

Abstract Submitted
for the TSF10 Meeting of
The American Physical Society

Microwave-assisted synthesis and characterization of star-shaped zinc oxide micro and nanostructures FLOR ESTHELA PALOMAR PEREZ, UTSA, IDALIA GOMEZ DE LA FUENTE, UANL, MIGUEL YACAMAN, UTSA — This work reports the synthesis of star-shaped ZnO nanostructures from $\text{Zn}(\text{NO}_3)_2$ and methenamine by microwave assisted method. The molar ratio of the precursors and microwave power irradiation were the main parameters for the synthesis. XRD shows ZnO in wurtzite structure. SEM images show the presence of star-shaped zinc oxide structures from 300 nm to 3 μm which grew from nanorods. The methenamine proportion in the solution acts as director for the rods production. In the 1:1 molar ratio only star shaped zinc oxide nanostructures were obtained.

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Date submitted: 27 Sep 2010

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