Electronic Supplementary Material (ESI) for Analytical Methods.

Supporting material

Electrochemical Oxidation and determination of norepinephrine in the presence of acetaminophen using MnO_2 nano particles decorating reduced graphene oxide sheets

A.T. Ezhil Vilian, Shen-Ming Chen* Yu-Tsung Hung,

*Department of Chemical Engineering and Biotechnology, National Taipei University of Technology, No.1, Section 3, Chung-Hsiao East Road , Taipei 106, Taiwan (R.O.C)

*Corresponding author. Fax: +886 2270 25238; Tel: +886 2270 17147,

E-mail: smchen78@ms15.hinet.net

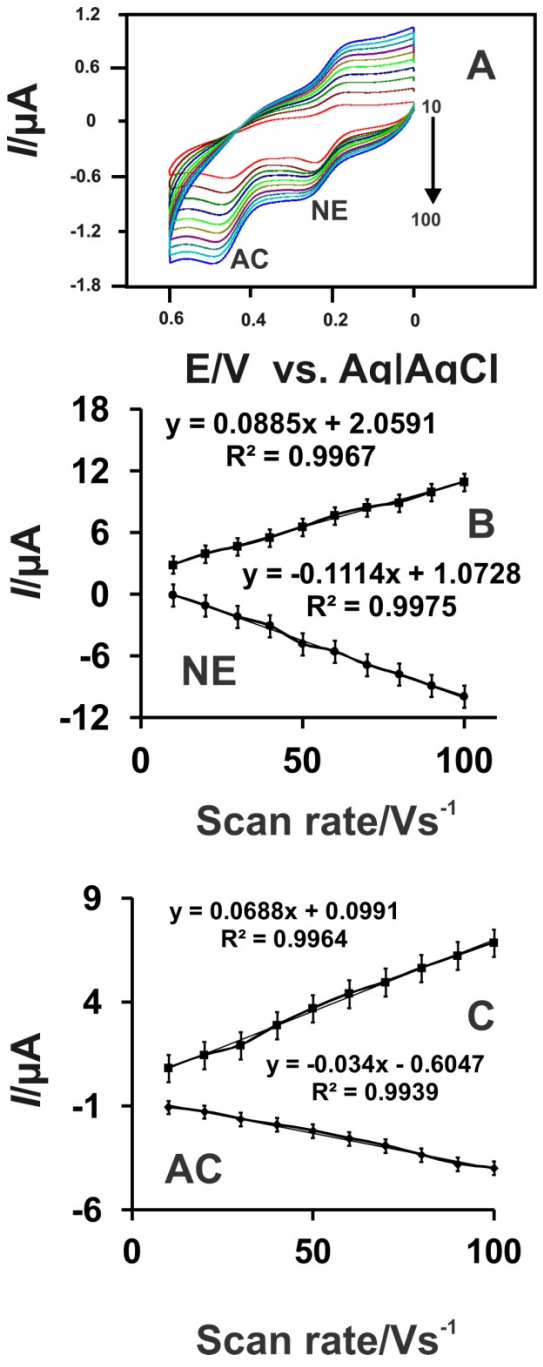

Fig. S1A. Effect of the scan rate on the cyclic voltammetric response of 1×10^{-4} M NE and 1×10^{-4} M AC at the MnO_2/CRGO at 10 to 100, mV s^{-1}, respectively. (B) The plot of NE peak current vs. scan rate and (C) the plot of AC peak current vs. scan rate.

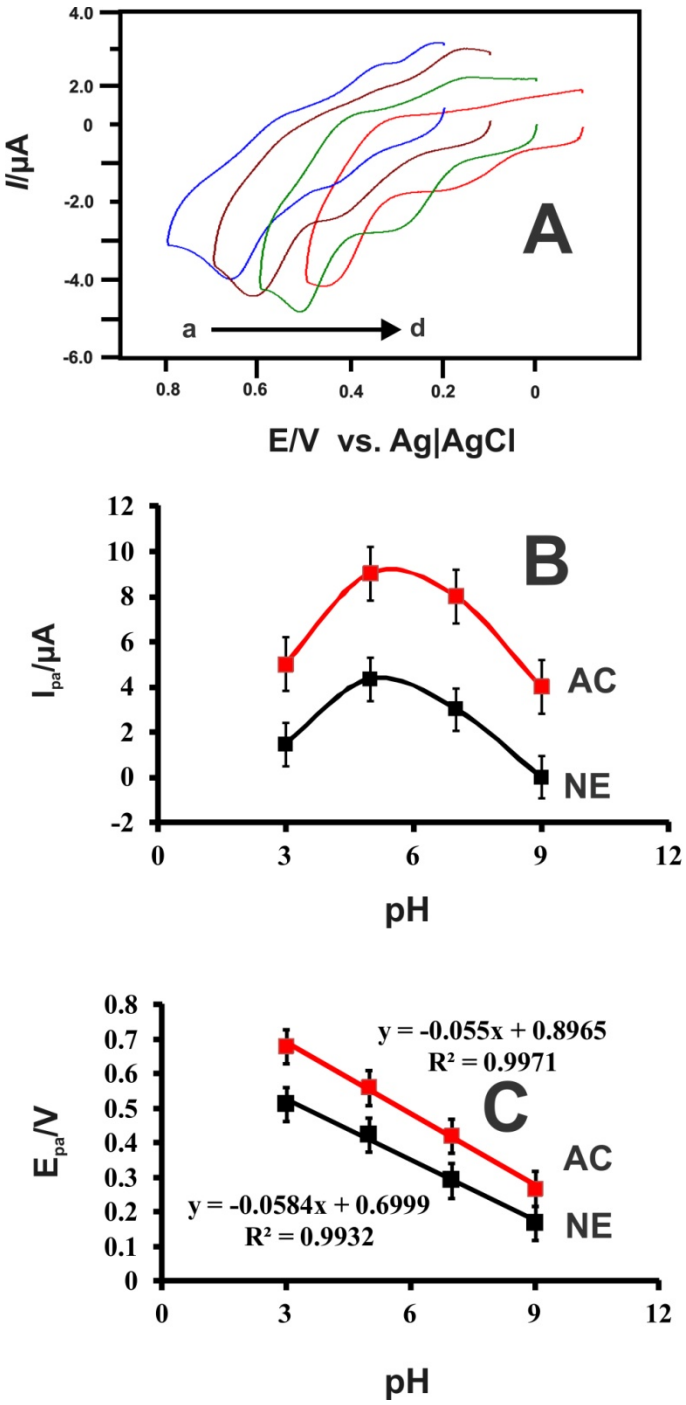

Fig. S2A .CVs of 1×10^{-4} M NE and 1×10^{-4} M AC at the MnO_2/CRGO modified GCE at different pH. From (a) to (d) pH = 3.0, 5.0, 7.0, and 9.0.(B) and (C) Effect of pH on anodic peak current (A) and anodic peak potential (B) for NE and AC.

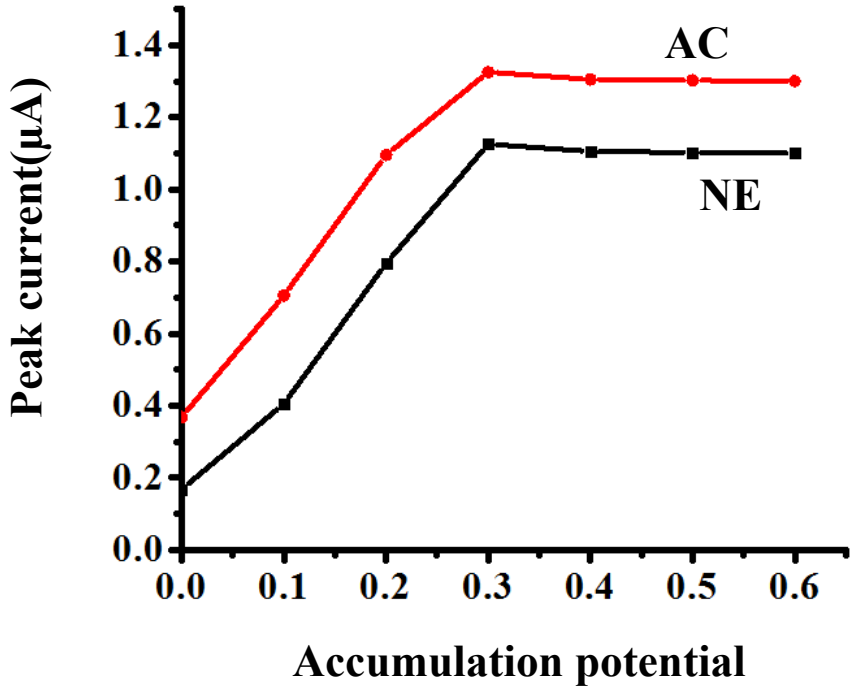

Fig. S3. Plot of i_{pa} and E_{acc} in NE and AC concentration 1×10^{-4} mol L^{-1} (t_{acc}: 180 s, pH 7.0 PBS).

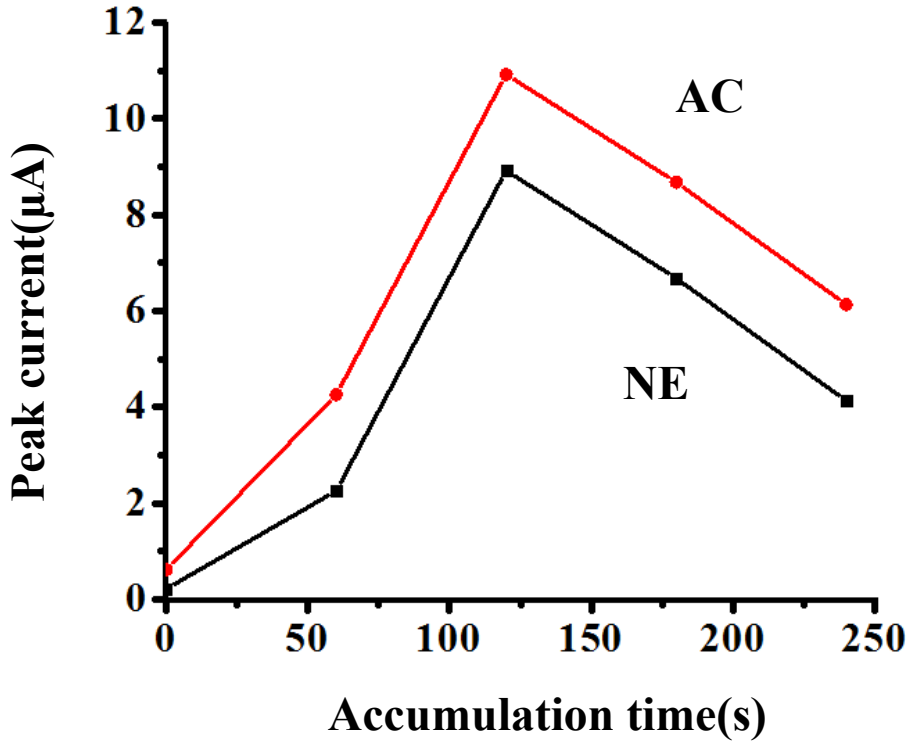

Fig. S4. Plot of i_{pa} and t_{acc} in NE and AC concentration 1×10^{-4} mol L^{-1} (E_{acc}: 0.3 V, pH7).

Table .S1.

Determination of NE in adrenaline samples by the CRGO-MnO_2 modified electrode.

Adrenaline injection sample	**Added (μM)**	**Found (μM)**	**Recovery %**
1	20	19.2	99.4
2	60	59.8	99.8

Table .S2.

Determination of AC using paracetamol tablet samples by the CRGO-MnO_2 modified electrode.

Paracetamol tablet sample	**Added (µM)**	**Found (µM)**	**Recovery %**
1	20	18.3	97.5
2	60	59.1	99