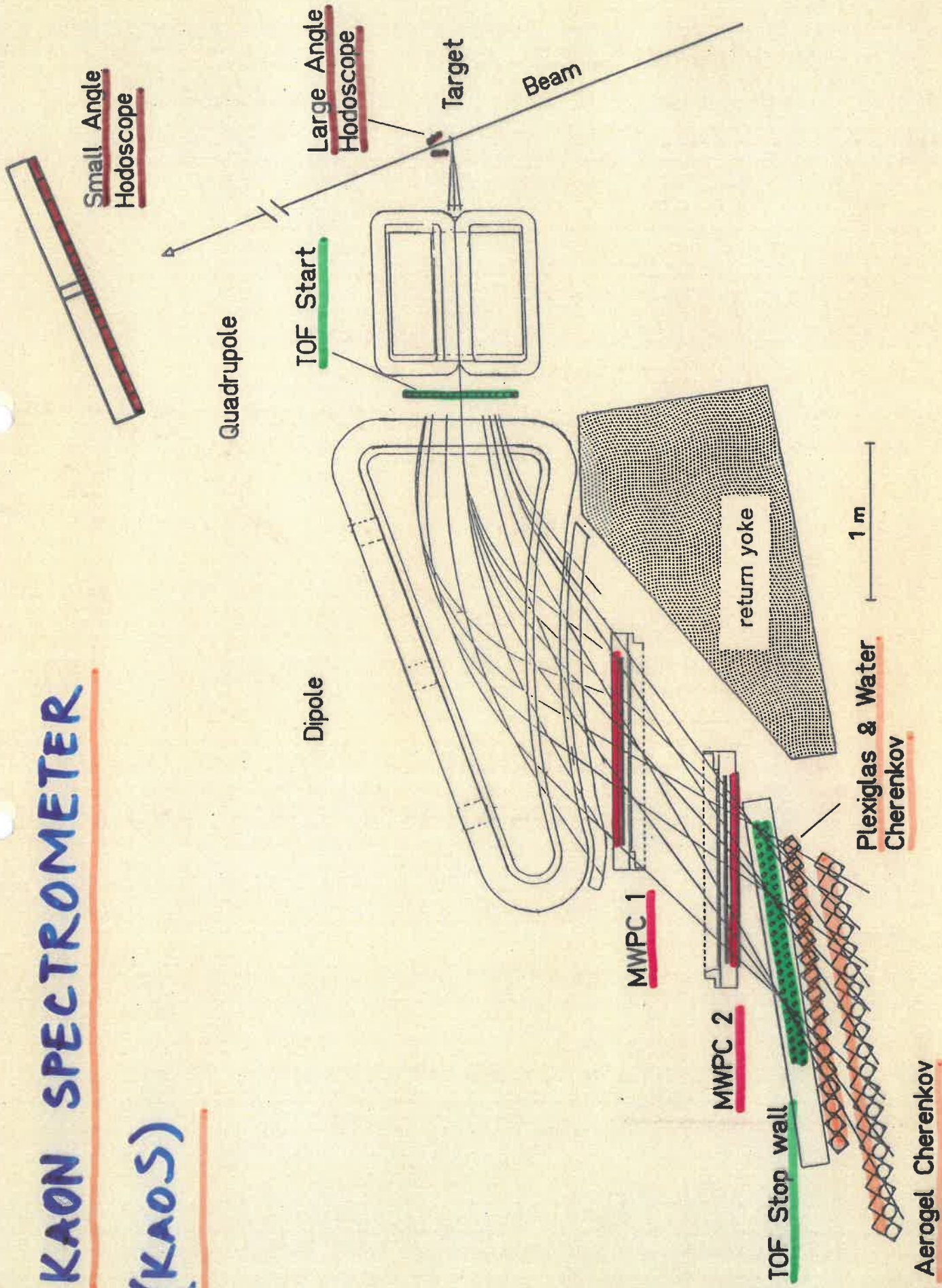
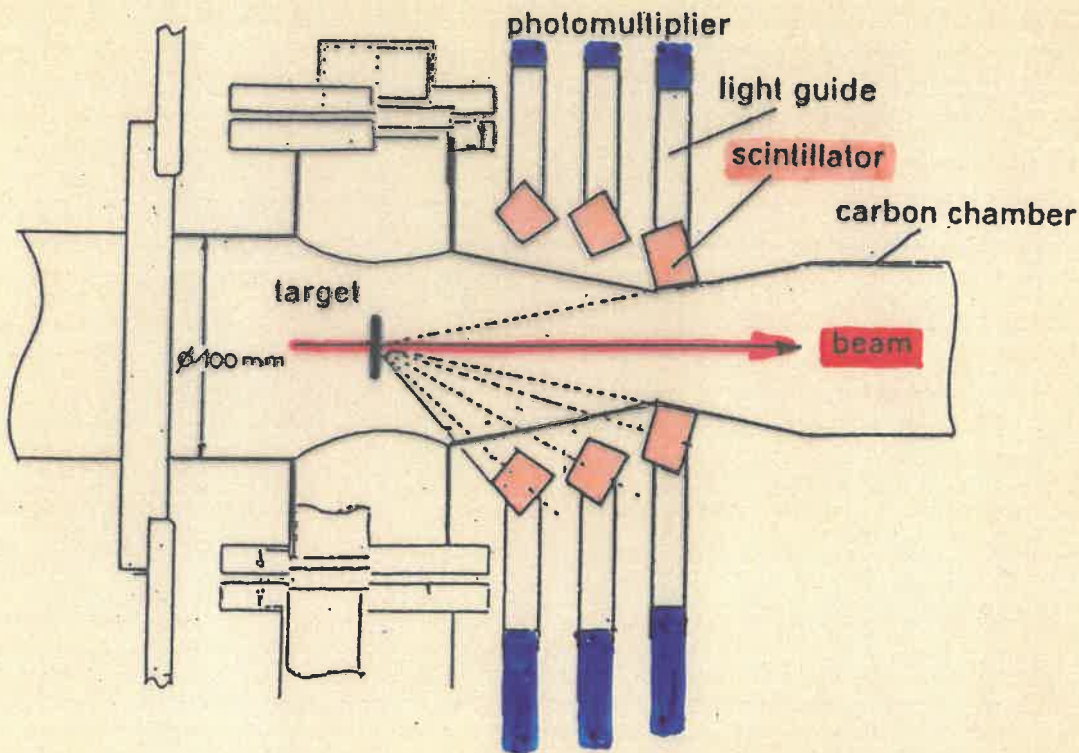


KAON SPECTROMETER

(KAOS)

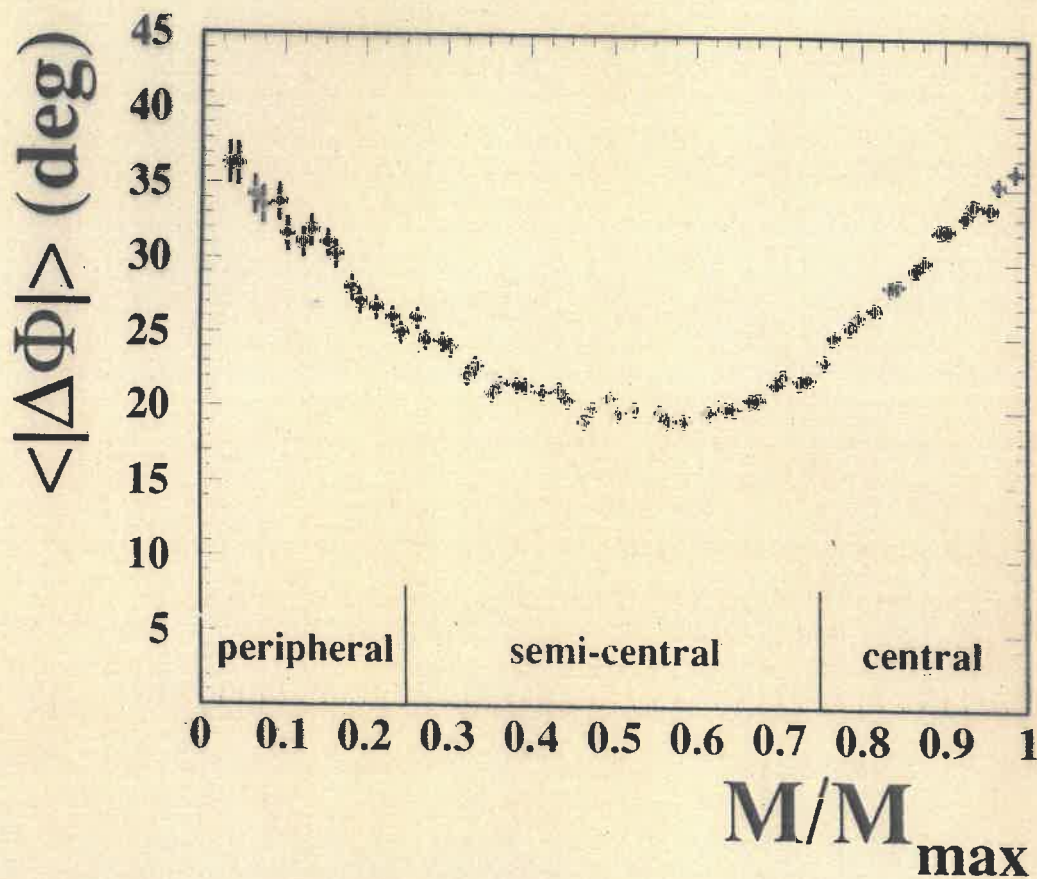




- 8-13 cm FROM THE TARGET
- 3 RINGS \times 32 PLASTIC SCINT. = 96.
 θ : 12° - 22° , 22° - 34° , 34° - 48° .
- MULTIPLICITY \rightarrow IMPACT PARAMETER
- TIME \rightarrow AN ADDITIONAL TOF START

REACTION PLANE ANGLE

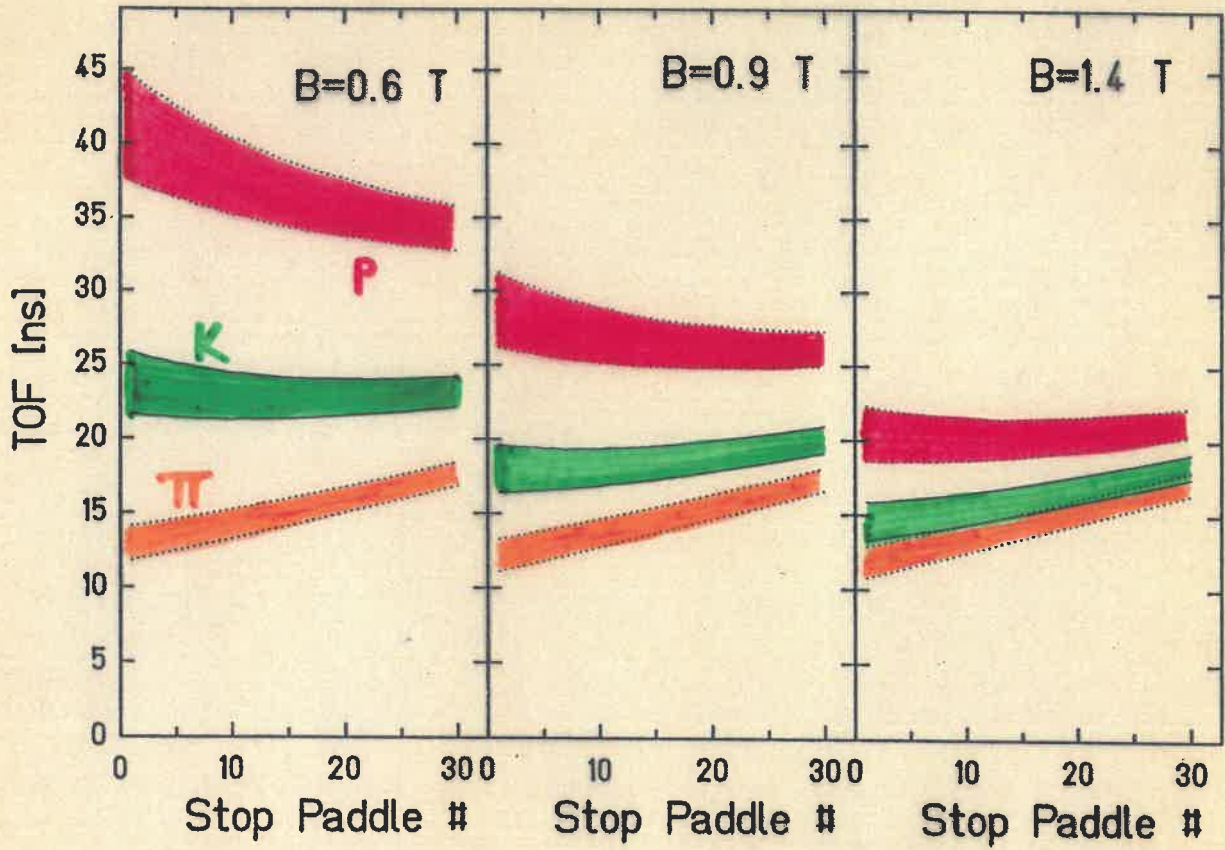
- RESOLUTION



Au + Au, 1 GeV/u

$$\langle |\Phi_{\text{rec}} - \Phi_{\text{true}}| \rangle = \frac{1}{2} \cdot \langle |\Phi_1 - \Phi_2| \rangle$$

TOF



$P =$

270 - 470	410 - 730	640 - 1140
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 MeV/c

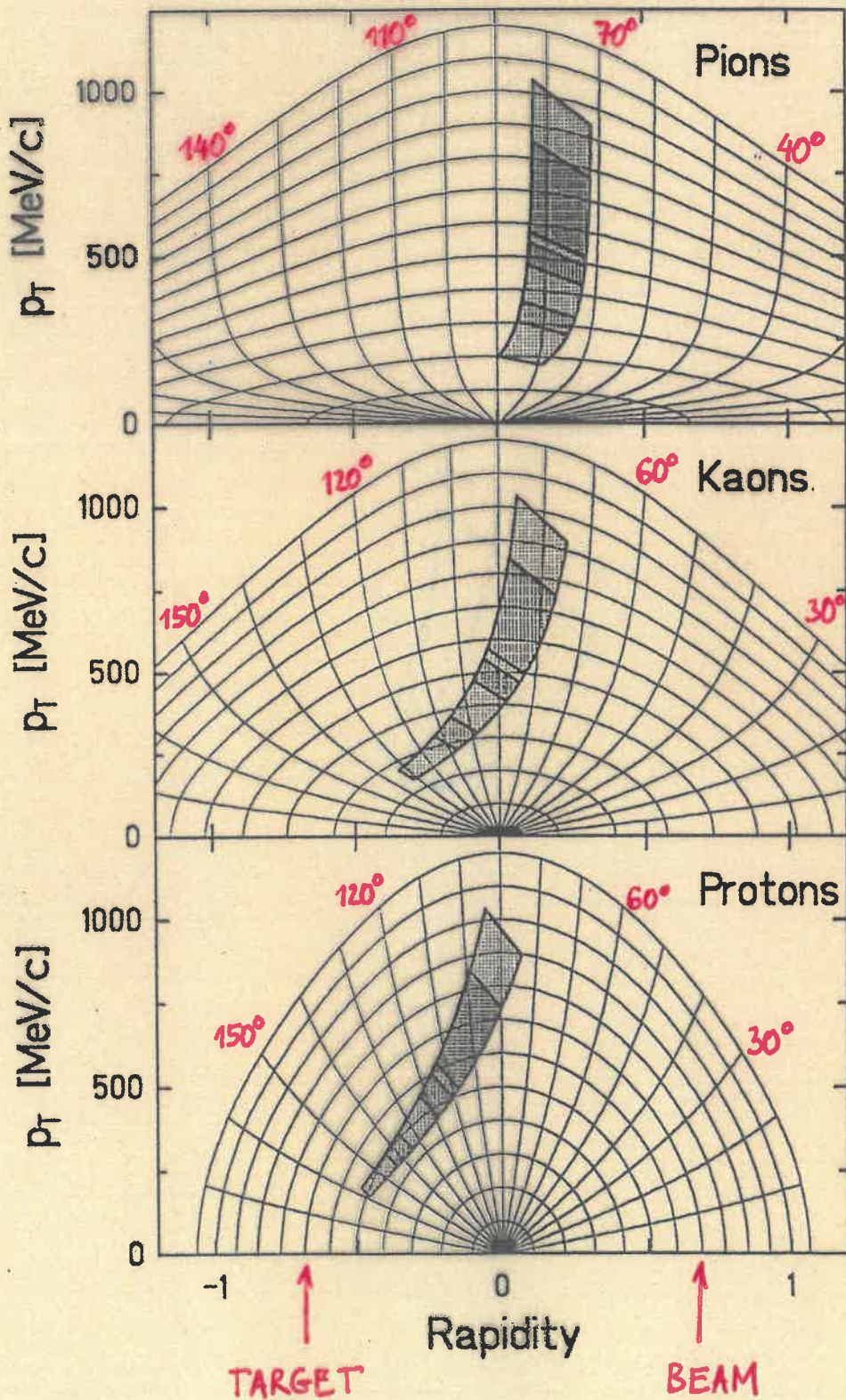
EXPERIMENT

Au + Au 1 GeV/NUCLEON

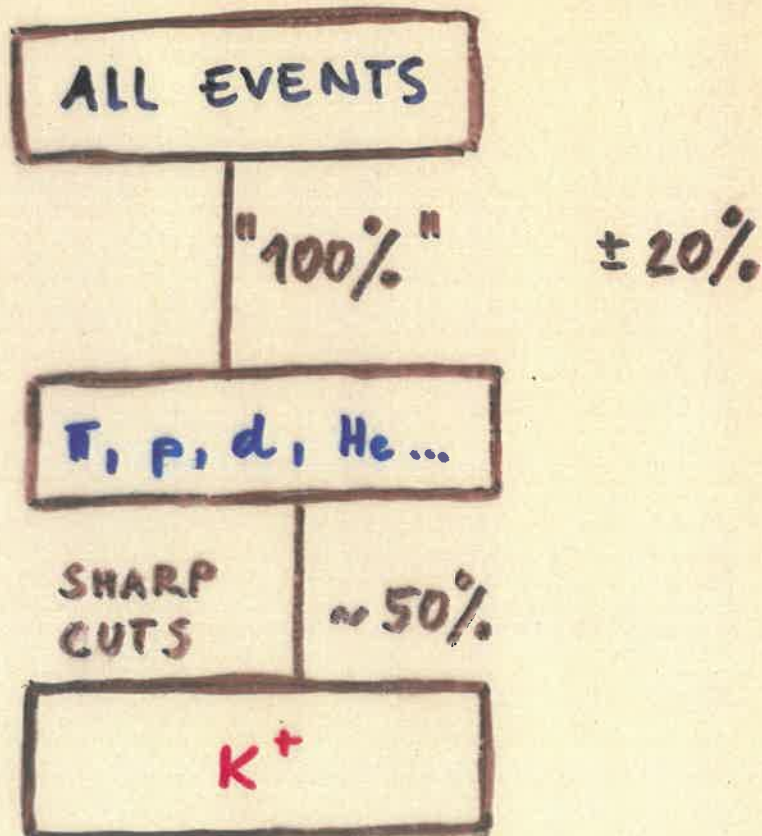
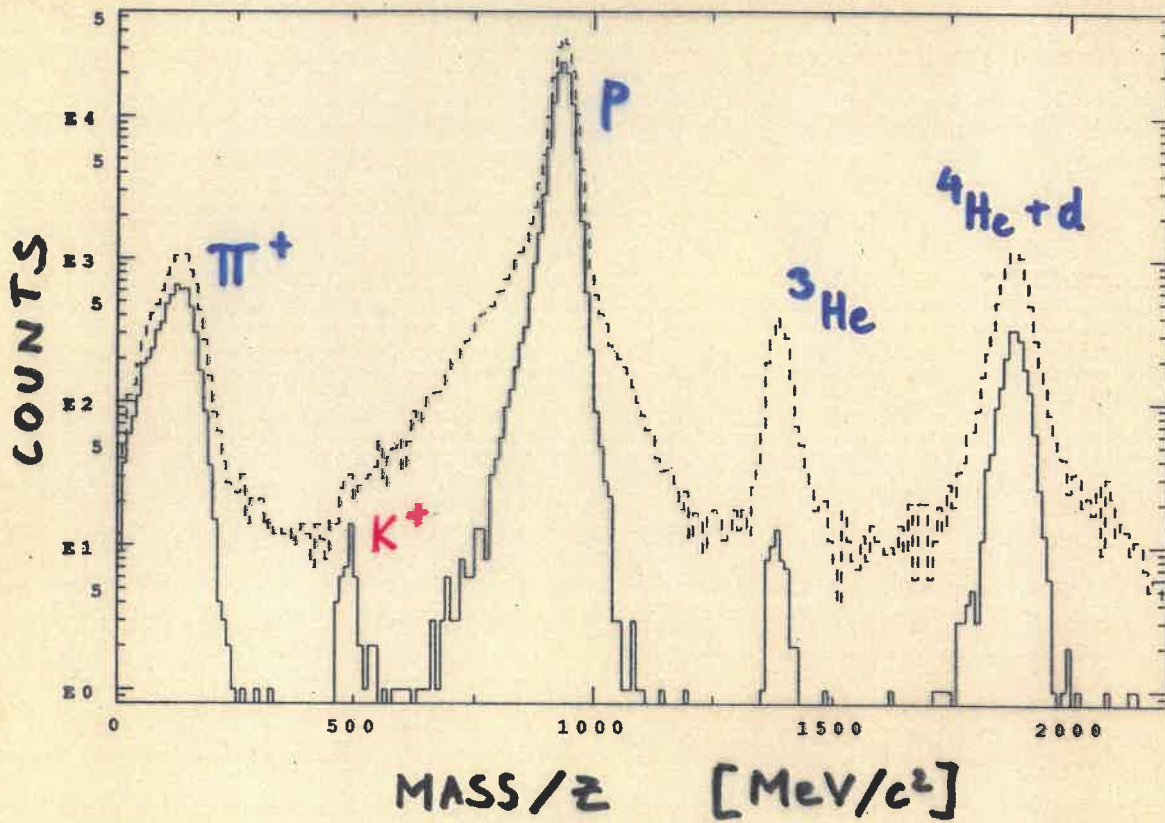
MARCH 1991

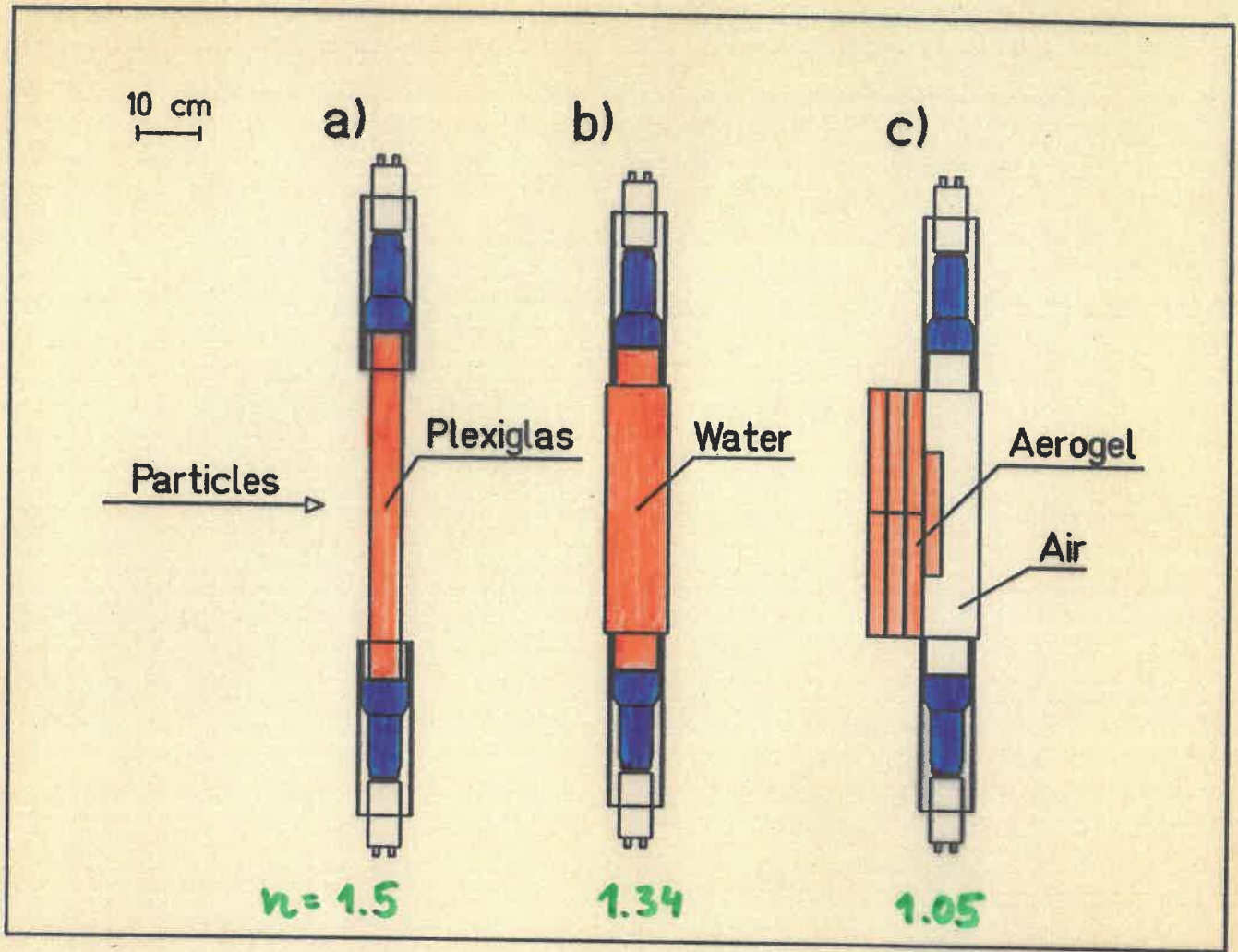
$\Theta_{LAB} = 44^\circ \pm 4^\circ$

'KY32.DR.GRAF(RAPIP)' 'KY32.DR.GRAF(RAPIK)' 'KY32.DR.GRAF(RAPIPI)'



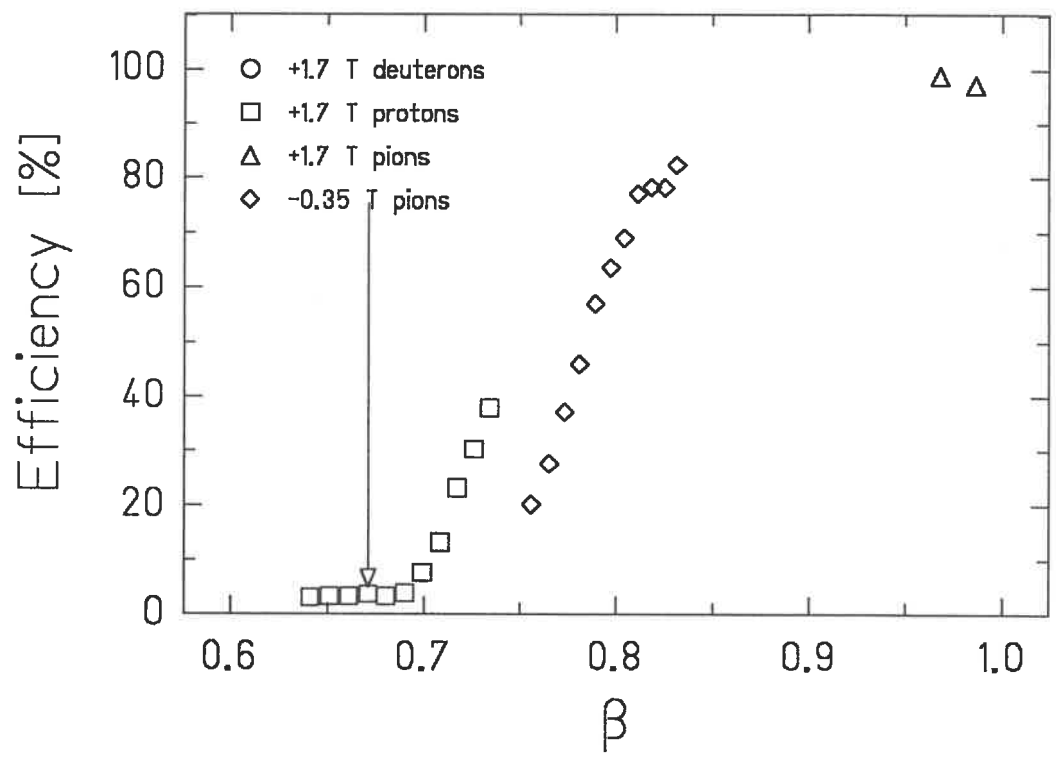
K⁺ IDENTIFICATION





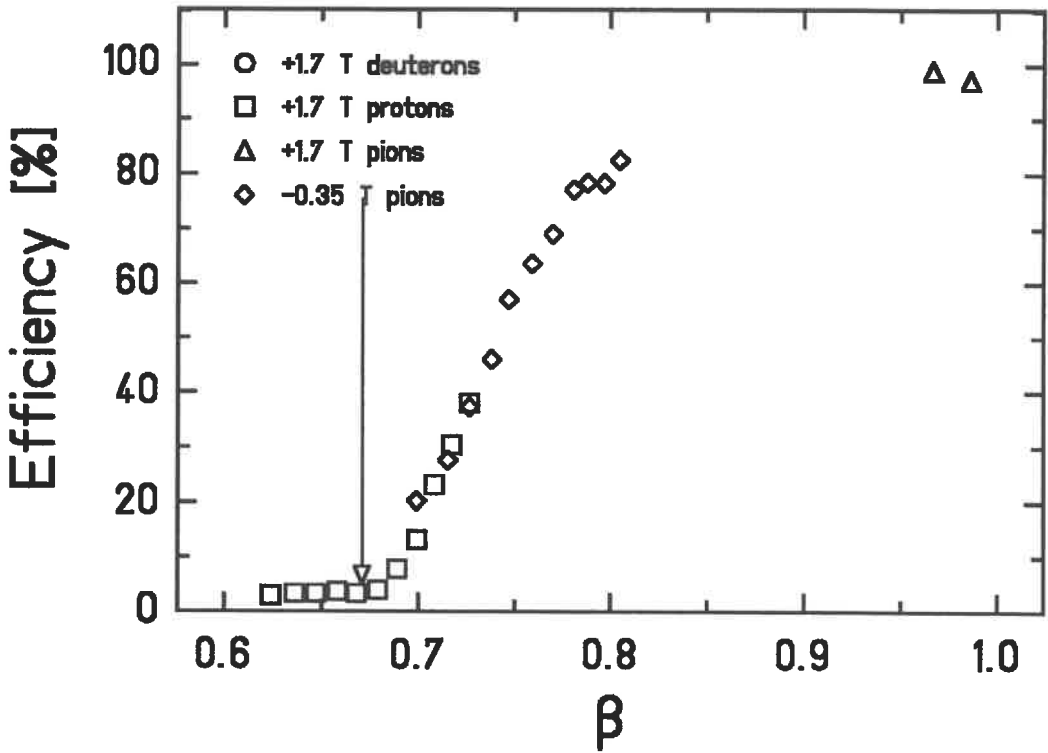
CHERENKOV DETECTORS

Lucite Cherenkov detector



'KY32.CHERNIM.GRAF(PEFF\$B92)'

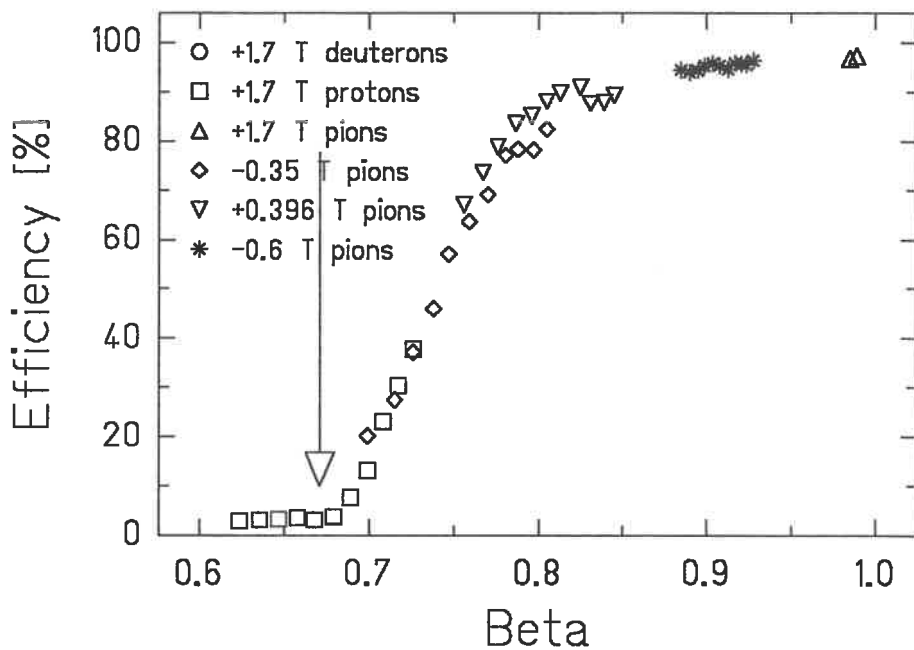
Lucite Cherenkov detector



'KY32.CHERNIM.GRAF(PEFF\$B92)'

'KY32.CHERNIM.GRAF(WEFF\$B92)'
'KY32.CHERNIM.GRAF(PEFF\$B92)'

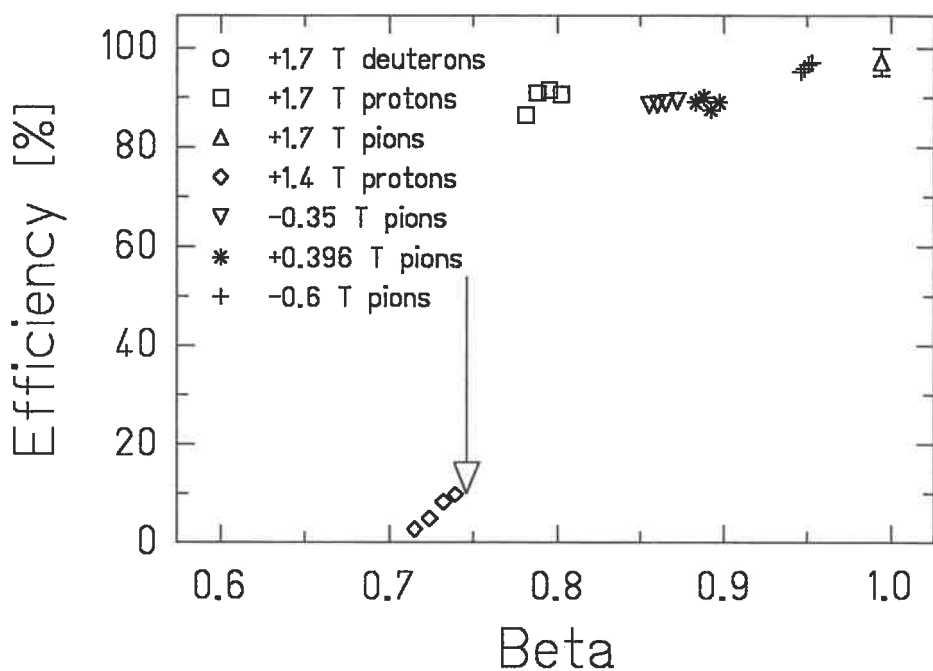
Lucite Cherenkov detector



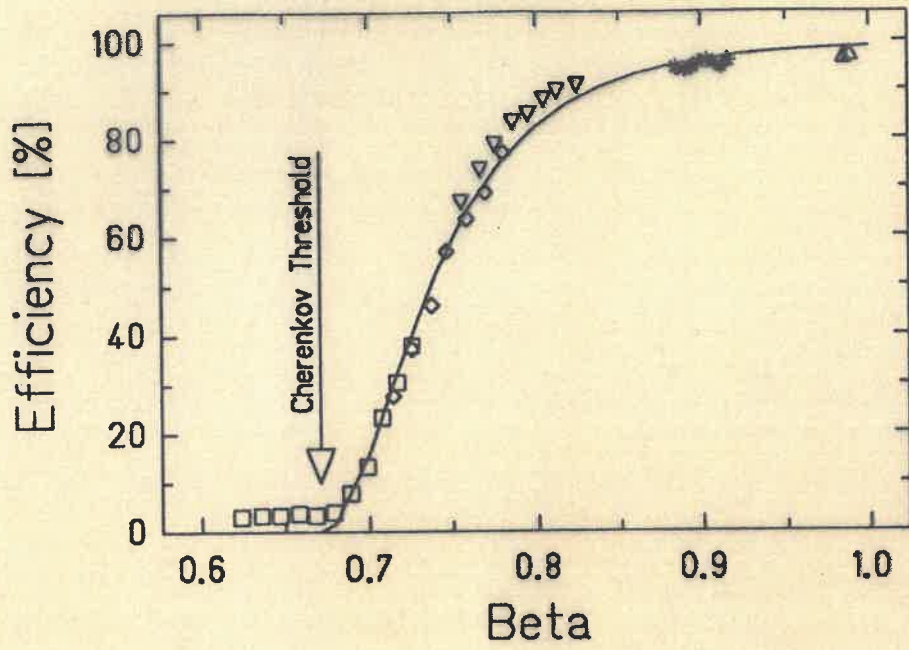
Fit (ber tpeh ostalnich
trach odstavajuzh)

↳ $N_{plus} = 14,429$
 $Thre = 0,1593$
 4.05.93

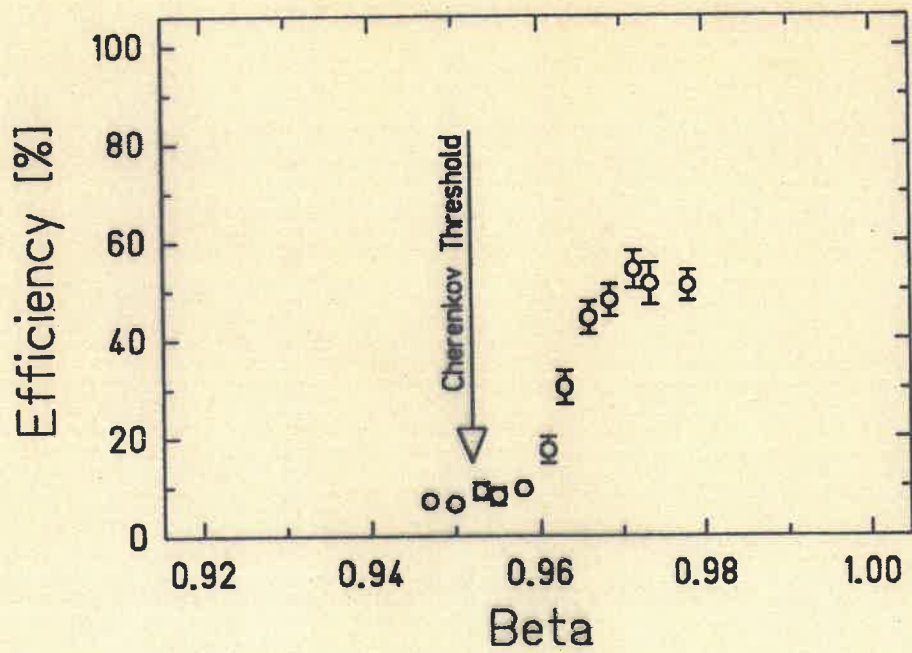
Water Cherenkov detector



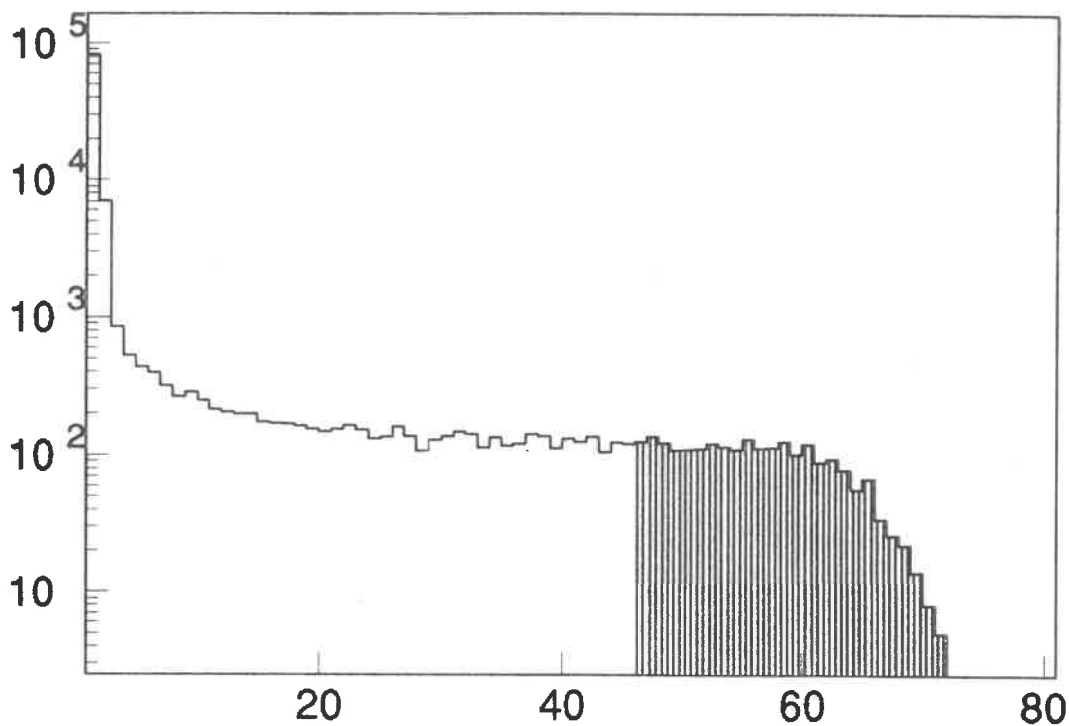
Lucite Cherenkov detector



Silica aerogel detector



b = b(MULT) CALCULATION



$$\pi b^2 = \sum_{i=1}^{\infty} \frac{\Delta \sigma}{\Delta \text{mult}} (i)$$

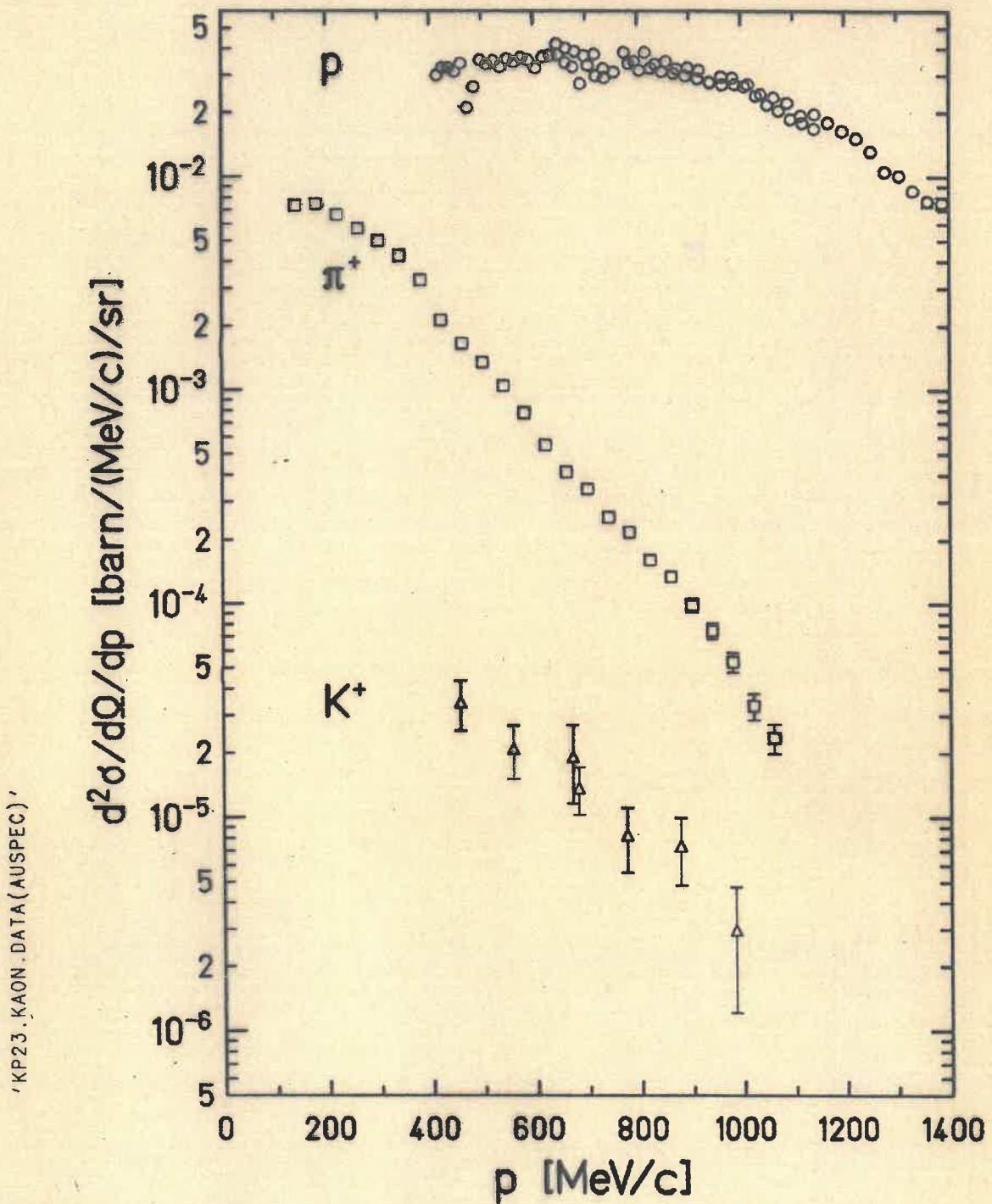
EXAMPLE:

$$\text{MULT} = 46$$

$$\Delta \sigma (46 - 80) = 1.172 \text{ barn} = \pi \cdot 6.1 \text{ fm}^2$$

MOMENTUM SPECTRA

$^{197}\text{Au} + ^{197}\text{Au}, 1.0 \text{ GeV/u}, \theta_{\text{lab}} = 44^\circ \pm 4^\circ$



$$\frac{d\sigma}{dp} \sim p^2 \exp\left(-\frac{E}{T}\right) \longrightarrow \begin{array}{ll} \pi & 67 \text{ MeV} \\ K & 65 \text{ MeV} \\ P & 89 \text{ MeV} \end{array}$$