

## عنوان مقاله:

Synthesis and characterization of ordered arrays of ZnO nanorod at low temperature using polyacrylamide-gel method.

## محل انتشار:

همایش منطقه ای شیمی (سال: 1389)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

Fabrication of ordered arrays consisting of well-defined building blocks such as quantum dots, nanorods, or nanowires is essential in the creation of smart and functionalized devices based on nanotechnology. In this purpose, to control the size and shape of ZnO nanoparticles, we synthesized ordered arrays of ZnO nanorods by polyacrylamide-gel method using different precursors;  $\text{Zn}(\text{CH}_3\text{COO})_2$ ,  $\text{ZnSO}_4$  and  $\text{Zn}(\text{NO}_3)_2$  as starting materials at low temperature. The X-ray diffraction (XRD) method, Scanning Electron Microscopy (SEM) and Transmission electron microscopy (TEM) were used to characterize the structure and morphology of the products sintered at various temperatures. The results indicated, formation of the ordered arrays of ZnO nanorods, when  $\text{ZnSO}_4$  was used as precursor. The nanorods particles size was 20nm diameter and 100 nm length.

## کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/829052>

