

A HALO EVENT OBSERVED BY HYBRID DETECTOR AT MT. CHACALTAYA

H.Aoki(1), K.Hashimoto(2), K.Honda(3), N.Inoue(4), N.Kawasumi(2), N.Mart

Detailed description is made on a halo event which is obtained by the hybrid detector of an emulsion chamber and an air shower array at Mt. Chacaltaya (5,200 m, Bolivia).

The event is characterized by a halo, a dark area on the X-ray film, of radius ~ 2 cm, located in the center of the event. It consists of 8.8×10^6 electrons which are produced by high energy electrons and photons with total energy 6×10^{14} eV incident upon the emulsion chamber.

Available data for the event are on the halo and on the high energy particles of electron/photon and hadronic components by the emulsion chamber, on low energy hadrons by the hadron calorimeter, and on characteristics of the accompanied air shower ($N_e = 7.0 \times 10^7$, $s = 0.59$) by the air shower array. Structure and origin of the event is discussed based on the observed data of various components.