Proceedings of ICRC 2001: 26 © Copernicus Gesellschaft 2001

ICRC 2001

Mass composition of primary cosmic ray before "knee" received from analysis of energy distributions of hadrons registered in the Pamir experiment

J. Malinowski

Department of Experimental Physics, University of Lodz, ul.Pomorska 149/153, 90-236 Lodz, Poland.

Abstract. Energy spectra of hadrons registered in carbon emulsion chambers have been estimated on the basis of the Pamir experimental data. Calculations simulating penetration of primary cosmic ray particles through the atmosphere to the mountain level have been conducted. For these calculations CORSIKA program with QGSJET model has been used.

The analysis of experimental data and calculations allowed to draw conclusions about primary cosmic ray spectrum.

In the paper conclusions about mass composition of primary cosmic ray for energy of primary particles 10^{13} – $3 \cdot 10^{15}$ eV have been presented.

Correspondence to: malinow@krysia.uni.lodz.pl