

Abstract Submitted  
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**Interplane penetration depth in  $\kappa$ -(ET)<sub>2</sub>Cu[N(CN)<sub>2</sub>]Br<sup>1</sup>** RUSSELL GIANNETTA, University of Illinois at Urbana-Champaign, Urbana, IL 61801, Z. SHI, T.A. OLHEISER, A. MCCORMICK, D.D. LAWRIE, Loomis Laboratory of Physics, U. of Illinois at Urbana-Champaign, Urbana, IL 61801, R. PROZOROV, Ames Laboratory and Department of Physics and Astronomy, Iowa State University, Ames, Iowa 50011, J.A. SCHLUETER, A.M. KINI, U. GEISER, Material Sciences Division, Argonne National Laboratory, Argonne, IL 60439 — We report measurements of the interplane penetration depth  $\lambda_{\perp}(T)$  in the organic superconductor  $\kappa$ -(ET)<sub>2</sub>Cu[N(CN)<sub>2</sub>]Br ( $T_C = 11.9$  K). At low temperatures, the superfluid density  $\rho_{\perp} = [\lambda_{\perp}(0)/\lambda_{\perp}(T)]^2 \propto 1-AT^N$  with  $N = 1.3 - 1.5$ , close to the exponent measured for the in-plane superfluid density. This result adds support to a d-wave picture, but with transport between planes more coherent than is observed in similarly anisotropic copper oxide superconductors.

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