

Magnetic and Mössbauer effect studies of ZnO thin film implanted with iron ions to high fluence

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Abstract

© Published under licence by IOP Publishing Ltd. We present the results of magnetic and Mössbauer effect studies of zinc oxide thin film obtained by RF magnetron sputtering and implanted with 40 keV iron ions to a fluence of $1.5 \cdot 10^{17}$ ion/cm². As-implanted and post-annealed sample shows ferromagnetic properties at room temperature and consists of paramagnetic and ferromagnetic phases according to Mössbauer spectroscopy.

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