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Preparation and characterization of Mn doped ZnO nanorods *

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(Received September 18, 2017, in final form, October 30, 2017)

Mn doped ZnO nanorods were prepared by chemical precipitation method. The micro-structural and structural properties of the nanorods were calculated from the *X*-ray diffraction technique. The formed nanorods was seen in the scanning electron microscopy. The purity of the sample was confirmed by the energy dispersive *X*-ray analysis (EDX). The optical properties were studied using UV-Vis spectroscopy and photoluminescence. In the photoluminescence spectrum, the peaks due to recombination of free electrons, oxygen vacancy and intrinsic defects were observed. The magnetic properties were studied using vibrating sample magnetometer (VSM) and the paramagnetic nature of the material was confirmed.

DOI: 10.21883/FTT.2018.05.45876.295

* Полный текст статьи опубликован в журнале „Physics of the Solid State“.