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**LaSrMnO<sub>3</sub> and LaMnO<sub>3</sub> pyramid growth technology by pulsed-laser deposition.** VERONIKA BUROBINA, University of California - San Diego — Thin films of La<sub>0.7</sub>Sr<sub>0.3</sub>MnO<sub>3</sub> (LSMO) and LaMnO<sub>3</sub> (LMO) have been actively studied for more than two decades. Our interest in these materials is focused on the layer-by-layer pyramidal growth of the thin-films on piezoelectric substrates by pulsed-laser deposition technology (PLD) for magnet-based devices. The films desired were grown in the absence of thorough substrate preparation procedures. The samples grown consisted of layers of LSMO (2 layers) and LMO (1 layer), and the area of every successive layer was twice the area of the previous layer. The deposition rate of the pyramids grown was nearly 0.07 nm per laser pulse for efficient growth. The Curie temperature of the samples is approximately 290K. These pyramidal thin films provide an opportunity to control magnetization of LSMO and the locality of the measurements.

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