UNIVERSITY OF CALIFORNIA

Radiation Laboratory

BERKELEY, CALIFORNIA

UCRL-90 Abstract 1945

Abstract of paper to be presented before the 287th meeting of the American Physical Society, June 24-26, 1948, at Pasadena, California.

The Detection of Light and Heavy Mesotrons Outside the Tank of the 184" Cyclotron

by

Wolfgang K. H. Panofsky
Radiation Laboratory
Department of Physics
University of California
Berkeley, California

April 20, 1948

The mesotrons artificially produced in the 184" cyclotron[x] have been brought out of the cyclotron tank by means of a specially designed magnetic channel which bring mesotrons of $H\rho$ = 132,000 gauss-cm. ± 12 % out of the field of 14,000 gauss at the target into a region of 4,000 gauss in a re-entrant chamber in the cyclotron wall. Both light and heavy mesotrons have been detected in this chamber. A measurement of the life-time of the heavy meson appears possible in this arrangement. The writer is indebted to L. W. Alvarez for suggesting the magnetic channel method.

This work was sponsored by the Atomic Energy Commission.

[x] Gardner and Lattes, "Science", 107, March 12, 1948