Abstract Submitted
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Synthesis and characterization of the physical properties of RE_3TiSb_5 (RE = La, Ce)[1] TRACY STEVENSON[2], CHANTAL DOUGLAS[3], DANIEL JACKSON, DERRICK VANGENNEP, JAMES HAMLIN, Department of Physics, University of Florida, Gainesville, FL 32611 — RE_3TiSb_5 (RE= La, Ce) is synthesized to investigate the physical properties and test for superconductivity. Ce_3TiSb_5 was synthesized using flux growth in both Sn and Zn fluxes while La_3TiSb_5 was synthesized using Sn flux. Magnetic, resistive, and heat capacity measurements all indicate that neither of these compounds are superconducting. Based on our results La_3TiSb_5 is non-magnetic and Ce_3TiSb_5 has an antiferromagnetic phase transition near 5 K. Neither compound exhibits typical metallic transport behavior. This is in contradiction to previous results.

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