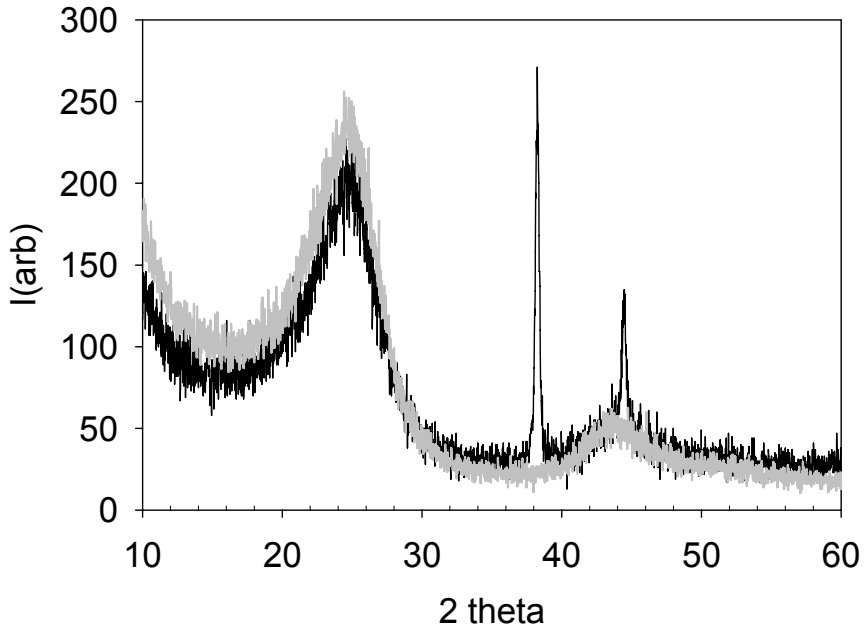

Fig. S1 X-ray diffraction pattern for Co-poly(dfp)/VC sample F2 (black) and VC (gray) The sharp features at 2θ = 38° and 2θ = 45° are due to metallic Au contamination in Co-poly(dfp)/VC.

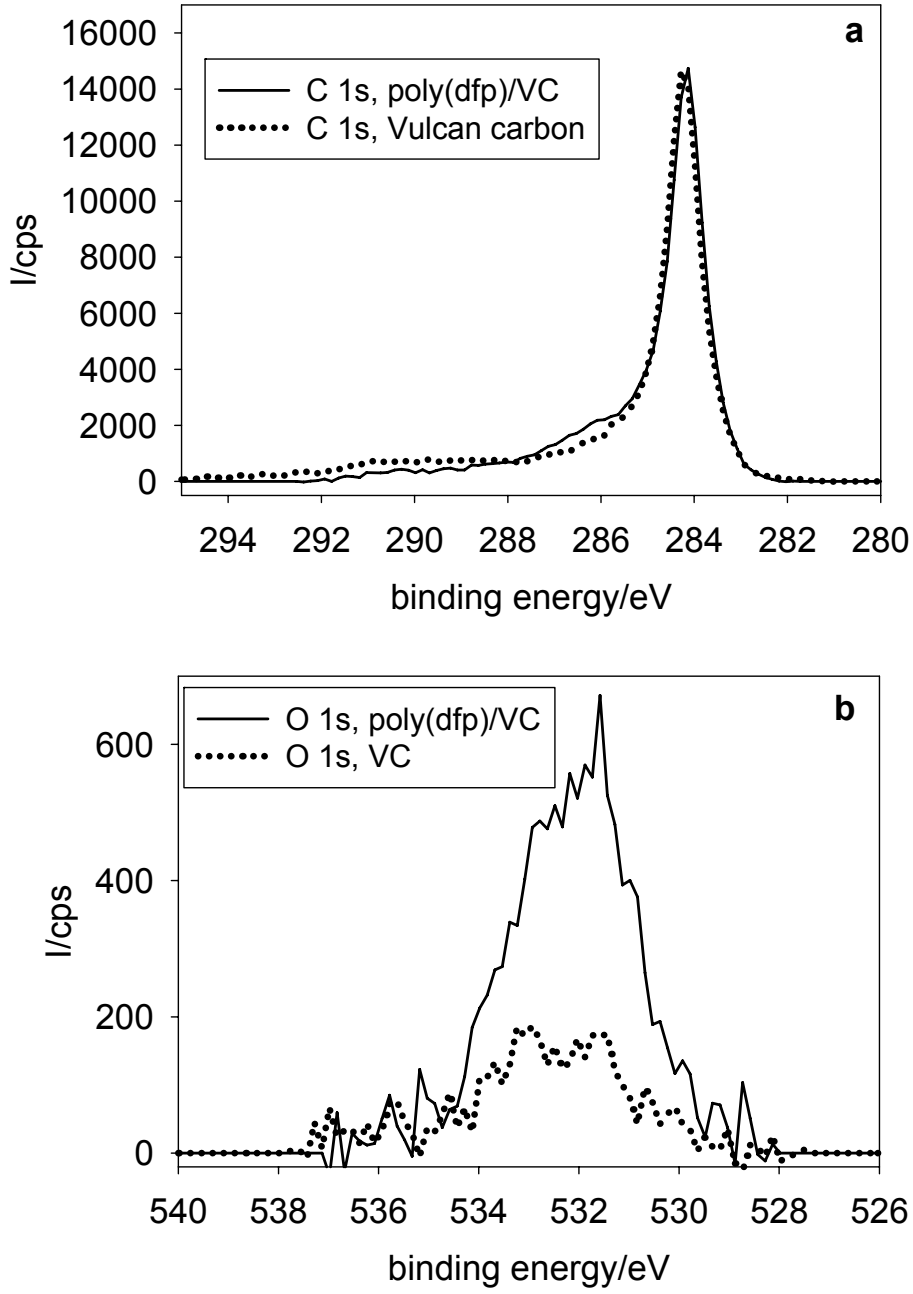

Fig. S2 High-resolution X-ray photoelectron spectra of poly(dfp)/VC sample F2 and Vulcan carbon in both the (a) C 1s and (b) O 1s regions of the spectrum.

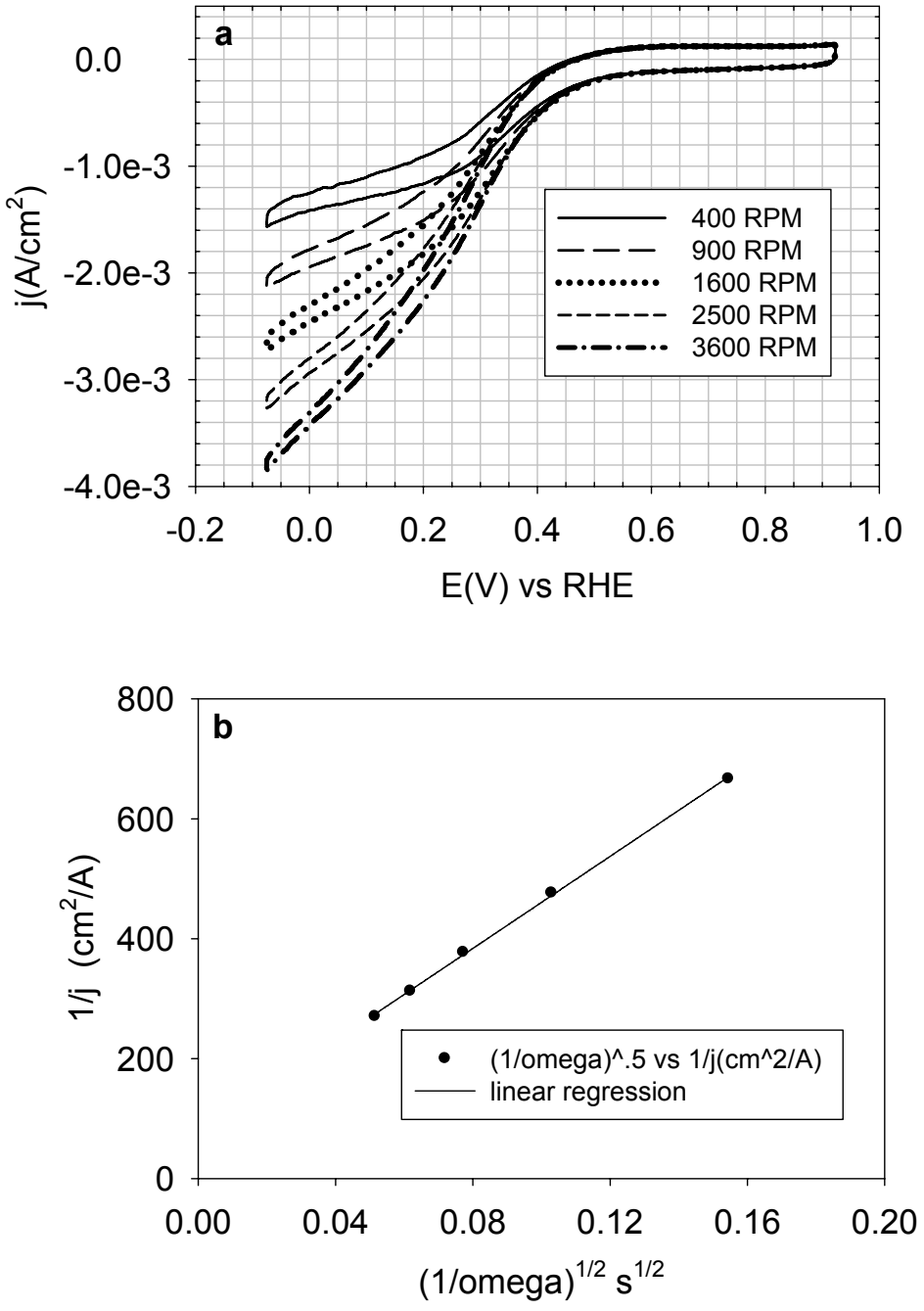

Fig. S3 (a) Rotating disk voltammetry Co-poly(dfp)/VC films on 0.196 cm^2 glassy carbon disk electrodes in sat'd O_2/0.1 M $HClO_4$ (aq) at rotation rates of 400–3600 rpm. (b) Koutecky-Levich plot of data from (a) taken at the negative limit of the voltammatric scan, yielding a value of n = 1.4.

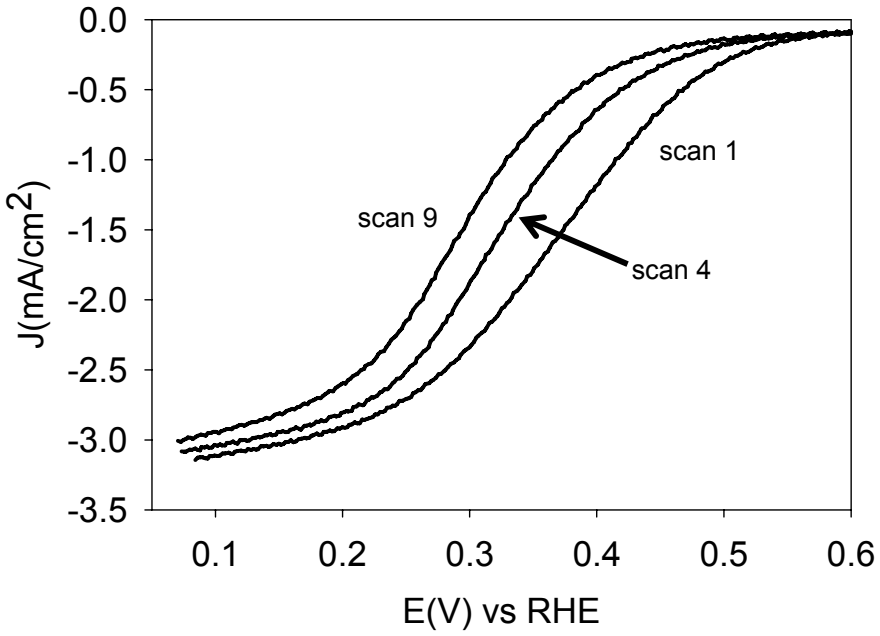

Fig. S4 Rotating disk voltammetry of Nafion^{TM}-bound Co-poly(dfp)/VC films on 0.196 cm^2 glassy carbon disk electrodes in sat'd O_2/0.1 M $HClO_4$ (aq) showing several consecutive scans. For clarity, only the negative-going sweeps are shown. Scan rate = 50 mV/s; Rotation rate = 1600 RPM.

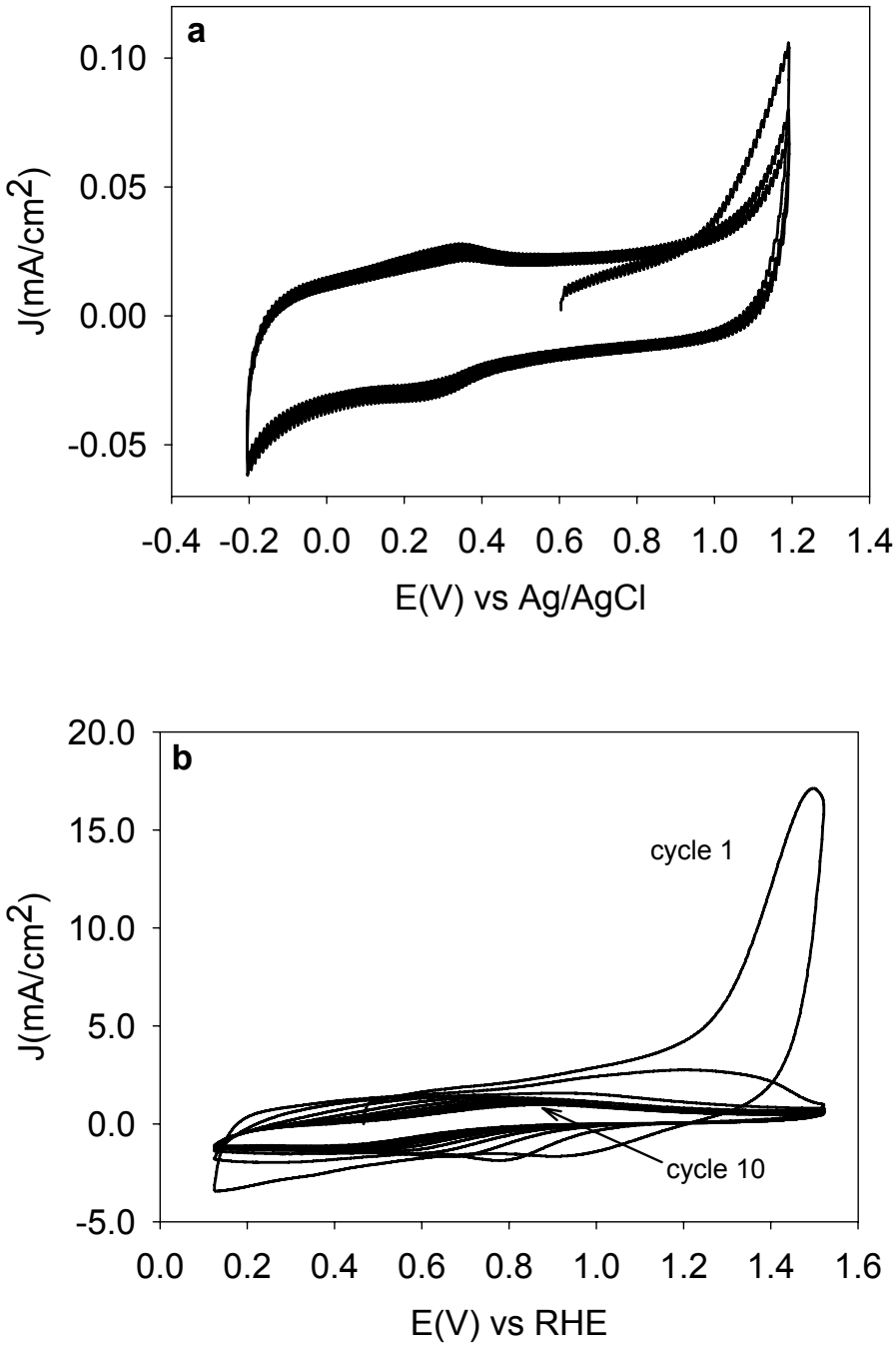

Fig. S5 Cyclic voltammetry of (a) poly(dfp) and (b) ppyr films on 0.071 cm^2 glassy carbon disk electrodes in sat'd Ar/0.1 M $HClO_4$ (aq), showing 10 consecutive voltammetric sweeps. Scan rate = 100 mV/s.