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**Title:** Fabrication and Characterisation of Ferromagnet-Superconductor Bilayers

**Authors:** Thomas, Aleena Anna (/jspui/browse?type=author&value=Thomas%2C+Aleena+Anna)

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**Abstract:** We are looking at magnetic pinning of vortices induced in Superconductor-Ferromagnet heterostructure. We prepared thin films of YBCO, LSMO, BSCCO, Nb, NbN, TaN through pulsed laser deposition and magnetron sputtering. The stoichiometry of thin film were characterized by XRD and EDAX, Surface morphology, grain size and the thickness measurements have been done by Atomic Force Microscopy and for superconducting and ferromagnetic properties we performed electrical and magnetic transport measurements viz. ac susceptibility, four-probe resistivity and VSM. We are also investigating vortices using low temperature magnetic force microscopy.


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