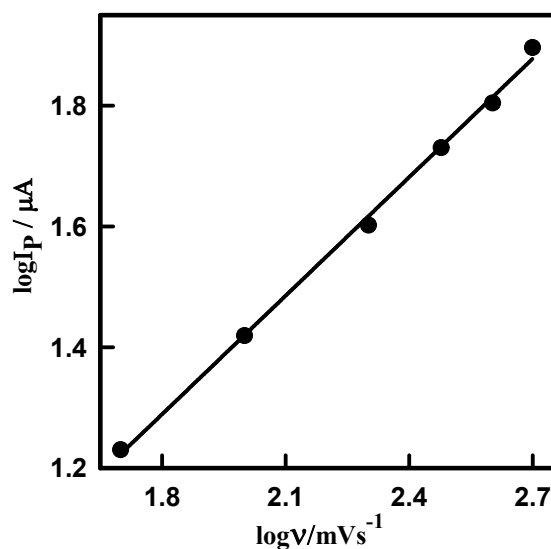
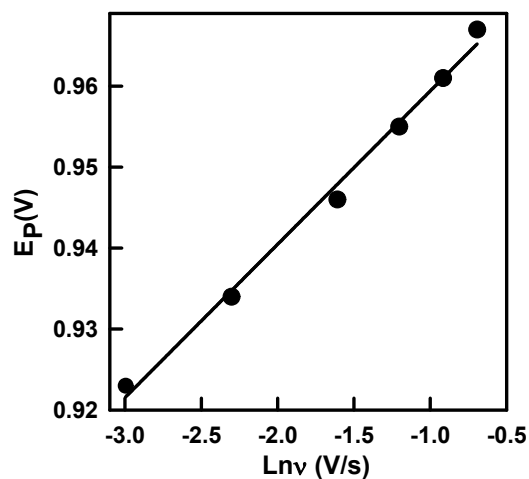


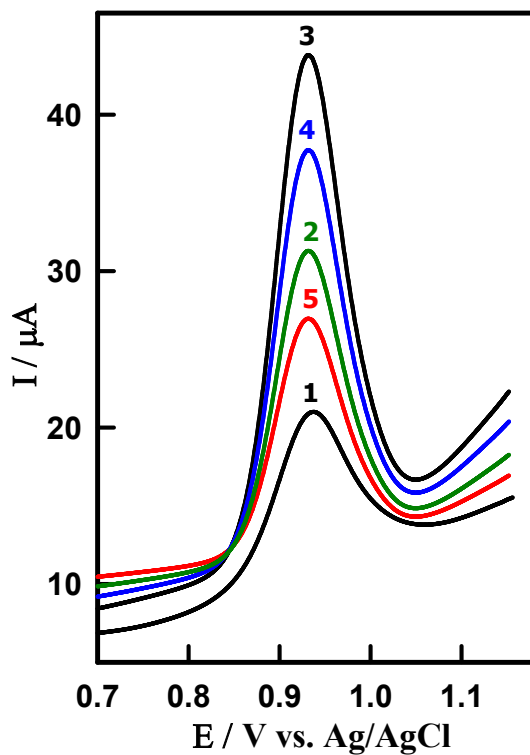
**Fig.S1:** CV profiles of the Sn-CeO<sub>2</sub>NPs/GCPE in 5 mM [Fe(CN)<sub>6</sub>]<sup>-3/-4</sup> with different scan rates (0.05,0.10,0.15,0.20,0.25,0.30,0.35,0.40,0.45 and 0.50 Vs<sup>-1</sup>). The inset shows the plot of dependence of  $I_p$  on  $v^{1/2}$  at Sn-CeO<sub>2</sub>NPs/GCPE



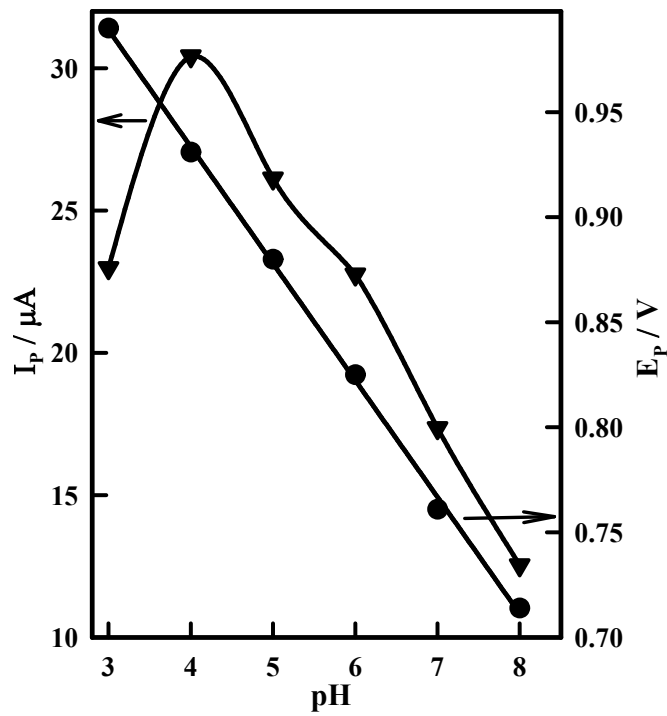
**Fig.S2:** Plot of  $\text{Log } I_p$  versus  $\text{Log } v$



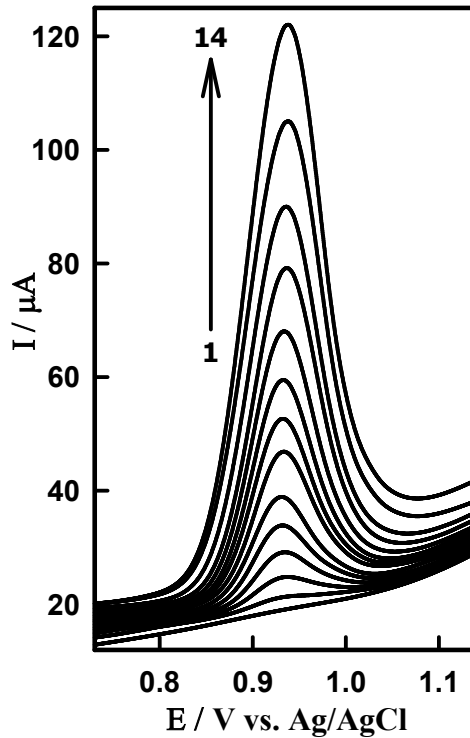
**Fig. S3:** Plot of  $E_p$  versus  $\text{Ln}v$



**Fig. S4:** The effect of glassy carbon paste composition with different percentage of the modifier on SW voltammograms of  $1.14\mu\text{M}$  DTIC; (1) 0.0%, (2) 5%, (3) 10%, (4) 15% and (5) 20% Sn-CeO<sub>2</sub>NPs. Other conditions are the same in Fig.4B.

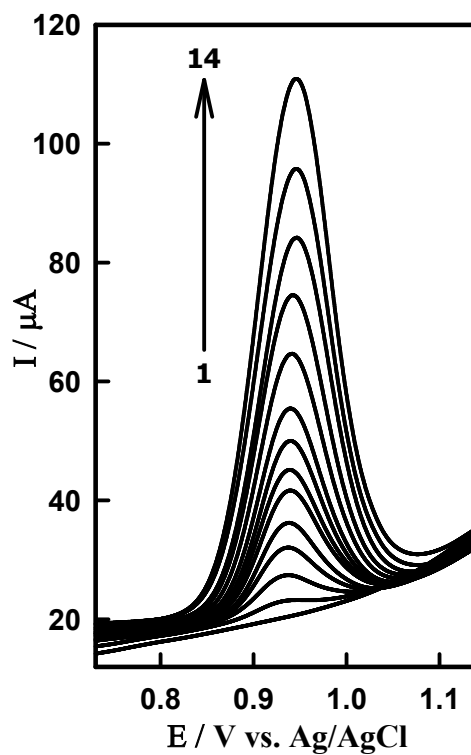


**Fig.S5:** Effect of pH on  $E_p$ (●) and  $I_p$ (▲)

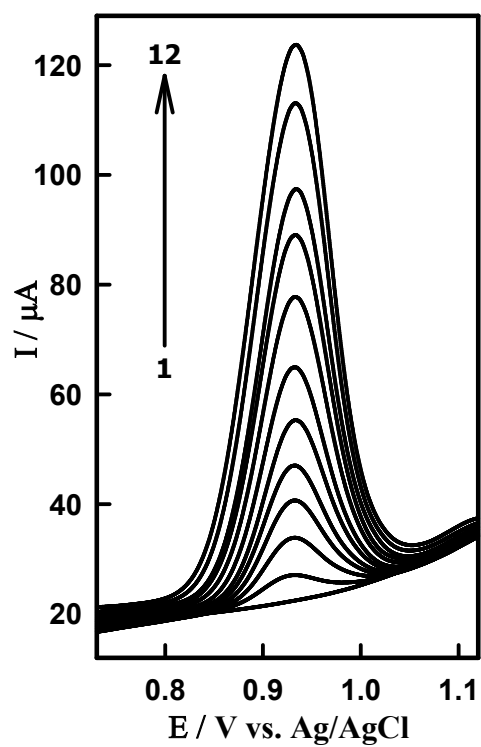


**Fig.S6:** SW voltammograms for determination of DTIC spiked in human serum samples in PBS of pH4.0 at Sn-CeO<sub>2</sub>NPs/GCPE. [DTIC] (1)

blank: 2) 0.076, 3) 0.31, 4) 0.59, 5) 0.79, 6) 1.08, 7) 1.57, 8) 1.99, 9) 2.53, 10) 3.15, 11) 3.73, 12) 4.39, 13) 5.41 and 14) 6.59  $\mu\text{M}$ .



**Fig.S7:** SW voltammograms for determination of DTIC spiked in human urine samples in PBS of pH4.0 at Sn-CeO<sub>2</sub>NPs/GCPE. [DTIC] (1) blank: 2) 0.069, 3) 0.32, 4) 0.59, 5) 0.79, 6) 1.02, 7) 1.25, 8) 1.57, 9) 1.96, 10) 2.50, 11) 2.98, 12) 3.52, 13) 4.27 and 14) 5.31  $\mu\text{M}$ .



**Fig.S8:** (A) SW voltammograms for determination of DTIC in vial samples at Sn-CeO<sub>2</sub>NPs/GCPE. (1) blank, 2) vial sample: 3) (2) + 0.4, 4) (2) + 0.69, 5) (2) + 1.04, 6) (2) + 1.45, 7) (2) + 2.02, 8) (2) + 2.73, 9) (2) + 3.52, 10) (2) + 4.03, 11) (2) + 4.91, 12) (2) + 5.44 μM DTIC.

**Table S1:**

Influence of interferents on the voltammetric responses of 1.18  $\mu\text{M}$  DTIC at Sn-CeO<sub>2</sub>NPs/GCPE

Interferent	Concentration ( $\mu\text{M}$ )	Recovery %
Ascorbic acid	250	98.39
Uric Acid	200	98.86
Dopamine	150	97.88
Alanine	300	102.12
Phenylalanine	300	101.43
Uracil	200	98.55
Cysteine	250	98.37
Glucose	500	98.87
Citric acid	300	99.38
Cytosine	100	99.49
Cholesterol	100	99.54
Histidine	200	98.48
Serine	300	99.11
Mannitol	350	98.89
Thiourea	200	102.17

**Table S2:** Recovery of DTIC in serum and urine samples (n=5)

Added ( $\mu\text{M}$ )	Found ( $\mu\text{M}$ )	Precision RSD %	Recovery %
Serum			
0.31	$0.30 \pm 0.0064$	2.13	96.77
2.53	$2.50 \pm 0.047$	1.89	98.81
6.59	$6.55 \pm 0.110$	1.67	99.39
Urine			
0.32	$0.33 \pm 0.007$	2.28	103.12
1.96	$1.93 \pm 0.030$	1.56	98.47
5.31	$5.36 \pm 0.098$	1.84	100.94

**Table S3:** Determination result of DTIC in DTIC vial sample by standard addition method (n=5)

Added ( $\mu\text{M}$ )	Found ( $\mu\text{M}$ )	Recovery %	Precision RSD %
0.0	$1.32 \pm 0.015$	–	1.14
0.50	$1.81 \pm 0.017$	98.00	0.94
2.50	$3.79 \pm 0.028$	98.80	0.74
5.50	$6.84 \pm 0.047$	100.40	0.67