

## Supporting Information

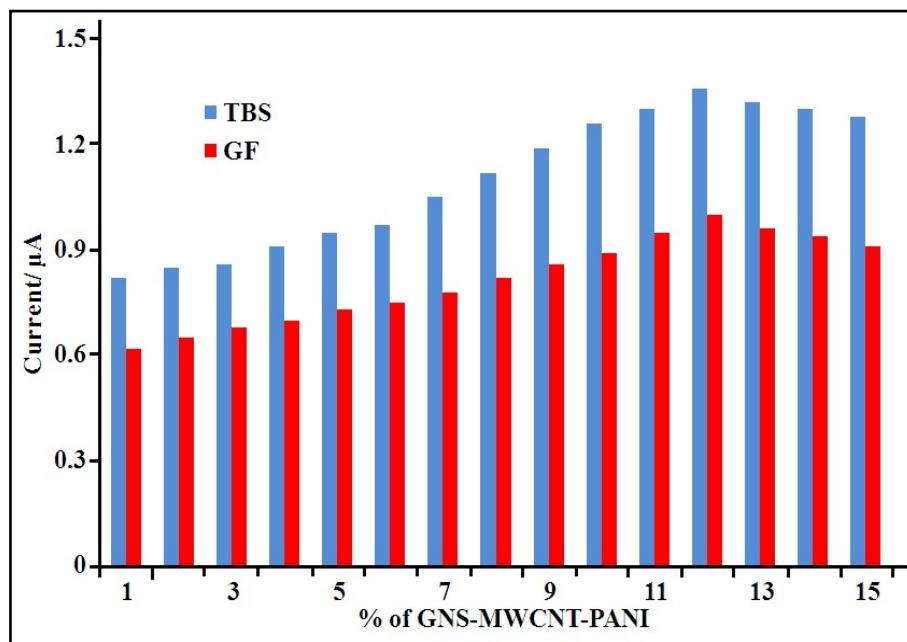
### Fabrication of graphene nanosheets-multiwalled carbon nanotubes-polyaniline modified carbon paste electrode for simultaneous electrochemical determination of terbutaline sulphate and guaifenesin

Pramod K. Kalambate, Chaitali R. Rawool, Ashwini K. Srivastava\*

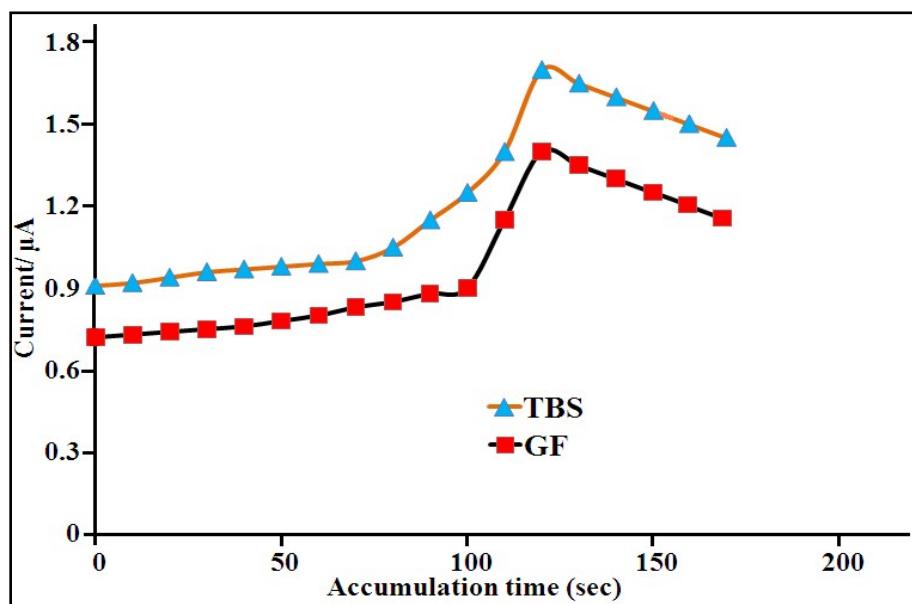
*Department of Chemistry, University of Mumbai, Vidyanagari, Santacruz (East), Mumbai -400 098, India*

\* Corresponding Author. Fax: +91-22-26528547.

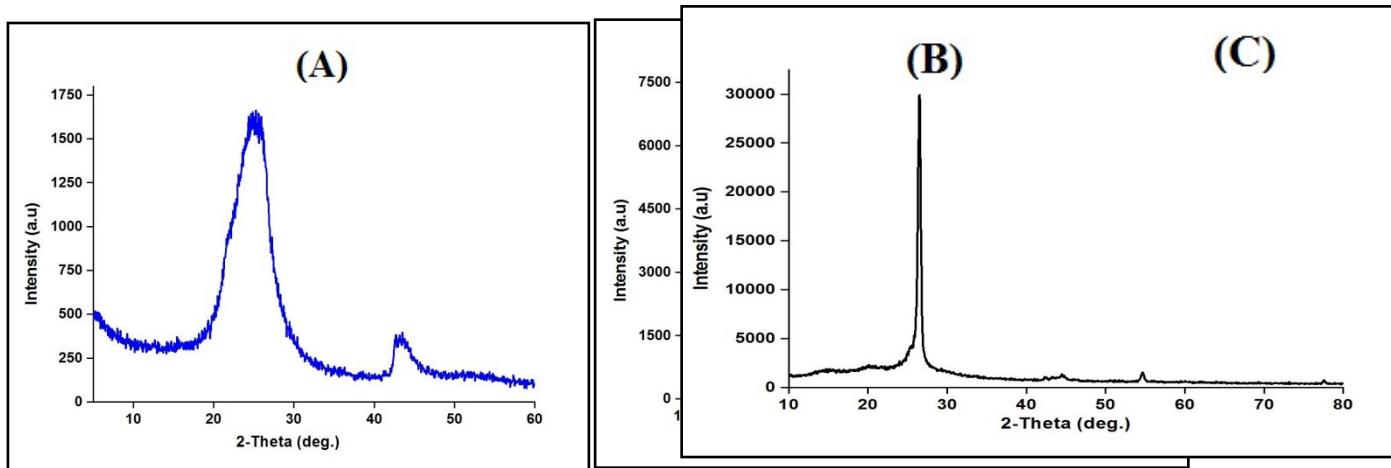
Email: [aksrivastava@chem.mu.ac.in](mailto:aksrivastava@chem.mu.ac.in); [akschbu@yahoo.com](mailto:akschbu@yahoo.com)



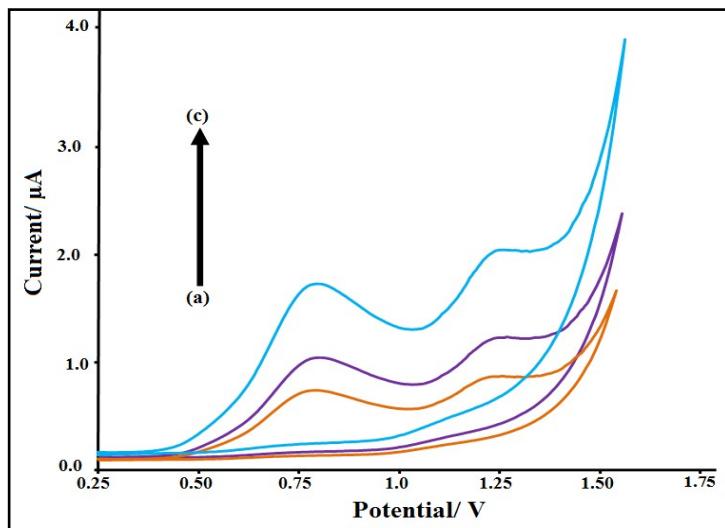
**Fig. S1** Effect of amount of GNS-MWCNT-PANI composite on the peak current of  $8.0 \times 10^{-6}$  M TBS and GF at GNS-MWCNT-PANI electrode employing DPV; step potential = 5 mV and modulation amplitude = 50 mV



**Fig.S2** Influence of accumulation time on the oxidation peak current of  $2.0 \times 10^{-5}$  M TBS and GF on GNS-MWCNT-PANI employing step potential of 5 mV and modulation amplitude of 50 mV in phosphate buffer solution (pH 6.0)



**Fig. S3.** Representative XRD patterns of (A)GNS, (B)MWCNT, (C)GNS-MWCNT-PANI



**Fig. S4** Cyclic voltammograms of  $4.1 \times 10^{-5}$ M TBS and  $5.1 \times 10^{-5}$ M GF at (a) MWCNT (—), (b) GNS (—), (c) GNS-MWCNT-PANI (—)

**Table S1.** Precision and Bias of assay for standard TBS and GF solution by the proposed voltammetric procedure (n = 5)

| No.         | Molecule | Concentration<br>(taken) ( $10^{-7}$ M) | Concentration<br>(found) ( $10^{-7}$ M) | Recovery<br>(%)<br>(n = 5) | Bias (%) | Precision<br>% R.S.D<br>(n = 5) |
|-------------|----------|---|---|----------------------------|----------|---------------------------------|
| Intra - day |          |   |   |                            |          |                                 |
| 1           | TBS      | 4.0                                     | 3.96                                    | 99.0                       | 1.0      | 1.8                             |
|             |          | Inter - day                             |   |                            |          |                                 |
| Inter - day |          |   |   |                            |          |                                 |
| 2           | GF       | 6.0                                     | 5.91                                    | 98.5                       | 1.5      | 2.7                             |
|             |          | Intra - day                             |   |                            |          |                                 |
| 2           | GF       | 5.0                                     | 4.94                                    | 98.8                       | 1.2      | 2.1                             |
|             |          | Inter - day                             |   |                            |          |                                 |
| Inter - day |          |   |   |                            |          |                                 |
|             |          | 8.0                                     | 7.9                                     | 98.7                       | 1.25     | 2.8                             |