

Abstract Submitted
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Thermal expansion and magnetostriction of the heavy fermion antiferromagnet YbAgGe G.M. SCHMIEDESHOFF, A.W. LOUNSBURY, S.J. TRACY, Occidental College, S.L. BUD'KO, P.C. CANFIELD, Ames Laboratory/Iowa State University — YbAgGe is a stoichiometric heavy fermion compound that exhibits antiferromagnetic order and field induced quantum criticality. We will discuss this behavior, and present a unified phase diagram of this compound in the T-H plane, in light of our recent thermal expansion and magnetostriction measurements. We find a remarkable agreement between thermodynamic, transport and microscopic measurements on this model system. Work at Occidental College was supported by the National Science Foundation under DMR-0704406. Work at the Ames Laboratory was supported by the Department of Energy, Basic Energy Sciences under Contract No. DE-AC02-07CH11358.

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