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Highlights

- BiFeO₃/LaNiO₃ heterostructure was grown on quartz substrate by RF sputtering.
- The dense and uniform surface morphology was observed from AFM.
- BFO layer shows good ferroelectric and weak ferromagnetic character at RT.
- Photoelectric effect was observed in BFO/LNO heterostructure.
- The photoconductivity increases with the enhanced power of light.

Ferroelectric, magnetoelectric and photoelectric properties of BiFeO₃/LaNiO₃ heterostructure

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Abstract:

BiFeO₃/LaNiO₃ (BFO/LNO) heterostructure was fabricated on quartz substrate via RF sputtering method. The microstructure and surface morphology of the BFO/LNO heterostructure was demonstrated. BFO layer shows good ferroelectric and weak ferromagnetic characters at room temperature. The dielectric constants of the heterostructure under an applied magnetic field 1.2T and zero field are both

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