

Supplementary Information

Durable antifouling polyvinylidene fluoride membrane via surface zwitterionization mediated by amphiphilic copolymer

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Membrane surface zwitterionicalization

The blending membranes were further surface zwitterionicalization by the quaternization of PDMAEMA segments with 3-BPA. Typically, a fabricated blend membrane was immersed into a 0.05 g/ml of 3-BPA (ethanol as solvent) and shaken at 50 °C for 12h, taken out and immersed into deionized water and ethanol alternately for test.

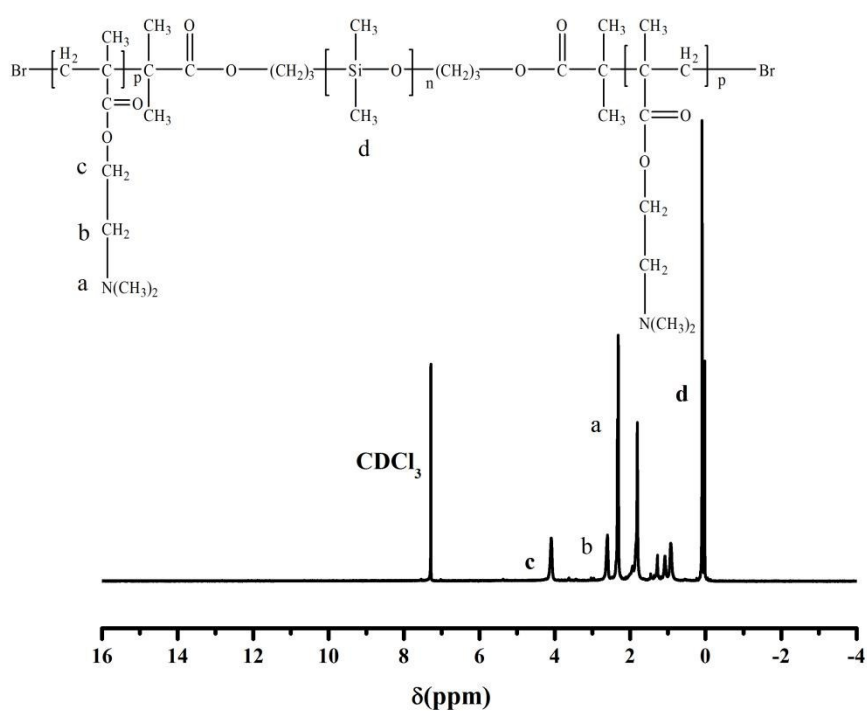


Fig. S1. ¹H NMR spectrum of PDMAEMA-PDMS-PDMAEMA

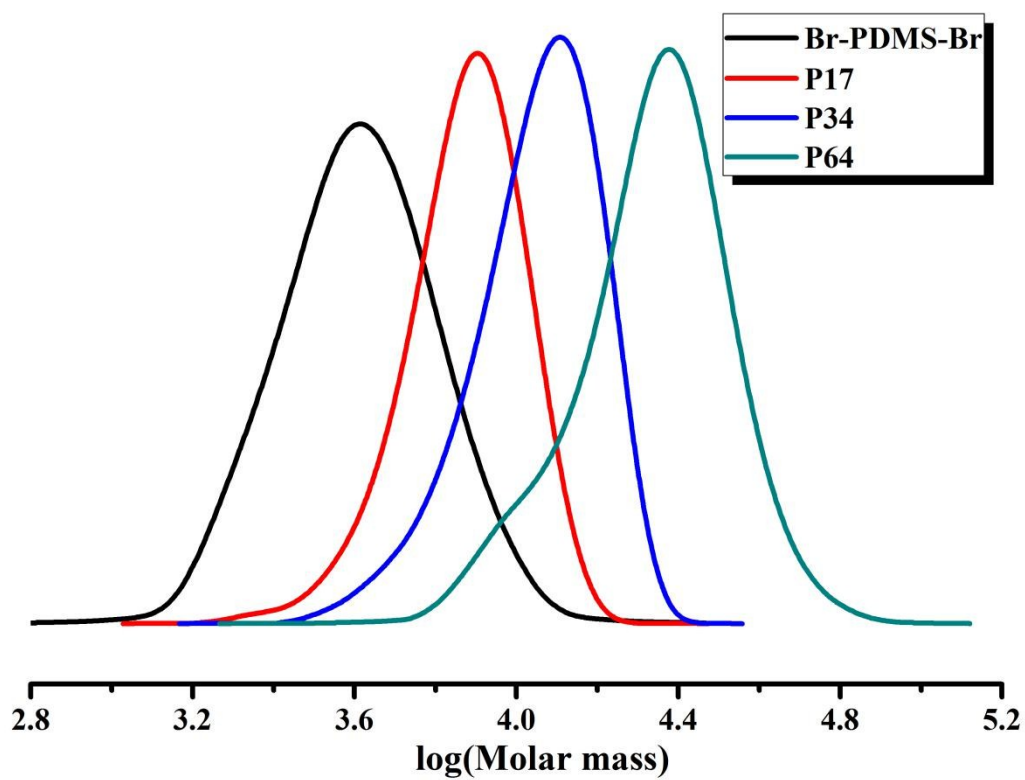


Fig. S2. GPC traces of Br-PDMS-Br and PDMAEMA-b-PDMS-b-PDMAEMA (P17, P34 and P64)

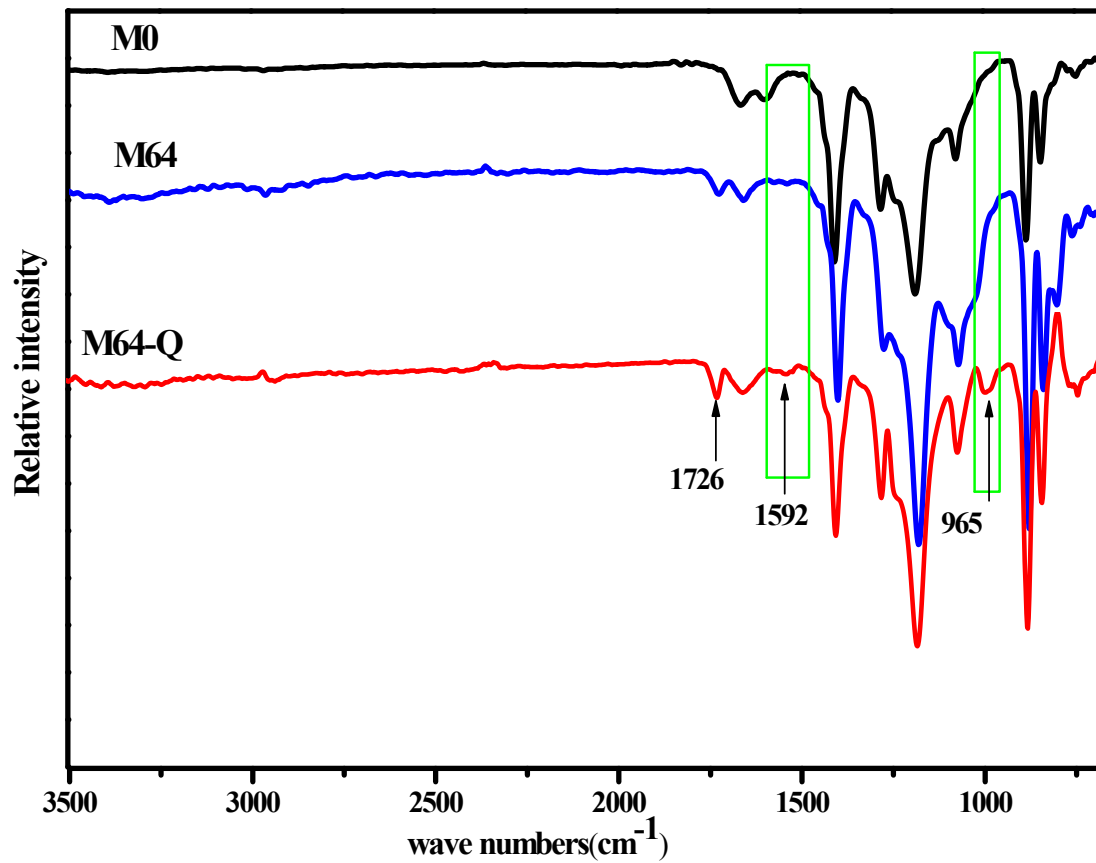


Fig. S3. FTIR/ATR spectra for the membranes of M0, M64 and M64-Q (after quaternization).