

Abstract Submitted
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Low temperature Scanning Tunneling Microscopy of Manganites¹

JACOB TOSADO, Department of Physics, University of Florida, TARA DHAKAL, Department of Physics, University of Florida, AMLAN BISWAS, Department of Physics, University of Florida — Tunneling spectroscopy and surface imaging using scanning tunneling microscopy (STM) is an excellent technique for studying surface properties and has promoted the use of low temperature scanning tunneling microscopes (LTSTM). In this presentation we will discuss the use of scanning tunneling spectroscopy to understand the spatial variation of the density of states of ferromagnetic manganese oxide (manganite) thin films at different temperatures. We will first describe the LTSTM setup and show the calibration data for operation at temperatures down to 77 Kelvin. We will then discuss our preliminary data obtained on thin films of manganites.

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