

Abstract Submitted
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The heavy fermion compound YbCu₄Cd. EUNDEOK MUN, HYUNA PARK, Simon Fraser University — We reinvestigate the physical properties of YbCu₄Cd single crystals. It has been shown that both YbCu₄Ag and YbCu₄Cd compounds have nearly the same Kondo temperature ~ 200 K. The magnetic susceptibility of YbCu₄Ag shows a peak structure around 40 K, whereas a paramagnetism appears in YbCu₄Cd. To elucidate the discrepancies in low temperature magnetic susceptibility data, single crystals of YbCu₄Cd were grown by using Cd richer compositions. We show that the magnetic susceptibility of YbCu₄Cd is sensitive to the growth conditions. The thermodynamic and transport properties of YbCu₄Cd have been reinvestigated by means of magnetic susceptibility, magnetization, electrical resistivity, Hall effect, and specific heat measurements.

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