## **Supporting Information**

## Morphology Control of Silver Nanostructures via a Chemical Redox Process by Mixed Amine Ligands

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Figure S1. FE-SEM images of the silver samples obtained without the magnetic stirring.





A) Low magnification SEM images of the cubes obtained at low magnetic stirring rates (200 r/m), and the inserted is the high magnification SEM image of a single cube; B) Low magnification SEM images of the solid microspheres obtained without magnetic stirring, and the inserted is the high magnification SEM image of a single sample.



Figure S3. SEM images of the silver samples obtained at different experimental conditions.

A) SEM image of the silver nanoparticles obtained without the surfactant DDAB, which implied that the surfactant plays an important role in the formation of the nanohelixes; B) SEM image of the silver nanowires obtained at high temperature (100  $^{0}$ C) and C) SEM image of the silver nanorods obtained at low temperature (60  $^{0}$ C). The results confirmed that the reaction temperature also has influence on the final formation of the silver nanohelixes.



Figure S4. FE-SEM images of the silver samples obtained without the surfactant.



Figure S5. SEM images of the silver samples obtained at different experimental conditions.

A) SEM image of the silver nanoparticles obtained without the surfactant DDAB, which implied that the surfactant plays an important role in the formation of the nanocones; B) SEM image of the silver samples obtained with 100 mg of the surfactant DDAB; C) SEM image of the urchin-shaped nanocrystals prepared with 200 mg of surfactant DDAB; D) the silver nanoflowers synthesized with 250 mg of the surfactant DDAB; E) the silver nanorods obtained with the 300 mg of DDAB in the synthesis; F) the nanorods bundles obtained with the 350 mg of DDAB.