Electronic Supplementary Material (ESI) for RSC Advances.

Reinforced anion exchange membrane based on thermal cross-linking method with outstanding cell performance for reverse electrodialysis

Young Ju Lee[a], Min Suc Cha[a,b], Seong-Geun Oh[b], Soonyong So[a], Tae-Ho Kim[a], Won Sun Ryoo[c]*, Young Taik Hong[a], and Jang Yong Lee[a]*

[a]Center for Membrane, Korea Research Institute of Chemical Technology, 141 Gajeong-ro, Yuseong-gu, Daejeon 34114, Republic of Korea

[b]Department of Chemical Engineering, Hanyang University, 222 Wangsimni-ro, Seongdong-gu, Seoul 04763, Republic of Korea

[c]Department of Chemical Engineering, Hongik University, 94 Wausan-ro, Mapo-gu, Seoul 04066, Republic of Korea

Corresponding author. E-mail: ljylee@krict.re.kr

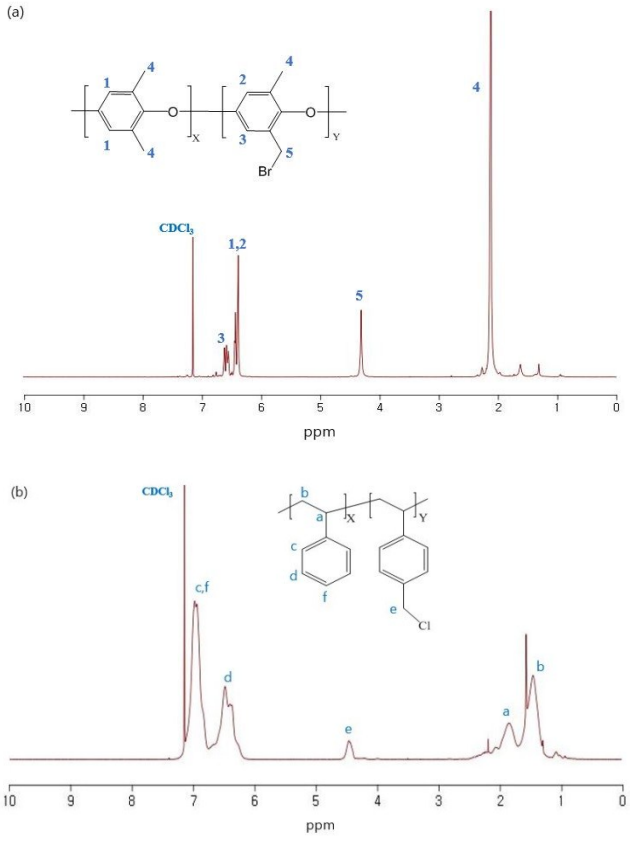

Fig. S1. ^{1}H NMR spectra of polymer (a)brPPO and (b)cmPS in $CDCl_3$

Figure S2. Pristine PE membrane and fabricated membranes

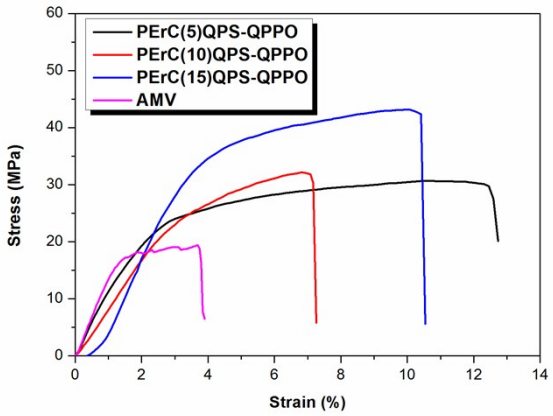

Figure S3. Stress-strain curves of the synthesized polymers and the AMV membrane in the dried state

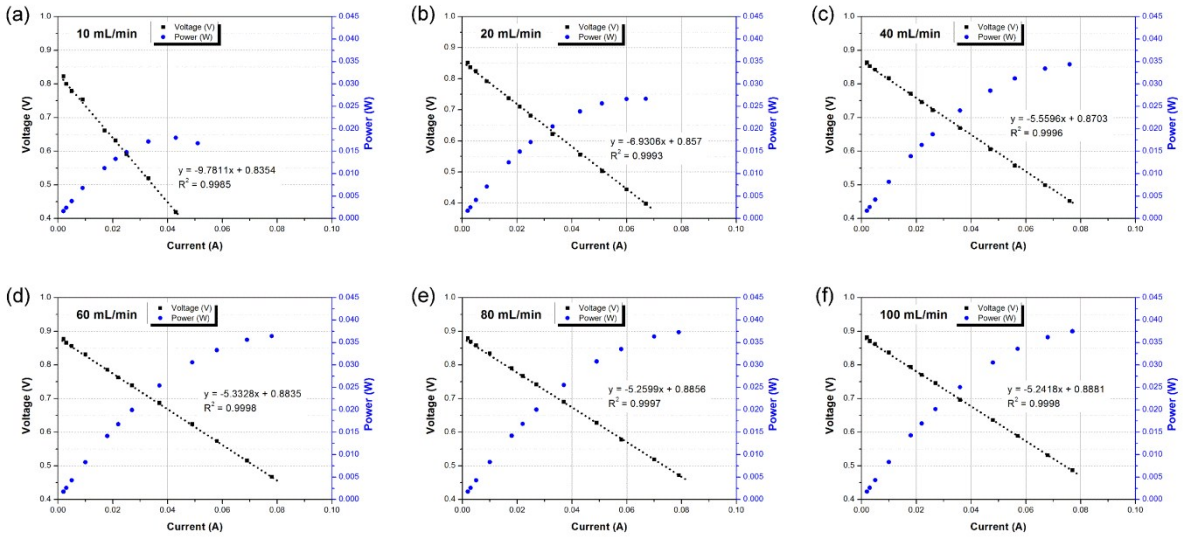

Figure S4. RED stack performance with CMV/AMV membranes

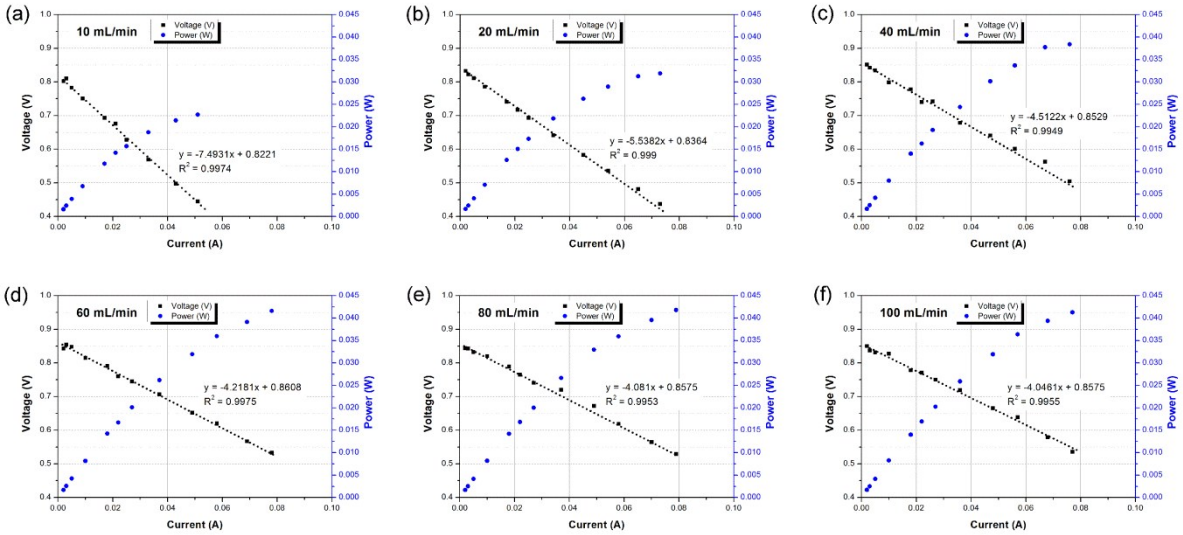

Figure S5. RED stack performance with CMV/ PErC(5)QPS-QPPO membranes