

Measurements of the Higher Order Modes of the ALS 500 MHz Accelerating Cavities*, J. N. CORLETT and J. M. BYRD, Lawrence Berkeley Laboratory, University of California, Berkeley, CA 94720, USA-The maximum operating current of the ALS is expected to be limited by coupled bunch instabilities driven by higher order modes in the accelerating cavities. Measurements of the modes in an ALS 500 MHz cavity are presented. Damping techniques using higher order mode filters in the feeder waveguide are discussed, as are methods for selectively damping modes not coupled to the waveguide. Temperature variations and sensitivity to tuner position are presented, as a requirement for an accurate assessment of coupled bunch instability effects.

* This work was supported by the Director, Office of Energy Research, Office of Basic Energy Sciences, Materials Sciences Division, of the U.S. Department of Energy under Contract No. DE-AC03-76SF00098.

First author John Corlett
 MS 71-259
 Lawrence Berkeley Laboratory
 Cyclotron Road
 Berkeley
 California 94720

Telephone 510 486 5228
FAX 510 486 7981
E-mail jnc@bc1.lbl.gov

Classification
number 3.2.2

Desired
presentation Poster



J. N. Corlett