

*Supplementary Information*

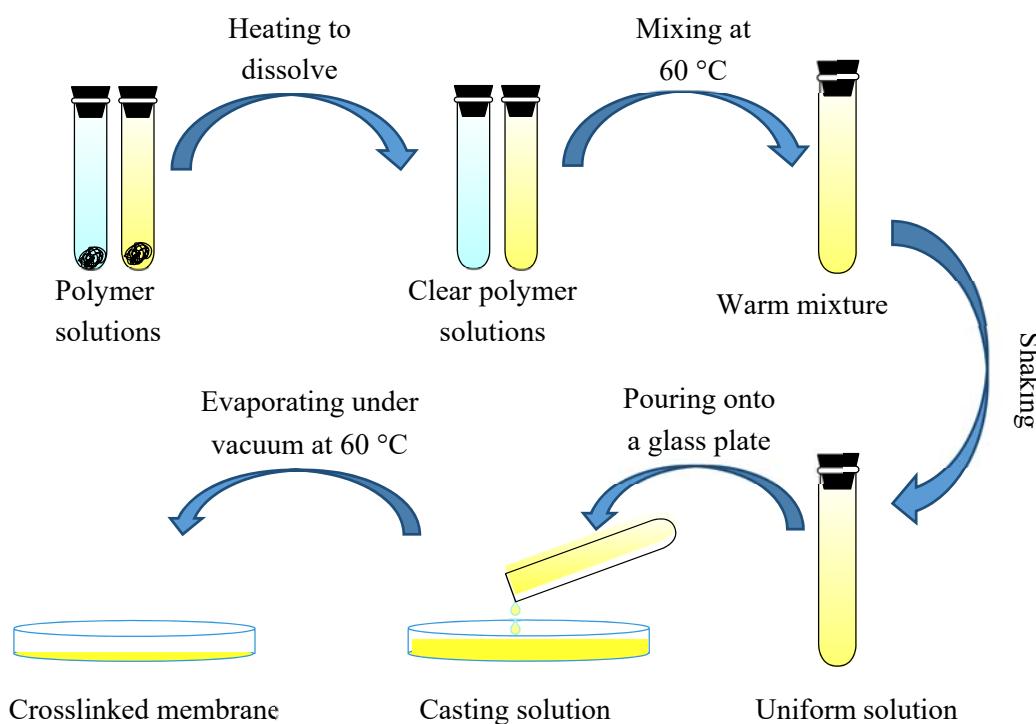
# Imidazolium-functionalized anion exchange membranes using poly(ether sulfone)s as macrocrosslinker for fuel cells

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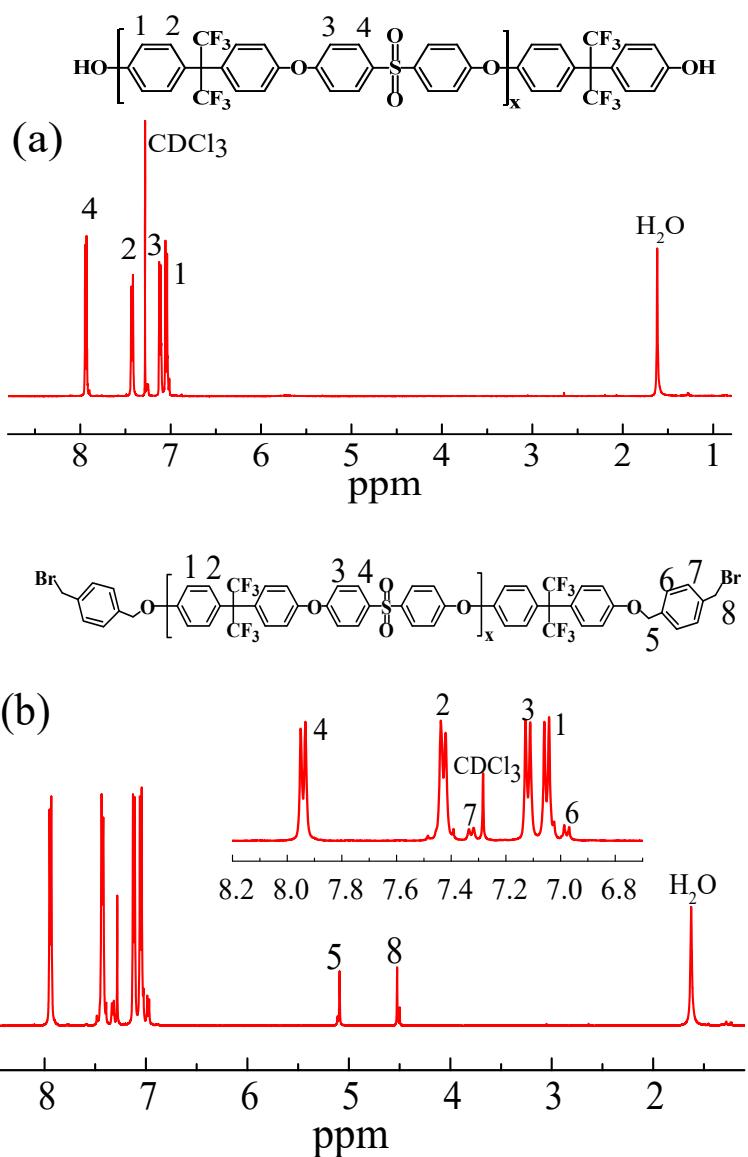
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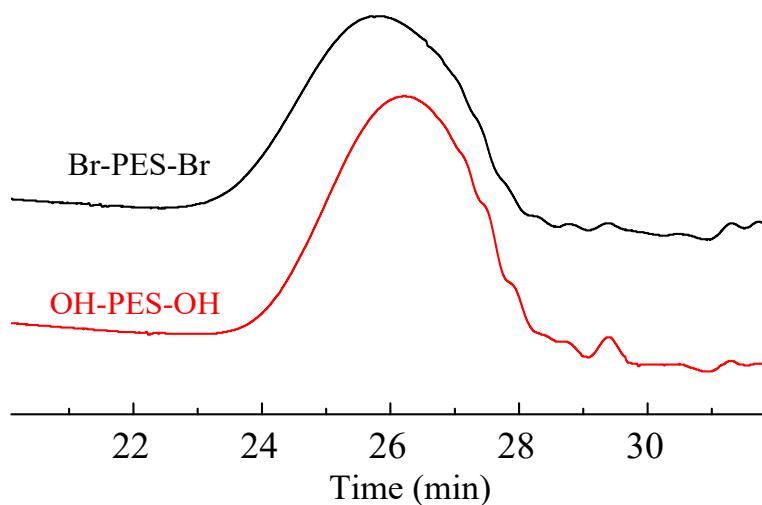
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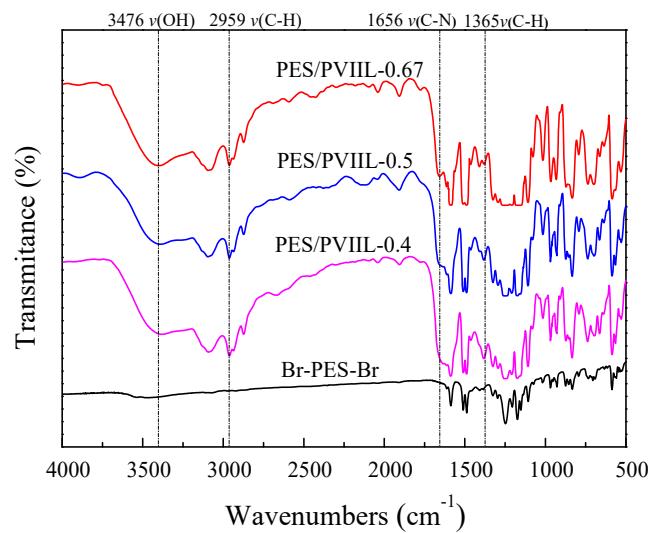
**Scheme S1** Preparation of the crosslinked PES/PVIIL-x membranes



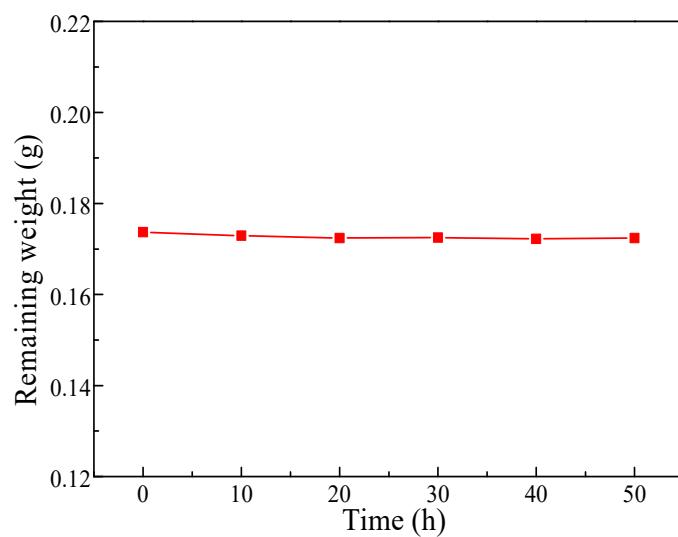
**Fig. S1**  $^1\text{H}$  NMR spectra of (a) HO-PES-OH and (b) Br-PES-Br in  $\text{CDCl}_3$



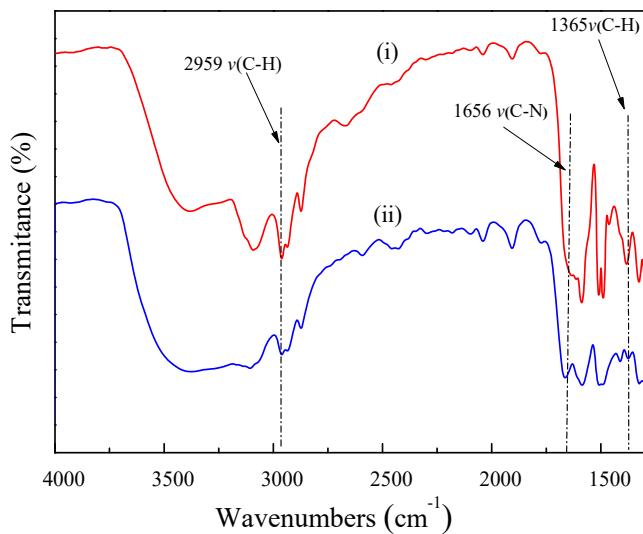
**Fig. S2** GPC plots of HO-PES-OH and Br-PES-Br in the experiment.



**Fig. S3** FT-IR spectra of the PES/PVIIL-x membranes and Br-PES-Br.



**Fig. S4** Time dependent remaining weight of the PES/PVIIL-0.4 membrane at 120 °C.



**Fig. S5** FT-IR spectra of the PES/PVIIL-0.4 membrane (i) before (ii) after immersing in a 2M KOH solution at 60 °C for 30 days.