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PROPOSAL TO MEASURE CHARMED
PARTICLE PRODUCTION IN HADRONIC REACTIONS

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The aim of the experiment is to measure the production cross section for charmed particles in hadronic reactions, study their production mechanism and search for excited charmed hadrons.

The reaction $\pi^- p \rightarrow D\bar{D}X$ will be measured at 100 GeV/c. The trigger will be on an electron from the leptonic decay of one charmed particle by signals from the Cerenkov-counter (Ce), the electron trigger calorimeter (eCAL), scintillation counters and proportional wirechambers. The accompanying charmed particle will be measured via its hadronic decay in a two stage magnetic spectrometer with driftchambers (Arm 2, Arm 3a, 3b, 3c), two large area multicell Cerenkov-counters (C_1, C_2) and a large area electromagnetic shower-counter (γ -CAL). The particles which can be measured and identified include $\gamma, e, \pi^{+/-}, \pi^0, \eta^0, K^{+/-}, p, \bar{p}$ so that a large number of hadronic decay modes of charmed particles can be studied.

1) Amsterdam

2) CERN

3) CRACOW

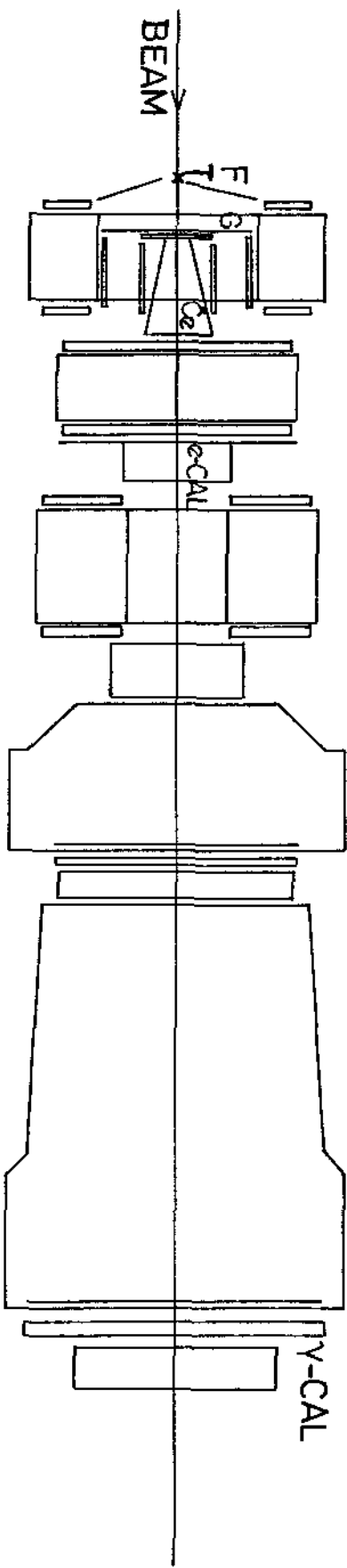
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PLAN VIEW

MNP33 ARM2 BBC ARM3a Ć₁ ARM3b Ć₂ ARM3c



SIDE VIEW

