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Possible magnetic field-induced quantum critical phase transition in YbPtIn EMILIA MOROSAN, Ames Laboratory and Dept. of Physics and Astronomy, Iowa State University, SERGEY L. BUD'KO, Ames Laboratory and Dept. of Physics and Astronomy, Iowa State University, YURIJ MOZHARIVSKYJ, Ames Laboratory and Dept. of Chemistry, Iowa State University, PAUL C. CANFIELD, Ames Laboratory and Dept. of Physics and Astronomy, Iowa State University — We are presenting detailed anisotropic resistivity and heat capacity measurements for temperatures down to $\sim$ 0.4 K, and magnetic fields up to 140 kOe, on solution-grown YbPtIn single crystals. For fields applied within the basal plane, the magnetic ordering temperature ($\sim$ 2.1 K for H = 0) is driven below our base temperature around 40 kOe, whereas for higher magnetic fields non-Fermi-liquid behavior is possible; a slower decrease of the ordering temperature with the applied field is observed for H $\parallel$ c. By analogy with the previously reported YbAgGe compound, we anticipate a field-induced quantum phase transition in YbPtIn.

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