

Supplementary Information

Cobalt Phthalocyanine Modified Electrodes Utilised in Electroanalysis: Nano-Structured Modified Electrodes vs. Bulk Modified Screen-Printed Electrodes. *Sensors* 2014, 14, 21905-21922

Christopher W. Foster ¹, Jeseelan Pillay ², Jonathan P. Metters ¹ and Craig E. Banks ^{1,*}

¹ Faculty of Science and Engineering, School of Chemistry and the Environment, Division of Chemistry and Environmental Science, Manchester Metropolitan University, Chester Street, Manchester M15 6GD, Lancs, UK; E-Mails: cwfoster90@gmail.com (C.W.F.); jpmatters@gmail.com (J.P.M.)

² Nanotechnology Innovation Centre, Advanced Materials Division, Mintek, 200 Malibongwe Drive, Randburg 2125, South Africa; E-Mail: jessiep@mintek.co.za

* Author to whom correspondence should be addressed; E-Mail: c.banks@mmu.ac.uk; Tel.: +44-(0)161-247-1196; Fax: +44-(0)161-247-6831.

Figure S1. Typical SEM images taken for the increasing masses of 5×10^{-3} , $10 \mu\text{g}$ & $50 \mu\text{g}$ nano-CoTAPC (A to C respectively) on the surface of a standard-SPE.

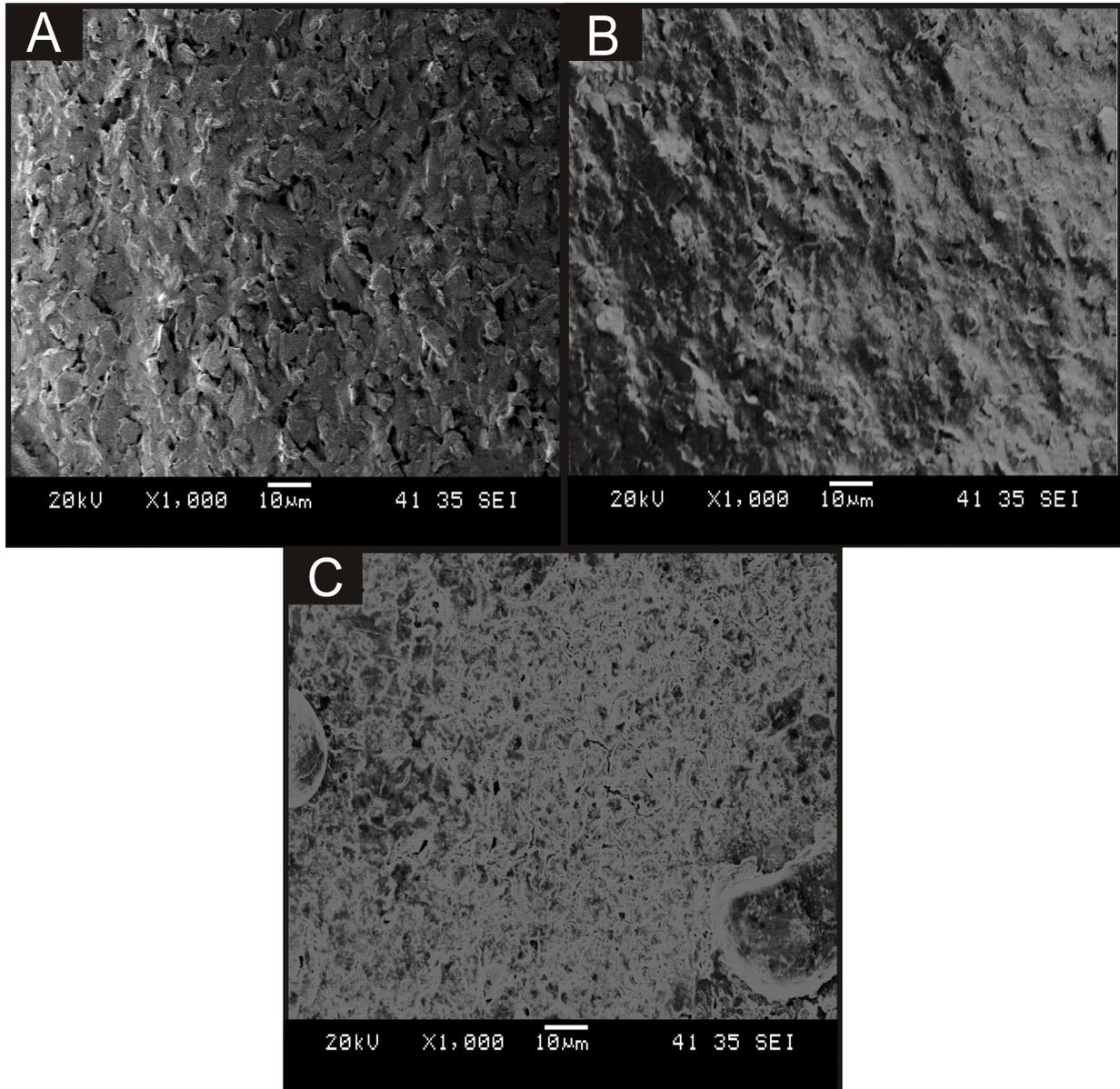


Figure S2. Raman spectra and 2D mapping of the peak obtained at 748 cm^{-1} for the bulk CoPC-SPE and standard-SPEs modified with both 5×10^{-3} and $20\text{ }\mu\text{g}$.

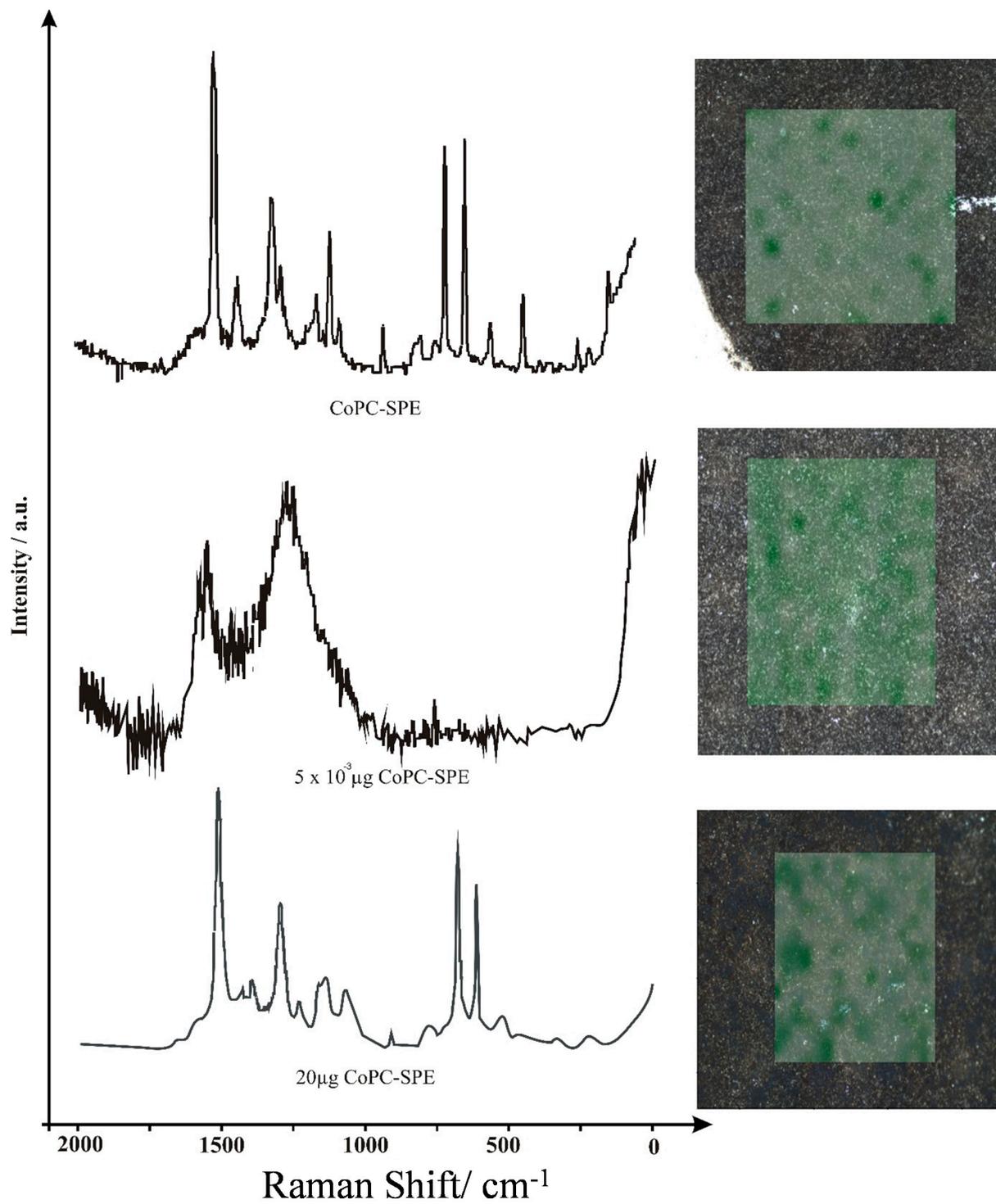


Figure S3. Typical cyclic voltammograms utilising a standard-SPE (solid line), GCE (dashed line) and BDDE (dotted line) recorded in a blank pH 7.4 PBS and in the presence of 1 mM L-ascorbic acid. Scan rate: 100 mV s^{-1} .

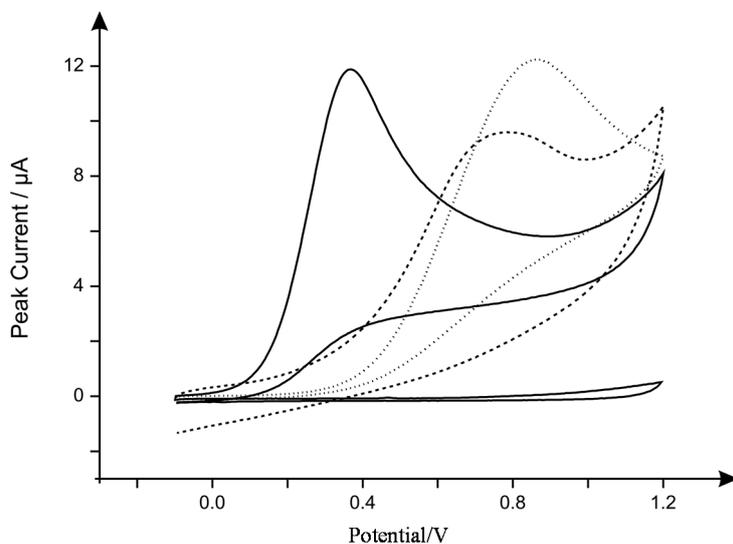


Figure S4. Cyclic voltammograms recorded in the absence (solid line) and presence of 1 mM L-ascorbic acid (dashed line) in pH 7.4 PBS and plots of nano-CoTAPC mass vs. peak height of the peak obtained at $\sim +0.90 \text{ V}$ vs. SCE utilising a GCE (A + B) and BDDE (C + D) respectively as the underlying electrode surfaces. Scan rate: 100 mV s^{-1} .

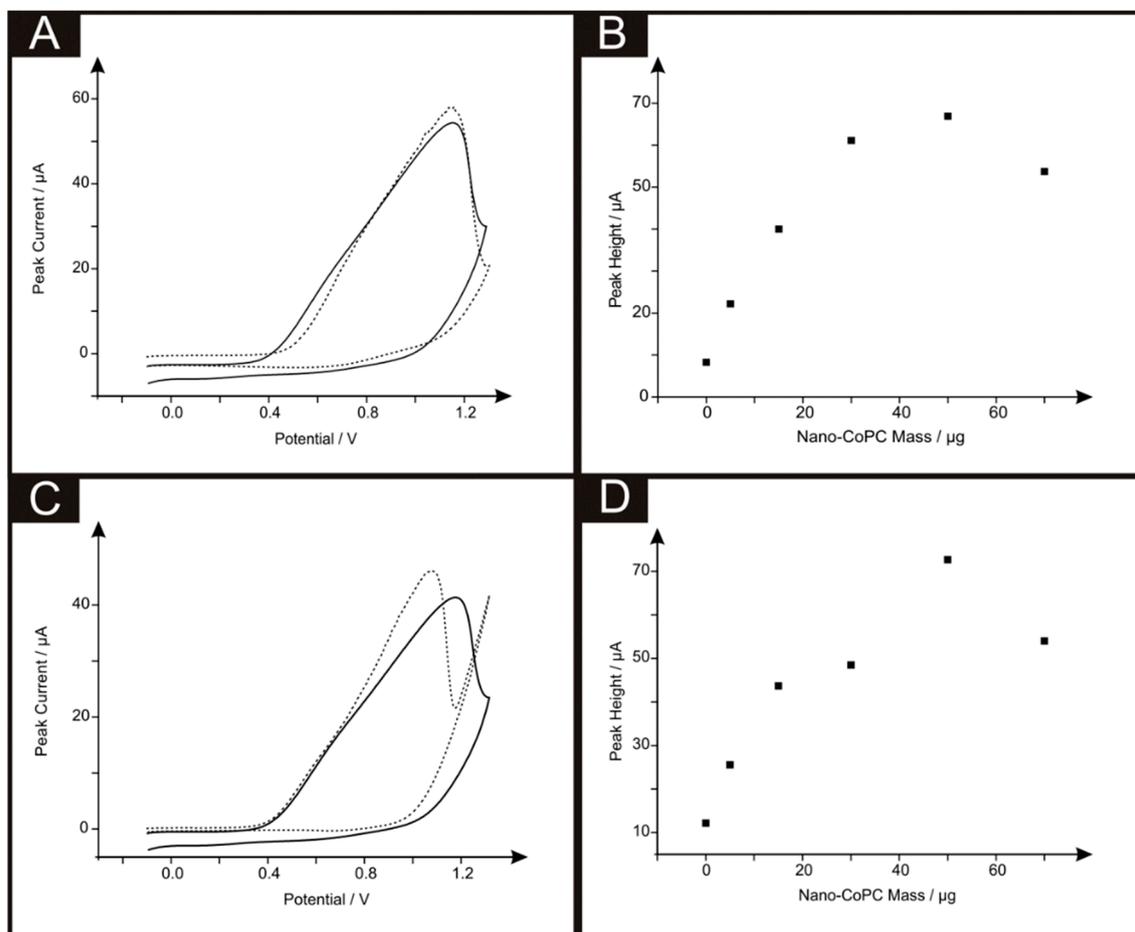


Figure S5. Cyclic voltammograms utilising a standard-SPE modified with increasing CoPC mass in the presence of 1 mM L-ascorbic acid in pH 7.4 PBS.

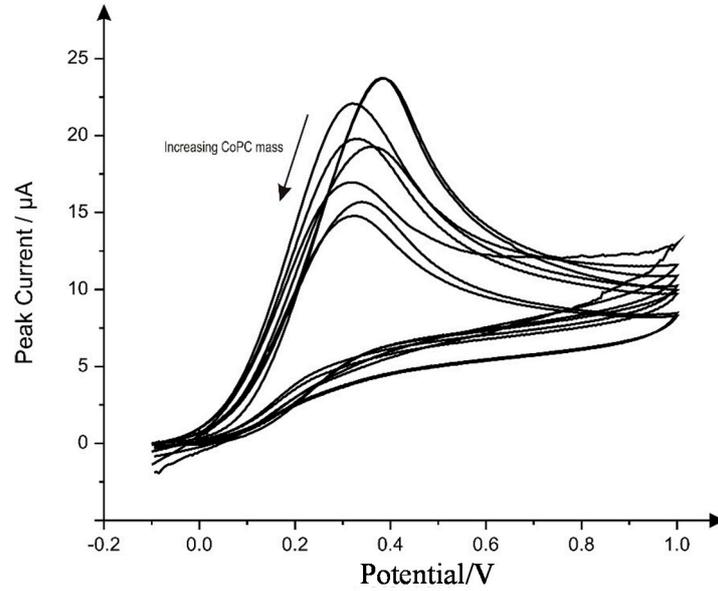


Figure S6. Cyclic voltammograms performed over the range 5 to 500 mV s^{-1} recorded in a solution of 1 mM L-ascorbic acid in pH 7.4 PBS using a *new* CoPC-SPE for each scan rate.

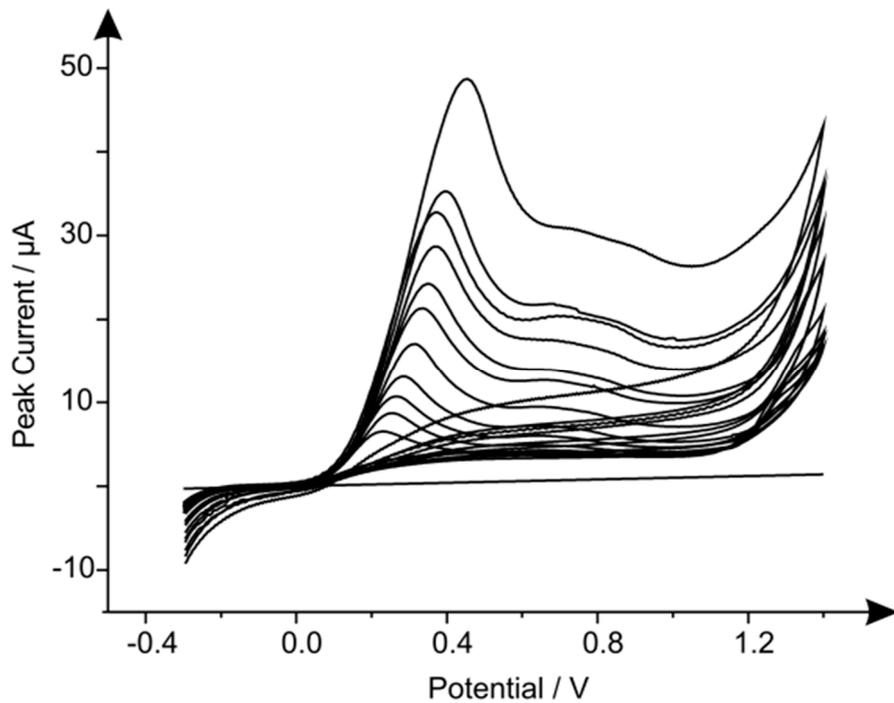
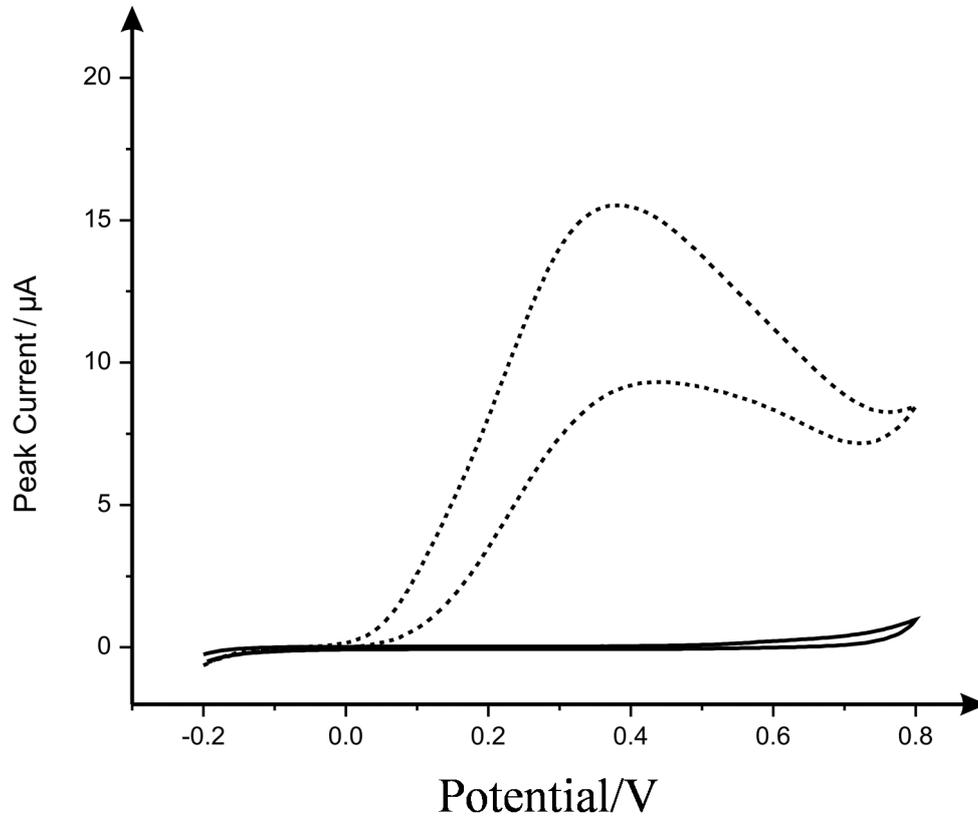


Figure S7. Cyclic voltammograms utilising a standard-SPE (solid) and a bulk-CoPC SPE (dotted line) towards the sensing of 500 μM hydrazine in pH 7 PBS. Scan rate: 100 mV s^{-1} .



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