

*Supplementary Materials*

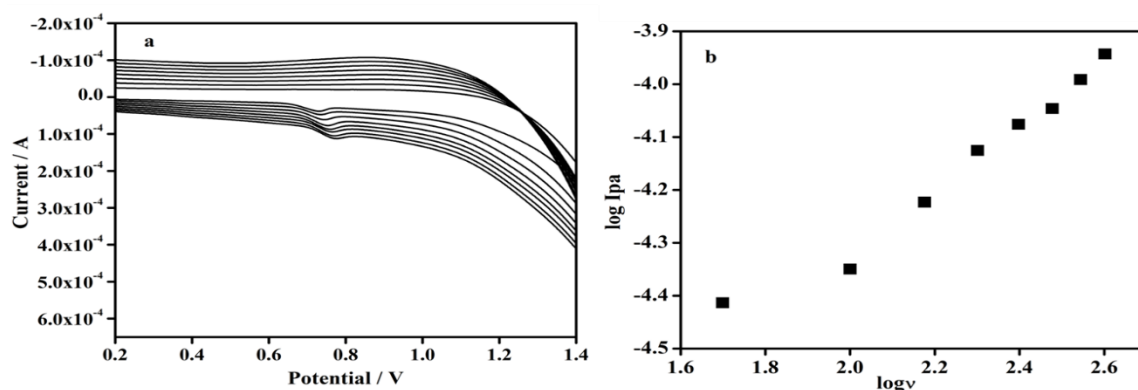
## Electrochemical Investigation and Simultaneous Resolution of Uric Acid in the Presence of Guanine at Bismuth Ferrite MWCNT Nanocomposites Modified CPE: A Voltammetric Analysis

Rohini B. Anagawadi, and K.R. Mahanthesha\*

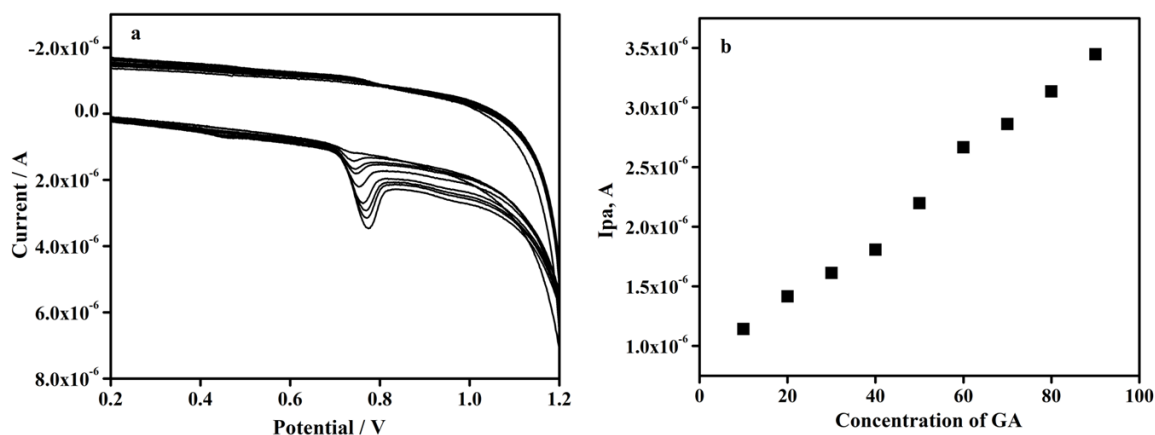
*Department of Studies in Chemistry, Shivagangothri, Davangere University, Davangere, Karnataka, India*

\*Corresponding Author, Tel.: +91-9632188239

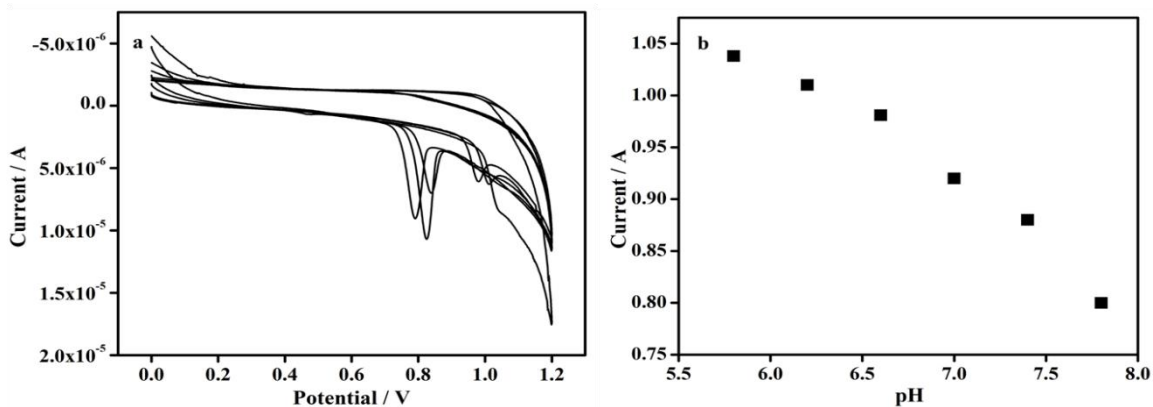
E-Mail: [krmahanthesha@gmail.com](mailto:krmahanthesha@gmail.com)



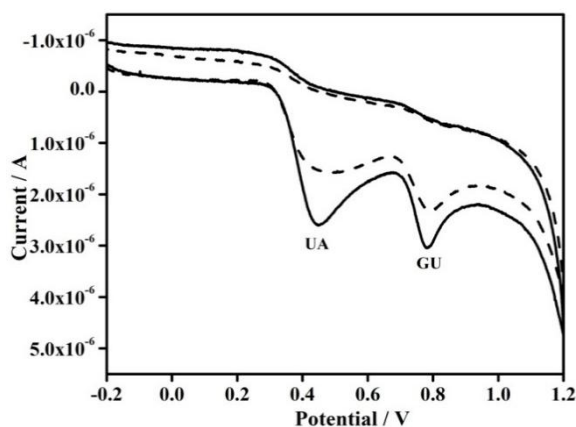
**Figure S1.** (a) CVs of  $25 \times 10^{-4}$  M GU; and (b)  $\log I_{pa}$  v/s  $\log v$  in assistance with 0.2 M PBS of pH 7.0 with scan rate 50-500  $\text{mVs}^{-1}$  respectively at Bismuth ferrite MWCNT nanocomposites MCPE



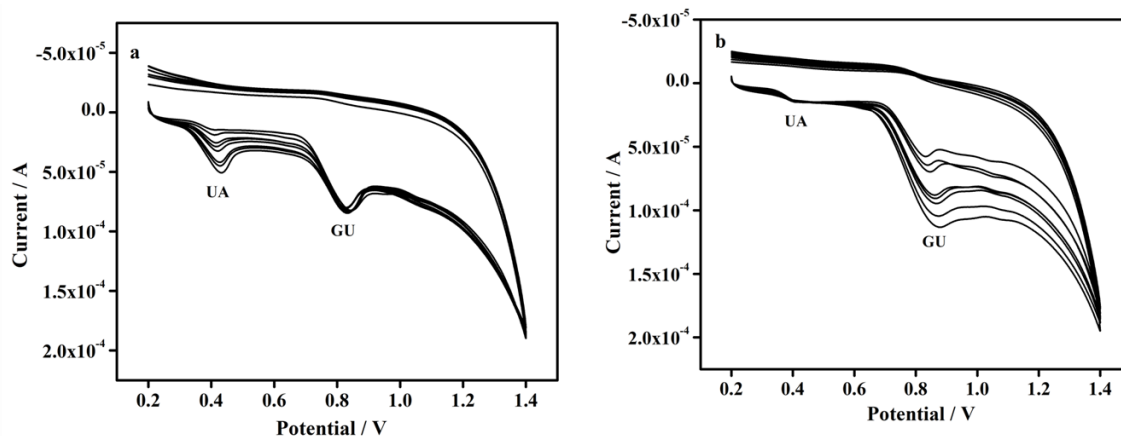
**Figure S2.** (a) CVs for variation of GU concentration from 10 to 90  $\mu\text{M}$  at the MCPE in 0.2 M PBS at pH 7.0. Scan rate  $0.05 \text{ Vs}^{-1}$ ; (b) Graph of the  $I_{pa}$  vs Concentration of GU



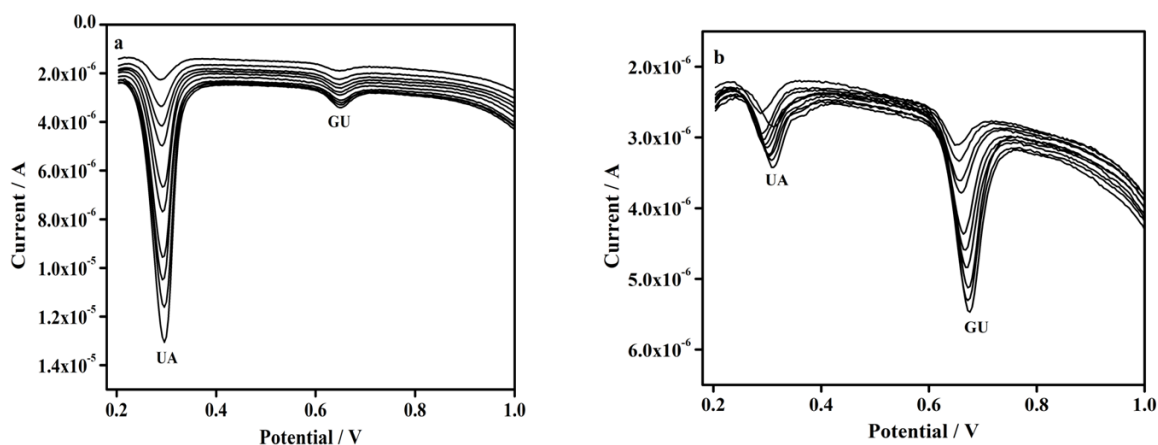
**Figure S3.** (a) CVs for 10  $\mu\text{M}$  GU at MCPE from pH range 5.8 to 7.8 with scan rate  $0.05 \text{ Vs}^{-1}$ ; (b) Graph of  $E_{pa}$  vs. pH



**Figure S4.** Cyclic voltammograms of Bare carbon paste electrode (BCPE) in presence of 0.2M PBS with analyte(dashed line) and Bismuth ferrite MWCNT nanocomposites MCPE (solid line) at scan rate of  $0.05 \text{ Vs}^{-1}$



**Figure S5.** (a) CVs for different concentrations of UA (10–80  $\mu\text{M}$ ) in 0.2 M PBS of pH 7.0 with 10  $\mu\text{M}$  GU and Scan rate of  $50\text{mVs}^{-1}$  at MCPE; (b) CVs of GU (10–80  $\mu\text{M}$ ) in 0.2 M PBS of pH 7.0 with 10  $\mu\text{M}$  UA and Scan rate of  $50\text{mVs}^{-1}$  at MCPE



**Figure S6.** (a) DPVs for different concentrations of UA (10–100  $\mu\text{M}$ ) in 0.2 M PBS of pH 7.0 with 10  $\mu\text{M}$  GU and Scan rate of  $50\text{mVs}^{-1}$  at MCPE; (b) DPVs of GU (10–100  $\mu\text{M}$ ) in 0.2 M PBS of pH 7.0 with 10  $\mu\text{M}$  UA and Scan rate of  $50\text{mVs}^{-1}$  at MCPE