

Abstract Submitted
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Microwave measurements of CeCoIn₅ using a micro-stripe line¹ I. P. NEVIRKOVETS², O. CHERNYASHEVSKYY³, J. B. KETTERSON⁴, Dep. of Physics and Astronomy, Northwestern University, 2145 Sheridan Rd., Evanston IL 60208, USA, C. PETROVIC, Condensed Matter Physics Department, Brookhaven National Laboratory, Upton, New York 11973, USA — We have studied microwave signal transmission through a structure consisting of a meander-type micro-strip line and a ferromagnetic or superconducting sample placed adjacent to it. The setup, which currently operates from 0 to 9 Tesla and from room temperature to 1.7 K, is suitable for studying both ferromagnetic resonance, and temperature/field dependent superconducting properties. Using this setup we have observed the superconducting transition of a single crystal of CeCoIn₅ in the frequency range from 5 to 19 GHz. The technique should be applicable to the study of wavelength-dependent collective modes.

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