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Synthesis and properties of new U3TiSb5-type compounds[1] MAEGAN IDROGO, Texas Lutheran University, DANIEL JACKSON, DERRICK VANGENNEP, JAMES HAMLIN, University of Florida — Recently it was found that single crystals of Ce3TiSb5 exhibit a complex temperature/magnetic-field phase diagram with several metamagnetic transitions and a possible re-entrant disordered phase. In this presentation, I will discuss our efforts to synthesize and characterize other members of the "3-1-5" family of compounds. In particular, we synthesized single crystal of both Ce3ZrSb5 and Pr3TiSb5 using Sn flux. We find that Pr3TiSb5 exhibits similar magnetic transitions at high field as Ce3TiSb5.

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Maegan Idrogo
Texas Lutheran University

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