## **Supplementary Material**

## Ranolazine-Functionalized Copper Nanoparticles as a Colorimetric Sensor for Trace Level Detection of As<sup>3+</sup>

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Figure S2: FTIR spectra of pure ranolazine (black curve) and ranolazine-functionalized Cu NPs (red curve).

Figure S3: PXRD patterns of ranolazine copper nanoparticles



**Figure S1**(a): Optimization study of precursor Cu salt ranging from 100 μL to 450 μL.



**Figure S1**(b): Optimization study of reducing agent in the range of 100 to 600 μL.



Figure S1(c): Optimization study of ranolazine ranging from 100 to 600  $\mu$ L.



Figure S1(d): Optimization study showing formation of Cu NPs at pH value ranging from 5 to 11.



Figure S2: FTIR spectra of pure ranolazine (black curve) and ranolazine-functionalized Cu NPs (red curve).



Figure S3. PXRD patterns of ranolazine copper nanoparticles.