

## Facile and large-scale route to the synthesis of oversized octagonal nanosheets of layered zinc oxide using surfactant template

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Metal oxide nanostructures have been extensively studied in recent decades because of their novel physical and chemical properties, which are related to their nanoscale dimensions.

Diverse methods have been developed for the synthesis of 0D and 1D nanostructures with various morphologies and properties such as nanocrystals, quantum dots, and crystalline nanorods and nanowires.

In this Poster, we report the preparation of highly ordered ZnO nanosheet/surfactant lamellar layers in an aqueous solution at room temperature. The single crystalline ZnO nanosheets were conveniently synthesized on a multigram scale under ambient conditions within a few hours without special equipment. And We can get oversized octagonal nanosheets of layered Zinc oxide. Total thickness is 500nm~900nm, and length is 5 $\mu$ m~10 $\mu$ m.