Electronic Supplementary Material (ESI) for Analytical Methods

Supplementary Information

Novel pH sensor based on anthraquinone–ferrocene modified free standing gold nanowire array electrode

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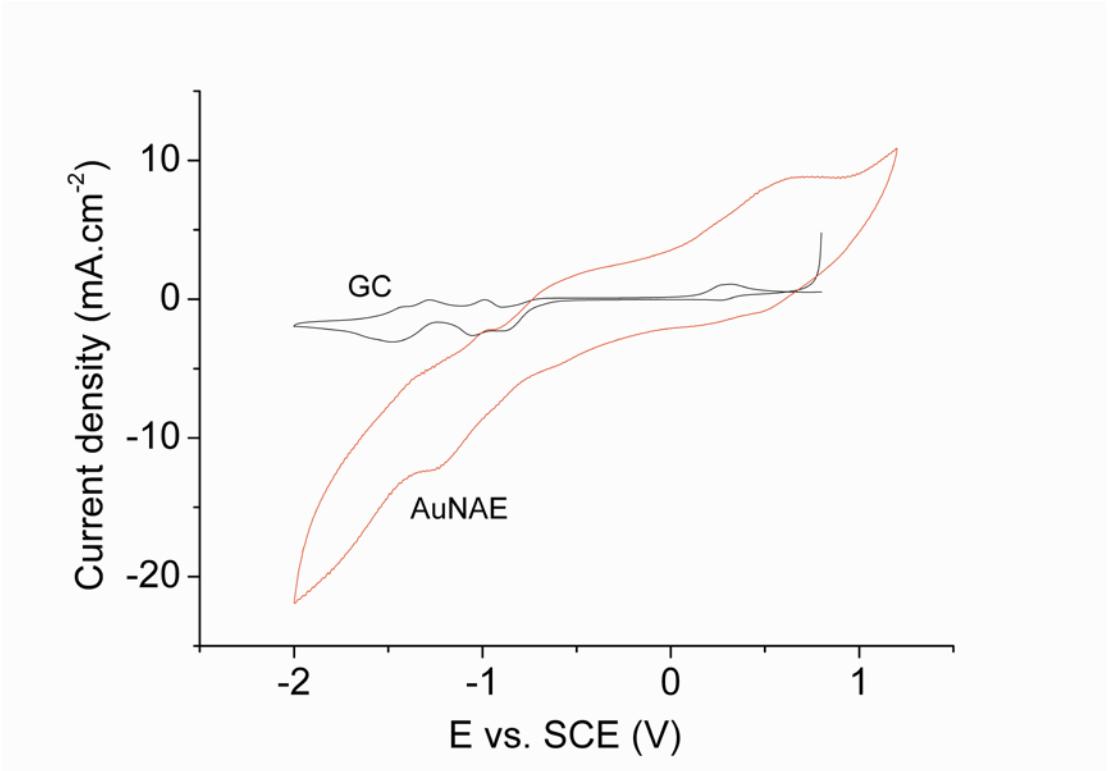

Fig. S1 Cyclic voltammograms of GC and AuNAE in AQ-Fc dissolved in acetonitrile (electrolyte: 0.1 M tetrabutyl ammonium hexafluorophosphate).

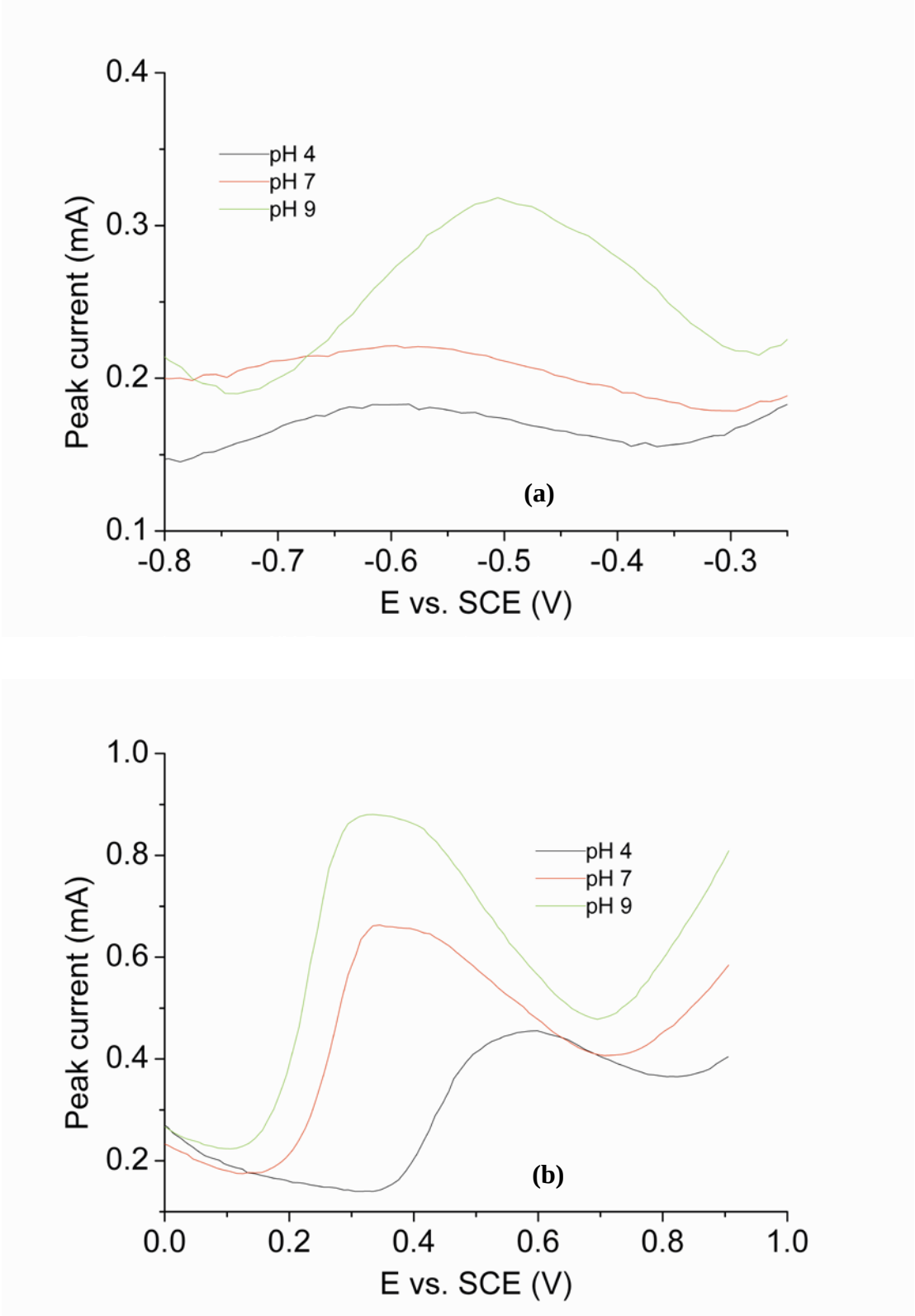

Fig. S2 SWV of AQ-Fc modified AuNAE in various pH solutions (a) potential range from -0.8 to -0.35 V; (b) potential range from 0 to 0.9 V.

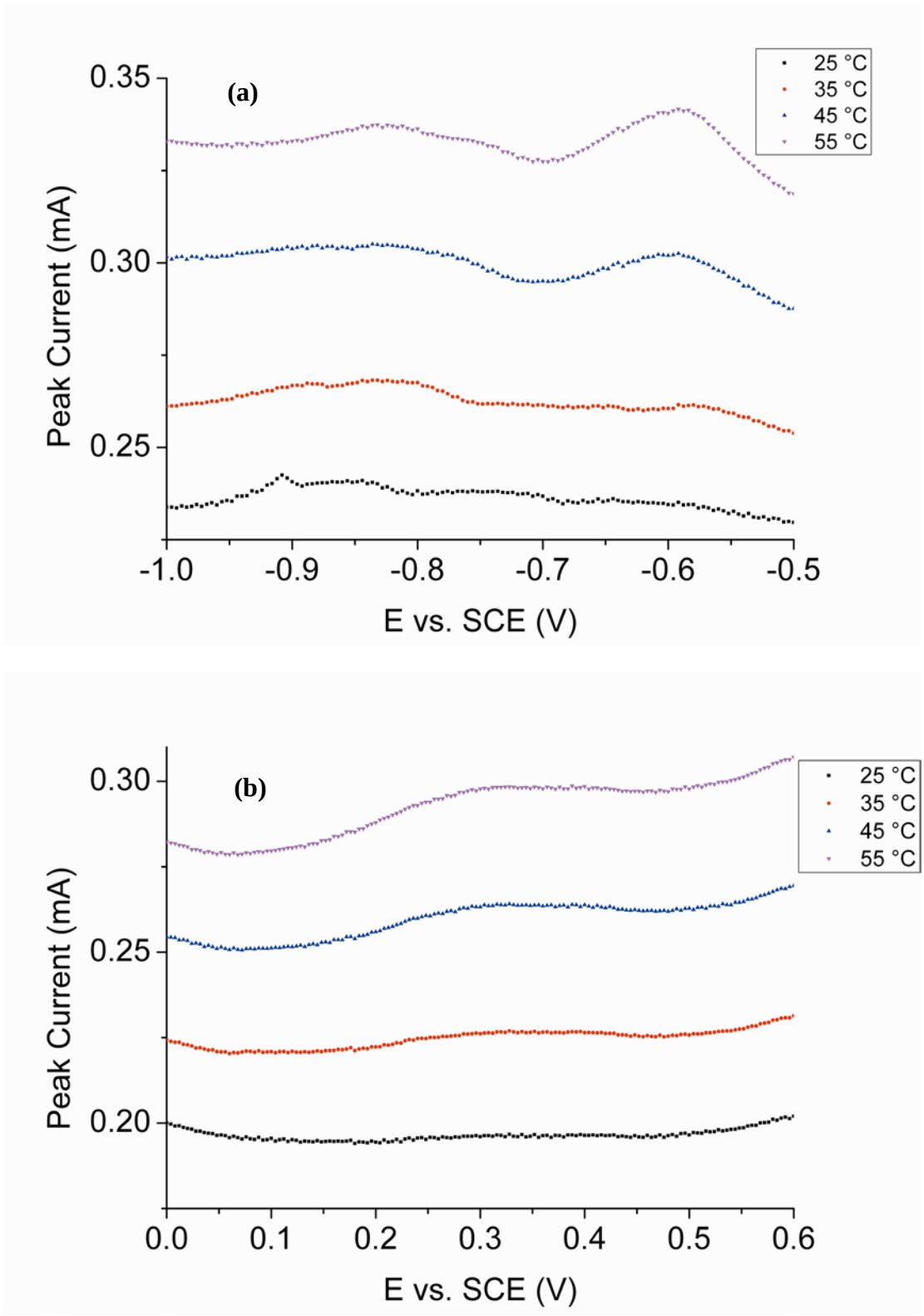

Fig. S3 SWV of AQ-Fc modified AuNAE in pH 7 at various temperatures (25, 35, 45 and 55 °C) (a) potential range from -1.0 to -0.50 V; (b) potential range from 0.0 to +0.6 V.

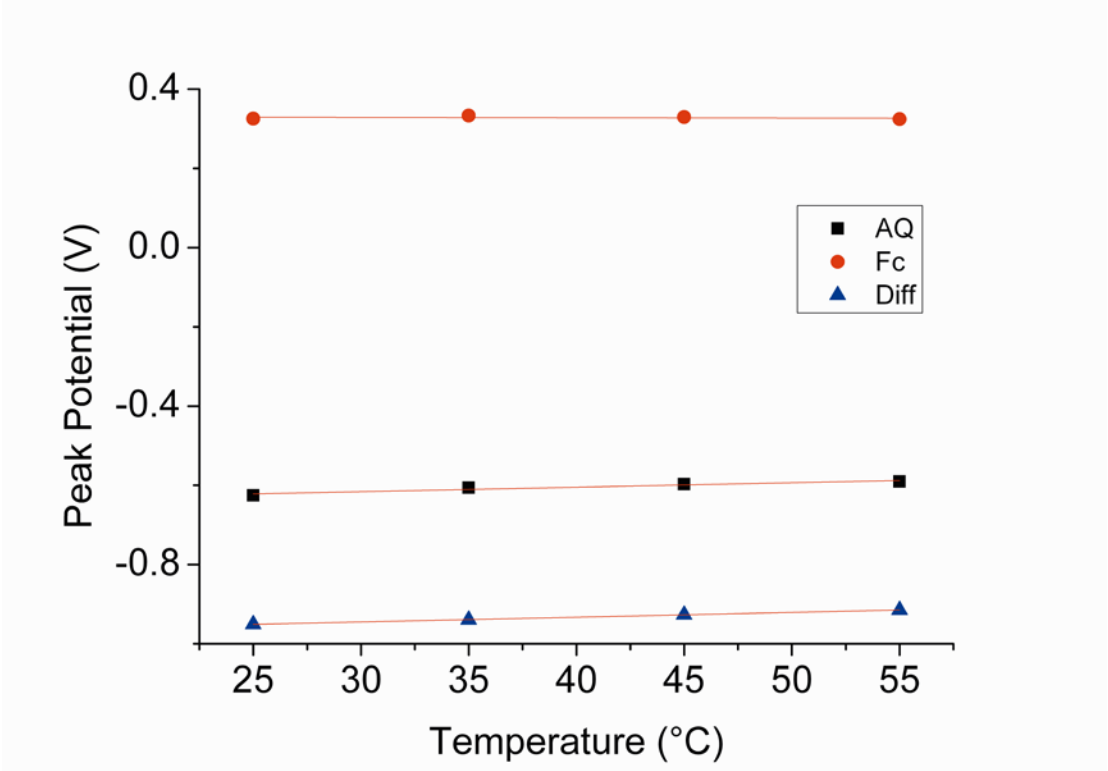

Fig. S4 A plot of peak potential against temperature for the Fc, the AQ and the difference in peak potential between both Fc and AQ, at pH 7.