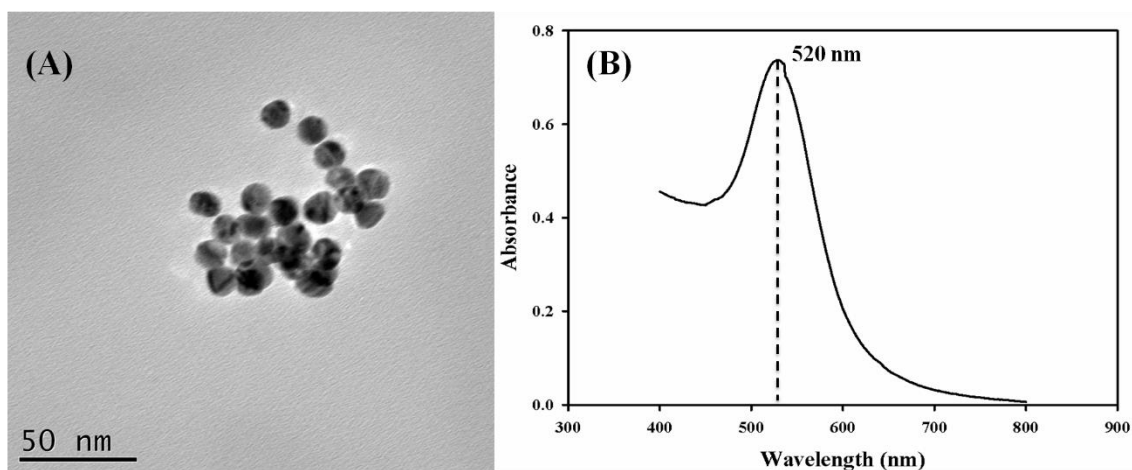
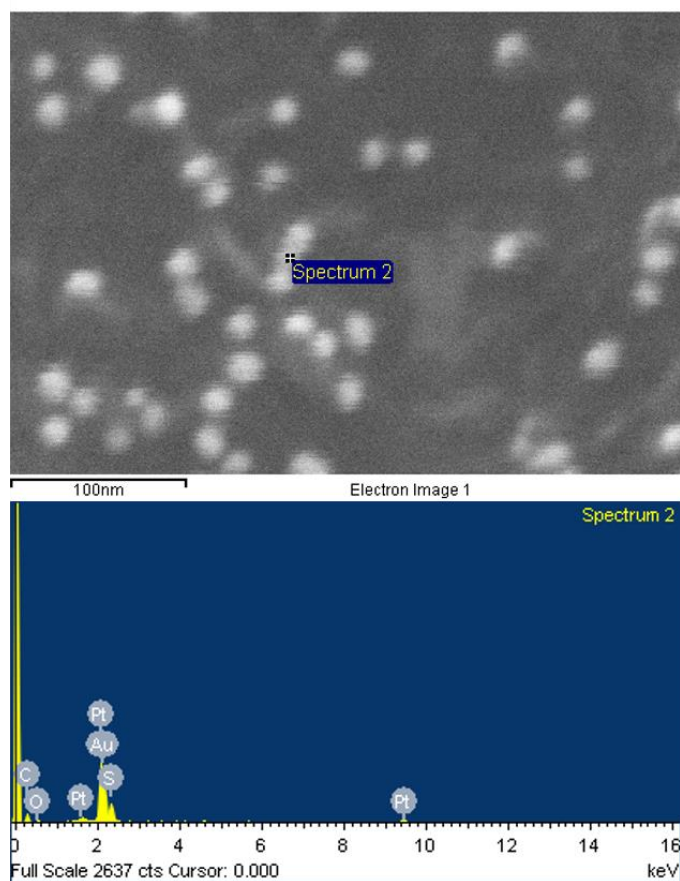


## Supplementary material



**Figure S1.** (A) TEM image of Au NPs. (B) UV-vis absorption spectrum of Au NPs in 1% of sodium citrate solution.



**Figure S2.** SEM/EDS analysis of the AuNPs-PEDOT/Pt electrode.



**Figure S3.** SEM image of PEDOT:PSS single-layer film on the Pt electrode after Au NPs immobilization.