

Supplementary data

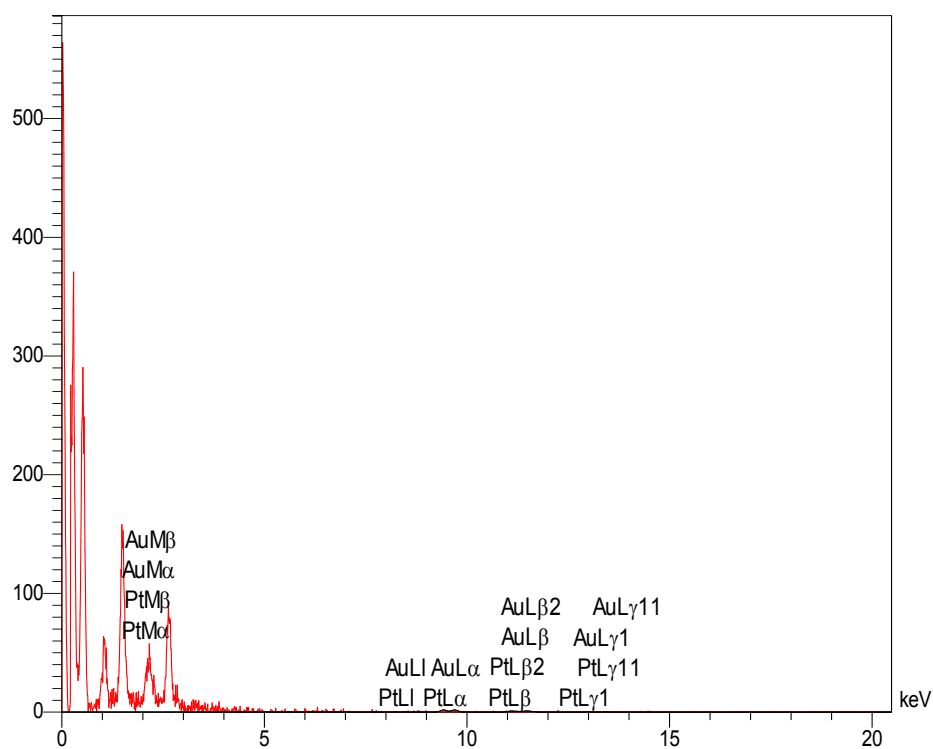
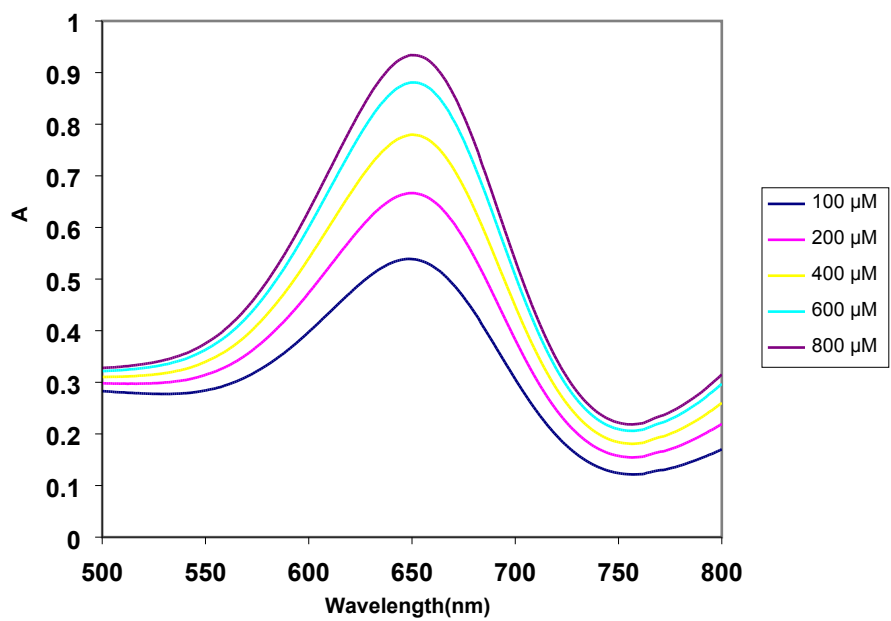
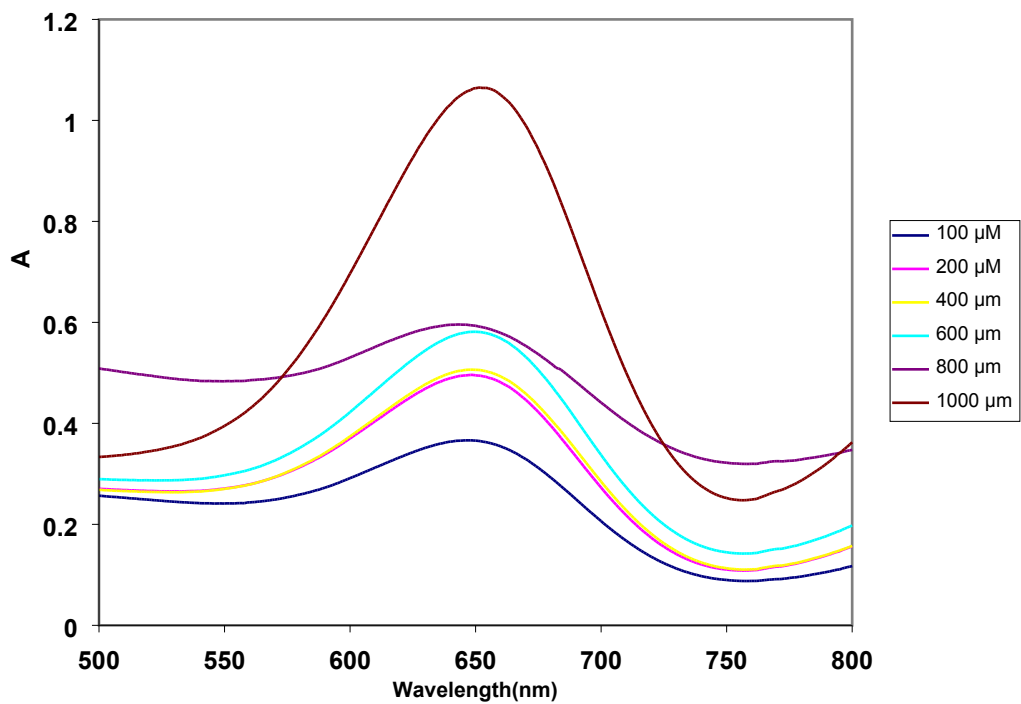


Fig.S1. Fig. S1. EDX spectra of chitosan Au/Pt NCs



a

Fig.S2. Absorbance spectra of catalytic activity of chitosan Au/Pt nanocluster in the presence of different concentrations of H_2O_2 and TMB

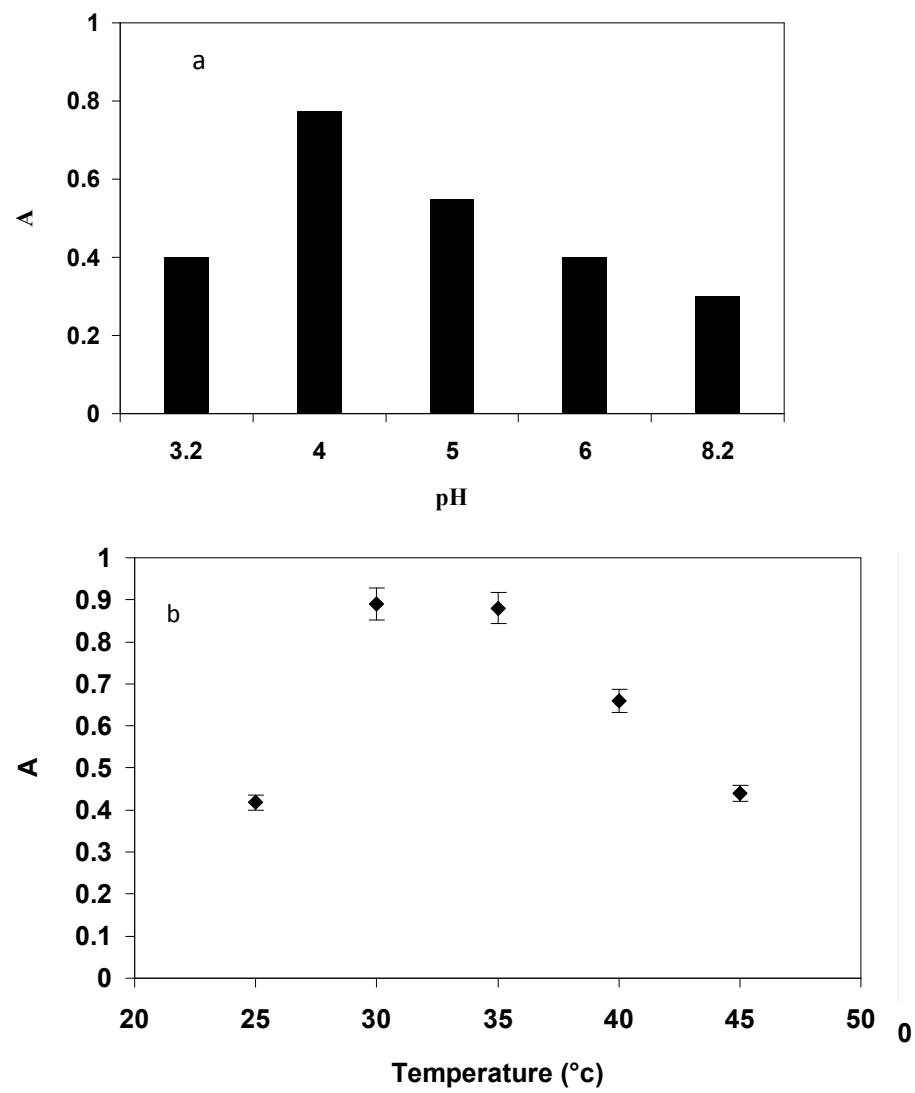


Fig.S3 Effect of different experimental condition on the peroxidase-like activity of chitosan-Au/Pt NCs nanostructures: (a) pH, (b), Temperature

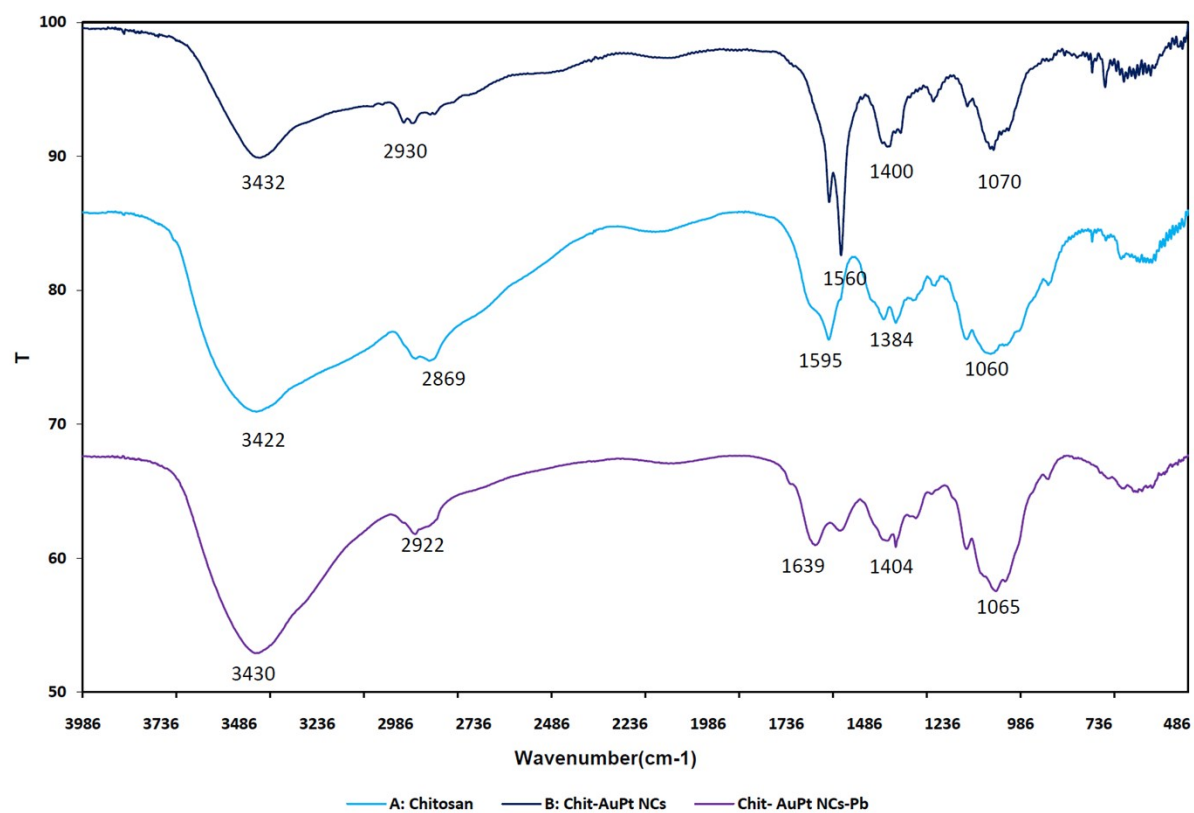


Fig.S4. FT- IR spectra of chitosan, chitosan Au/Pt nanocluster (C, Red graph) and chitosan Au/Pt nanocluster Pb²⁺.

Table 1Determination of Pb²⁺ ion in milk samples with the proposed method

Sample	Added (nM)	Found ^a (nM)	Found (ICP-OES)	Recovery(%)
Milk	100	103 ±2.0	102.0	103.0
	200	205±3.0	204.0	102.5
	400	412±2.0	406.0	103.0
	600	623±4.0	612.0	103.8
	800	850.0±3.0	820.0	106
	1000	1060.0±3.0	1020.0	106.0

^a Results are based on three measurements