

Supplementary Information

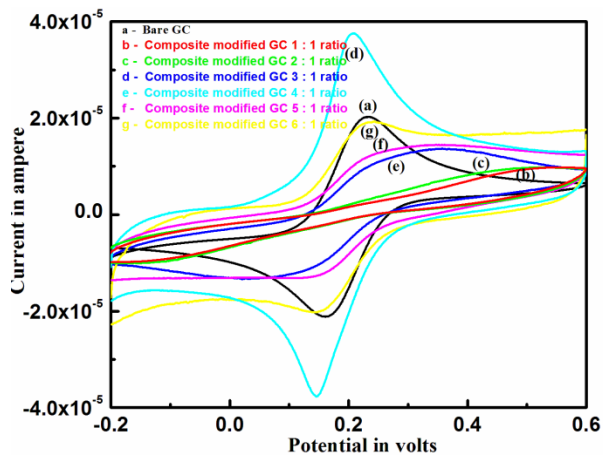


Fig.S1 CV performance of Fe_2O_3 and CNT with different ratio in 0.1 M of KCl in 1mM of $[\text{Fe}(\text{CN})_6]^{-3/-4}$

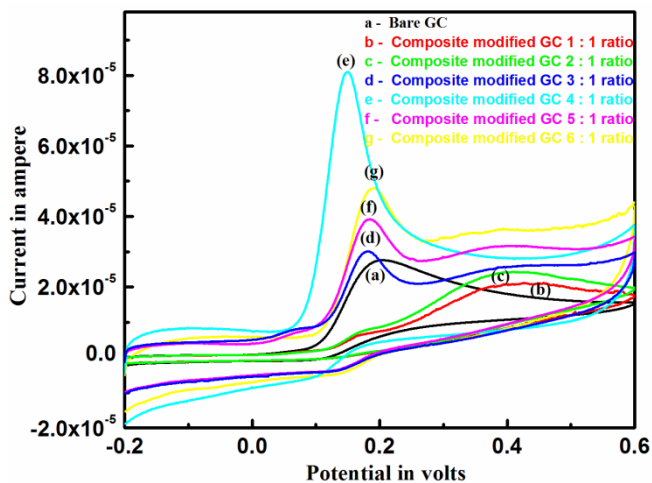


Fig. S2 CV performance of Fe_2O_3 and CNT with different ratio in 1mM of L – Dopa solution in PBS (pH 7.2)

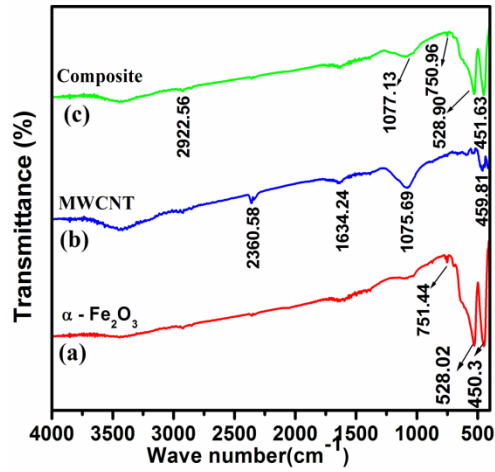
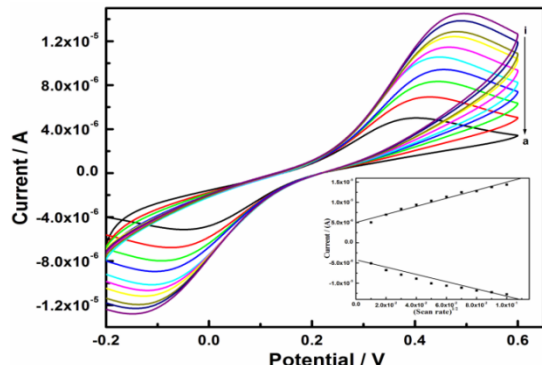
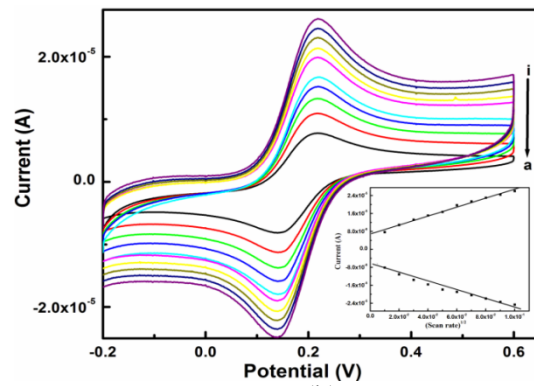


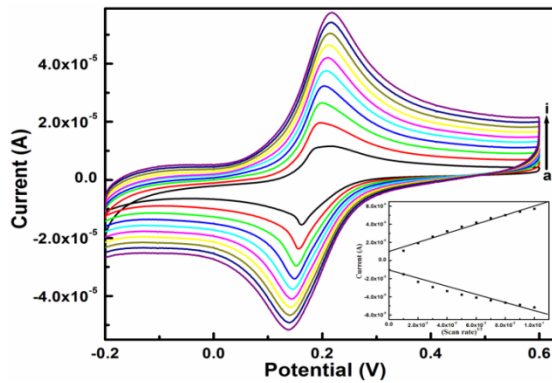
Fig.S3 FTIR analysis: curve (a) α -Fe₂O₃ (b) MWCNT (c) MWCNT decorated α -Fe₂O₃



(a)



(b)



(c)

Fig.S4 Cyclic voltammogram recorded at 10–100 mV s⁻¹ for (a) α -Fe₂O₃ (b) MWCNT, (c) α -Fe₂O₃ and MWCNT composite modified electrodes in PBS. (10 mM; pH 7.2) containing [Fe(CN)₆]^{3-/4-} (1 mM). Inset: plots of peak current versus square root of scan rate.

Sup. Table-1

Real sample analysis of l-dopa in commercial tablets

Samples	Labeled (mg)	Found(mg)	Recovery %
1	200	216	108
2	200	217	108.5