High-Power Testing of the First PEP-II RF Cavity*, R.A. RIMMER, LBNL, M. ALLEN, K. FANT, A. HILL, M. HOYT, J. JUDKINS, J. SABA, H. SCHWARZ, SLAC, M. FRANKS, LLNL - This paper describes the high-power testing of the first RF cavity for the PEP-II B-factory. The cavity is designed for continuous operation at 476 MHz with up to 150 kW wall dissipation and heavy beam loading. Three rectangular waveguides and broad-band loads are used to damp the cavity higher-order modes. The test configuration, RF conditioning history and high-power performance are described and plans for processing of the production run of cavities are discussed.

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