

Abstract Submitted
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Synthesis, Structure, and Thermoelectric Properties of Misfit-Layered Cobalt Oxides GREGORY T. MCCANDLESS, Department of Physics and Astronomy, Louisiana State University, HO NYUNG LEE, Materials Science and Technology Division, Oak Ridge National Laboratory, RONGYING JIN, Department of Physics and Astronomy, Louisiana State University — Using two methods of crystal growth (flux and floating zone technique), high purity single crystals of misfit-layered cobalt oxides, $\text{Ca}_3\text{Co}_4\text{O}_9$ and $\text{Bi}_2\text{Sr}_2\text{Co}_2\text{O}_8$, have been grown. The latter compound has also a thin film form which was grown by pulsed laser deposition (PLD) method. In addition to structural information, physical property measurements (such as thermopower, resistivity and thermal conductivity) of these compounds will be presented. The correlation between structure and physical properties will be discussed.

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