

## Supplementary information

### Preparation of the Spiral ZnO Nanostructures by the Top-Down Wet-Chemical Etching and the Related Properties

Xiguang Han,<sup>a, b</sup> Xi Zhou,<sup>b</sup> Yaqi Jiang,<sup>b</sup> Zhaoxiong Xie<sup>\*b</sup>

<sup>a</sup> Jiangsu Key Laboratory of Green Synthetic Chemistry for Functional Materials, Department of Chemistry, School of Chemistry and Chemical Engineering, Xuzhou Normal University, Xuzhou, Jiangsu 221116, China.

<sup>b</sup> State Key Laboratory of Physical Chemistry of Solid Surface & Department of Chemistry, College of Chemistry and Chemical Engineering Xiamen University, Xiamen 361005, China.

E-mail: zxxie@xmu.edu.cn

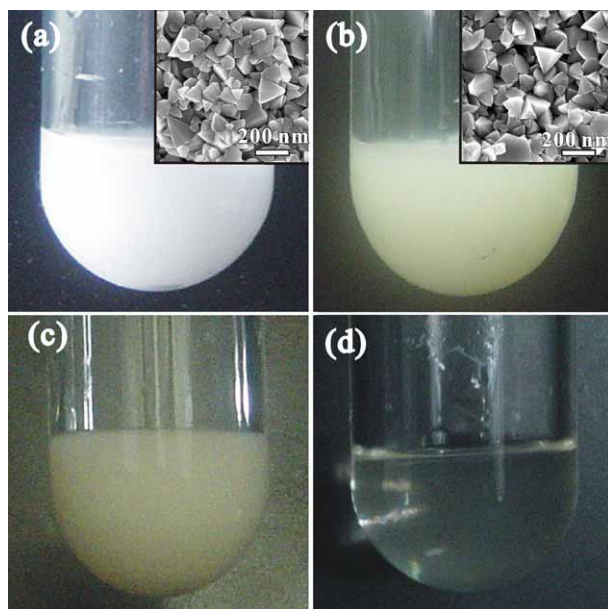


Fig. S1 The optical photos of the pyramid-like ZnO suspension before and after refluxed in (a, b) 3 mL of 1-octylamine and (c, d) 3 mL of OA at 320 °C for 30 min. The insets in a and b are the corresponding SEM images of pyramid-like ZnO particles before and after reflux in the pure 1-octylamine.

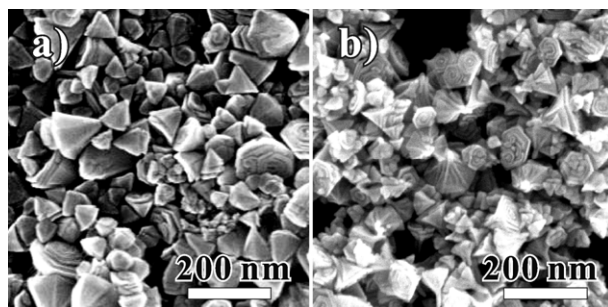


Figure S2. SEM images of the products synthesized at different reaction time at 320 °C. a) 10 min, b) 60 min.