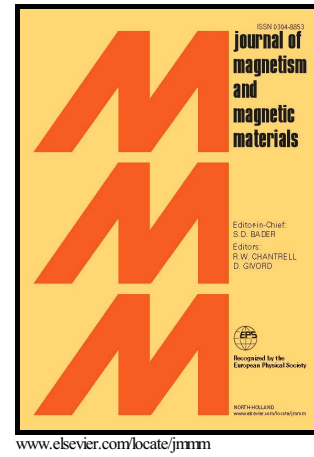


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Magnetic and Optical properties of Zn²⁺ ion substituted Barium hexaferrites

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Abstract

Ba_{1-x}Zn_xFe₁₂O₁₉ (0.0 ≤ x ≤ 0.3) hexaferrites were produced via sol-gel auto combustion technique. XRD patterns show that all the samples are single-phase M-type barium hexaferrite (BaM). Scanning electron microscopy (SEM) revealed that grains have a size range of 0.5-2 μm. The magnetic hysteresis (σ-H) loops revealed the ferromagnetic nature of NPs. The average crystallite sizes were calculated by applying Scherrer equation on the base of XRD powder

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