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Synthesis and doping of nonmagnetic honeycomb iridate single crystals GILBERT LOPEZ, NICHOLAS BREZNAY, XUE FAN, JAMES ANA-LYTIS, Univ of California - Berkeley — The honeycomb iridate Na₂IrO₃ has been proposed to exhibit many unique properties, including possible spin liquid and topological insulator phases. Although the widely studied layered phase of Na₂IrO₃ is an antiferromagnetic Mott insulator, I will discuss single-crystal synthesis and electrical and thermodynamic properties of a weakly magnetic Na₂Ir_{1-y}O₃ relative. I will also discuss the effects of chemical doping on the electrical transport and magnetic properties of honeycomb iridate materials.

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