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Advanced Charged Porous Membranes with Ultrahigh Selectivity and Permeability for Acid Recovery

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Abstract

In this work, a novel approach is explored to achieve a combination of separation performance and a suitable membrane fabrication procedure for anion exchange membranes (AEMs). Porous brominated poly(2,6-dimethyl-1,4-phenylene oxide) (BPPO) membranes with tunable morphologies were prepared exclusively via the nonsolvent induced phase separation technique (NIPS) and were investigated for acid recovery via the diffusion dialysis (DD) technique. The physiochemical and electrochemical properties of the prepared membranes were well characterized and could be adjusted according to their porous structure. The prepared membranes

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