

Pseudo-rapidity distributions of shower particles produced in 12 C, 16 O, 22 Ne and 28 Si interactions with emulsion at (4.1-4.5)A GeV/c

N. M. Sadek

Physics Department, Faculty of Science, Cairo University, Giza, Cairo, 12613 Egypt

Abstract. The pseudo-rapidity distributions of shower particles produced in ¹²C, ¹⁶O, ²²Ne and ²⁸Si interactions with emulsion nuclei at (4.1-4.5)A GeV/c have been compared with the corresponding distributions for the thermalized cylinder picture and the Gaussian ones. Both the thermalized cylinder and the Gaussian pictures succeeded in describing

our experimental data for extreme central collisions. The thermalized cylinder picture is not suitable for describing peripheral and semi-peripheral interactions, while the Gaussian one is better in describing the experimental distributions for these types of collisions.