

COSMIC RAY ENERGETICS AND MASS : EXPECTED PERFORMANCE

H. S. Ahn (1), S. Beach (2), J. J. Beatty (2), S. Coutu (2), M. A. DuVer-
nois (3), O. Ganel (1), Y. J. Han (4), H. J. Kim (4), K. C. Kim (1), S. K.
Kim (4), M. H. Lee (1), S. Minnick (2), S. Nutter (2), I. H. Park (4), E. S.
Seo (1), S. Swordy (5), J. Z. Wang (1) and J. Wu (1)

(1) Inst. for Phys. Sci. and Tech., University of Maryland, College Park, MD
20742, USA, (2) Dept. of Physics, Penn State, University Park, PA 16802, USA,
(3) School of Physics and Astronomy, University of Minnesota, Minneapolis,
MN 55455, USA, (4) Dept. of Physics, Seoul National University, Seoul 151-
742, South Korea, (5) Enrico Fermi Institute and Dept. of Physics, University
of Chicago, Chicago, IL 60637, USA.

The Cosmic Ray Energetics And Mass (CREAM) experiment is being con-
structed to study high energy cosmic rays over the approximate energy range
from 1 TeV to 1 PeV. CREAM is enabled by NASA's new Ultra Long Dura-
tion Balloon (ULDB) capability, which will provide about 100 days of flight
duration. The instrument includes a sampling tungsten calorimeter, a tran-
sition radiation detector and a timing-based charge detector. We will present
details of the instrument configuration and simulated results of its performance,
including trigger and data rates, energy resolution, energy response, etc.