

## عنوان مقاله:

Deposition and characterization of ZnO thin films fabricated by low temperature chemical bath deposition: annealing effect

## محل انتشار:

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## خلاصه مقاله:

In this study, vertically aligned ZnO nanowires (ZnO NWs) have been grown onto glass substrates by chemical bath deposition (CBD) method at low temperature. The ZnO films are annealed in air at different temperature for 1 h to study annealing effect on structural and optical properties. Then the characteristics of the samples were studied by means of field emission scanning electron microscopy (FESEM), X-ray diffraction (XRD) and photoluminescence (PL). The FESEM images show that the ZnO NWs grown perpendicular to the seeded glass substrates. The XRD results reveal that all the ZnO NW arrays grew preferentially oriented along the c-axis in the direction of (002) plane with a hexagonal wurtzite structure. PL measurements of the grown ZnO NWs on all samples exhibited high UV peak intensity compared to broad visible peak.

## کلمات کلیدی:

ZnO thin films, Chemical bath deposition, Morphology, Annealing effect

## لینک ثابت مقاله در پایگاه سیویلیکا:

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