Supplementary Information

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

Mengyuan Shi, Jing Zhu, Chunju He*

The State Key Laboratory for Modification of Chemical Fibers and Polymer Materials

College of Materials Science and Engineering

Donghua University

Shanghai, 201620, P.R.China

*Corresponding author: Chunju He, chunjuche@dhu.edu.cn

TEL: 86-21-67792842

FAX: 86-21-67792855
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. $^1$HNMR 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).