

Abstract Submitted  
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**The low temperature thermodynamic properties and Hall effect in YbAgGe close to the field-induced quantum** Y. TOKIWA, A. PIKUL, P. GEGENWART, F. STEGLICH, Max-Planck Institute for Chemical Physics of Solids, Dresden, V.S. ZAPF, NHMFL - Los Alamos, S.L. BUD'KO, P.C. CANFIELD, Ames Laboratory and Department of Physics and Astronomy, Iowa State University — We present temperature and field dependent heat capacity and magnetization data ( $T \geq 50$  mK,  $H \leq 11.5$  T) as well as field dependent Hall effect data ( $T \geq 50$  mK,  $H \leq 18$  T) for YbAgGe, a heavy-fermion compound with a field induced quantum critical point. These data clearly indicate that the same electronic degrees of freedom are responsible for the features seen in both specific heat and magnetization data. In addition, they further refine the different boundaries suggested for the  $H-T$  phase diagram of YbAgGe through previous, magneto-transport measurements, and allow for further understanding of different phases on the  $H-T$  phase diagram, in particular, clearly disconnecting the field-induced quantum critical point in YbAgGe from any sort of saturation of the Yb moment in higher applied magnetic field.

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