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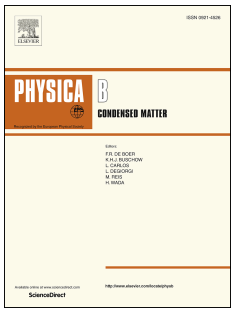

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Analysis of structural, optical and charge density distribution studies on $Zn_{1-x}Mn_xS$ nanostructures

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Abstract

The phasepure nanostructures of $Zn_{1-x}Mn_xS$ (x = 0.0, 0.04, 0.06 and 0.08) has been synthesized by using chemical precipitation method. The prepared nanostructures are characterized by powder X-ray diffraction (PXRD) method. The structural properties are analyzed through Rietveld refinement analysis. The charge density distribution studies are also done using maximum entropy method (MEM). The bonding features have been analyzed using MEM method. The morphological studies are done using Scanning Electron Microscopy (SEM) and it confirms that the prepared systems are in nano range. The optical characterization has also been done through UV spectrophotometer.

Keywords: PXRD, MEM, Charge density distribution, Rietveld, BCP, SEM

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