

Abstract Submitted
for the APR06 Meeting of
The American Physical Society

The MuCool RF Program ALAN BROSS, Fermilab, DERUN LI, LBNL, AL MORETTI, Fermilab, JIM NOREM, Argonne National Lab, ZUBAO QIAN, Fermilab, ROBERT RIMMER, JLAB, YAGMUR TORUN, Illinois Institute of Technology, MICHAEL ZISMAN, LBLN, MUCOOL COLLABORATION — Cooling muon beams in flight requires absorbers to reduce the muon momentum, accelerating fields to replace the lost momentum, and static solenoidal magnetic fields to focus the muon beams. The process is most efficient if both the magnetic fields and accelerating fields are high and the rf frequency is low. In order to study the interactions of a static magnetic field with the operation of high gradient accelerating fields we have conducted tests to determine the operating envelope of accelerating cavities in high magnetic fields. These studies have already produced useful information on dark currents, magnetic fields and breakdown in cavities. In addition to continuing our program at 805 MHz, we are starting to test a 201 MHz cavity and are planning to look at a variety of appropriate geometries and materials. In parallel with these activities, we are pursuing supporting R&D on models and surface structure.

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Date submitted: 13 Jan 2006

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