

Abstract Submitted
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Influence of isovalent doping of Ca²⁺ on the Spin orbit Mott insulator Sr₂IrO₄ XIANG CHEN, Boston Coll, STEPHEN WILSON, UCSB, WILSON GROUP TEAM — Here we investigate the influence of isoelectronic doping into the spin-orbit Mott materials Sr₂IrO₄. Specifically, we explore the influence of isovalent Ca substitution as a perturbation to the $J_{eff} = 1/2$ Mott ground state by combined transport, bulk magnetization, and scattering measurements. The evolution of the lattice geometry/structure-type as well as the electronic phase behavior will be presented as Ca²⁺ is substituted on the Sr²⁺ site.

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