

PRODUCTION
OF CUMULATIVE π^+ - AND π^- -MESONS
AT HIGH-ENERGY PROTON-NUCLEUS
AND NUCLEUS-NUCLEUS INTERACTIONS

Kh.K. Olimov

Physical and Technical Institute,
Scientific Production Association "Physics-Sun",
Uzbekistan Academy of Sciences
(2b, G. Mavlyanov Str., Tashkent 700084, Uzbekistan;
e-mail: olimov@uzsci.net)

S u m m a r y

Production of cumulative π^+ - and π^- -mesons as a result of high-energy pC-, ^4HeC -, and CC-collisions has been investigated under conditions of complete geometry and for a large body of statistical data. The dependence of the inclusive production cross sections of π^+ - and π^- -mesons on the cumulative number β was shown to have a universal character, being independent of both the projectile type and the initial energy. The same production mechanism for cumulative π^+ - and π^- -mesons was observed at high energies. The independence of the mean number of cumulative π^+ - and π^- -mesons on the projectile type and the initial energy was found for the first time.