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Jahn-Teller distortion mediated phase separation in spinel thin films S. PARK, N. LEE, S. GUHA, S-W. CHEONG, Department of Physics and Astronomy, Rutgers University, Piscataway, NJ 08854, USA — Self-assembled nanostructures have been acquired in various forms, giving significant impacts both on industrial and academic realms. Recently, nano-structures in spinel oxides have been observed in bulk materials by harnessing the Jahn-Teller distortions. Realization of magnetic nano-stuructures could give a breakthrough in the magnetic recording industry. We have grown chemically phase separated spinel films utilizing pulsed laser deposition method, and the inter- relationship between structural and magnetic properties will be discussed.

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