

RF magnetron sputtering deposition of NiO/Ni bilayer and approach of the Magnetic behavior using the Preisach model

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Abstract: Bilayer of nickel and nickel oxide were deposited on glass substrates using RF magnetron sputtering technique. The magnetic properties of the prepared thin films were carried out at room temperature in both parallel and perpendicular magnetic field to the sample. The Preisach model was applied to provide a mathematical model of the magnetic hysteresis loop in the case of parallel geometry, along the easy axis of the bi-layer NiO / Ni. Good agreement was obtained between the theoretical and experimental results.

Keywords : Ni/NiO bilayer;, Magnetic properties;, Preisach Model