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Thermal transport in the vortex state of heavy-fermion superconductor $CeCoIn_5$ M.A. TANATAR, J.P. REID, Département de physique, Université de Sherbrooke, Sherbrooke, Canada, J. PAGLIONE , Center for Nanophysics and Advanced Materials, Department of Physics, University of Maryland, Washington, DC, USA, C. PETROVIC , Condensed Matter Physics and Materials Science Department, Brookhaven National Laboratory, Upton, NY 11973, USA, LOUIS TAILLEFER, Département de physique, Université de Sherbrooke, Sherbrooke, Canada — The thermal conductivity of heavy-fermion superconductor $CeCoIn_5$ was measured as a function of temperature and magnetic field throughout the vortex state. An anomalous decrease is found in the field dependence at low fields and low temperature. We discuss the origin of this behavior and its possible relation to the presence of uncondensed electrons, found in a previous doping study of this material [1].

[1] M.A. Tanatar et al., Phys. Rev. Lett. 95, 067002 (2005).

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