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Magnetic and transport properties of Fe1-xCoxSb2 CEDOMIR PETROVIC, Physics Department, Brookhaven National Laboratory, YONGJAE LEE, Physics Department and Center for Functional Nanomaterials, Brookhaven National Laboratory, THOMAS VOGT, Physics Department and Center for Functional Nanomaterials, Brookhaven National Laboratory — Single crystals of Fe1-xCoxSb2 have been grown by molten metallic flux technique. Synchrotron powder x-ray diffraction confirms phase purity and orthorhombic Pnnm space group. Cobalt substitution drives system from diamagnetic semiconductor to metallic ferromagnet at T=0 with very small ordered moment. Application of magnetic field leads to large magnetoresistance [R(H)-R(0)]/ R (0) = 185 at T=2K. The results are discussed in connection with possible Kondo Insulator description of FeSb2.

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