Electronic Supplementary Material (ESI) for CrystEngComm.

Supporting Information

Spherically Aggregated Cu_2O-TA Hybrid Sub-microparticles with Modulated Size and Improved Chemical Stability

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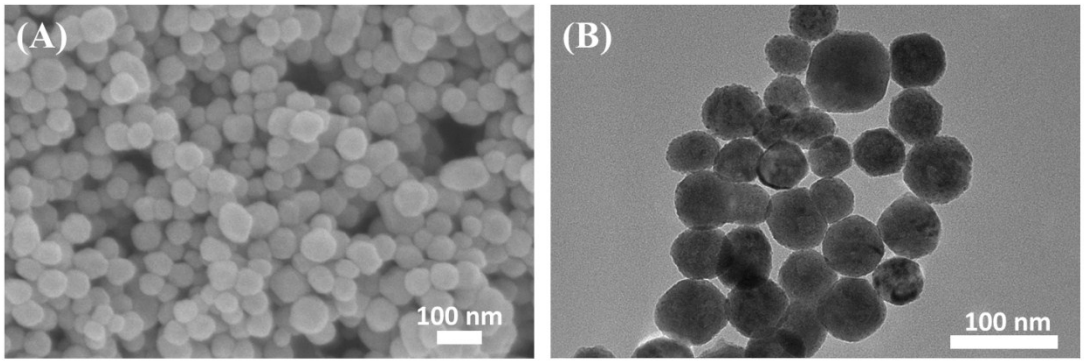

Figure S1. SEM (A) and TEM (B) images of Cu_2O nanoparticles prepared without using TA.

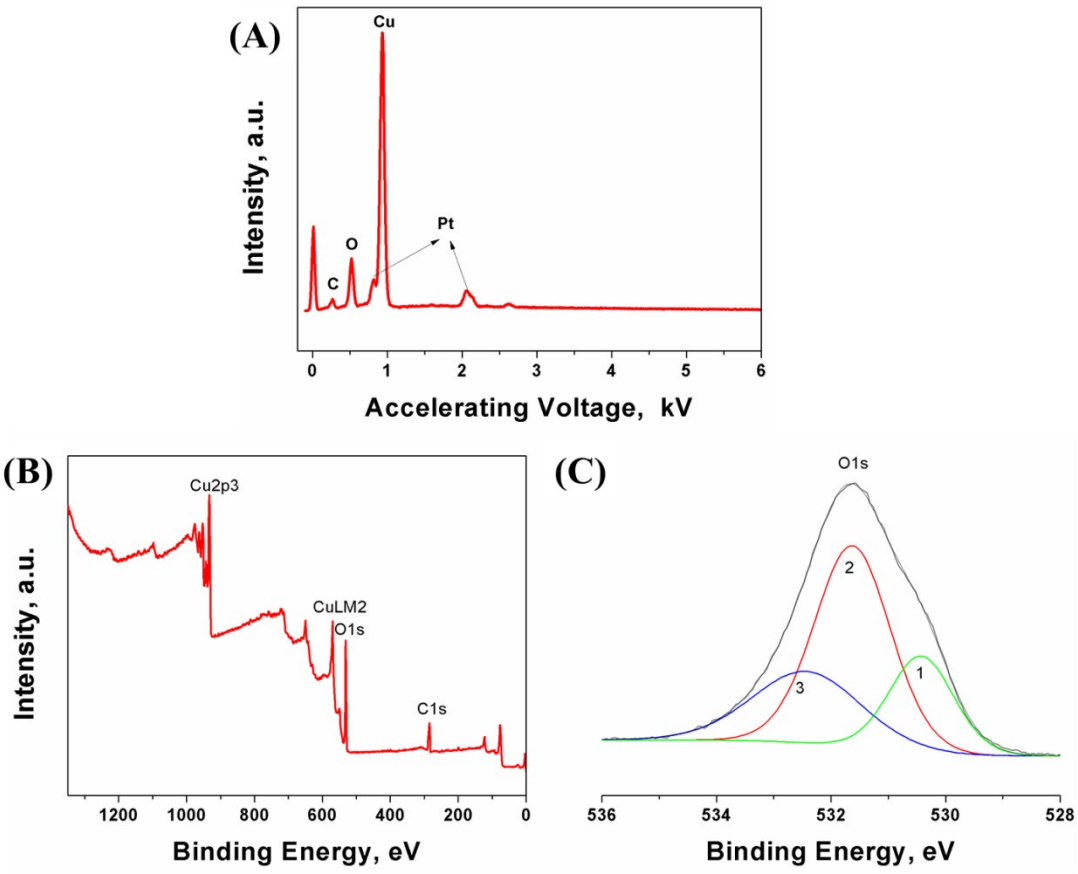

Figure S2. (A) EDS curve, (B) XPS survey and (C) high-resolution scanning of O1s for Cu_2O-TA.

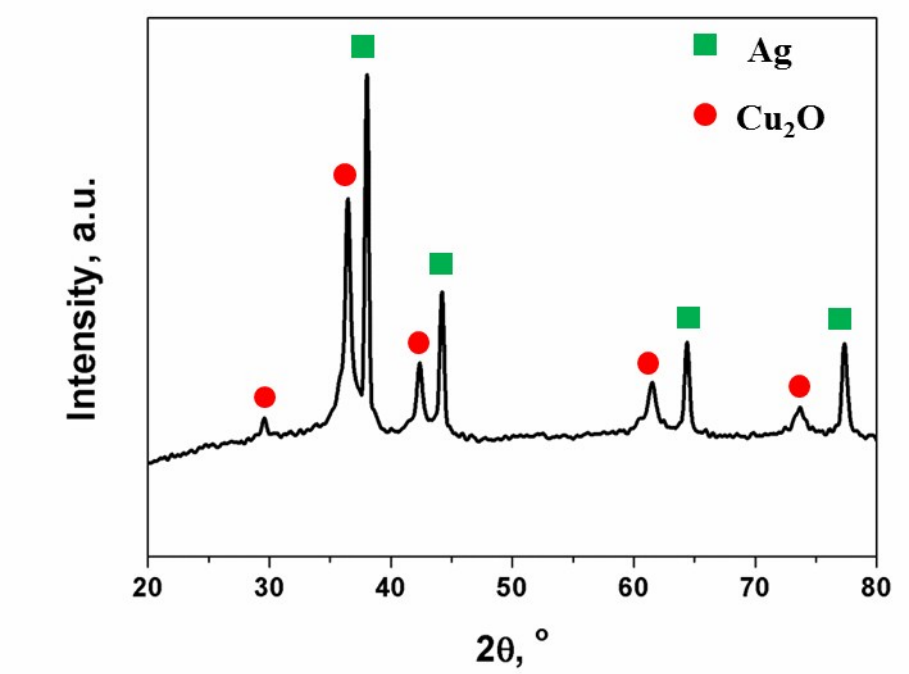

Figure S3. XRD patterns of the product after addition of $AgNO_3$ into the Cu_2O-TA dispersion. The formation of Ag confirms the appearance of TA in Cu_2O-TA.

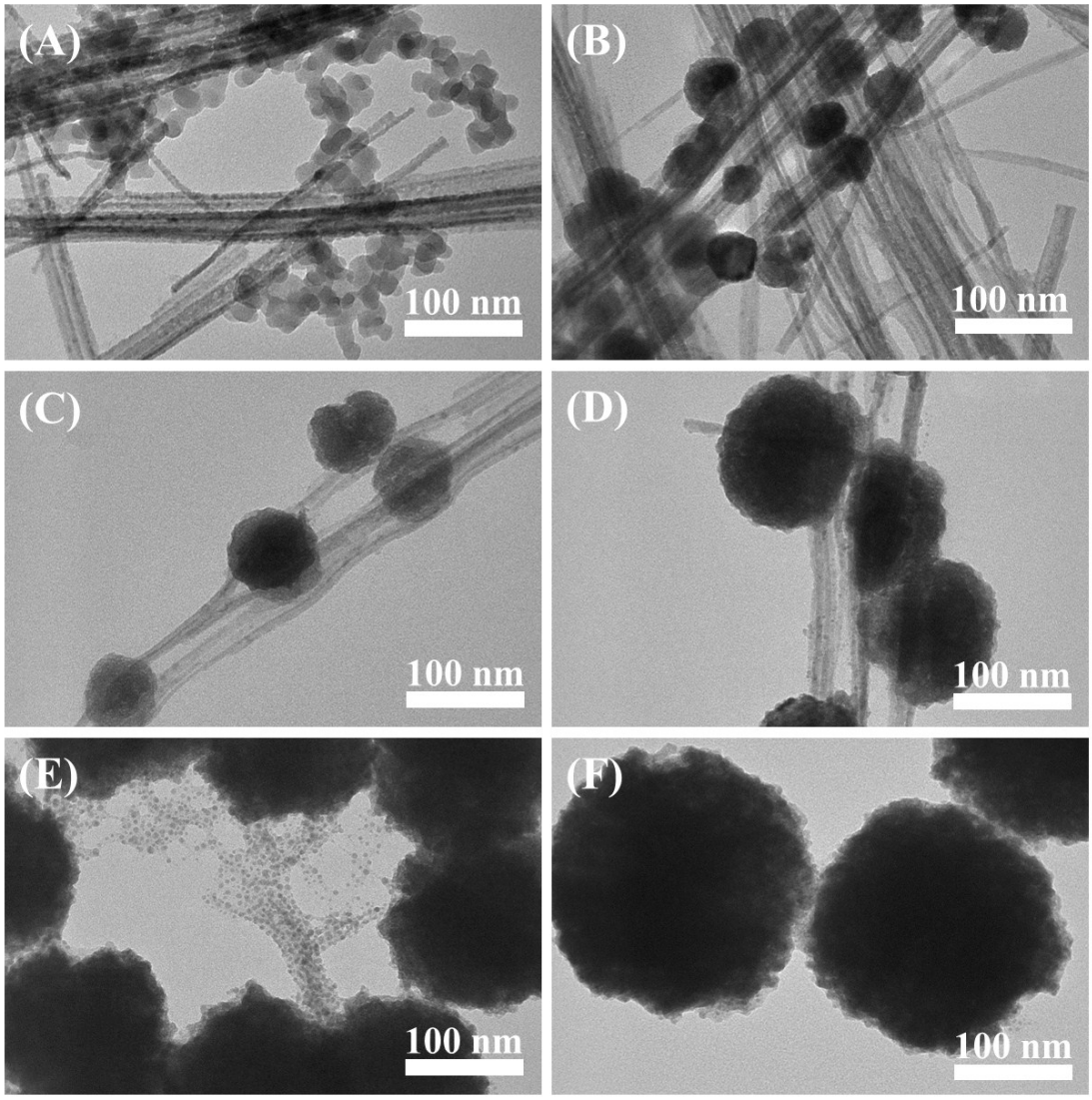

Figure S4. TEM images for the evolution of Cu_2O-TA sub-microparticles. The extents of the reaction are 2% (A), 10% (B), 20% (C), 40% (D), 70% (E), 100% (F), respectively.

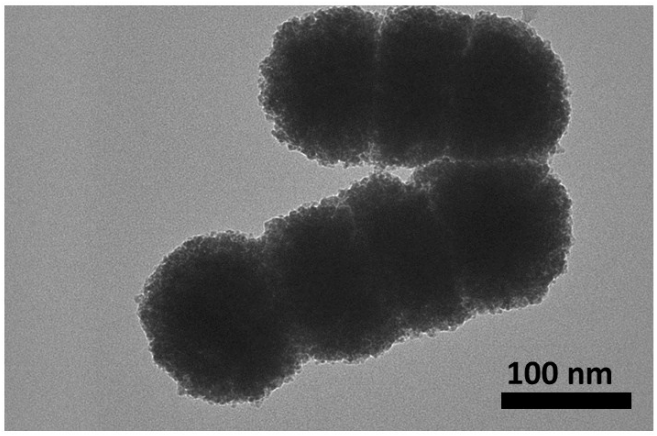

Figure S5. TEM image of rod-like particles in the final product.

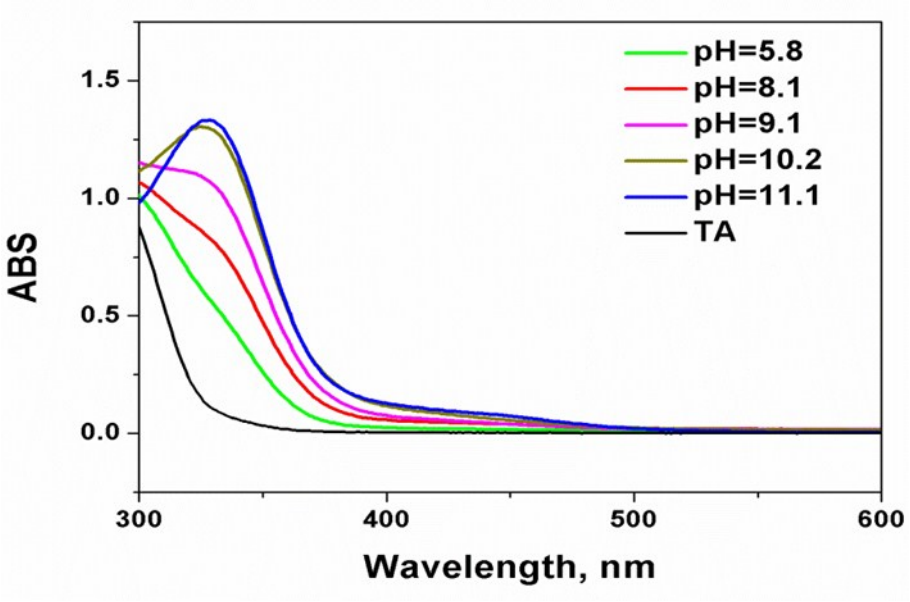

Figure S6. UV absorption of TA-Cu^{2+} solutions with different pH values.

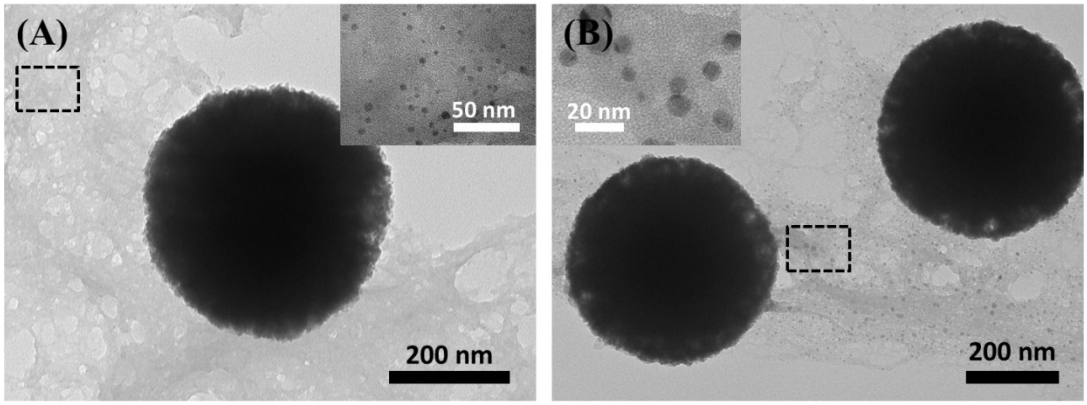

Figure S7. TEM images of Cu_2O-TA obtained when 5 mL (A) and 10 mL (B) TA added into the reaction system (1 mL TA was added in the typical synthesis formulation in the main text). The insets correspond to the magnified images of the marked zones, respectively.

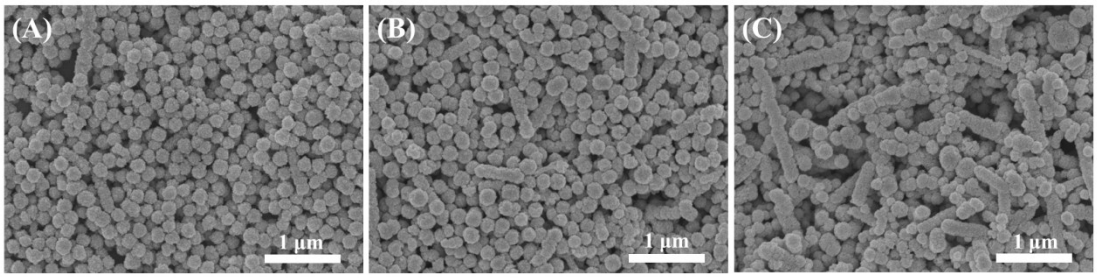

Figure S8. Morphology variations of Cu_2O-TA sub-microparticles with the change of the adding rates of AA solution into the $Cu(OH)_2$-TA dispersions (A: 60 drops /min; B: 30 drops /min; C: added directly at the very first).

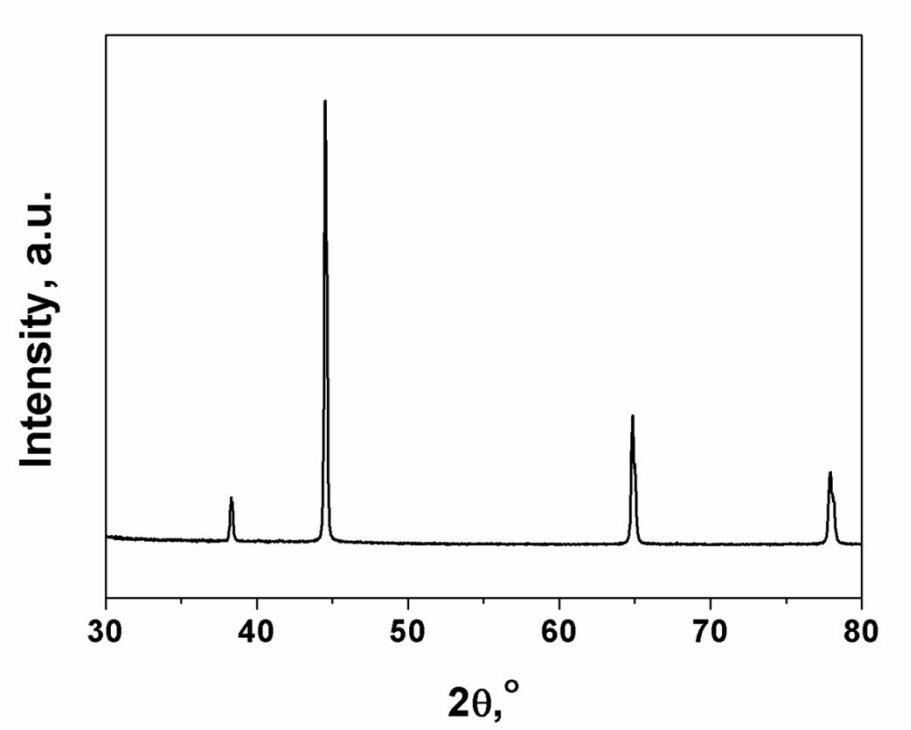

Figure S9. XRD pattern of bare Si wafer which was used as the support for the samples in oxidation test.

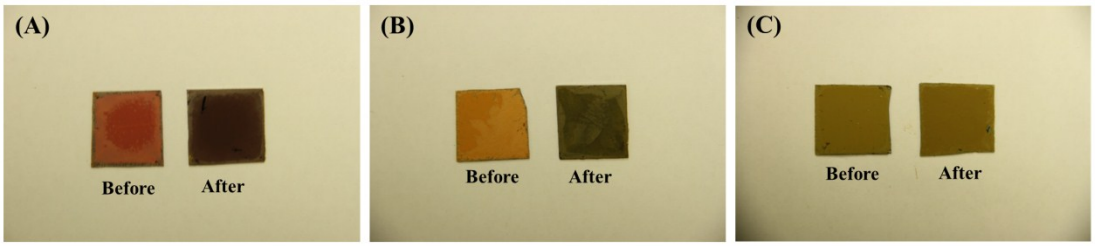

Figure S10. Photographs of the coatings on Si wafers before and after the oxidation test. (A: m-Cu_2O; B: n-Cu_2O; C: Cu_2O-TA)