Electronic Supplementary Material (ESI) for Analytical Methods. This journal is © The Royal Society of Chemistry 2014

Supplementary data for the manuscript entitled "A shell-like Sm-doped CeO<sub>2</sub> nanostructure based electrochemical DNA biosensor for breast cancer gene sequence detection"

## Results and discussions

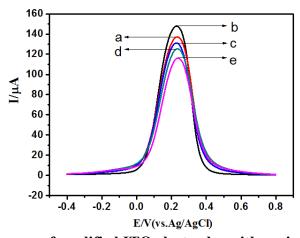


Fig. 1. The DPV curves of modified ITO electrodes with various Sm content. (a) un-doped, (b) 5%, (c) 10%, (d) 15%, (e) 20%.

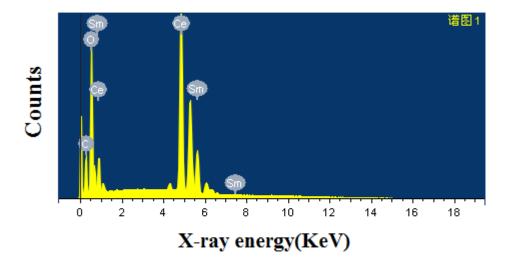


Fig. 2. EDS spectra of 5% doped samarium doped cerium dioxide( CSO)

Table 1. Elemental composition of 5% doped CSO

Element	Weight percentage/%	Atomic percentage/%
C K	10.35	31.45
ОК	22.39	51.09
Ce L	63.83	16.63
Sm L	3.43	0.83
gross	100.00	100.00