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SYNTHESIS AND CHARACTERIZATION OF SM-DOPED ZINC OXIDE NANO-CRYSTALLINE POWDERS

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ABSTRACT

Samarium doped zinc oxide nanocrystals have been synthesized adopting a facile aqueous solution approach. The characterization of these samples has further been accomplished identifying the diffraction peaks using X-radiation studies and the size morphology through electron microscopy. The chemical characterization has struck peaks depicting the ubiety of Sm in the crystalline material along with zinc and oxygen. Aqueous solutions of zinc Carbonate, Samarium Chloride and Urea have been lessened for the synthesis of Sm-ZnO nanocrystals which were found to be dimensionally between 100-120nm.

KEYWORDS: Zinc Oxide, Samarium Doped, Nanoparticles, Synthesis, Characterization

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