

Supporting Information

Synthesis of Copper Nanoparticles with Controlled Sizes and Shapes

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1. UV-Vis. Spectra of Copper Nanoparticles

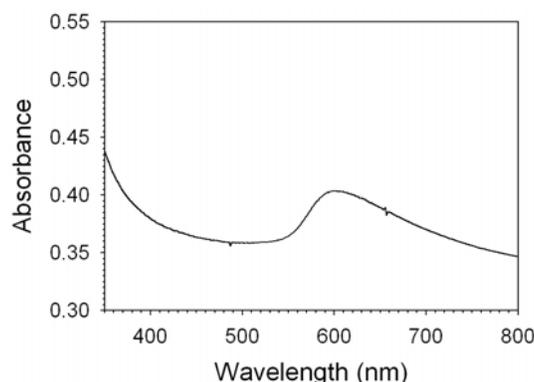


Figure S1. UV-Vis spectra for copper nanoparticles of ~100 nm in size which were agitated briefly in hexane solution before taking the spectrum. The spectrum shows a well-defined SP band centering at approximately 600 nm.

2. Differential Scanning Calorimetry (DSC) of Copper Nanoparticles

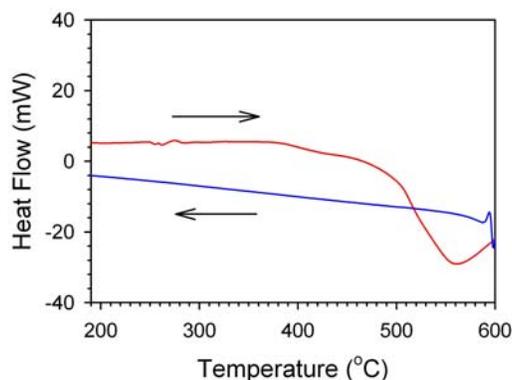


Figure S2. DSC data (acquired on a Perkin Elmer DSC 7 instrument) for copper nanoparticles. 0.04mg of dried sample was put into an aluminum pan and sealed under vacuum. The sample was heated from 140 to 600 °C at a rate of 60 degrees/min, and then was cooled back to 140 at the same rate. The data was baseline corrected using an empty pan “blank” run. The peak is broad and has a tail that extends towards 400 degrees. This is in support of the initial surface melting of the particles at lower temperature, and complete melting upon further heating, all of which takes place at lower temperature than that for bulk copper materials.