

SUPPLEMENTARY INFORMATION

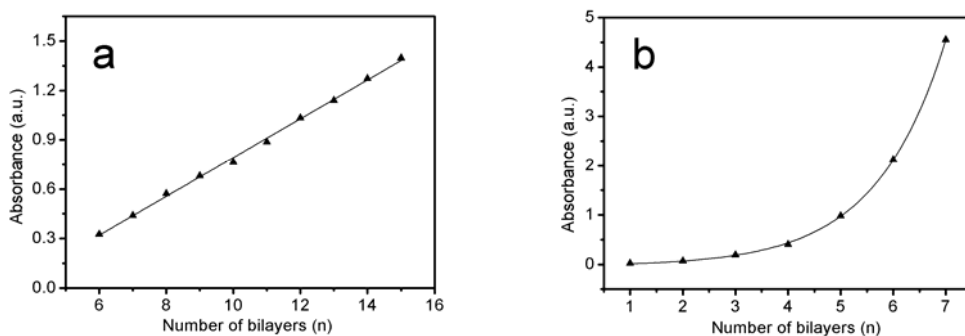


Fig. S1 UV-vis absorption intensity at 226 nm as a function of number of bilayers n for the (PSS/PDDA) $_n$ film assembled at NaCl concentration of (a) 0.5 M, and (b) 1.5 M. The peak at 226 nm is due to absorption of the aromatic units of PSS, and is often used to monitor quantitatively the amount of PSS in PEMs assembled.

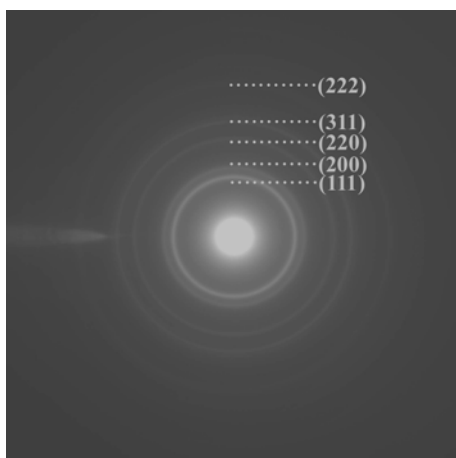


Fig. S2 A typical electron diffraction pattern of the Pt nanoparticles synthesized within PEM.

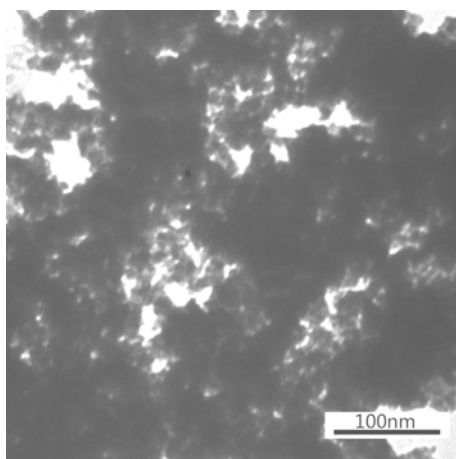


Fig. S3 TEM image of the Pt black/Nafion composite used.

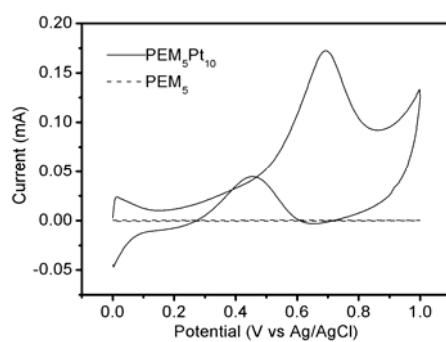


Fig. S4 Comparison of the CV curves for PEM and PEM₅Pt₁₀ films deposited on ITO electrode.

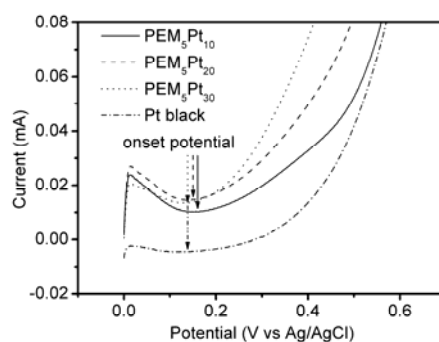


Fig. S5 Magnified CV traces of PEM/Pt and Pt black coated on ITO electrode. Onset potentials are indicated.