Supporting Information

Morphology Controlled Cu_3BiS_3 Nanostructures: Superior Electrocatalytic Sensing of organic nitro compounds

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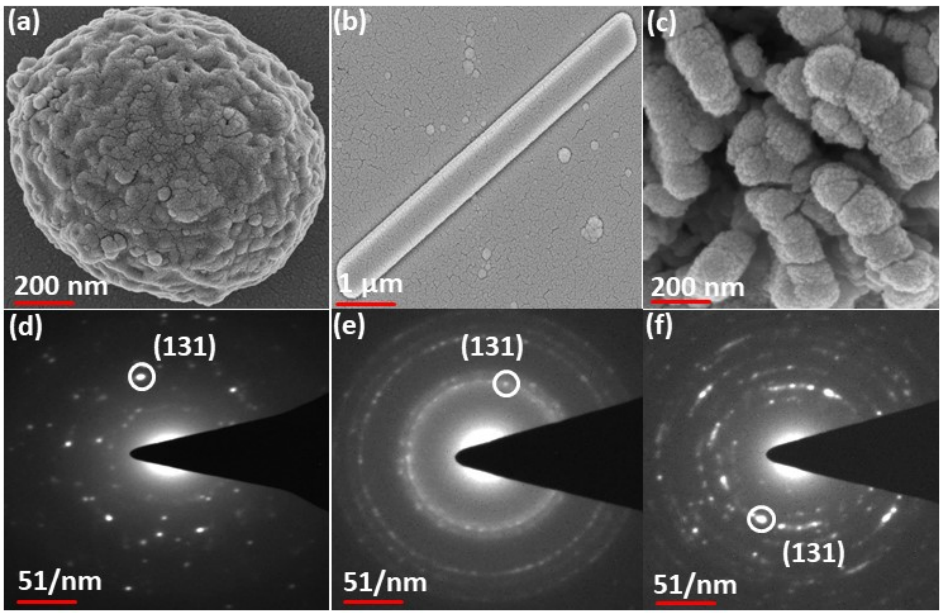


Figure S1. Showing high magnified FESEM and SAED patterns of Cu_3BiS_3

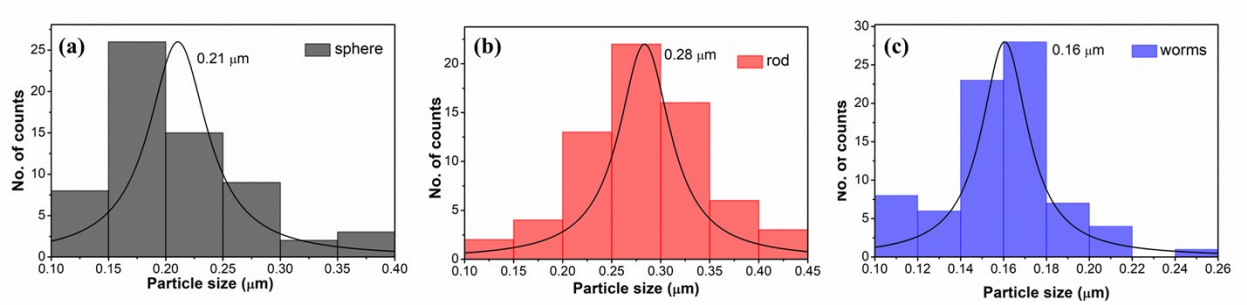
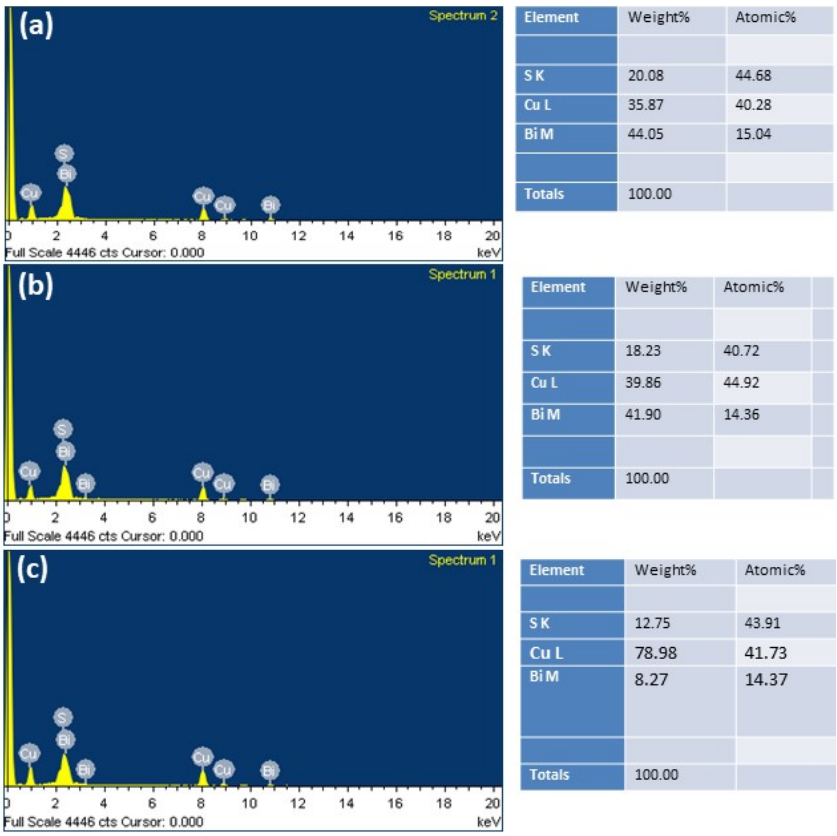


Figure S2. Average particle size distribution plots of (a) Spheres of Cu_3BiS_3-DBU, (b) rods of Cu_3BiS_3-DABCO, (c) worm-like morphology of Cu_3BiS_3-DBN.



Element	Weight%	Atomic%
S K	20.08	44.68
Cu L	35.87	40.28
Bi M	44.05	15.04
Totals	100.00	

Element	Weight%	Atomic%
S K	18.23	40.72
Cu L	39.86	44.92
Bi M	41.90	14.36
Totals	100.00	

Element	Weight%	Atomic%
S K	12.75	43.91
Cu L	78.98	41.73
Bi M	8.27	14.37
Totals	100.00	

Figure S3. Showing EDAS of (a) spheres, (b) rods, and (c) worms of Cu_3BiS_3 catalysts

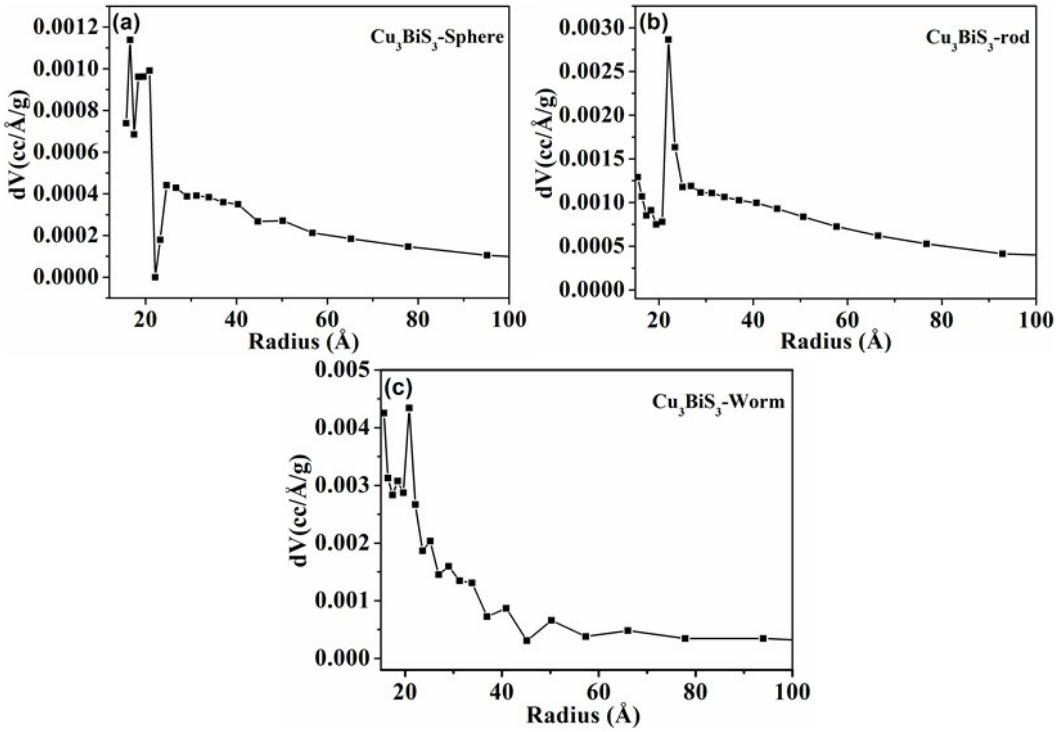


Figure S4. BJH plots representing pore size distribution of Cu_3BiS_3 nanomaterials.

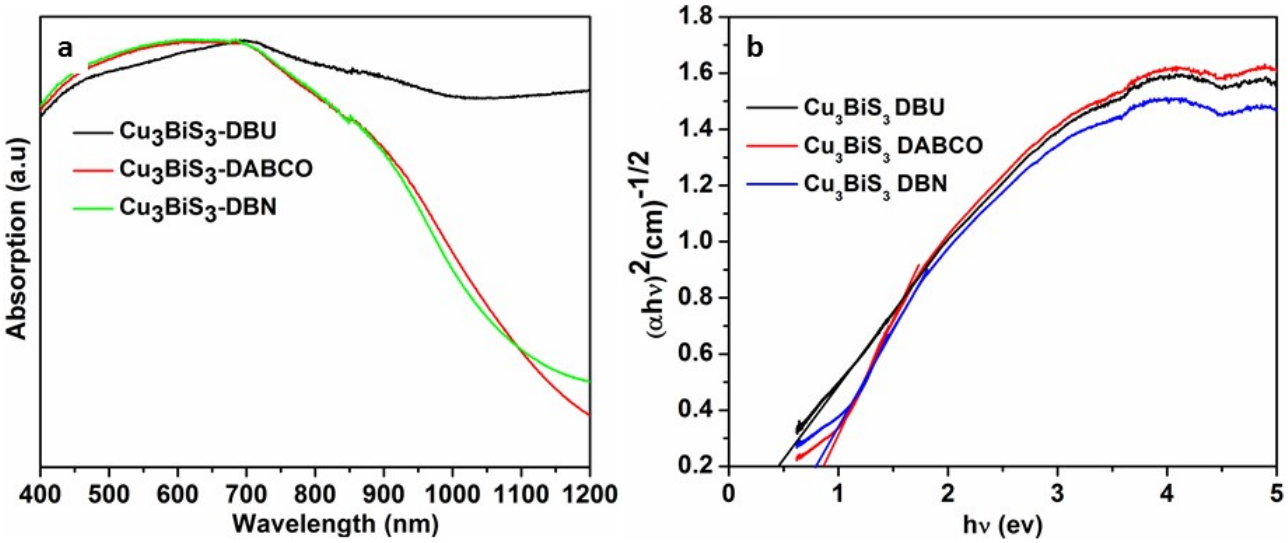


Figure S5. Showing UV-visible DRS system of Cu_3BiS_3 (a) Absorption spectrum (b) band gap.

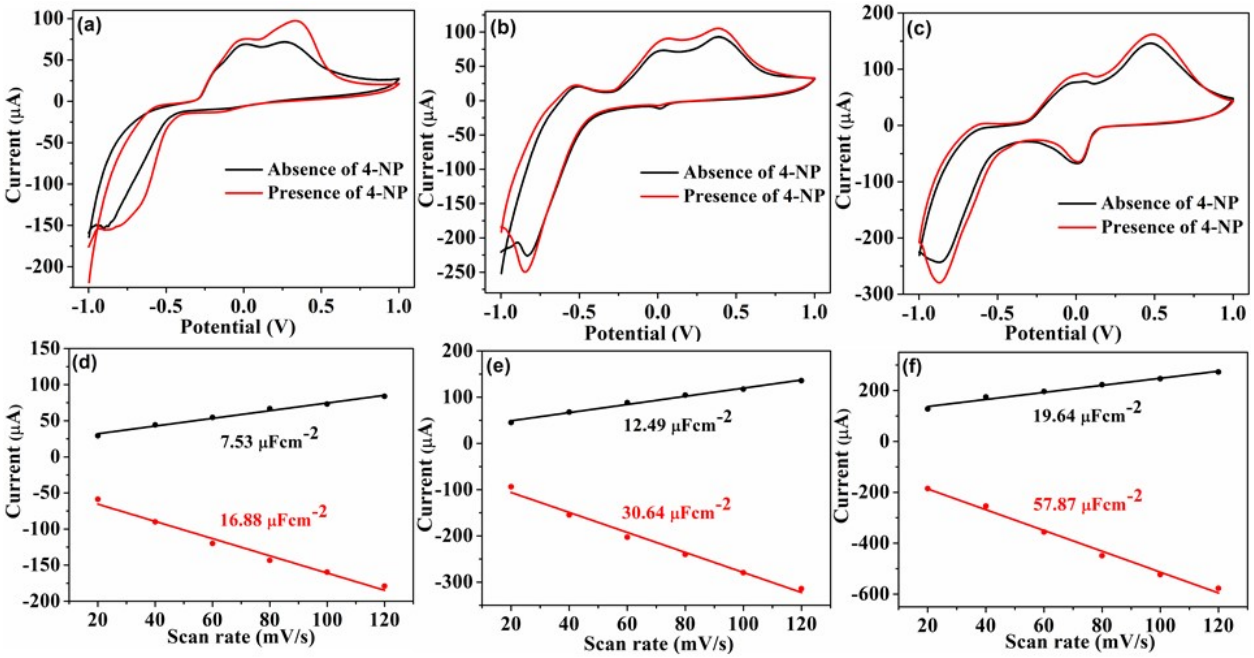


Figure S6. (a-c) CV in the absence and presence of 4-NP for the three different morphologies-spheres, rods, and worms. (d-f) Linear plots of scan rate vs. current.

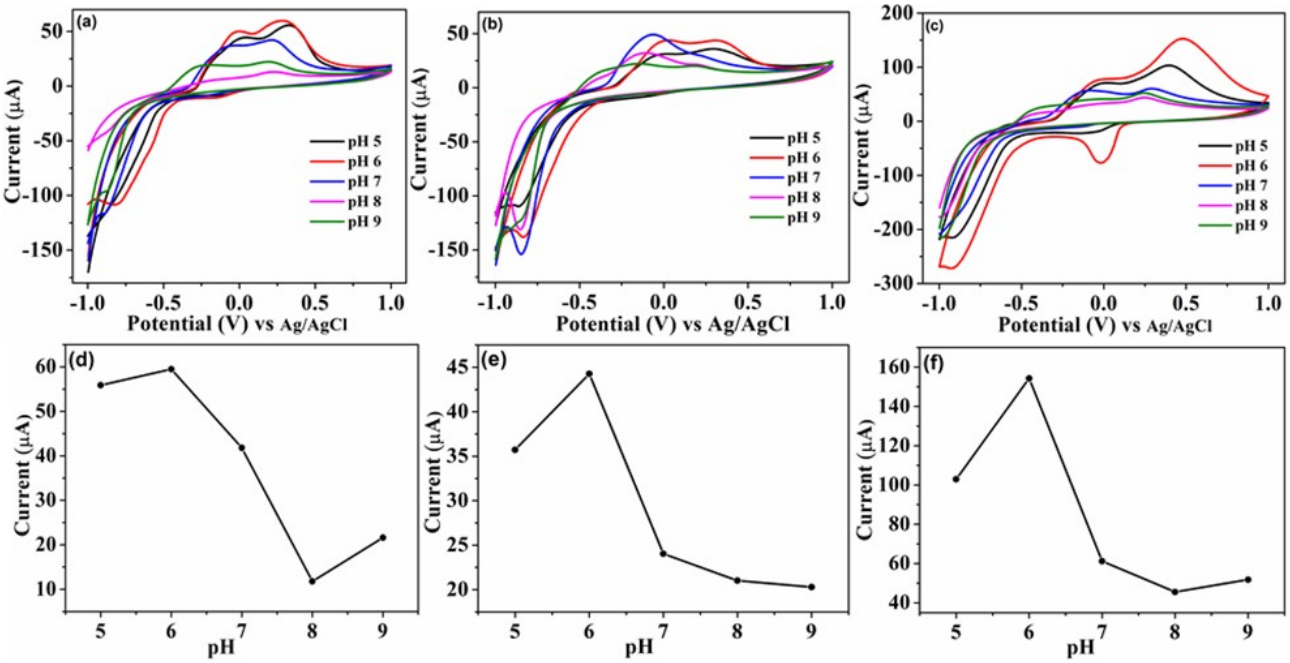


Figure S7. (a-c) CV at different pH with 2,4-DNP for the three different morphologies-spheres, rods, and worms. (d-f)The linear fit responses of different pH (5 - 9) for the three morphologies.

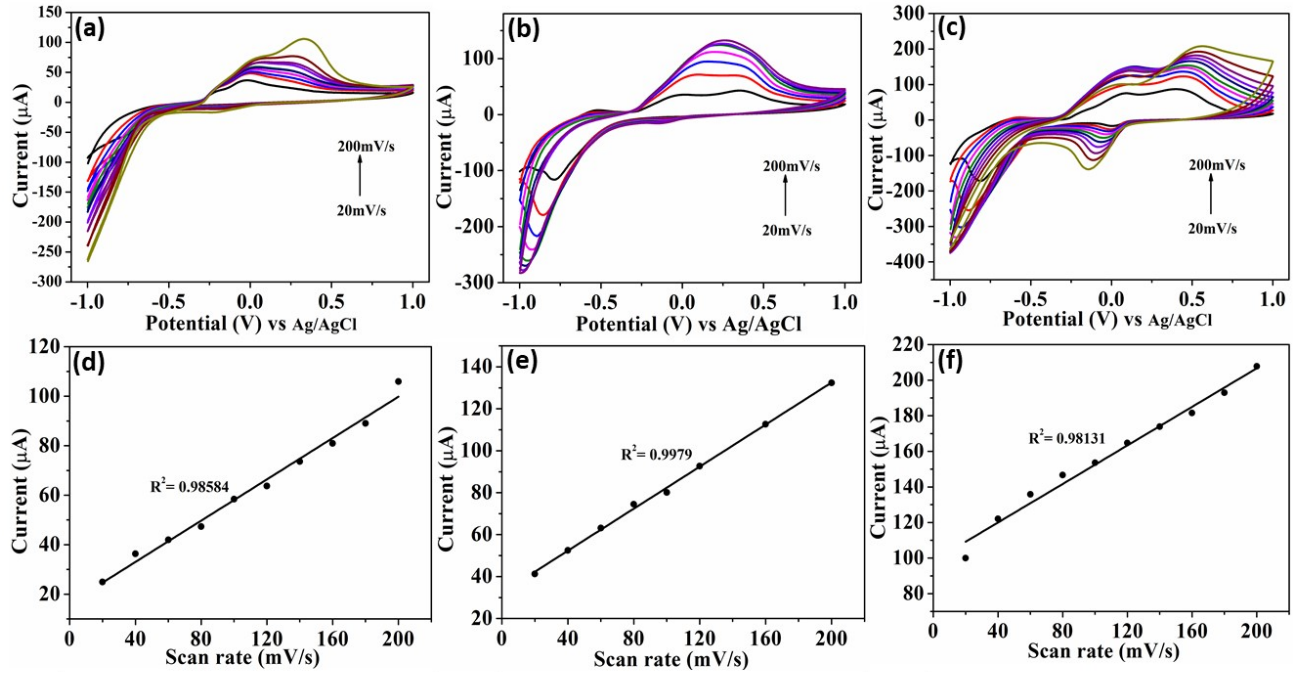


Figure S8. (a-c) CV of Cu_3BiS_3 with 2,4-DNP at different scan rates. (d-f) The corresponding linear plots of scan rates vs current of 2,4-DNP.

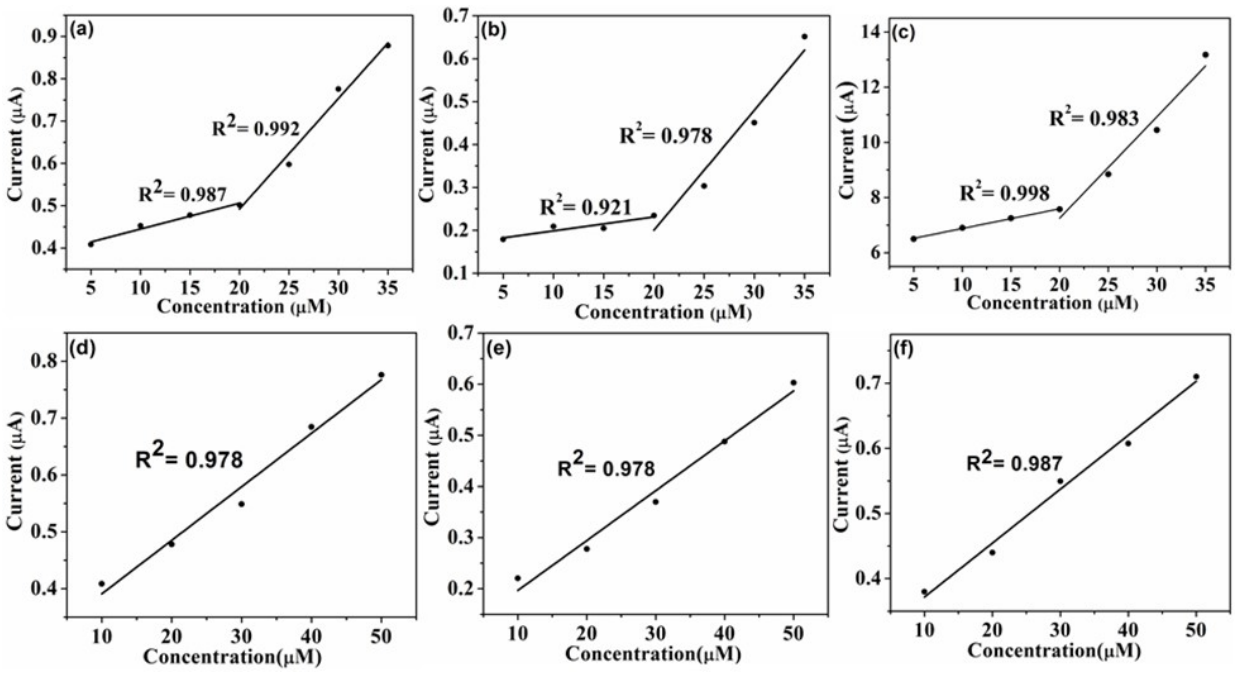


Figure S9. The corresponding current vs. concentration linear plots of (a-c) 4-NP, and (d-f) 2,4-DNP for three catalysts spheres, rods, and worms respectively.

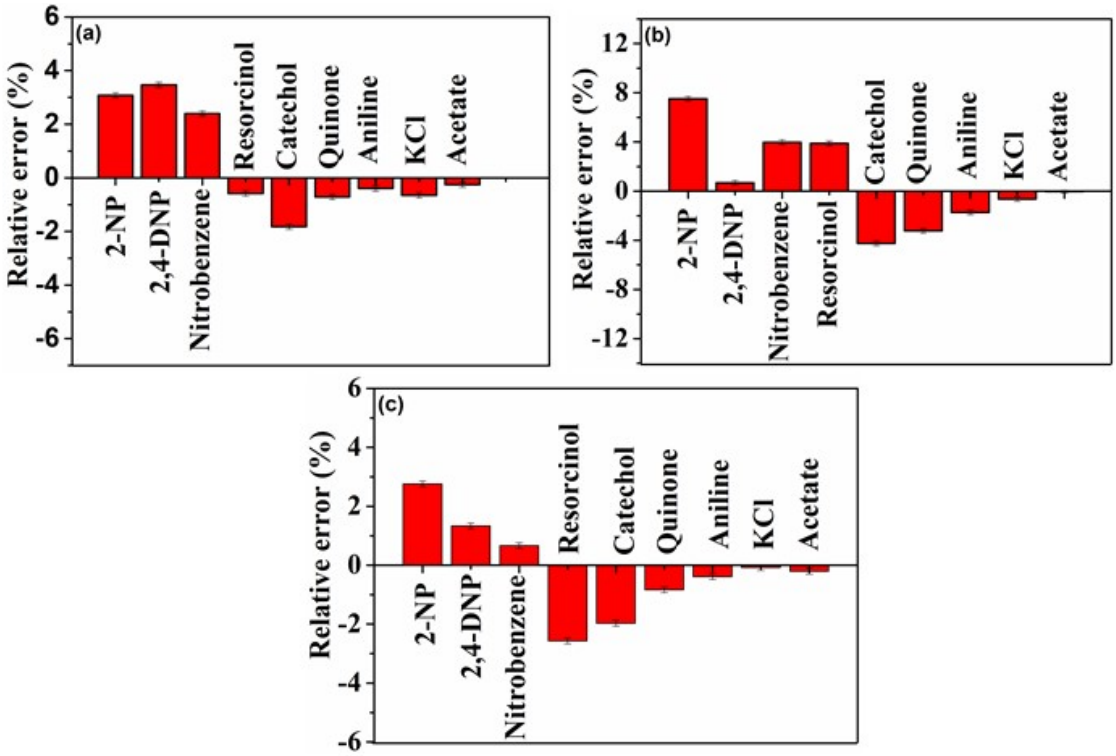


Figure S10. Interference studies for three Cu_3BiS_3 catalysts: spheres, rods, and worms respectively.