

To discuss the effect of EDTA on the morphology control, different amount of EDTA was added with the other conditions remained the same. In addition, different volume of ethanol was used to investigate solvent properties. The total volume of ethanol and deionized water is constant (40 mL) and the ethanol is considered as part of solvent in calculating the concentration of the reaction mixture in the controlled experiments.

Powder X-ray diffraction (XRD) patterns were collected on a D8 X-ray diffractometer (Bruker, Germany) with graphite-monochromated Cu K α radiation ($\lambda=1.542 \text{ \AA}$), operating at 40 kV and 40 mA. The morphology and microstructures of the obtained microsized crystals were investigated by scanning electron microscope (SEM; Hitachi S-4800) with an accelerating voltage of 10 kV, transmission electron microscope (TEM) and high-resolution TEM (HR-TEM) observations were carried out using a JEM-2100F equipped with Gatan Image Filter system (Tridium). N₂ adsorption-desorption isotherms were performed on a Micrometrics ASAP 2020 V3.04 H system with nitrogen as the analysis gas after the samples were degassed in a vacuum at 90 °C before measurements. The pore diameter and pore size distribution were determined by the Barrett-Joyner-Halenda (BJH) method.

Supplementary Figure

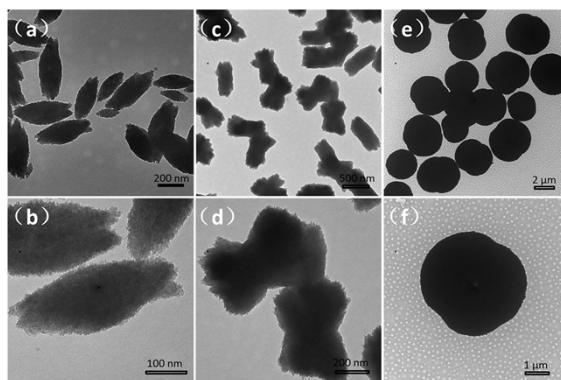


Fig. S1 TEM images of the samples obtained at different intervals through oriented attachment process: (a) and (b) 1 min; (c) and (d) 5 min; (e) and (f) 15 min.