## Supporting Information

# Cobalt and nickel bimetallic sulfides nanoparticles immobilized on montmorillonite demonstrating a peroxidase-like activity for the $H_2O_2$ detection

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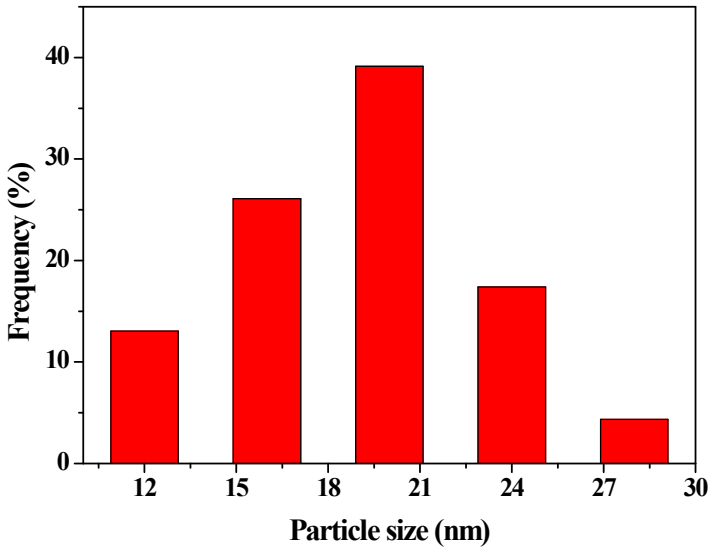


Fig. S1. The size distribution of image of the Co-Ni-S-3 nanoparticles on MMT.

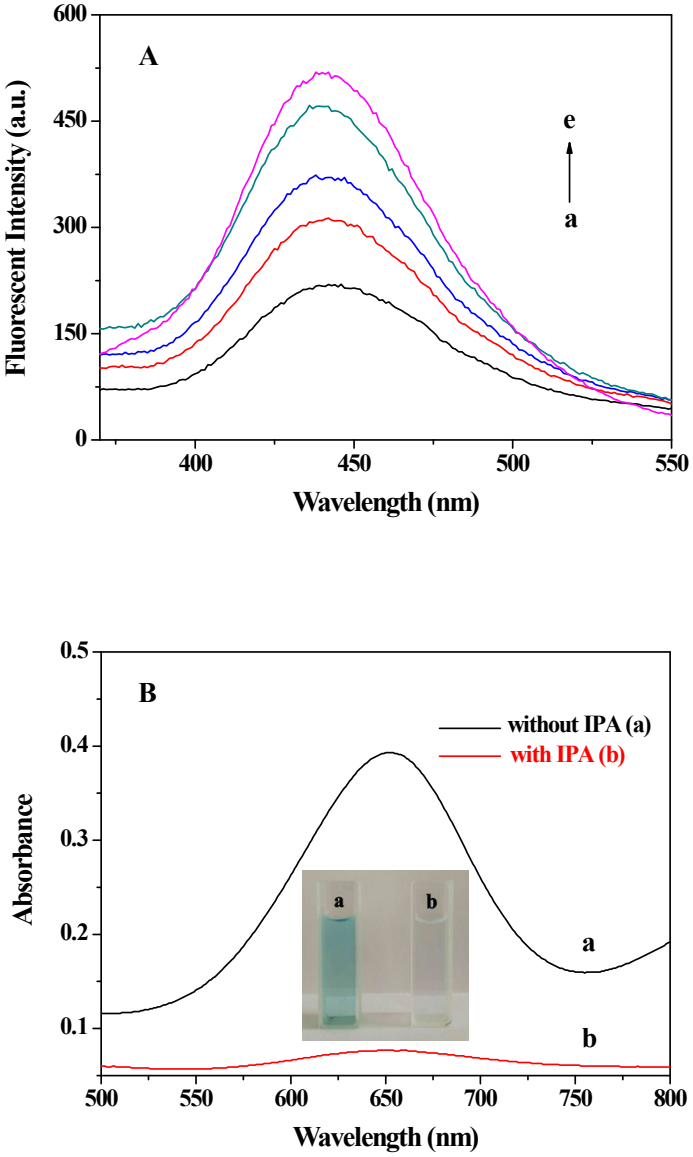


Fig. S2. (A) Emission spectra of the fluorescence probe TA in the presence of Co-Ni-S-3 nanoparticles and $H_2O_2$. Reaction conditions: TA (0.5 mM), $H_2O_2$ (25 mM), and the Co-Ni-S-3 nanoparticles with different concentration (a-e: 30, 50, 60, 80, 100 $\mu g \cdot mL^{-1}$); (B) The UV-vis absorption spectra of 1.0 mM TMB reaction solutions in the absence or presence of scavengers (IPA) in sodium acetate buffer solution (pH = 4) with 1 mM $H_2O_2$ and 0.3 mg/mL Co-Ni-S-3/MMT NCs at room temperature after 5 min reaction. The inset are the photograph of the related color changes.