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**Torque magnetometry and magnetocalorimetry study of meatamagnetic transition in $CeAuBi_2$ single crystals** H. HODOVANETS, H. KIM, C. J. ECKBERG, J. PAGLIONE, Center for Nanophysics and Advanced Materials, Department of Physics, University of Maryland, College Park 20742, USA — $CeAuBi_2$ is a highly anisotropic heavy-fermion antiferromagnet that develops a long-range order near 13 K that gets suppressed to zero temperature near a critical magnetic field of 75 kOe. Based on several thermodynamic measurements, a first-order spin-flop transition is observed at this critical field below a tricritical point at $T \sim 6$ K, and several other features follow a continuous trend as a function of magnetic field through this region. Here, we study CeAuBi2 single crystals with torque magnetometry and magnetocalorimetry to further explore its magnetic anisotropy and the evolution of the ground state with application of magnetic field.

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