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THz magneto-optical study of Weyl semimetal TaAs[1] ANDREI SUSHKOV, GREGORY JENKINS, DENNIS DREW, Center for Nanophysics and Advanced Materials and Department of Physics, University of Maryland, College Park, Maryland 20742, USA, MOHAMMAD JADIDI, Institute for Research in Electronics Applied Physics, University of Maryland, College Park, Maryland 20742, USA, BING SHEN, NI NI, Department of Physics and Astronomy and California NanoSystems Institute, University of California, Los Angeles, CA 90095, USA — Weyl semimetals are predicted to exhibit novel magneto-optical-like effects due to Berry phase singularities associated with the Weyl nodes. It was predicted theoretically and confirmed by ARPES experiments that TaAs is a low doped Weyl semimetal with the broken spatial inversion symmetry. We will report on the results of our experimental broad band THz reflectivity magneto-optical study of TaAs single crystals in Faraday and Voigt geometries.

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