

Electronic Supplementary Information

Alkaline Stable Imidazolium-based Ionomers Containing Poly(arylene ether sulfone) Side Chains for Alkaline Anion Exchange Membranes

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1. GPC characterization

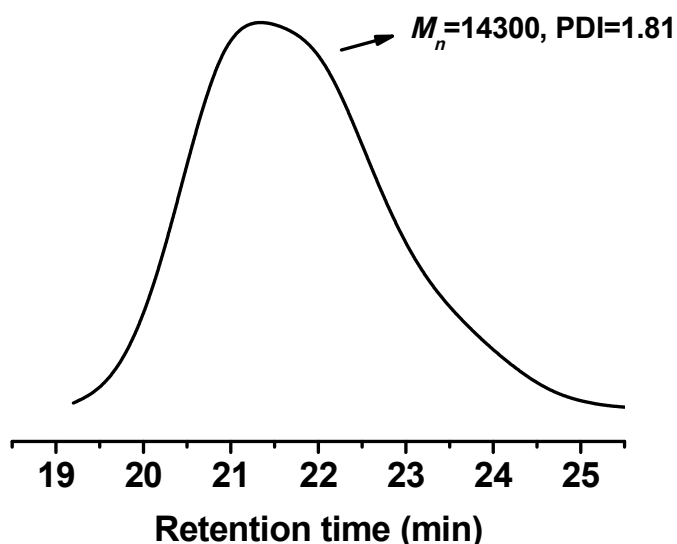


Fig. S1 GPC traces of the of poly (arylene ether sulfone)-g-poly(4-vinylbenzyl chloride), DMF was used as the eluent at a flow rate of 1.0 ml min⁻¹ at 30 °C.

2. SEM characterization

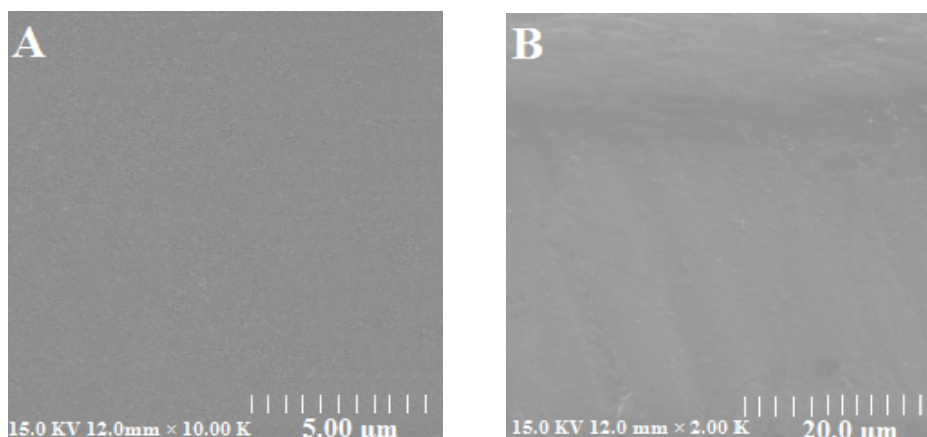


Fig. S2 SEM images of produced [PUVBIm][OH] membrane in OH⁻ form: (A) surface view, (B) cross-sectional view.

3. DSC characterization

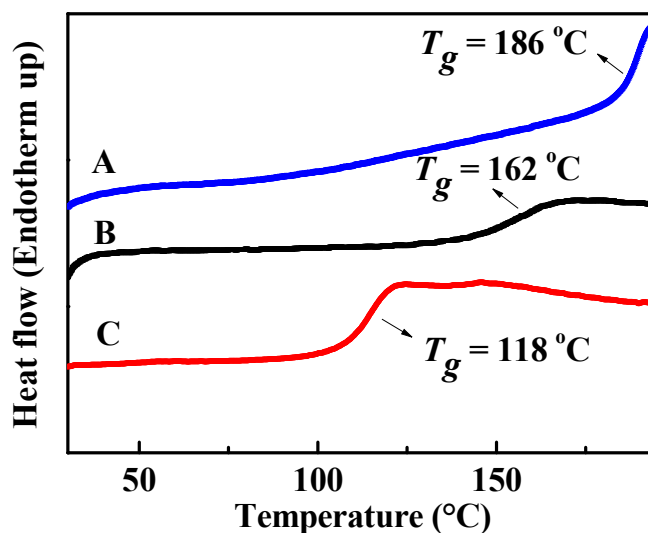


Fig. S3 DSC curves of (A) poly(arylene ether sulfone), (B) poly(arylene ether sulfone)-g-poly(4-vinylbenzyl chloride), and (C) poly(4-vinylbenzyl chloride) membranes.