Beauty hadro–production in the WA92 fixed–target experiment

Claudia Gemme

Department of Physics and INFN–Genova
BEATRICE Collaboration

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Abstract

Using a sample of 10^8 triggered events, produced in π^-–Cu interactions at 350 GeV/c, we have identified 26 events in which there is evidence of beauty production. The estimated background in this sample is 0.6 ± 0.6 events. From these data, assuming a linear A–dependence, we measure a beauty production cross–section of $5.7^{+1.3}_{-1.1}(stat.)^{+0.6}_{-0.5}(syst.)$ nb/N.

Differential distributions with respect to x_F and p_T^2 and the azimuthal correlation between B and $\overline{B}$ decays have been determined.

Results have been compared with perturbative QCD predictions.