

Electronic Supplementary Information

for

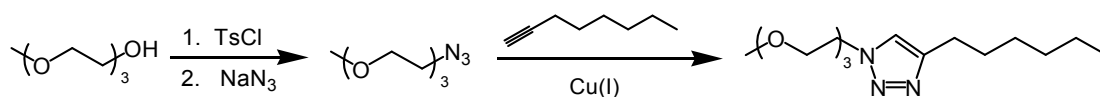
Constructing pendent imidazolium-based poly(phenylene oxide)s for anion exchange membranes using click reaction

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Scheme S1. Synthetic routes employed for the preparation of model compound, 1-methoxytri(ethylene glycol)-4-hexyl-1,2,3-triazole.

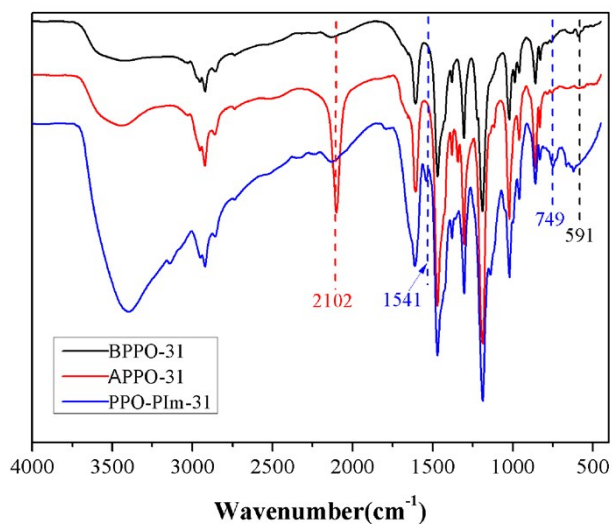


Figure S1. FT-IR spectra of BPPO-31, APPO-31, and PPO-PIm-31 in Cl⁻ form.

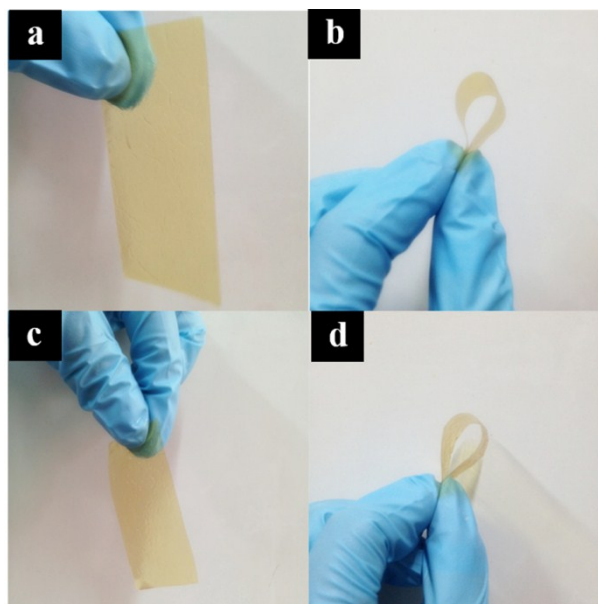


Figure S2. Pictures of PPO-PIm-40 (a, b) before and (c, d) after immersed in water at 30 °C for 48 h.

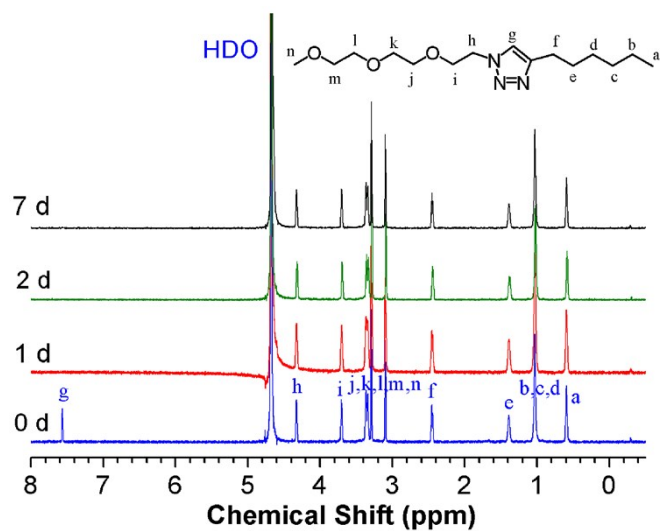


Figure S3. ^1H NMR spectra (600 MHz, D_2O) of model molecule after immersion in 1 M NaOH solution at 80 °C for several days.

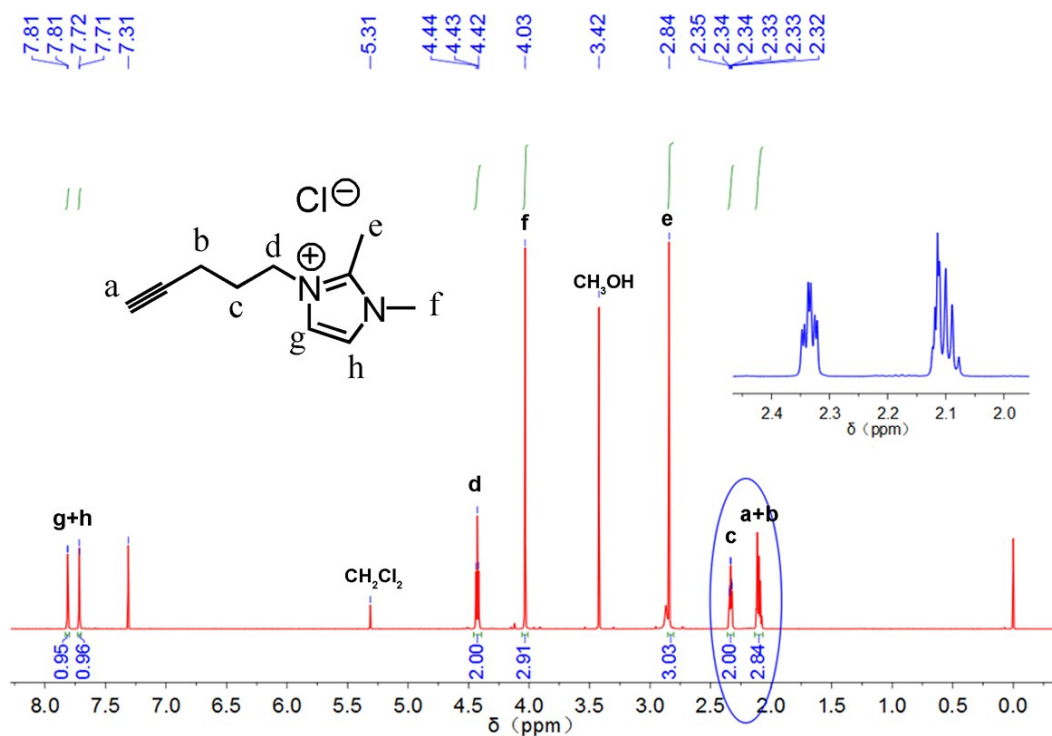


Figure S4. ^1H NMR spectrum of 1,2-dimethyl-3-(4-pentynyl)imidazolium chloride in CDCl_3

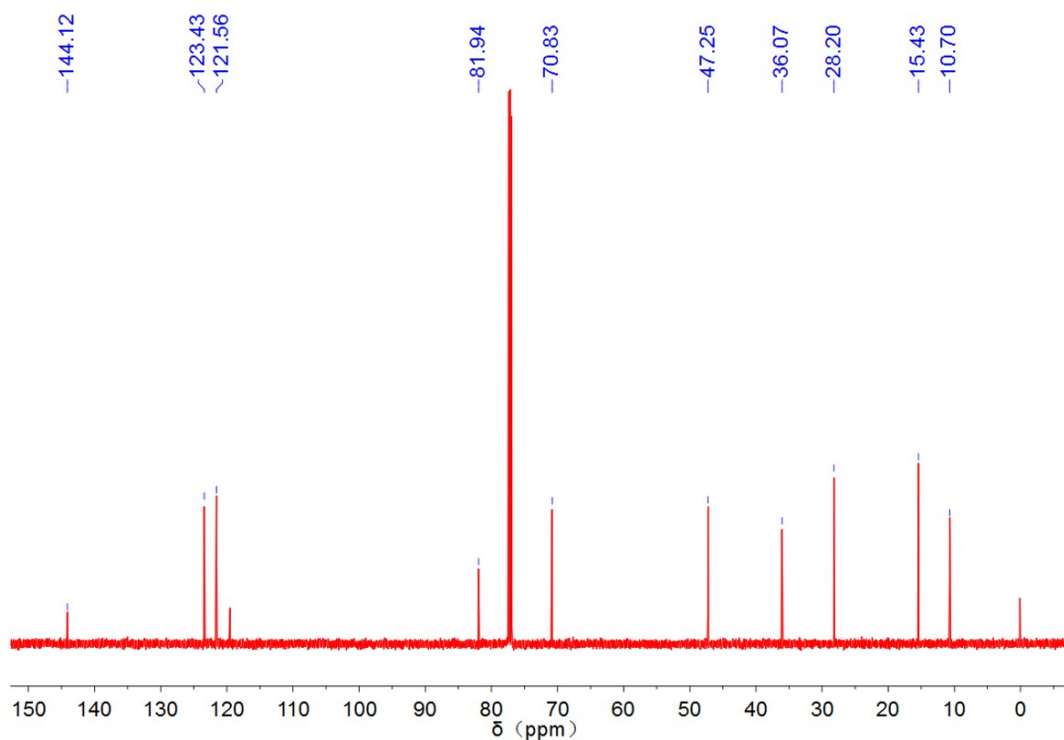


Figure S5. ^{13}C NMR spectrum of 1,2-dimethyl-3-(4-pentynyl)imidazolium chloride in CDCl_3

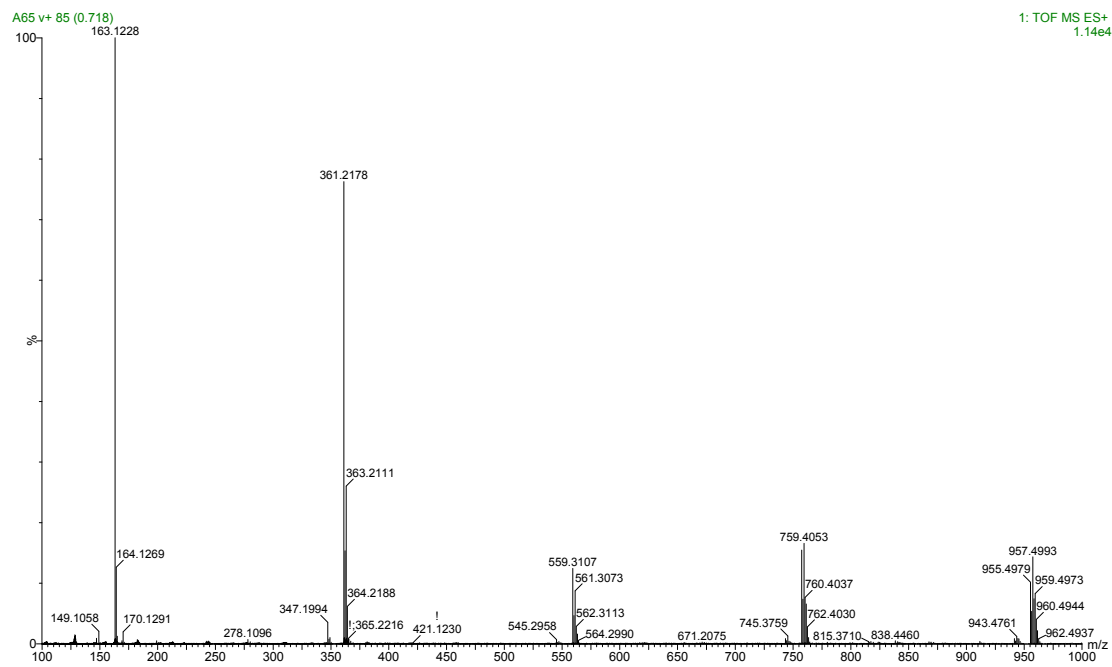


Figure S6. HR mass spectrum of 1,2-dimethyl-3-(4-pentynyl)imidazolium chloride

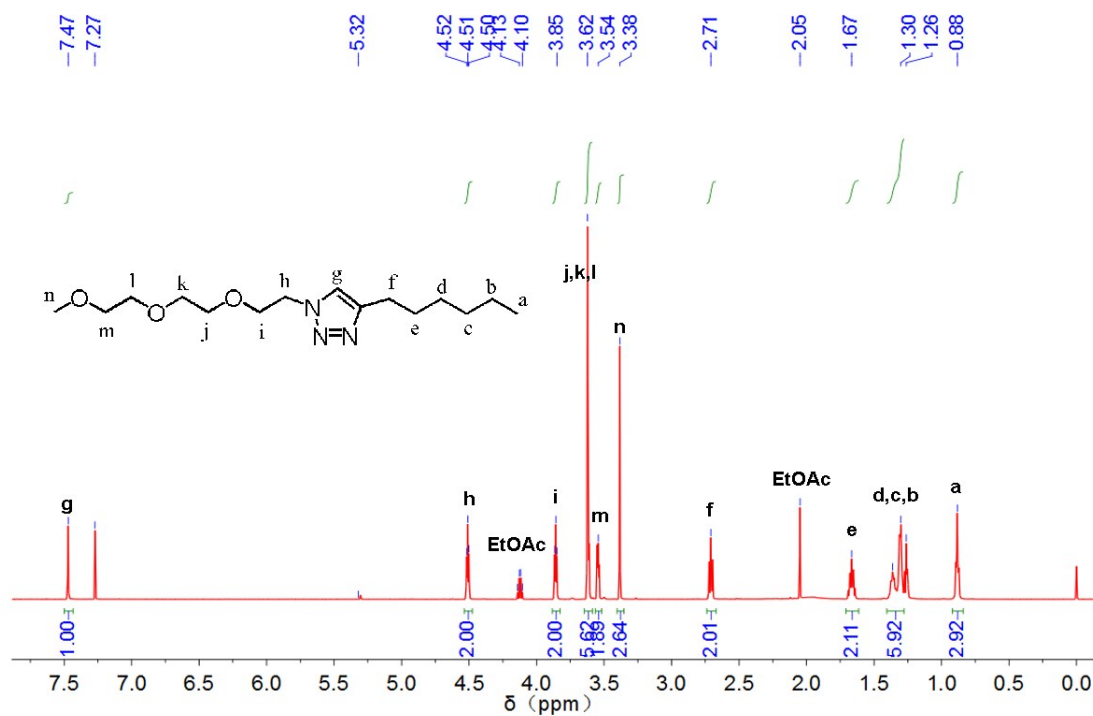


Figure S7. ¹H NMR spectrum of 1-methoxytri(ethylene glycol)-4-hexyl-1,2,3-triazole in CDCl₃

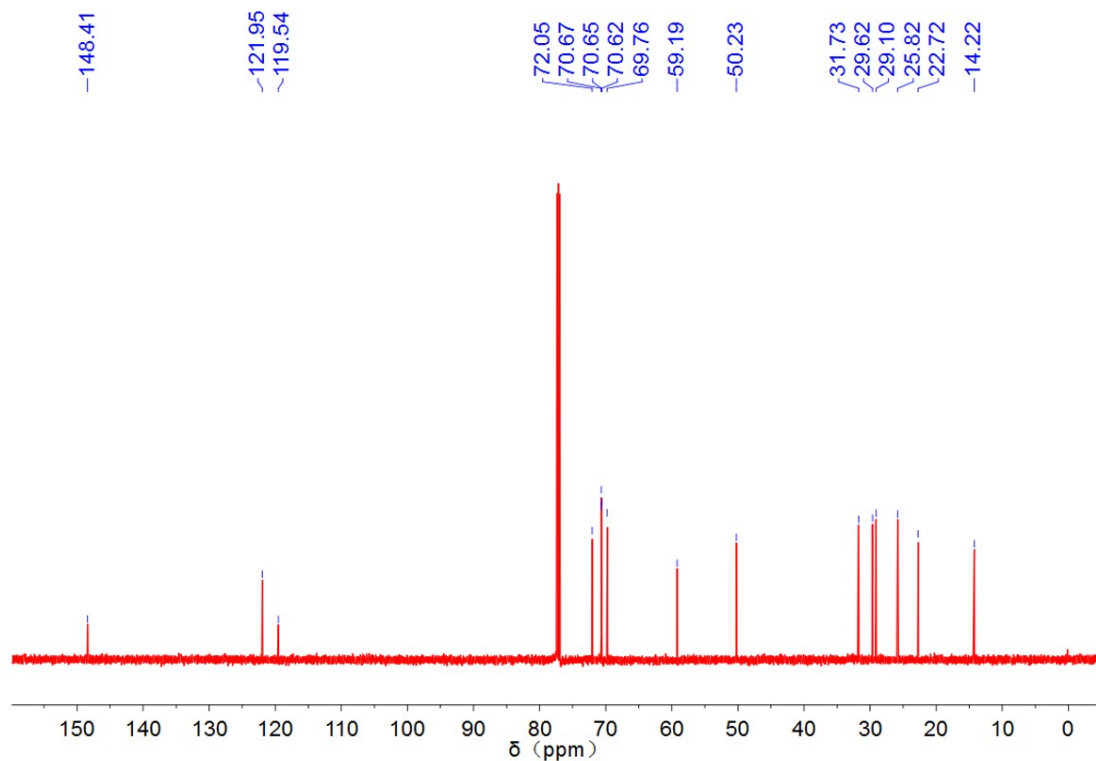


Figure S8. ¹³C NMR spectrum of 1-methoxytri(ethylene glycol)-4-hexyl-1,2,3-triazole in CDCl₃

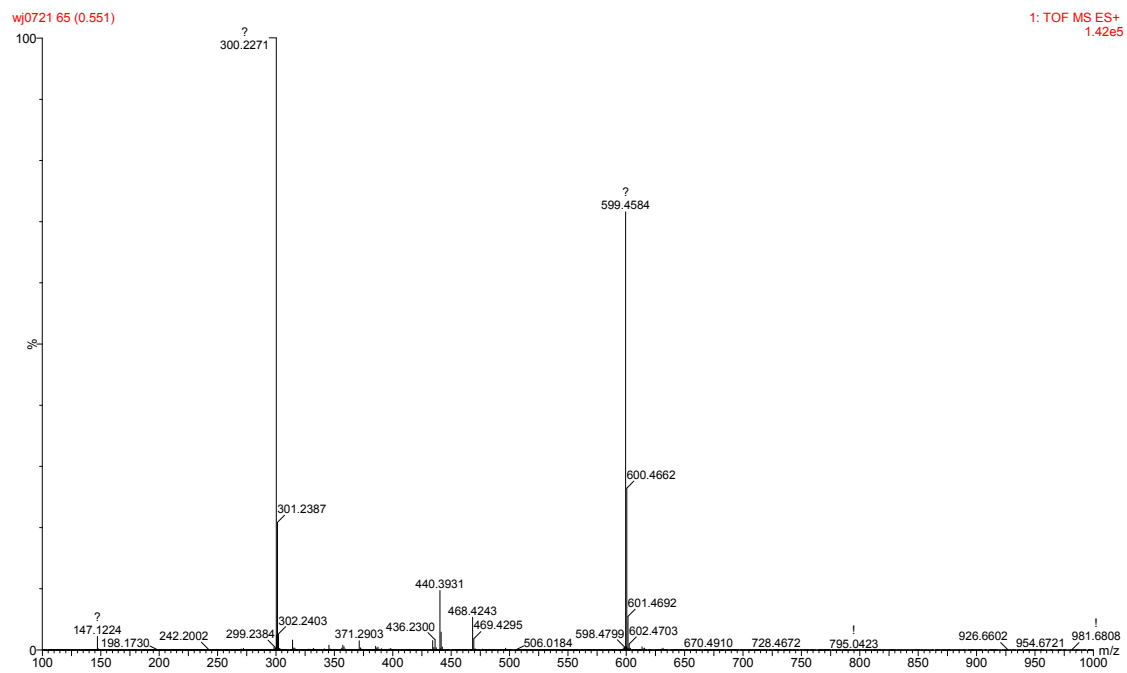


Figure S9. HR mass spectrum of 1-methoxytri(ethylene glycol)-4-hexyl-1,2,3-triazole