

## THE POSITION OF PARTICLE NUMBER MAXIMUM IN AIR SHOWERS

Y.I. Stozhkov

Lebedev Physical Institute, Russian Academy of Sciences, Moscow, Russia

The dependence of particle number maximum in air showers  $X_{\max}$  as a function of primary particle energy for the energy range  $E=5 \cdot 10^9-10^{20}$  eV was considered. The values of  $X_{\max}$  for particles with  $E=10^{15}-10^{20}$  eV were taken from the published papers. The values of  $X_{\max}$  for particles with  $E=5 \cdot 10^9-1.3 \cdot 10^{10}$  eV were obtained from the cosmic ray measurements in the atmosphere. It was found that the linear dependence exists between  $X_{\max}$  and  $\lg E$  in a wide energy range  $E=5 \cdot 10^9-10^{20}$  eV.