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Synthesis and Characterization of High Quality Single Crystal CeCoIn₅¹ TESFAYE GEBRE, ABEBE KEBEDE, T.D. DAIL, T. HAYWOOD, D. KUMAR, J. ABIADE, D. WORKU, North Carolina A&T State University Greensboro, NC 27411, D. SEIFU, Morgan State University, Baltimore, MD 21251, K.A. STORR, Prairie View A & M University, Prairie View, Texas 77446, F. DRYMITIS, Clemson University, Clemson, SC 29634 — Novel electronic materials play an ever-increasing role in technological applications. They cover a rather broad spectrum of materials that exhibit exotic transport and magnetic properties. These include superconductors, narrow band gap semiconductors, electronically active polymers, colossal magneto resistive systems, nanoscale electronic materials, and Fullerenes, to name a few. Understanding the interplay between strong electronic correlations and structural properties of these materials is important. In this communication, we report the growth and preliminary characterization of single crystal Cerium based intermetallic compounds that are known to show superconductivity at $T_c = 2.3\text{K}$.

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