Supplemetary data

Fabrication of SnO_2–graphene nanocomposite based electrode for sensitive monitoring of anti–Tuberculosis in human fluids

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Fig. S1

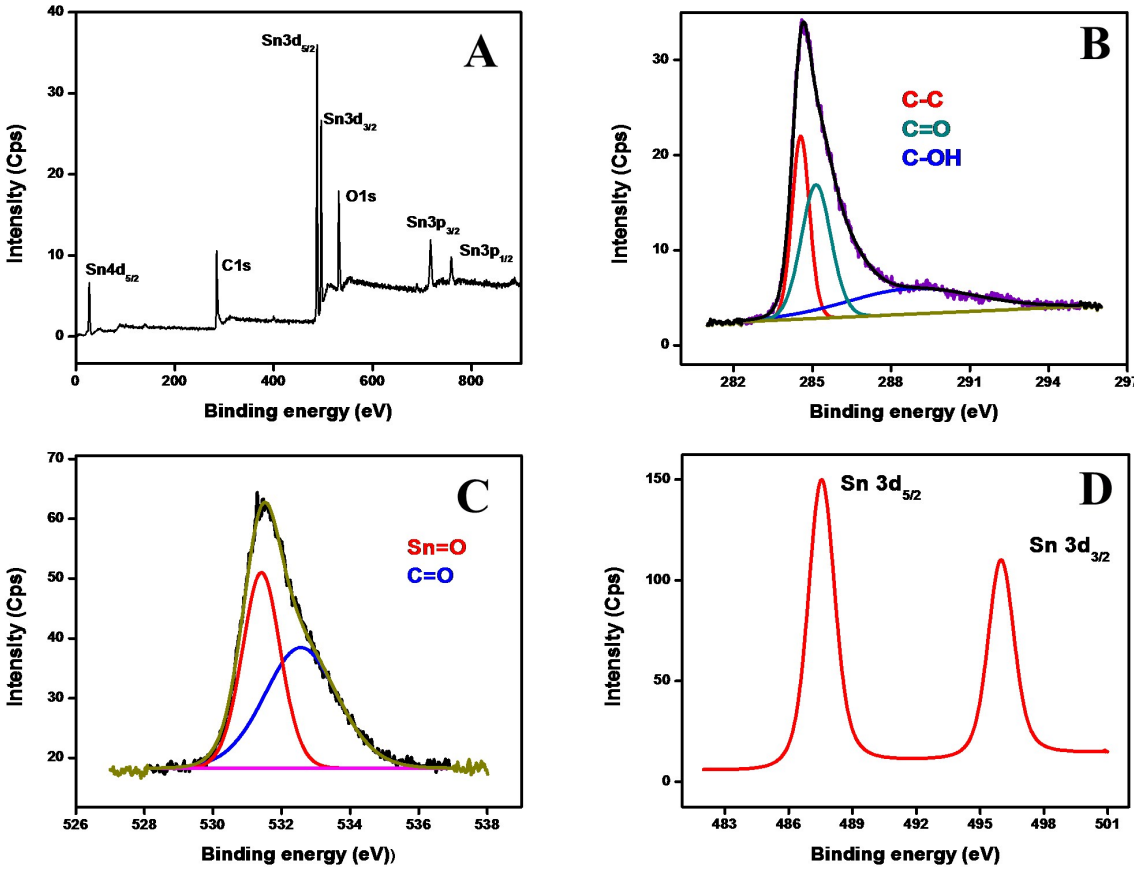

Fig. S1 XPS of SnO_2 Nps (A) survey spectrum, high resolution core level spectrum of C1s (B), O1s (C) and Sn3d (D)

The X-ray photoelectron survey spectrum of SnO_2 Nps (Fig. S1A) shows the Sn, O and C elements presence and the C comes from the atmosphere, the core level spectrum of C1s (Fig. S1B) shows three deconvoluted peaks at 285.1eV, 285.9eV and 289.3eV are corresponds to the different environment of C atom, Fig. S1C shows the core level spectrum of O1s which has two curves at the binding energy value of 531.3eV and 532.5eV are responsible for Sn=O and C–O respectively. The core level spectrum of Sn 3d (Fig. S1D) exhibited two peaks at the binding energy value of 487.5eV and 496.0 eV these are Sn 3d5/2 and Sn 3d3/2 energy levels which clears the Sn was presented in +4 oxidation state in the SnO_2 Nps

Fig. S2

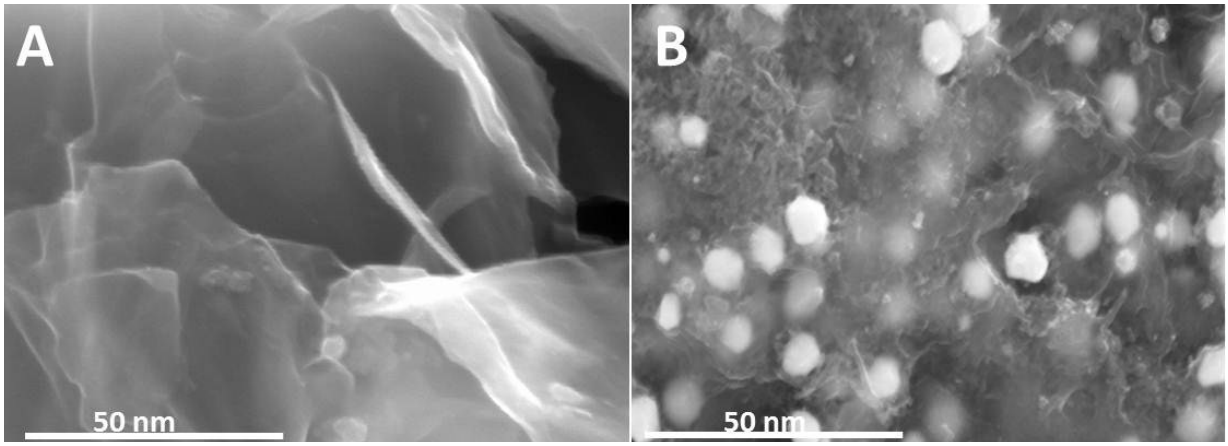

Fig. S2 FESEM image of (A) graphene oxide, (B) SnO_2–Gr nanocomposite

Fig. S3

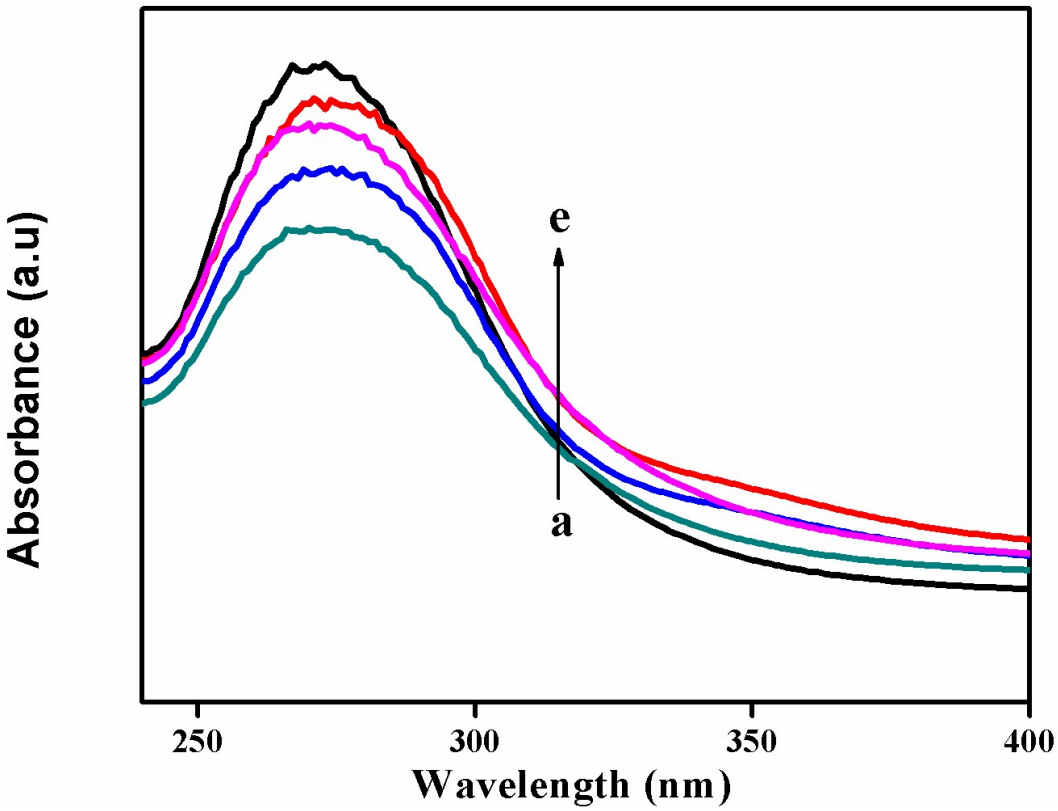

Fig. S3 DRS–UV absorption spectra of (a–e) 1mM SnO_2–Gr to 5mM SnO_2–Gr nanocomposite

Fig. S4

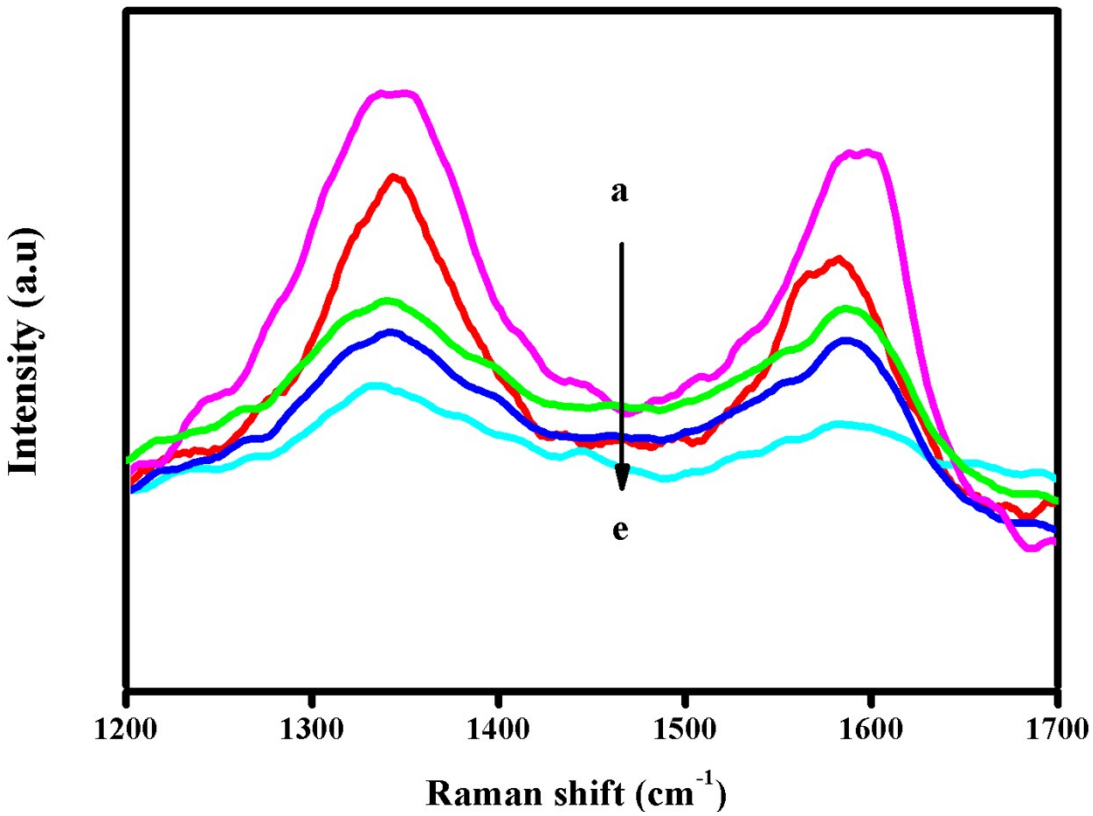

Fig. S4 Raman spectra of (a–e) 1mM SnO_2–Gr to 5mM SnO_2–Gr nanocomposite

Fig. S5

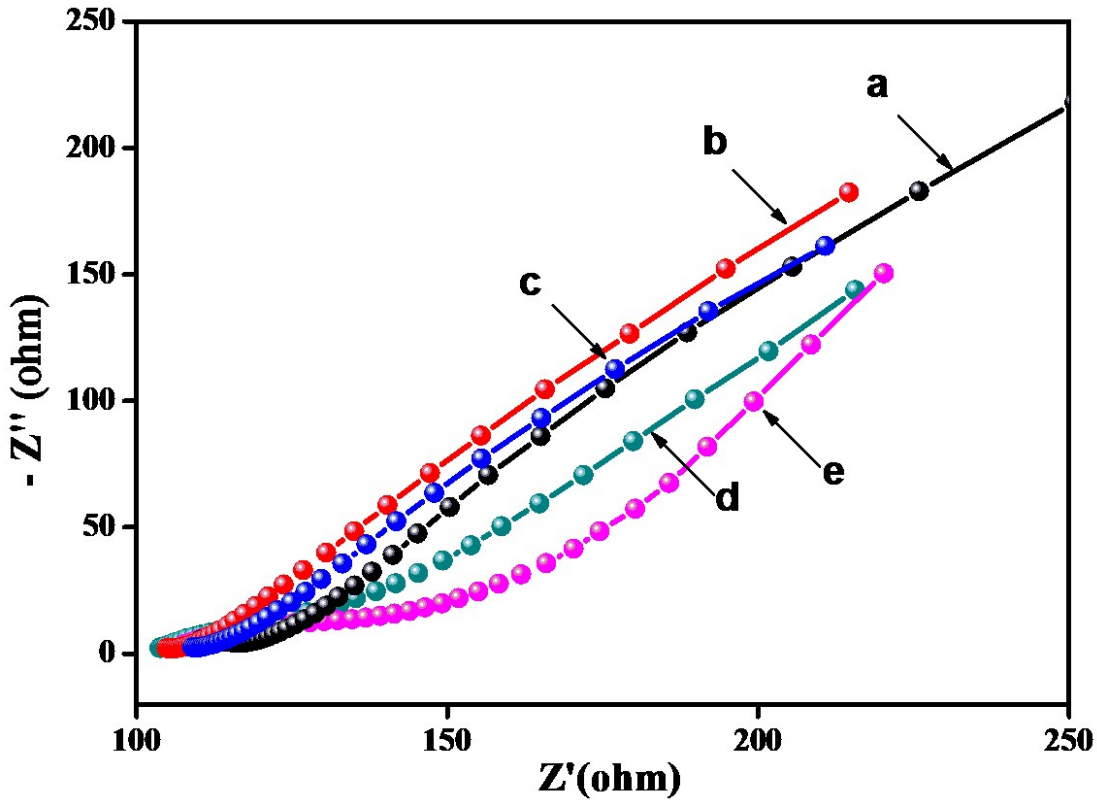

Fig. S5 EIS of (a–e) 1mM SnO_2–Gr to 5mM SnO2–Gr/GC electrode in 10mM $[Fe(CN)6]^{3-/4-}$ containing 0.1 M KCl

Fig. S6

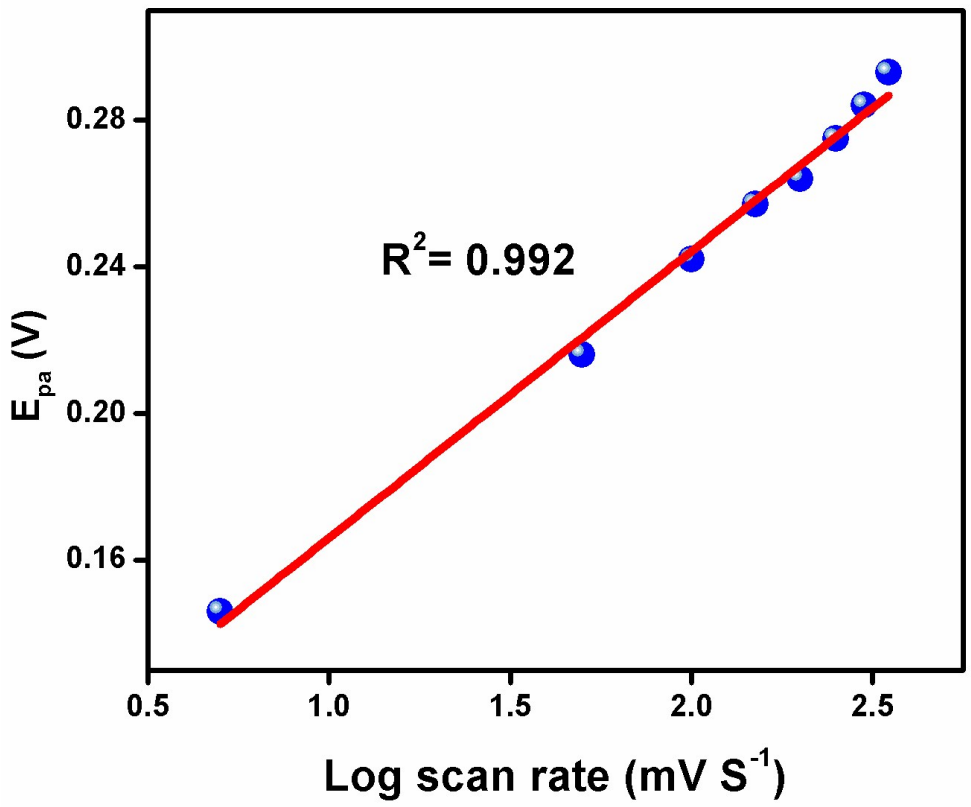

Fig. S6 Plot of log scan rate vs Epa

Fig. S7

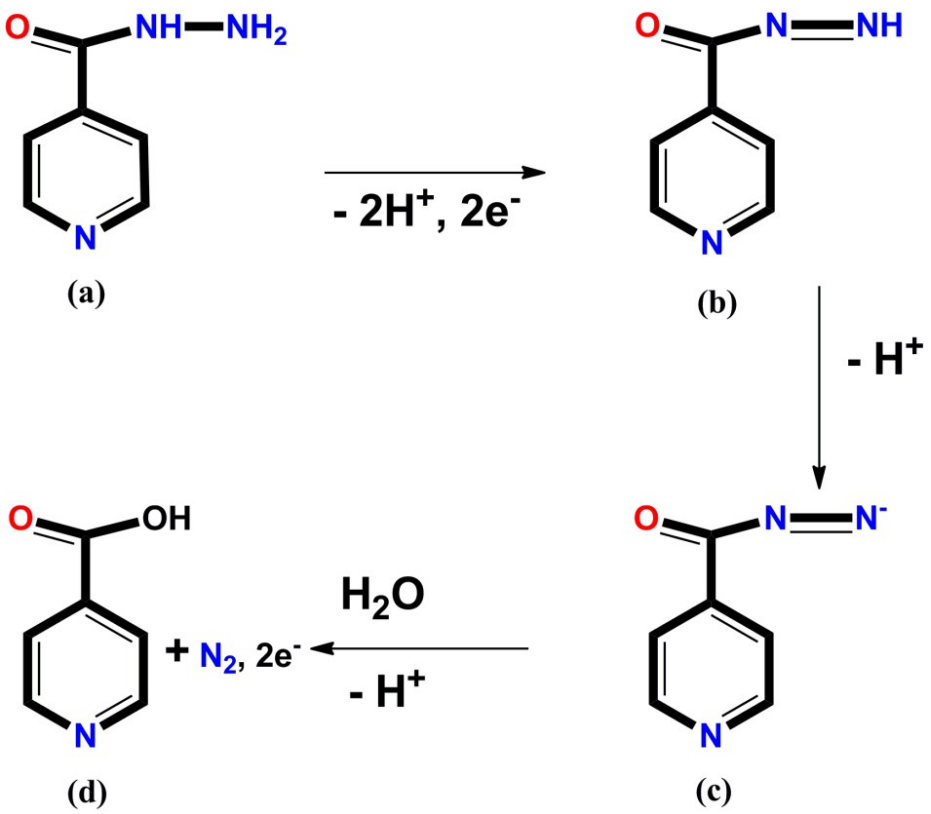

Fig. S7 The electrochemical oxidation mechanism of INH over the SnO_2–Gr/GC electrode

Fig. S8

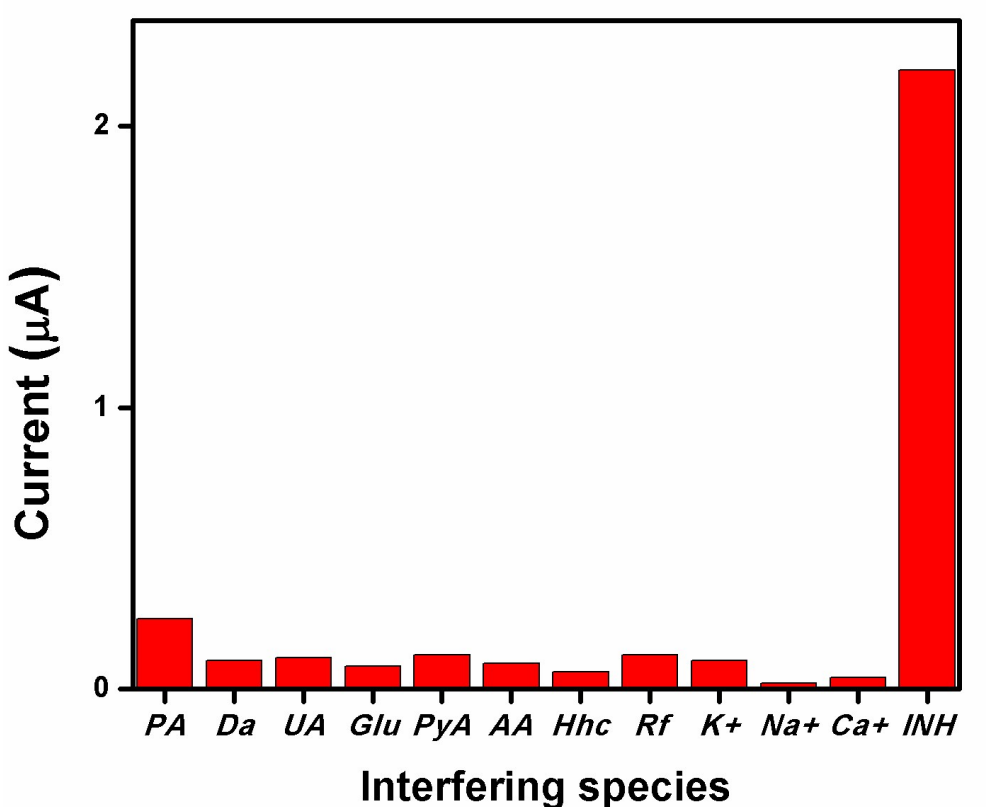

Fig. S8 i–t response of SnO_2–Gr/GC electrode in interfering Species while detection of INH