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Thermal Expansion of the Heavy Fermion Borocarbide $YbNi_2B_2C$ G.M. SCHMIEDESHOFF, A.W. LOUNSBURY, D.J. LUNA, W.E. OKRAKU, S.J. TRACY, J.C. COOLEY, S.L. BUD'KO, P.C. CANFIELD, Occidental College — YbNi_2B_2C is a heavy fermion compound with a coherence temperature of about 10 K. We have measured its thermal expansion from room temperature to below 1 K. The thermal expansion is anisotropic, negative below about 16 K, and deviates from simple metallic behavior near the coherence temperature. We will present and discuss our results in the context of a Gruneisen analysis. This work was supported by the National Science Foundation under DMR-0305397. Ames Laboratory is operated for the U.S. Department of Energy by Iowa State University under Contract No. W-7405-ENG-82. This work was supported by the Director for Energy Research, Office of Basic Energy Sciences.

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