Electronic Supplementary Information

Reversible Self-assembly of M₃S (M=Cu, Ag) Nanocrystals Through Ligand Exchange

Feng Huang, Jiangcong Zhou, Ju Xu, Yuansheng Wang*

State Key Laboratory of Structural Chemistry, Fujian Institute of Research on the Structure of Matter, Chinese Academy of Sciences, Fuzhou, Fujian, 350002 (P. R. China).

Figure S1-S4

Figure S1. TEM micrographs of the products having reacted for various durations: (a) 5 min, (b) 10 min, (c) 15 min and (d) 25 min, respectively
Figure S2. Histogram showing distribution of the spacing between the adjacent Cu_{1.94}S nanoplates (100 inter-spacings of Cu_{1.94}S nanoplates were measured).

Figure S3. Infrared transmittance spectrum of the disassembled Cu_{1.94}S nanoplates; inset is the magnified 600-900 cm^{-1} region marked by squared frame, indicating the surface ligand being 1-DDT.

Figure S4. TEM micrographs of (a) the disassembled, and (b) reassembled Ag_{2}S nanospheres.