analysis of heat and water recovery from flue gas by transport membrane condenser. <i>Energy</i> , 2019, 174, 835-847. | 8.8 | 46 |
| 51 | Antibiotic enhanced dopamine polymerization for engineering antifouling and antimicrobial membranes. <i>Chinese Chemical Letters</i> , 2020, 31, 851-854. | 9.0 | 46 |
| 52 | Omniphobic membranes for distillation: Opportunities and challenges. <i>Chinese Chemical Letters</i> , 2021, 32, 3298-3306. | 9.0 | 46 |
| 53 | High-performance electrocatalytic microfiltration CuO/Carbon membrane by facile dynamic electrodeposition for small-sized organic pollutants removal. <i>Journal of Membrane Science</i> , 2020, 601, 117913. | 8.2 | 43 |
| 54 | Super-adsorptive and photo-regenerable carbon nanotube based membrane for highly efficient water purification. <i>Journal of Membrane Science</i> , 2021, 621, 119000. | 8.2 | 43 |

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|----|---|------|-----------|
| 55 | Incorporating organic nanospheres into the polyamide layer to prepare thin film composite membrane with enhanced biocidal activity and chlorine resistance. <i>Separation and Purification Technology</i> , 2018, 207, 222-230. | 7.9 | 42 |
| 56 | Dopamine incorporating forward osmosis membranes with enhanced selectivity and antifouling properties. <i>RSC Advances</i> , 2018, 8, 22469-22481. | 3.6 | 41 |
| 57 | Closing CO ₂ Loop in Biogas Production: Recycling Ammonia As Fertilizer. <i>Environmental Science & Technology</i> , 2017, 51, 8841-8850. | 10.0 | 40 |
| 58 | Edible films and coatings for shelf life extension of mango: a review. <i>Critical Reviews in Food Science and Nutrition</i> , 2022, 62, 2432-2459. | 10.3 | 40 |
| 59 | Activation of persulfate by MnOOH: Degradation of organic compounds by nonradical mechanism. <i>Chemosphere</i> , 2021, 272, 129629. | 8.2 | 40 |
| 60 | Condensation, re-evaporation and associated heat transfer in membrane evaporation and sweeping gas membrane distillation. <i>Journal of Membrane Science</i> , 2015, 475, 445-454. | 8.2 | 39 |
| 61 | Sustainable management of saline oily wastewater via forward osmosis using aquaporin membrane. <i>Chemical Engineering Research and Design</i> , 2020, 138, 199-207. | 5.6 | 39 |
| 62 | Hydrothermally stable Zr-doped organosilica membranes for H ₂ /CO ₂ separation. <i>Microporous and Mesoporous Materials</i> , 2016, 224, 277-284. | 4.4 | 38 |
| 63 | Removal mechanisms of perfluorinated compounds (PFCs) by nanofiltration: Roles of membrane-contaminant interactions. <i>Chemical Engineering Journal</i> , 2021, 406, 126814. | 12.7 | 38 |
| 64 | Integrated loose nanofiltration-electrodialysis process for sustainable resource extraction from high-salinity textile wastewater. <i>Journal of Hazardous Materials</i> , 2021, 419, 126505. | 12.4 | 38 |
| 65 | Membrane evaporation of amine solution for energy saving in post-combustion carbon capture: Performance evaluation. <i>Journal of Membrane Science</i> , 2015, 473, 274-282. | 8.2 | 37 |
| 66 | Pd-doped organosilica membrane with enhanced gas permeability and hydrothermal stability for gas separation. <i>Journal of Materials Science</i> , 2016, 51, 6275-6286. | 3.7 | 37 |
| 67 | Multifunctional metal organic framework and carbon nanotube-modified filter for combined ultrafine dust capture and SO ₂ dynamic adsorption. <i>Environmental Science: Nano</i> , 2018, 5, 3023-3031. | 4.3 | 37 |
| 68 | Membrane evaporation of amine solution for energy saving in post-combustion carbon capture: Wetting and condensation. <i>Separation and Purification Technology</i> , 2015, 146, 60-67. | 7.9 | 35 |
| 69 | Carboxylated Nanodiamond-Enhanced Photocatalytic Membranes with Improved Antifouling and Self-Cleaning Properties. <i>Industrial & Engineering Chemistry Research</i> , 2020, 59, 3538-3549. | 3.7 | 34 |
| 70 | Once-through CO ₂ absorption for simultaneous biogas upgrading and fertilizer production. <i>Fuel Processing Technology</i> , 2017, 166, 50-58. | 7.2 | 33 |
| 71 | Relating forward water and reverse salt fluxes to membrane porosity and tortuosity in forward osmosis: CFD modelling. <i>Separation and Purification Technology</i> , 2020, 241, 116727. | 7.9 | 33 |
| 72 | Waste-derived low-cost ceramic membranes for water treatment: Opportunities, challenges and future directions. <i>Resources, Conservation and Recycling</i> , 2022, 185, 106497. | 10.8 | 33 |

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|----|---|------|-----------|
| 73 | Optimization of novel composite membranes for water and mineral recovery by vacuum membrane distillation. <i>Desalination</i> , 2018, 440, 39-47. | 8.2 | 32 |
| 74 | Membrane heat exchanger for novel heat recovery in carbon capture. <i>Journal of Membrane Science</i> , 2019, 577, 60-68. | 8.2 | 32 |
| 75 | Integrated membrane system without adding chemicals for produced water desalination towards zero liquid discharge. <i>Desalination</i> , 2020, 496, 114693. | 8.2 | 32 |
| 76 | Hierarchical poly(vinylidene fluoride)/active carbon composite membrane with self-confining functional carbon nanotube layer for intractable wastewater remediation. <i>Journal of Membrane Science</i> , 2020, 603, 118041. | 8.2 | 32 |
| 77 | High-performance porous anion exchange membranes for efficient acid recovery from acidic wastewater by diffusion dialysis. <i>Journal of Membrane Science</i> , 2021, 624, 119116. | 8.2 | 31 |
| 78 | Activation of peroxymonosulfate by MnO ₂ with oxygen vacancies: Degradation of organic compounds by electron transfer nonradical mechanism. <i>Journal of Environmental Chemical Engineering</i> , 2022, 10, 107481. | 6.7 | 30 |
| 79 | Osmotic Pressure versus Swelling Pressure: Comment on "Bifunctional Polymer Hydrogel Layers As Forward Osmosis Draw Agents for Continuous Production of Fresh Water Using Solar Energy". <i>Environmental Science & Technology</i> , 2014, 48, 4212-4213. | 10.0 | 29 |
| 80 | Insights into the pollutant electron property inducing the transformation of peroxymonosulfate activation mechanisms on manganese dioxide. <i>Applied Catalysis B: Environmental</i> , 2022, 317, 121753. | 20.2 | 29 |
| 81 | Theoretical and experimental study of organic fouling of loose nanofiltration membrane. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 93, 509-518. | 5.3 | 28 |
| 82 | Sustainable management of landfill leachate concentrate via nanofiltration enhanced by one-step rapid assembly of metal-organic coordination complexes. <i>Water Research</i> , 2021, 204, 117633. | 11.3 | 28 |
| 83 | Enhanced fouling and wetting resistance of composite Hyflon AD/poly(vinylidene fluoride) membrane in vacuum membrane distillation. <i>Separation and Purification Technology</i> , 2019, 211, 135-140. | 7.9 | 27 |
| 84 | Assessment of hydropower sustainability: Review and modeling. <i>Journal of Cleaner Production</i> , 2021, 321, 128898. | 9.3 | 26 |
| 85 | Superhydrophilic photocatalytic g-C ₃ N ₄ /SiO ₂ composite membranes for effective separation of oil-in-water emulsion and bacteria removal. <i>Separation and Purification Technology</i> , 2022, 290, 120917. | 7.9 | 25 |
| 86 | Elevated nanofiltration performance via mussel-inspired co-deposition for sustainable resource extraction from landfill leachate concentrate. <i>Chemical Engineering Journal</i> , 2020, 388, 124200. | 12.7 | 24 |
| 87 | Enhancing water permeability and antifouling performance of thin-film composite membrane by tailoring the support layer. <i>Desalination</i> , 2021, 516, 115193. | 8.2 | 23 |
| 88 | Waste-derived carbon fiber membrane with hierarchical structures for enhanced oil-in-water emulsion separation: Performance and mechanisms. <i>Journal of Membrane Science</i> , 2022, 653, 120543. | 8.2 | 21 |
| 89 | Heat and mass transfer in a hollow fiber membrane contactor for sweeping gas membrane distillation. <i>Separation and Purification Technology</i> , 2019, 220, 334-344. | 7.9 | 20 |
| 90 | Piperazine-functionalized porous anion exchange membranes for efficient acid recovery by diffusion dialysis. <i>Journal of Membrane Science</i> , 2022, 654, 120560. | 8.2 | 20 |

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|-----|--|-----|-----------|
| 91 | Reinforcing hydration layer on membrane surface via nano-capturing and hydrothermal crosslinking for fouling reduction. <i>Journal of Membrane Science</i> , 2022, 644, 120076. | 8.2 | 18 |
| 92 | A novel strategy to enhance hydrothermal stability of Pd-doped organosilica membrane for hydrogen separation. <i>Microporous and Mesoporous Materials</i> , 2017, 253, 55-63. | 4.4 | 16 |
| 93 | Dopamine Incorporated Forward Osmosis Membranes with High Structural Stability and Chlorine Resistance. <i>Processes</i> , 2018, 6, 151. | 2.8 | 16 |
| 94 | Enhancement of ball-milling on pyrite/zero-valent iron for persulfate activation on imidacloprid removal in aqueous solution: A mechanistic study. <i>Journal of Environmental Chemical Engineering</i> , 2021, 9, 105647. | 6.7 | 15 |
| 95 | Regulating Crystal Facets of MnO ₂ for Enhancing Peroxymonosulfate Activation to Degrade Pollutants: Performance and Mechanism. <i>Catalysts</i> , 2022, 12, 342. | 3.5 | 15 |
| 96 | Development of antifouling poly(vinyl chloride) blend membranes by atom transfer radical polymerization. <i>Journal of Applied Polymer Science</i> , 2018, 135, 45832. | 2.6 | 14 |
| 97 | Developing novel thin film composite membrane on a permeate spacer backing fabric for forward osmosis. <i>Chemical Engineering Research and Design</i> , 2020, 160, 326-334. | 5.6 | 13 |
| 98 | Tuning sol size to optimize organosilica membranes for gas separation. <i>Chinese Journal of Chemical Engineering</i> , 2018, 26, 53-59. | 3.5 | 12 |
| 99 | Renewable aqueous ammonia from biogas slurry for carbon capture: Chemical composition and CO ₂ absorption rate. <i>International Journal of Greenhouse Gas Control</i> , 2018, 77, 46-54. | 4.6 | 12 |
| 100 | Editorial: Advanced Membrane Science and Technology for Sustainable Environmental Applications. <i>Frontiers in Chemistry</i> , 2020, 8, 609774. | 3.6 | 11 |
| 101 | Introducing sorption coefficient through extended UNIQUAC and Flory-Huggins models for improved flux prediction in forward osmosis. <i>Chemical Engineering Science</i> , 2019, 198, 33-42. | 3.8 | 10 |
| 102 | Potential of coagulation/GAC adsorption combined with UV/H ₂ O ₂ and ozonation for removing dissolved organic matter from secondary RO concentrate. <i>Journal of Chemical Technology and Biotechnology</i> , 2019, 94, 1091-1099. | 3.2 | 9 |
| 103 | A general QSPR protocol for the prediction of atomic/inter-atomic properties: a fragment based graph convolutional neural network (F-GCN). <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 13242-13249. | 2.8 | 9 |
| 104 | Confining Nano-Fe ₃ O ₄ in the Superhydrophilic Membrane Skin Layer to Minimize Internal Fouling. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 26044-26056. | 8.0 | 9 |
| 105 | Exploring the Key Factors in Dusty Gas Filtration: Experimental and Modeling Studies. <i>Industrial & Engineering Chemistry Research</i> , 2019, 58, 19633-19641. | 3.7 | 6 |
| 106 | Graphitic Carbon Nitride/Copper-Iron Oxide Composite for Effective Fenton Degradation of Ciprofloxacin at Near-Neutral pH. <i>ChemistrySelect</i> , 2020, 5, 8198-8206. | 1.5 | 6 |
| 107 | Discrete silver nanoparticle infusion across silica aerogels towards versatile catalytic coatings for 4-nitrophenol reduction. <i>Materials Chemistry and Physics</i> , 2019, 223, 404-409. | 4.0 | 5 |
| 108 | Supramolecular Membranes for Liquid Separation. <i>Chemistry in the Environment</i> , 2021, , 232-255. | 0.4 | 0 |