

PROGRAM OF EXPERIMENTS AT GSI

Performed experiments

February 1997 :	$p + {}^{197}\text{Au}$	0.8 GeV/A	Publication
July 1997 :	$p, d + {}^{238}\text{U}$	1 GeV/A	Under analysis
October 1997 :	$p, d + {}^{208}\text{Pb}$	1 GeV/A	Under analysis

Planned experiments

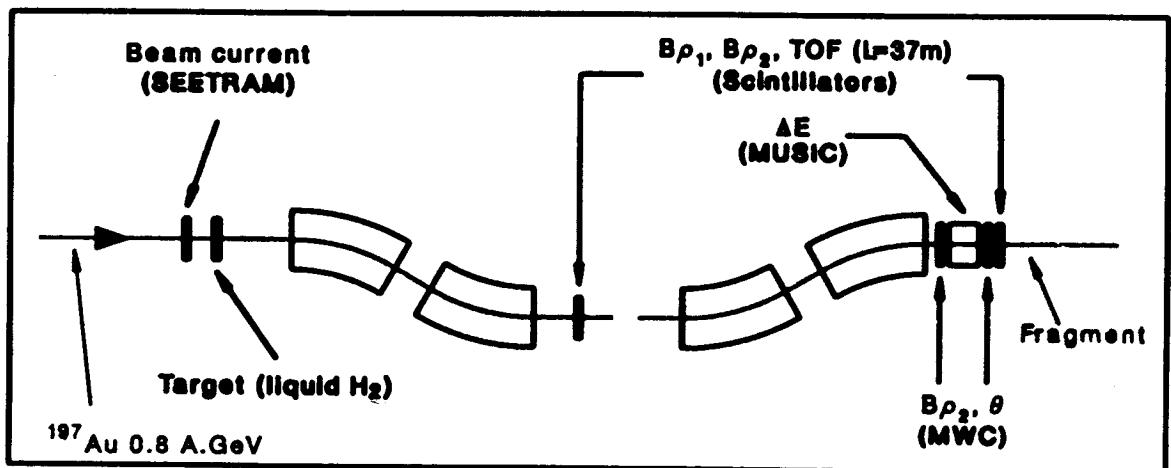
?	:	$p, d + {}^{208}\text{Pb}$	0.5 GeV/A
?	:	$p, d + {}^{56}\text{Fe}$	1 GeV/A

Desired data

$p + {}^{208}\text{Pb}$ at 1 GeV on thick target

EXPERIMENTAL SETUP

FRS Spectrometer



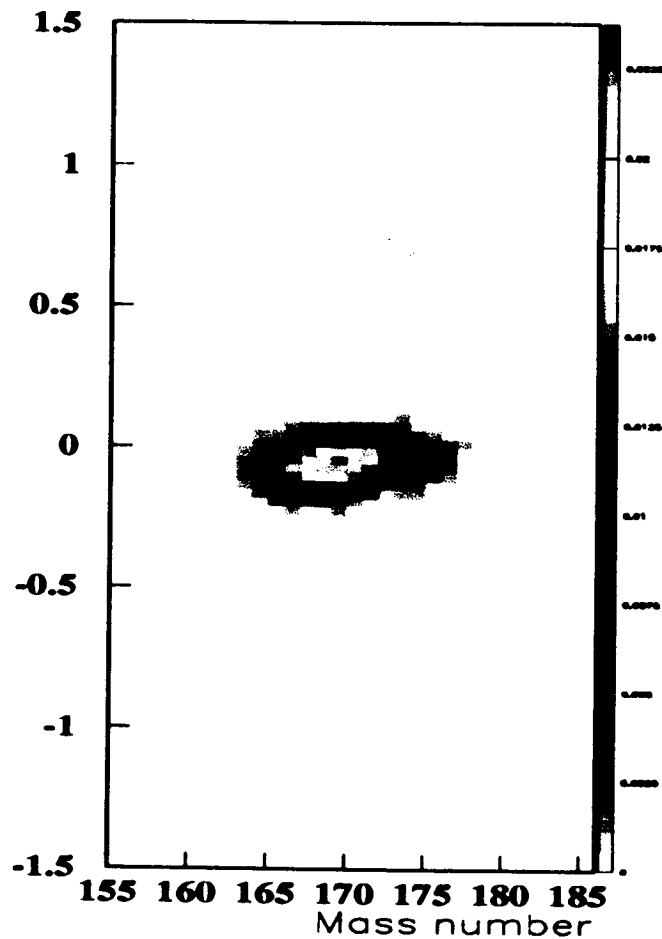
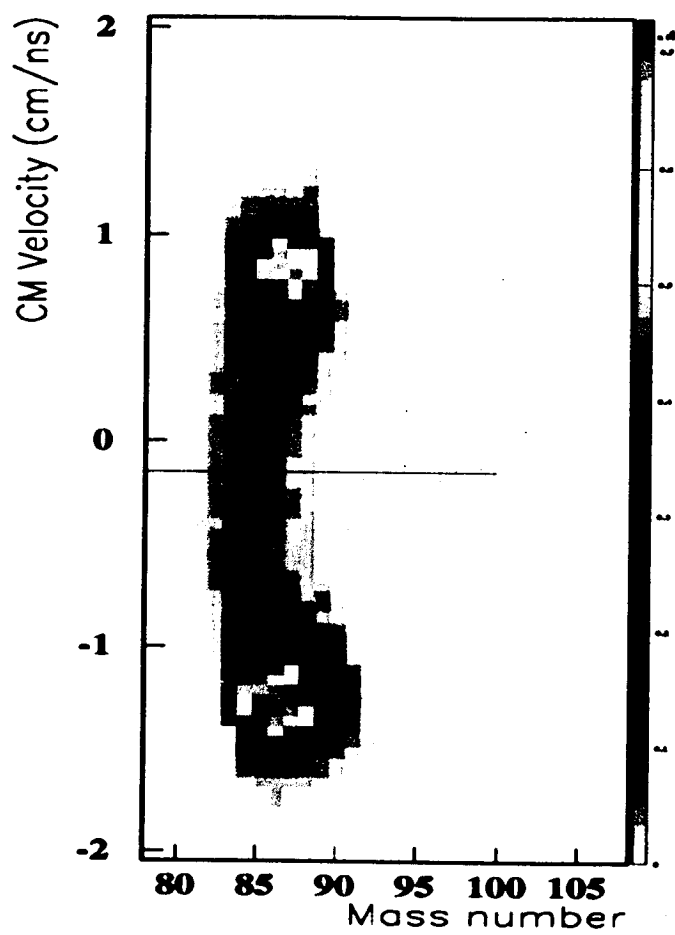
- **Beam monitoring** : Secondary electron emission transmission monitor (SEETRAM) calibrated with an ionization chamber.
- **Z-identification** :
 - energy loss in ionization chamber (MUSIC)
 - $B\rho$ variation across the degrader :

$$\Delta B\rho \sim Z^2/q$$
- **A-identification** : $A = \frac{B\rho_2 q_2}{(\beta\gamma)_2}$
- **Angular acceptance** :
 - full acceptance for evaporation residues
 - a few percent for fission products

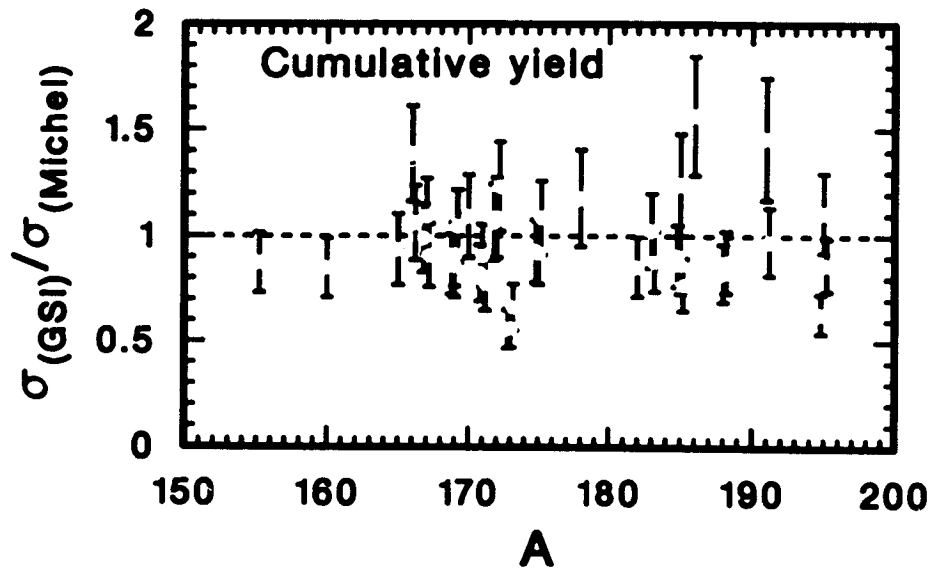
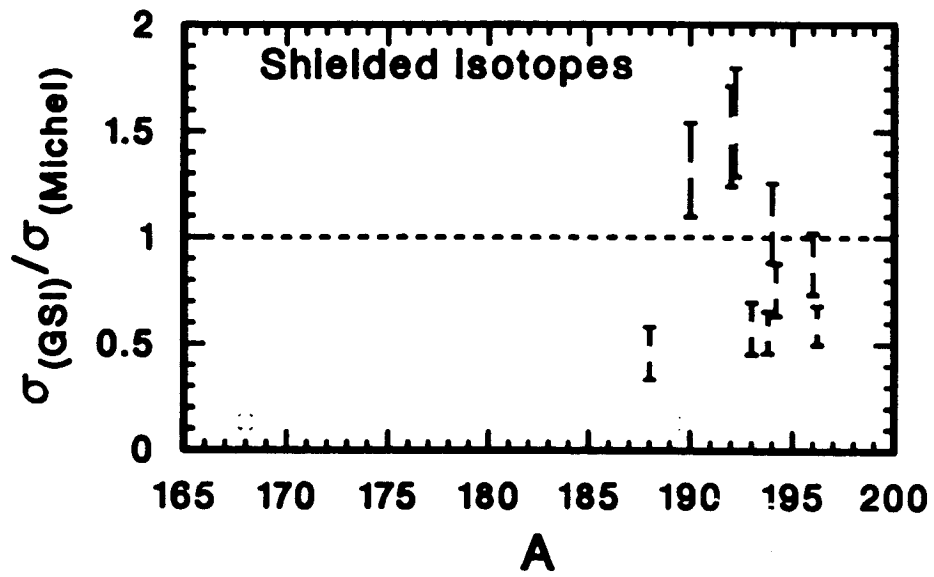
^{197}Au (800 A.MeV)+p

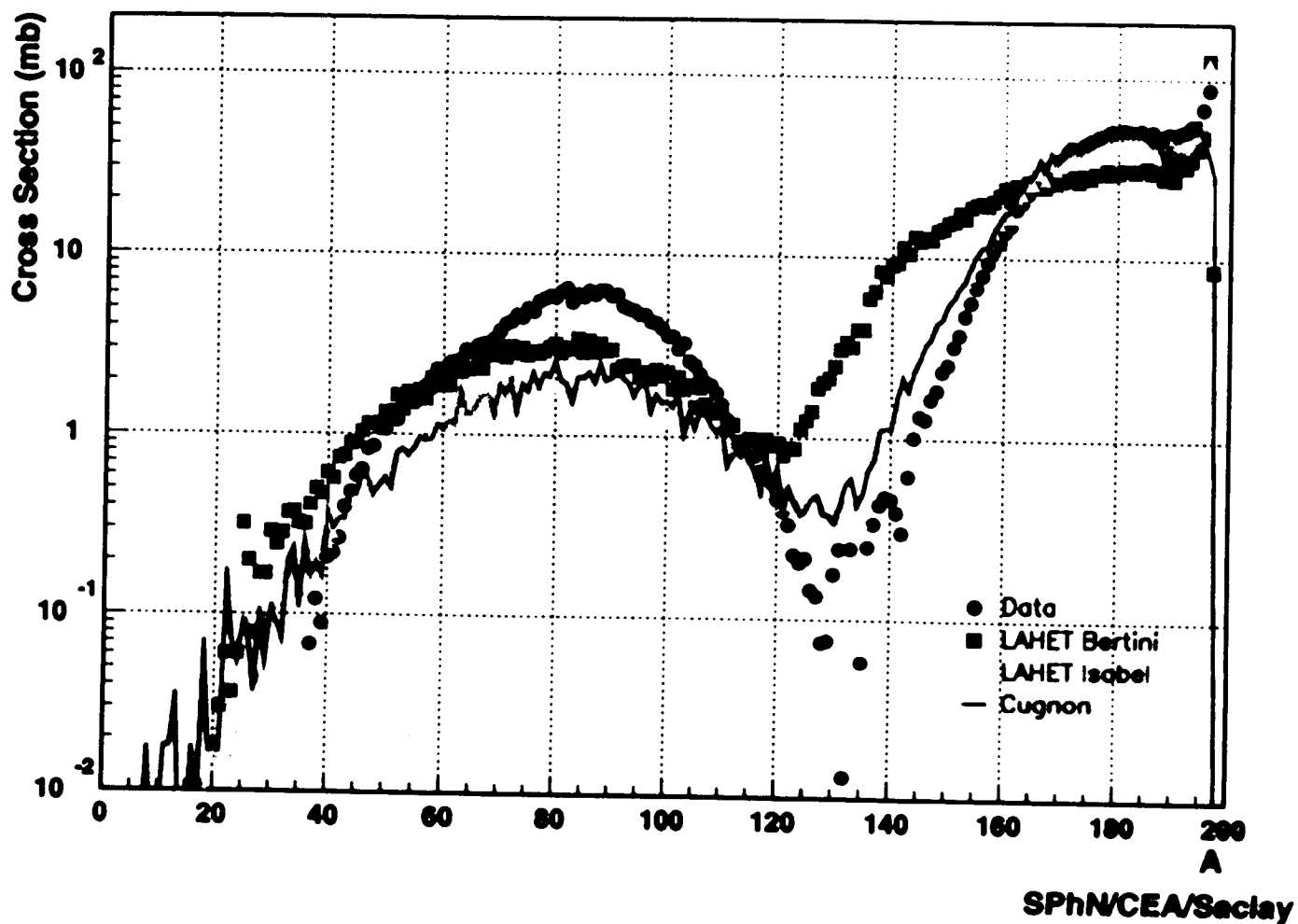
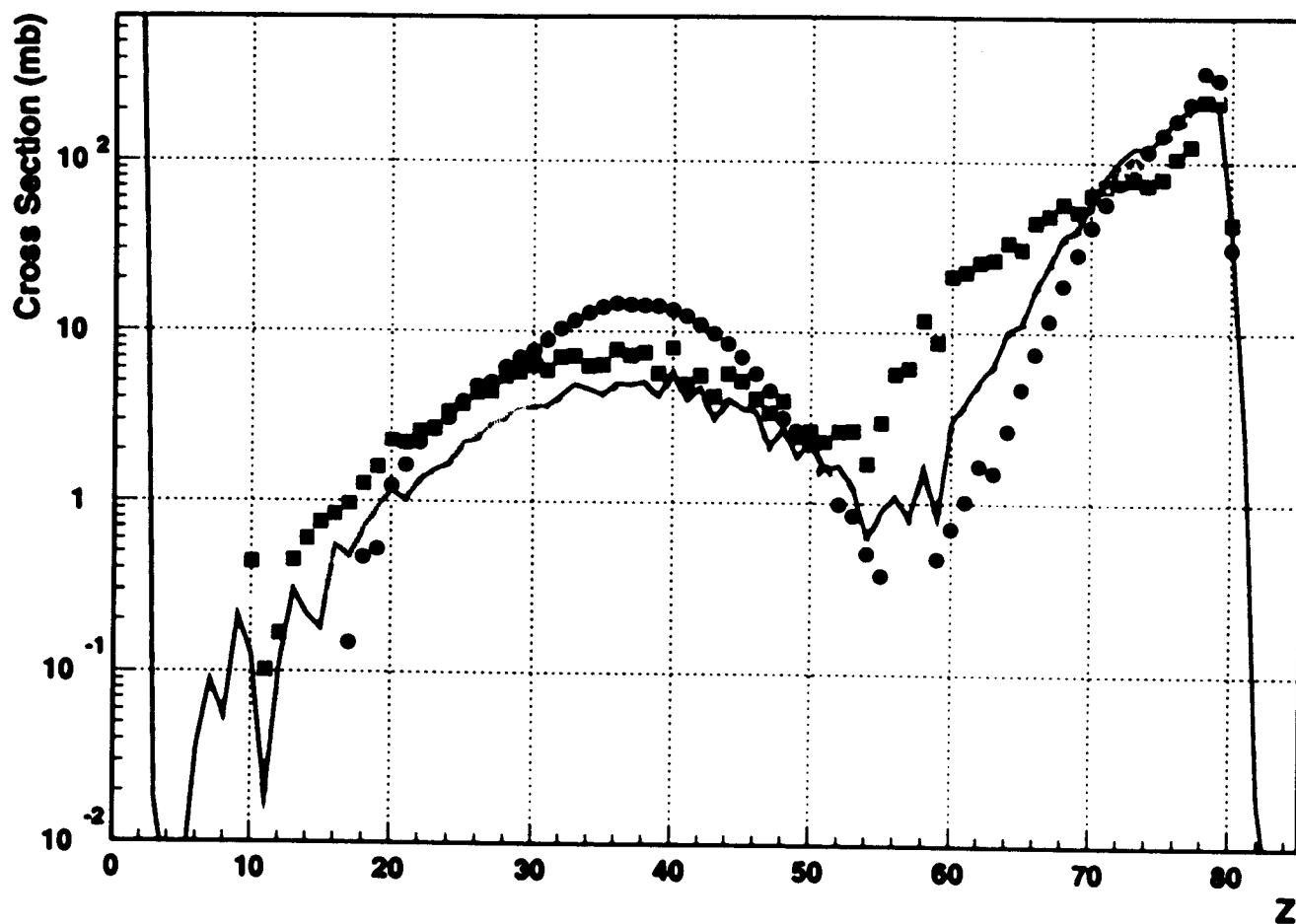
Sr

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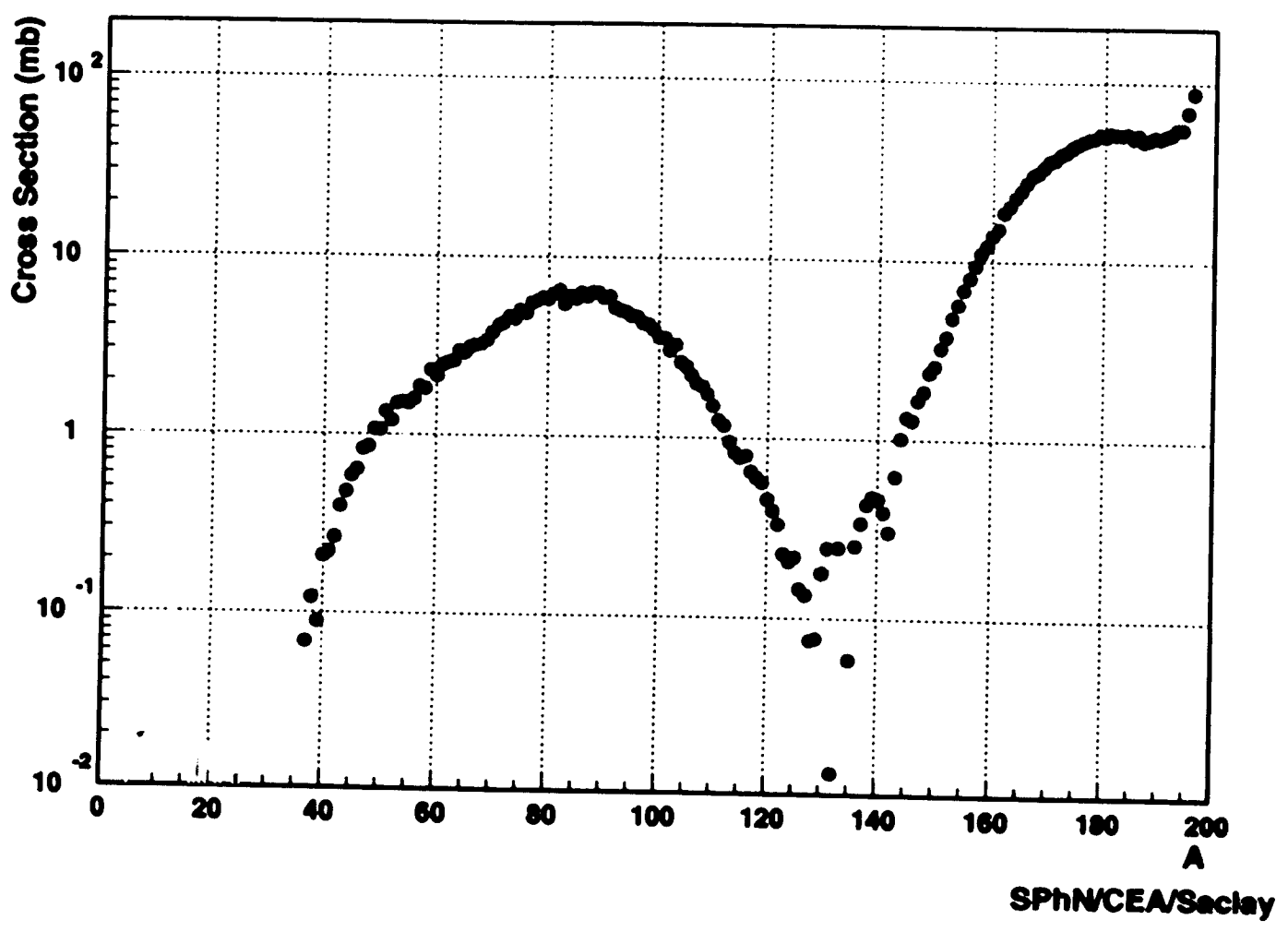
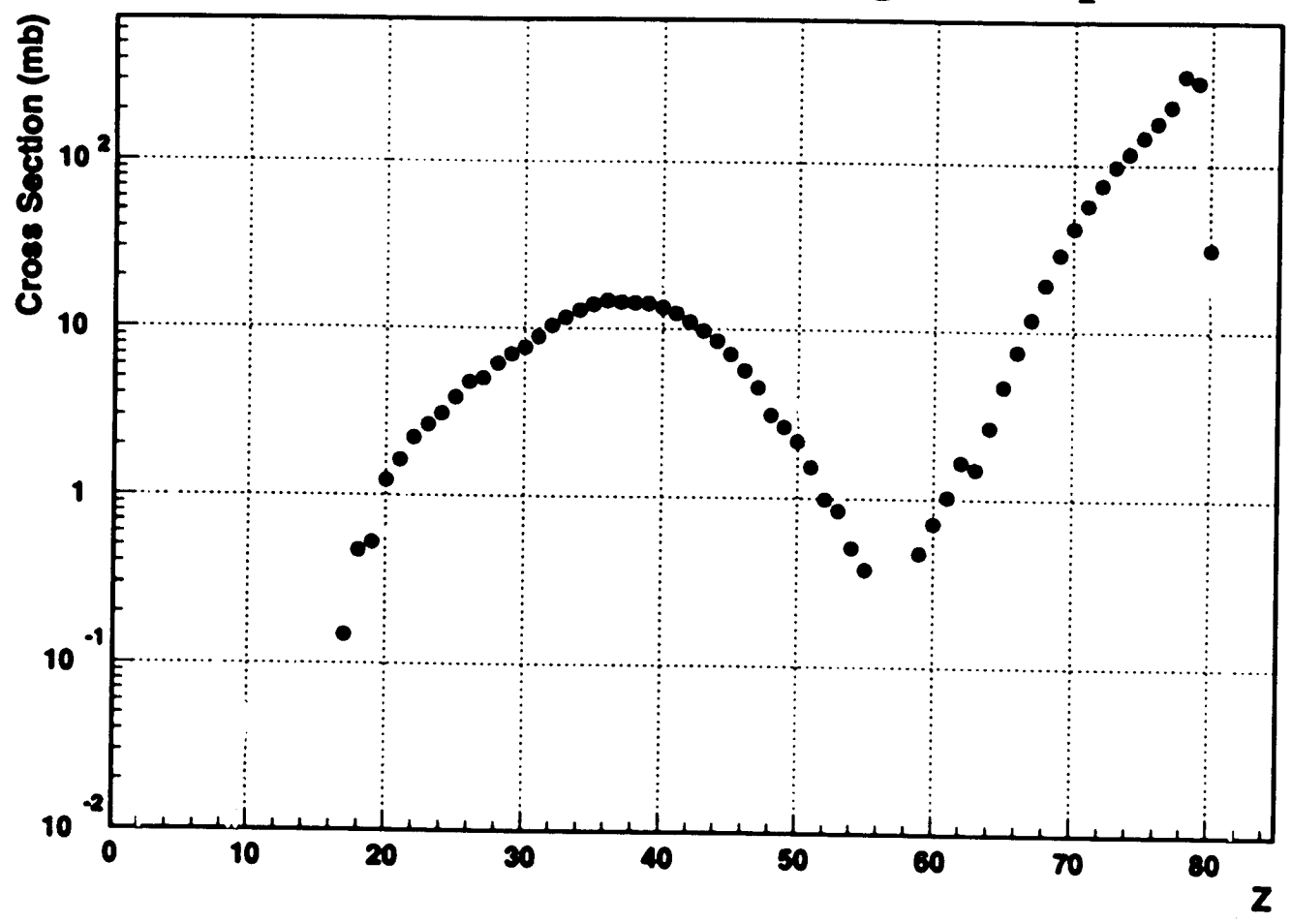


$^{197}\text{Au}+p$ 0.8 GeV/n



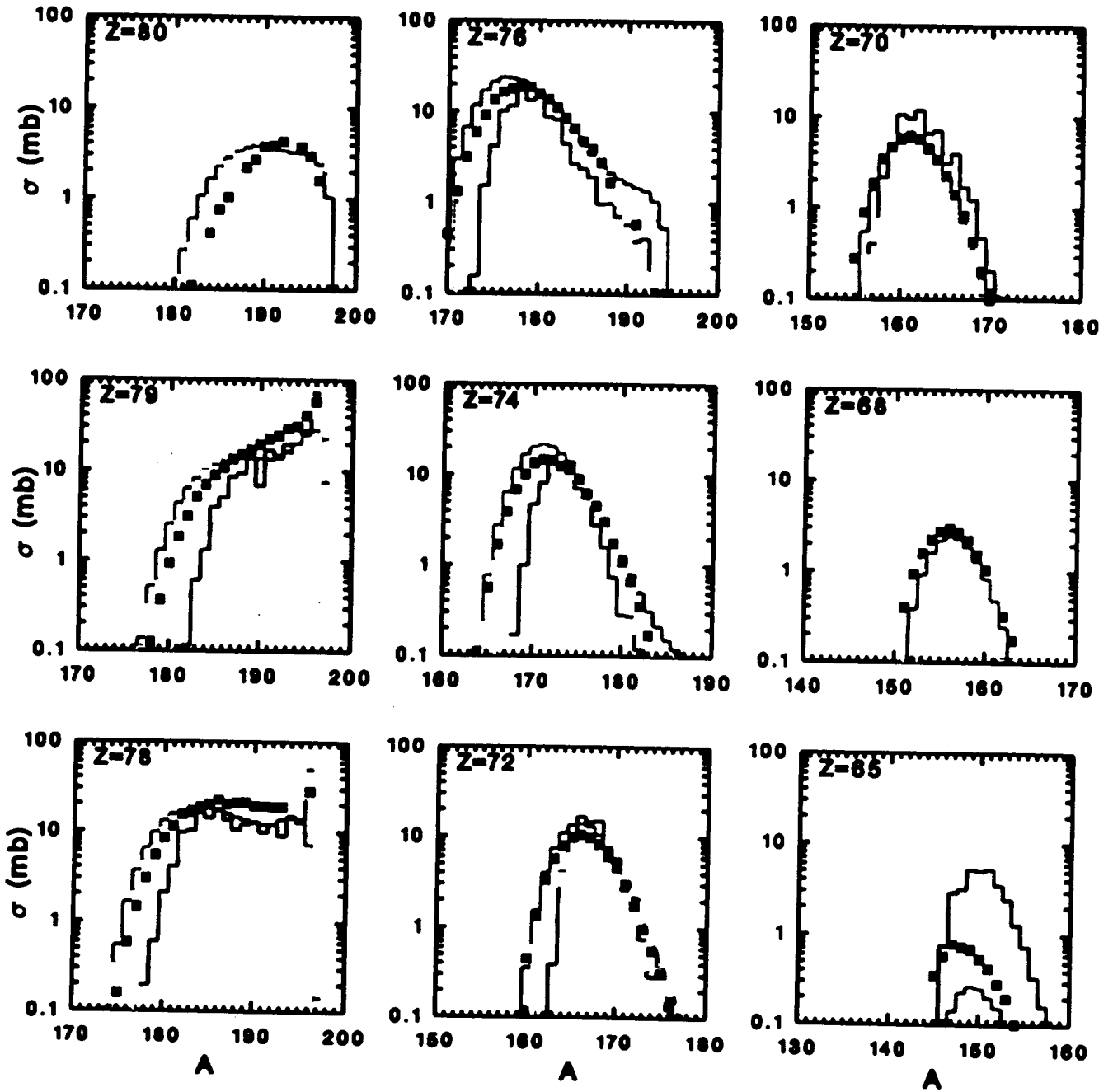
Au+p 800 MeV/A (evapo Dressner)

Au+p 800 MeV/u, INC Liege + evap GSI

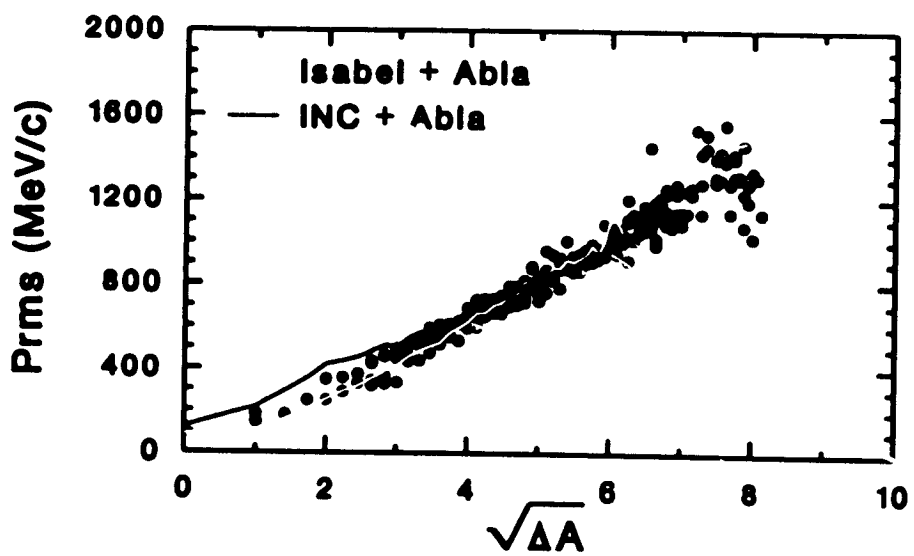
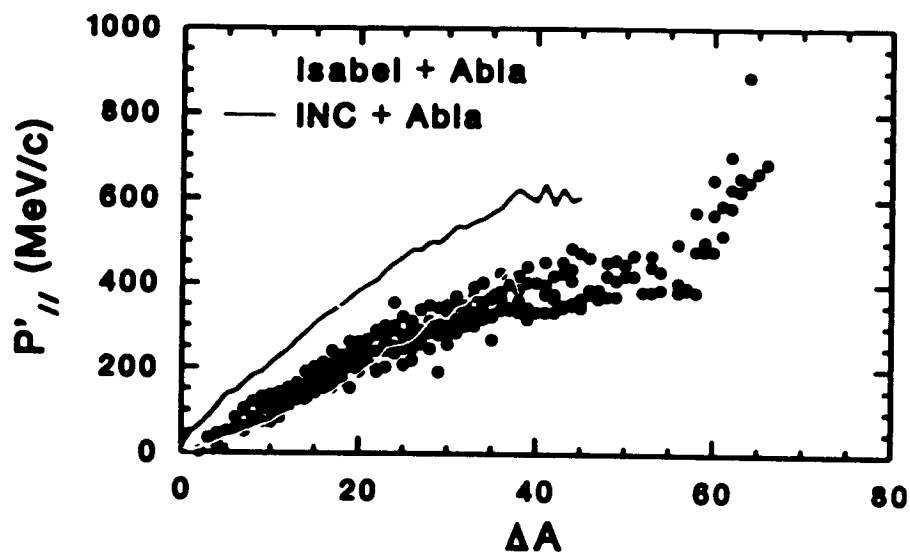


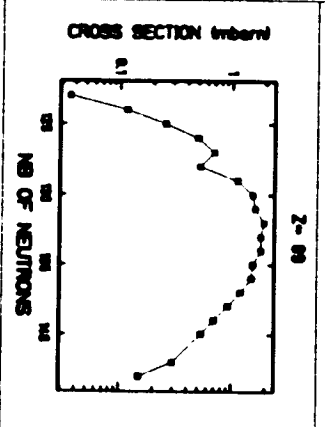
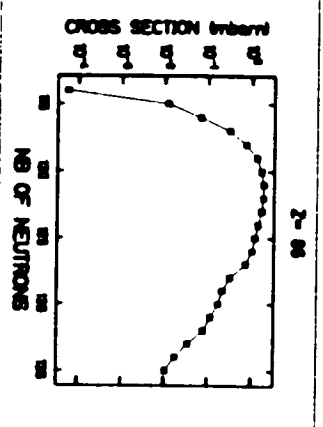
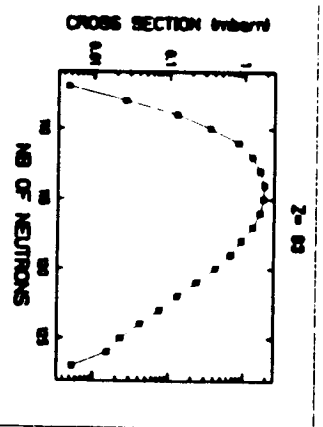
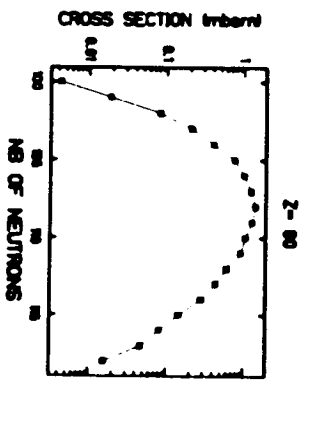
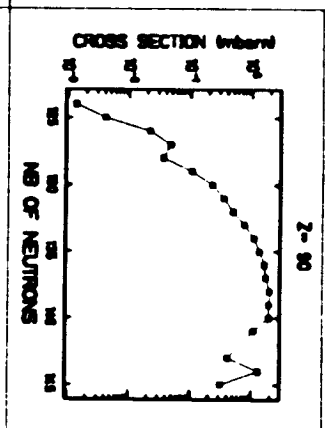
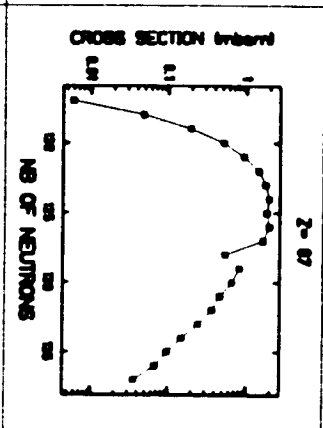
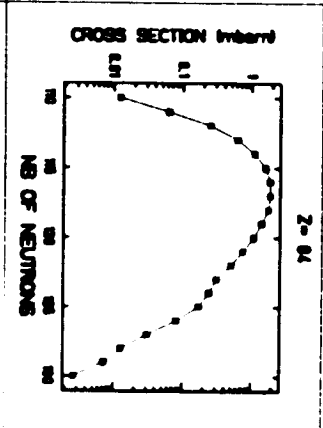
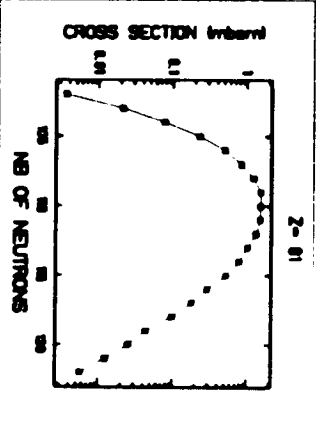
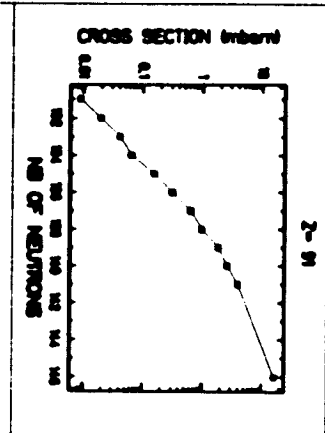
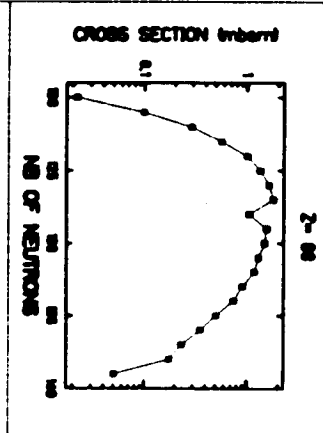
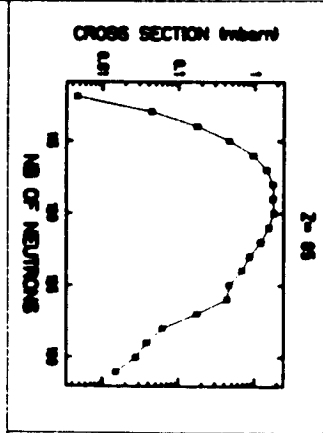
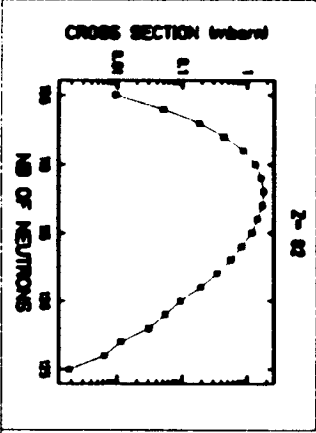
$^{197}\text{Au}+p$ 0.8 GeV/n

■ Exp. (GSI)
EPAX
— LAHET
— CASCABLA
ISABEL



$^{197}\text{Au}+p$ 0.8 GeV/n





^{208}Pb (1 AGeV) + H_2
Preliminary Cross Sections

