MDPI

Supplementary Material

Determination of Trolox Equivalent Antioxidant Capacity in Berries Using Amperometric Tyrosinase Biosensor Based on Multi-Walled Carbon Nanotubes

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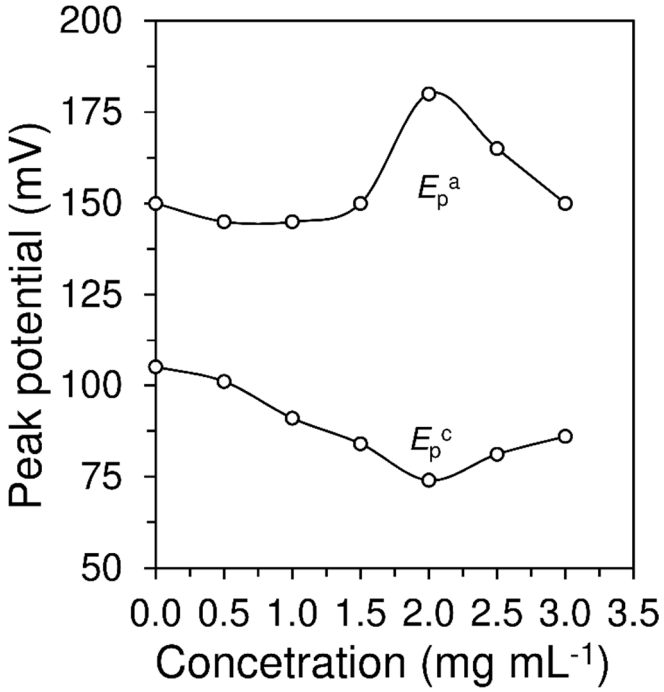


Figure S1: Effect of carbon nanotubes content in DMF dispersion on the anodic and cathodic peak potentials of 5×10^{-4} mol L^{-1} Trolox at CPE/MWCNTs in 0.1 mol L^{-1} PB (pH 7.0) at scan rate 0.05 V s^{-1}.

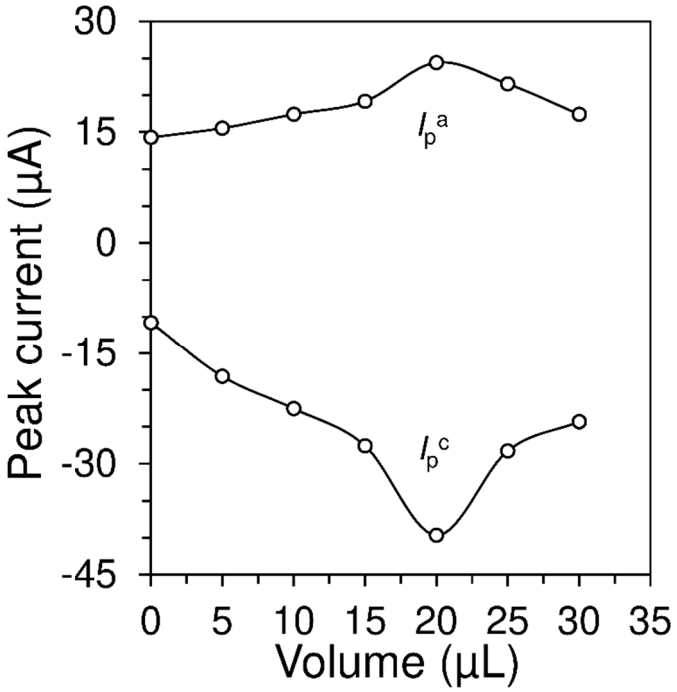
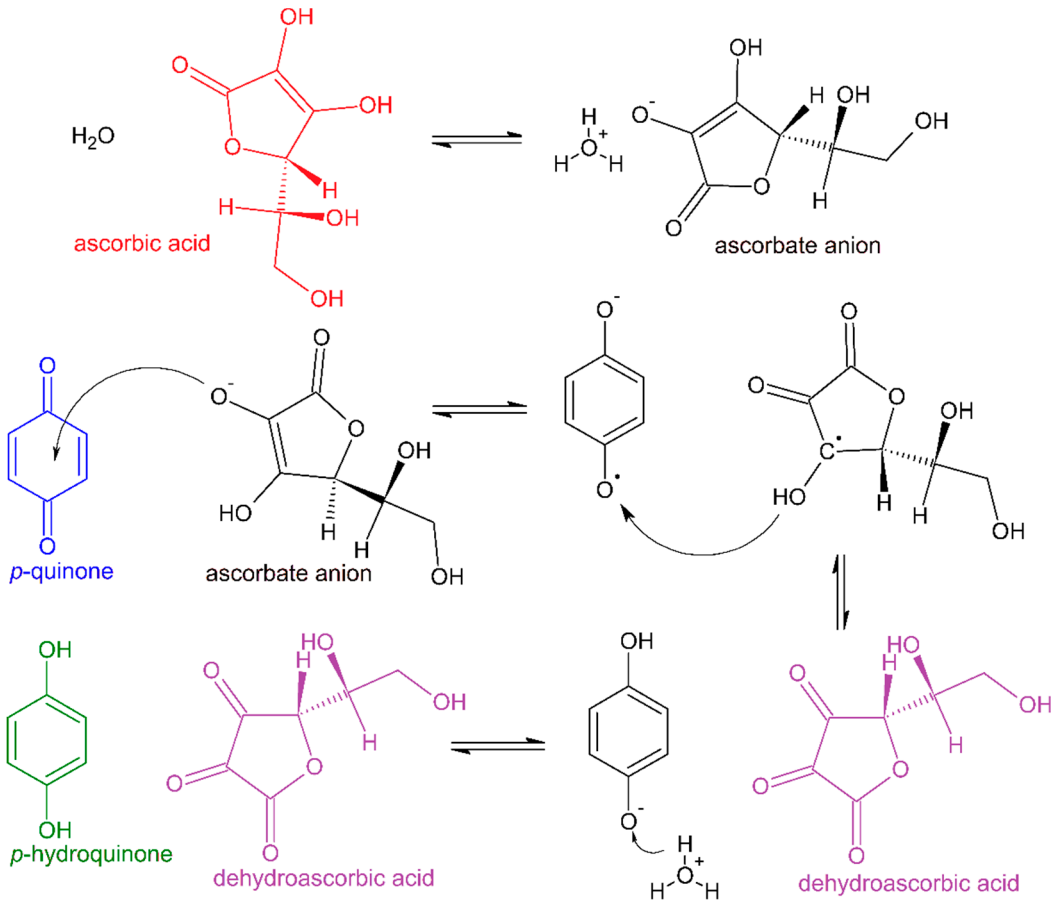


Figure S2. Dependency of peak current on different volumes of MWCNTs (2.0 mg mL^{-1}) dispersion in DMF using for immobilization using cyclic voltammetry, 5 × 10^{-4} mol L^{-1} Trolox in 0.1 mol L^{-1} PB (pH 7.0) at scan rate 0.05 V s^{-1}.



Scheme S1. Proposed mechanism of *p*-quinone reduction by ascorbic acid [11].

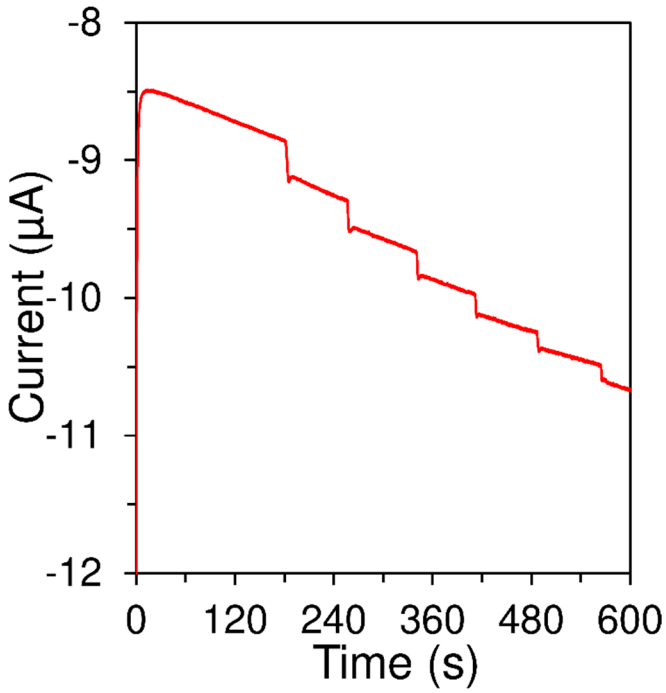


Figure S3. Typical amperometric responses of the CPE/MWCNTs/TYR/Nafion® biosensor to individual additions of 150 µmol L^{-1} Trolox. Measured in 0.1 mol L^{-1} PB (pH 7.0) at working potential -0.25 V and stirring speed of 400 rpm.