

Preparation and Characterization of BaTiO₃-CuFe₂O₄ Bi-Layer Thin Films Prepared By Pulsed Laser Deposition

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Abstract : Multiferroic properties of BaTiO₃-CuFe₂O₄ thin films grown on highly-textured Pt(111)/TiO₂/SiO₂/Si(100) substrates were studied. CuFe₂O₄ ceramic target was synthesized by mixing oxide powders of CuO, Fe₂O₃. BaTiO₃ ceramic target was also prepared separately. The film structure was of bi-layer type, where BaTiO₃ layer lies underneath of CuFe₂O₄ layer, where both layers were grown by pulsed laser deposition technique. We will report the ferroelectric and magnetic properties of BaTiO₃-CuFe₂O₄ bi-layer films in some detail.

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