Electronic Supplementary Material (ESI) for Analytical Methods.

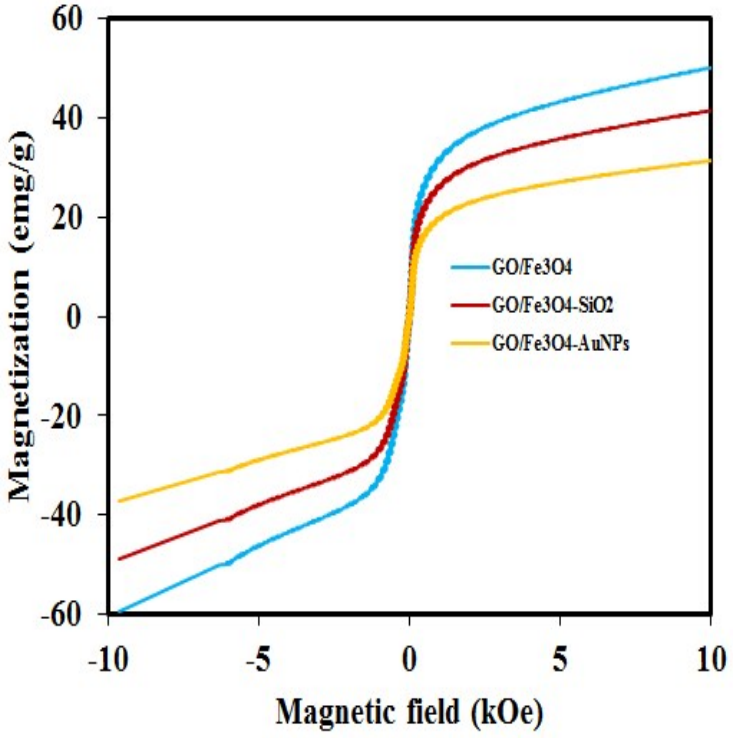

Fig. S1 VSM curves of GO/Fe_3O_4, GO/Fe_3O_4-SiO_2 and GO/Fe_3O_4-AuNPs

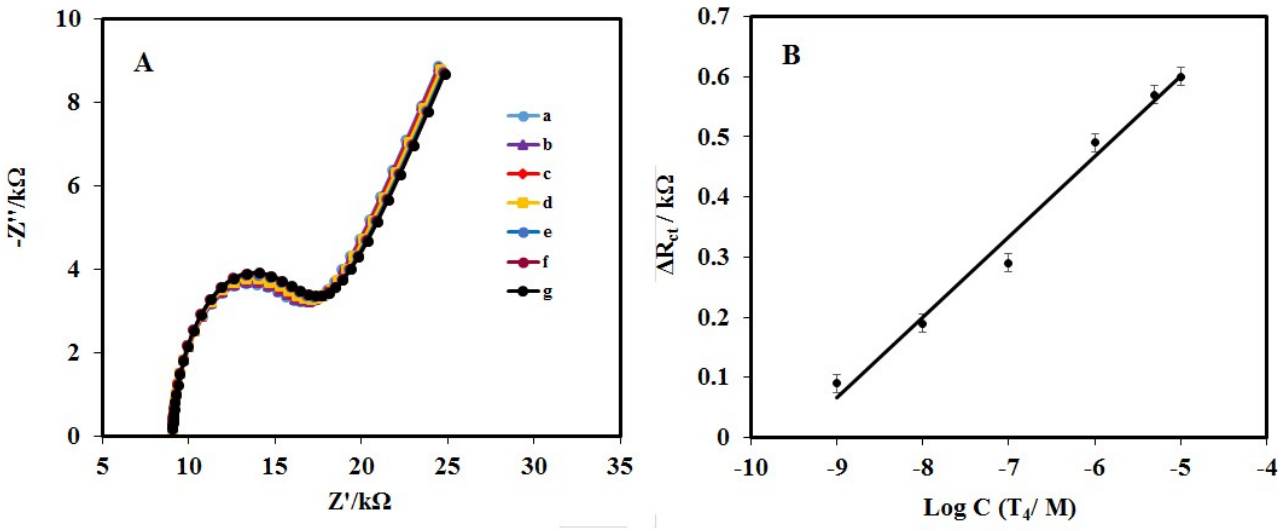

Fig. S2 (A) Nyquist diagrams recorded at (a) Fe_3O_4/GO-AuNPs@MIP sensor and after loading T_4 in the sites of polymer at different concentrations: 10^{-9}, 10^{-8}, 10^{-7}, 10^{-6}, 5×10^{-5} 10^{-5} M (b-g) respectively, (B) The linear relationship between the ΔR_{ct} and the logarithm concentration of T_4.

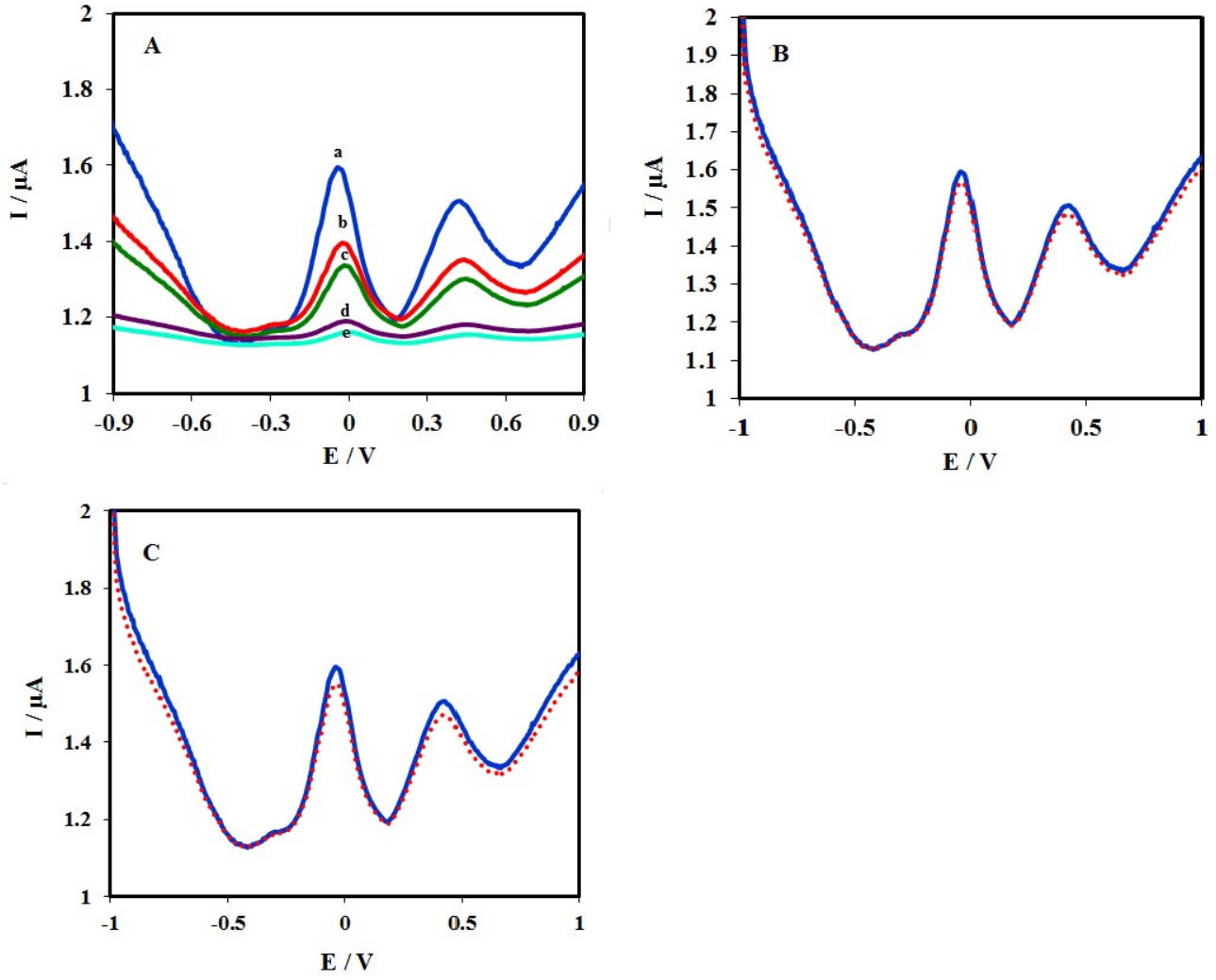

Fig. S3 (A) Current response of (a) T_4, (b) T_3, (c) Tetrac 1, (d) AA, (e) UA at Fe_3O_4/GO -Au@MIPs electrode, concentration of each compound is 10^{-7} M; (B), (C) Currents of Fe_3O_4/GO-AuNPs@MIPs electrode to 10^{-7} M T_4 in the presence of 3×10^{-7} M T_3 and Tetrac 1 respectively.

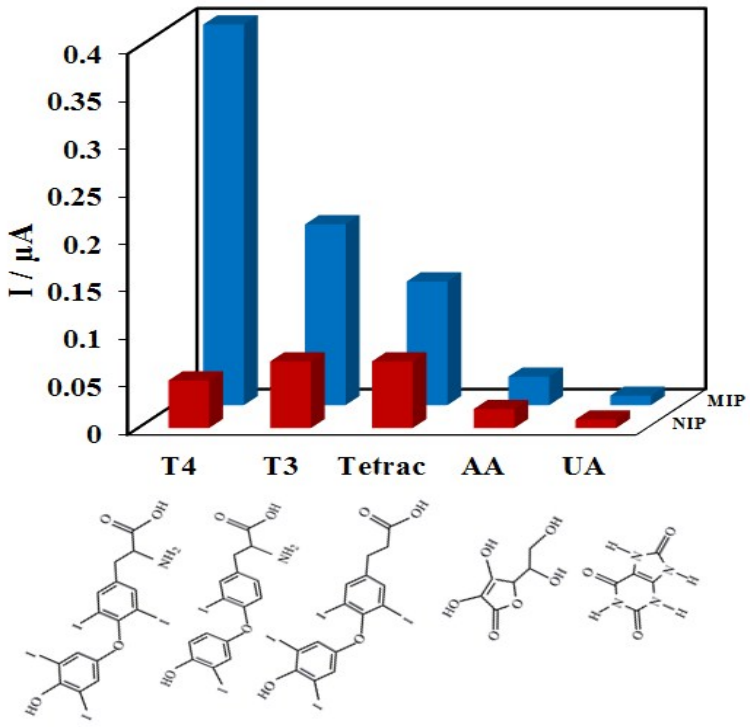

Fig. S4 Selectivity of the MIP and NIP sensor for T_4 and interferences.

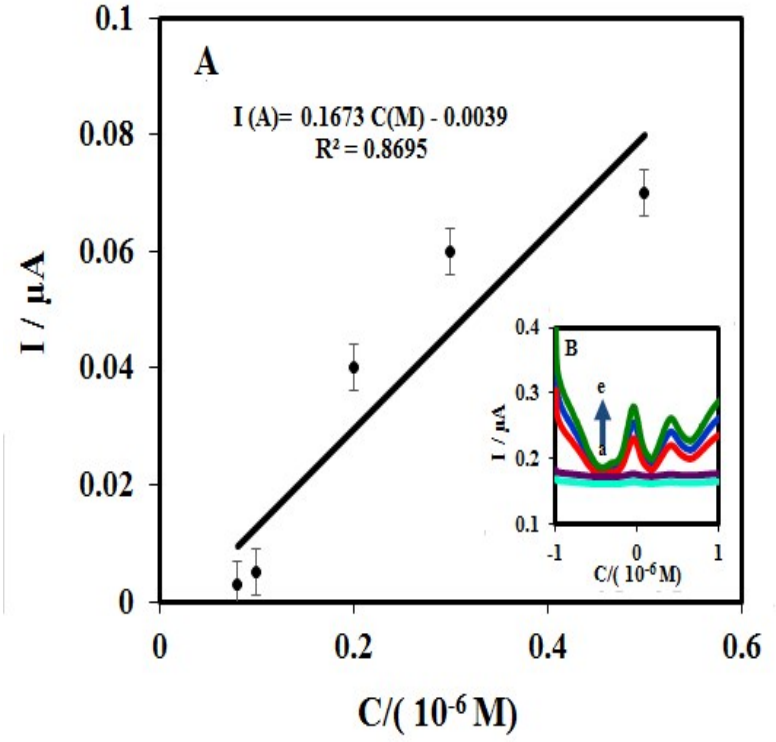

Fig. S5 Calibration curve for concentrations of T_4 with Fe_3O_4/GO-AuNPs@NIP electrode: 8×10^{-8}, 10^{-7}, 2×10^{-7}, (d) 3×10^{-7} and 5×10^{-7} M respectively), (B) DPVs in : (a) 8×10^{-8}, (b) 10^{-7}, (c) 2×10^{-7}, (d) 3×10^{-7}, and (e) 5×10^{-7} M T_4 solution (pH 1.0, scan rate 0.1 V/s).

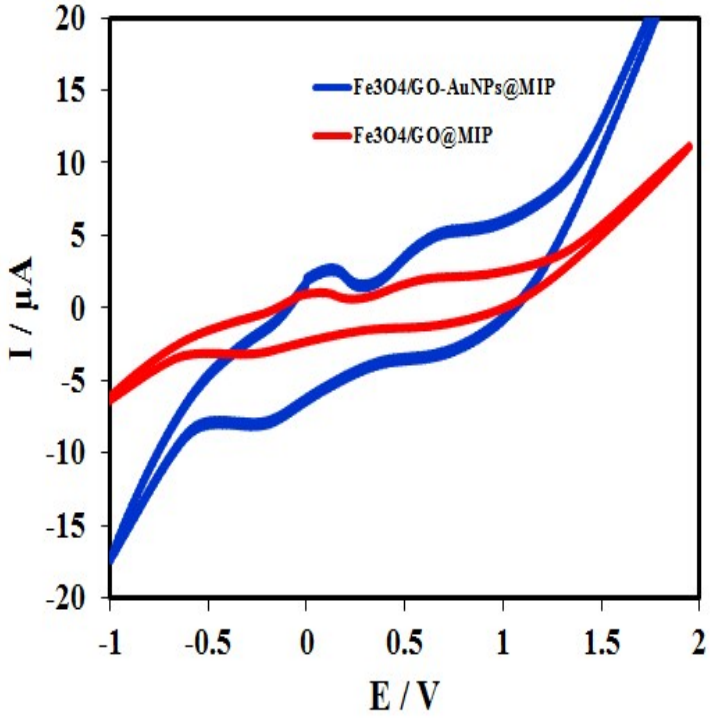

Fig. S6 Cyclic voltammograms for 10^{-5} M T_4 in pH 1.0 obtained at Fe_3O_4/GO-AuNPs@MIP and Fe_3O_4/GO@MIP electrodes.