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Zinc oxide coating by ultrasonic waves and investigation of the effect of heating on it

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Abstract

In this paper, the coating on glass slides by ultrasonic irradiation in the aqueous ZnO solution is discussed. We investigate the effect of irradiation location on the amount coating, and the role of heat on the coated slide. The structure and morphology of the thin film were obtained by using atomic force microscopy (AFM) and field emission scanning electron microscopy (FESEM). The results showed that average diameter deposited particles on the glass slides (In beside and front of the ultrasonic probe), before and after heating is in the nanometer range.

Keywords: ZnO nano-particles, Ultrasonic probe transducer, Coating, Morphology, Heating.

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