Studies on structural, characterization and electric properties of Cu-doped BiFeO3 thin films

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Cu-doped BiFeO₃ thin films were fabricated by spin coating method. The thin films were deposited on Pt/Si-N type substrate. X-rays diffraction were used to reveal purity and impurity of Cu-doped BiFeO₃ thin films crystalline structure on Cu-doping concentration as 0, 0.1, 0.2, 0.5 and 1.0, respectively. X-ray absorption spectroscopy (XAS) were used to investigate Fe and Cu elements oxidation state. Scanning electron microscopy (SEM) were used to show surface morphology of Cu-doped BiFeO₃ thin films and thin films thickness (SEM Cross Section). Agilent4294A Impedance Analyzer were used to reveal dielectric constant and conductivity of thin films.

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