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Thermal expansion and quantum criticality of the heavy fermion antiferromagnet YbBiPt RISHI BHANDIA, Occidental College, E.D. MUNN, Simon Fraser University, S.L. BUD'KO, P.C. CANFIELD, Ames Laboratory/Iowa State University, G.M. SCHMIEDESHOFF, Occidental College — YbBiPt is a stoichiometric heavy fermion compound with an enormous Sommerfeld coefficient and an antiferromagnetic ground state that is suppressed by magnetic fields of about 0.4 T. Non-Fermi liquid behavior, and other signatures of field-induced quantum criticality have been observed. In this talk we will present measurements of the thermal expansion of YbBiPt along the [111] axis from 30K to below 400 mK and in magnetic fields as high as 9 T. We will discuss the implications of our measurements on the quantum criticality of YbBiPt and we will discuss an unusual feature in the data near 5K. Work at Ames Laboratory was supported by the Department of Energy, Basic Energy Sciences under Contract No. DE-AC02-07CH11358. Work at Occidental College was supported by the National Science Foundation under DMR-1408598.

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