Target(2000)

Target Nr.	Length [mm]	Number of Segments	⊘ max [mm]	⊘ min [mm]	Size [g]	Wall thickness [μm]
1	320	8	45	38	32.7	39.7
2	320	8	38	32	25.8	37.7

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DC1 Anoden

HODO upstream

HODO downstream

CERE

HODU

PLB -2/1

PLB -2/2

PLB -1/2

AND

OR

+3

-3

AND

AND

AND

-9

AND

PLB -2/2

AND

AND*

+12

DELAY TRIGGER

Latch

Latch

PLB -2/2

PLB 1/3

PLB -5/4

-12

AND

AND
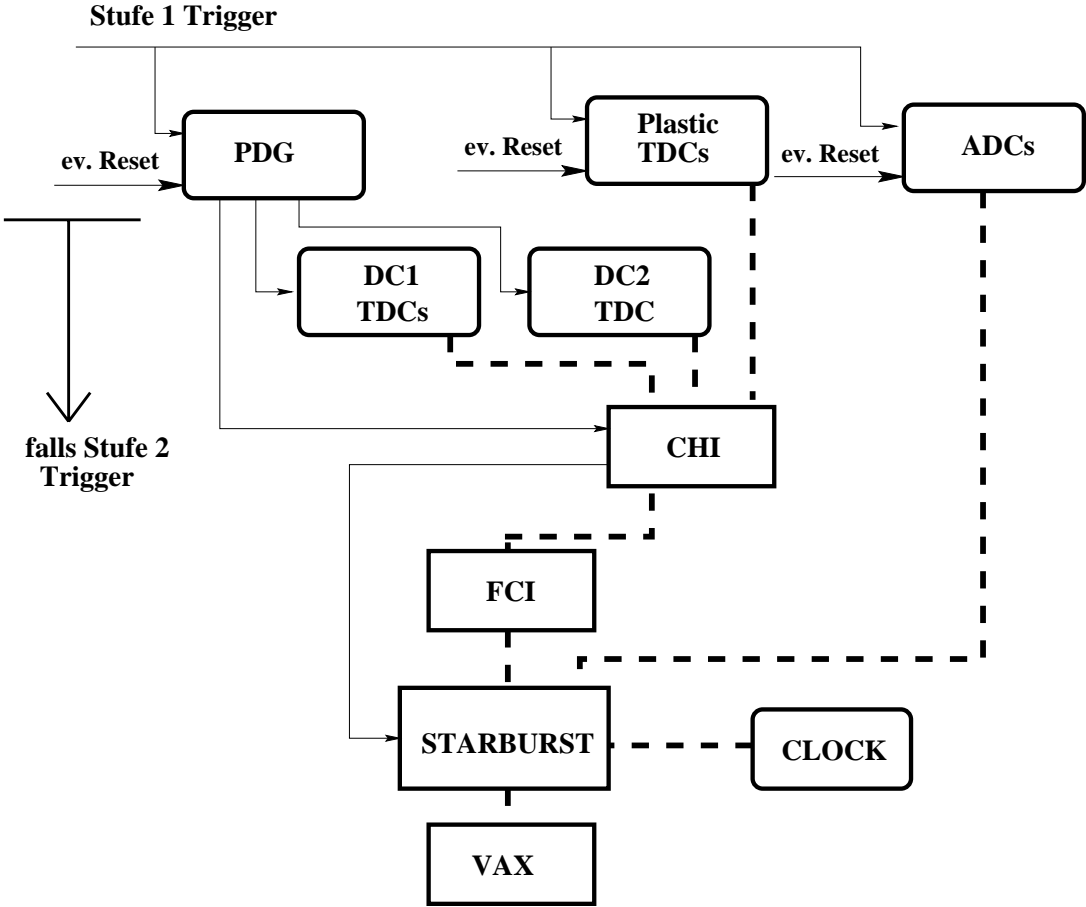
AND

AND*

TRIGGER

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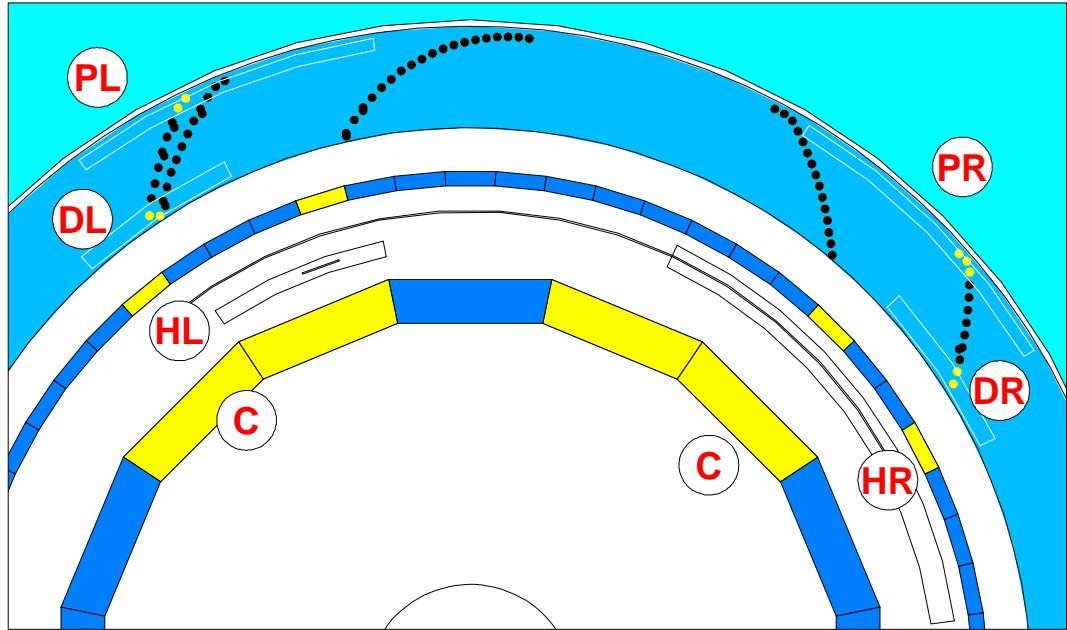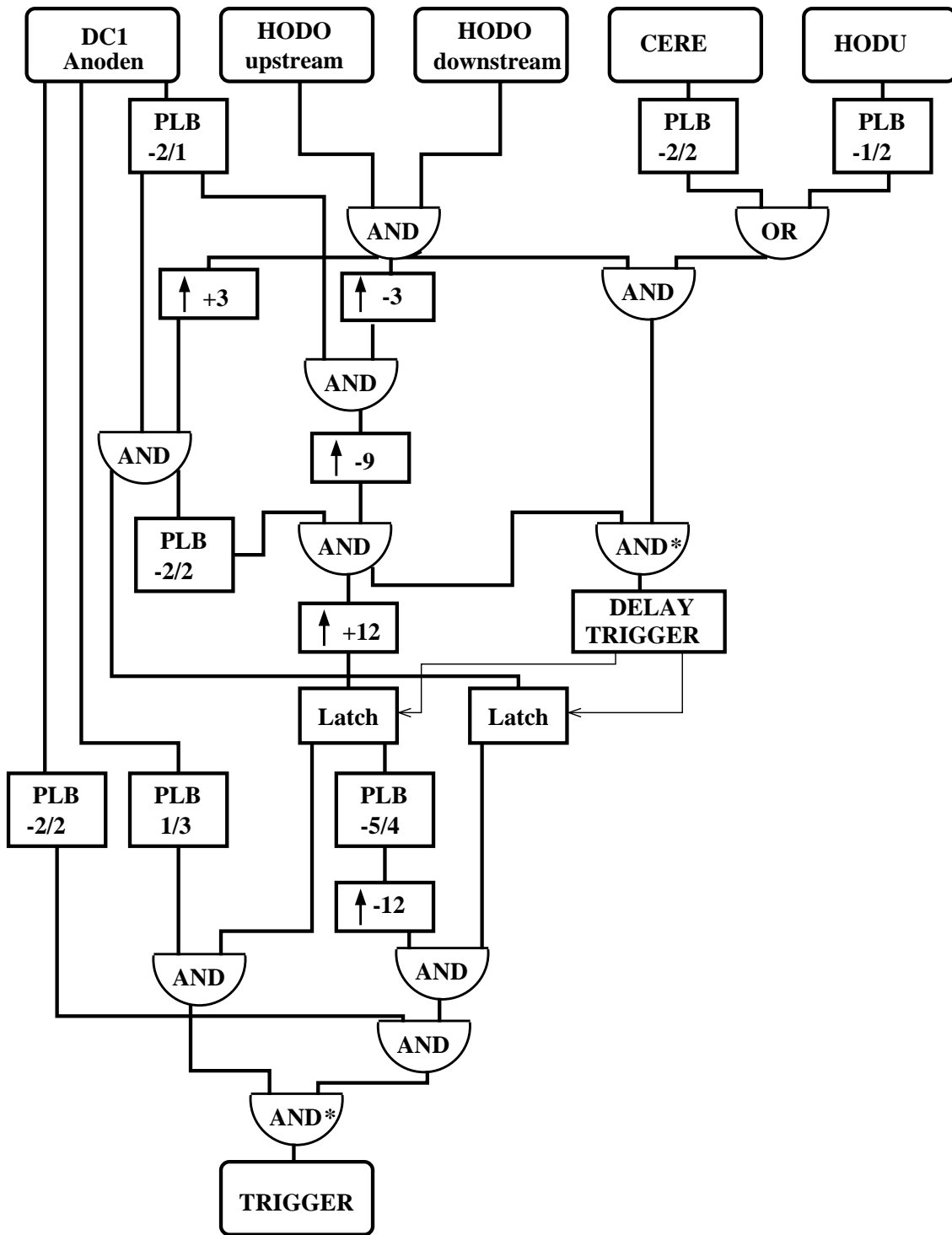
Rates

Counts with about $7 * 10^7 \frac{\mu^-}{s}$ stopped in target
B-Field at 1.05 T

Type	Letter in graph	counts [Hz]
Hodo	H	2.35 M
Codo xor Hodu	C	5.85 M
(Codo xor Hodu)*Hodo	C*H	1.85 M
Hodo * Prompt DC1 (Right Leg)	HR*PR	125 k
Hodo * Prompt DC1 (Left Leg)	HL*PL	98 k
Left Leg on Right Leg	(HL*PL)*(HR*PR)	40
Level 1	((HL*PL)*(HR*PR))*(C*H)	24
Left on Right Leg and Delayed DC1	((HL*PL)*(HR*PR))*DR	6
Left on Right back on Left and Delayed DC1	((HL*PL)*(HR*PR))*DL	4
Level 2		2
Dead Time		10%
Reconstructed Target Events		3 per minute

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DAQ

Stufe 1 Trigger

ev. Reset → **PDG**

falls Stufe 2 Trigger

DC1 TDCs → **DC2 TDC**

ev. Reset → **Plastic TDCs**

ev. Reset → **ADCs**

CHI

FCI

STARBURST - - - **CLOCK**

VAX

NaI Rate measurement

NaI−Spektrum
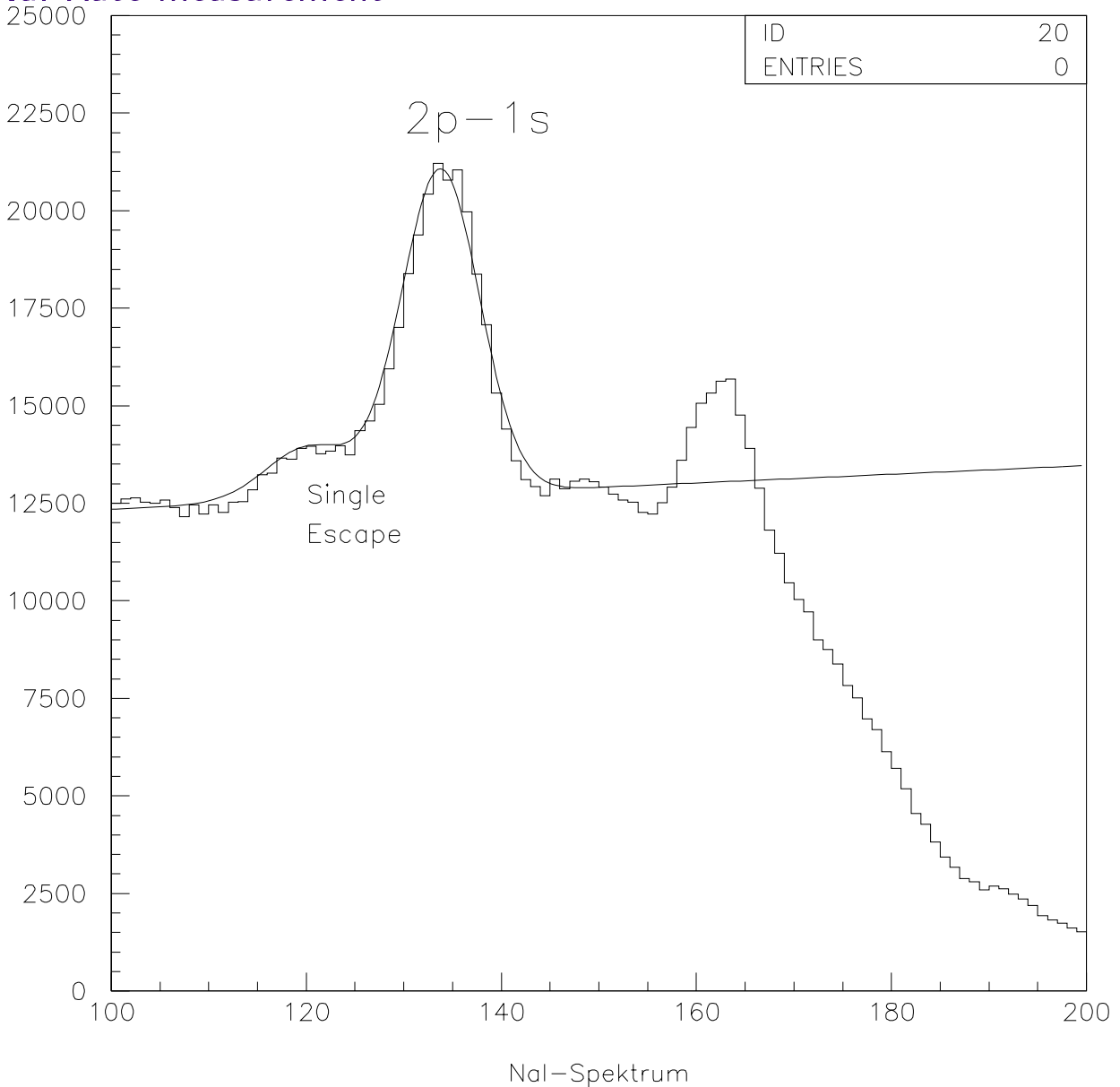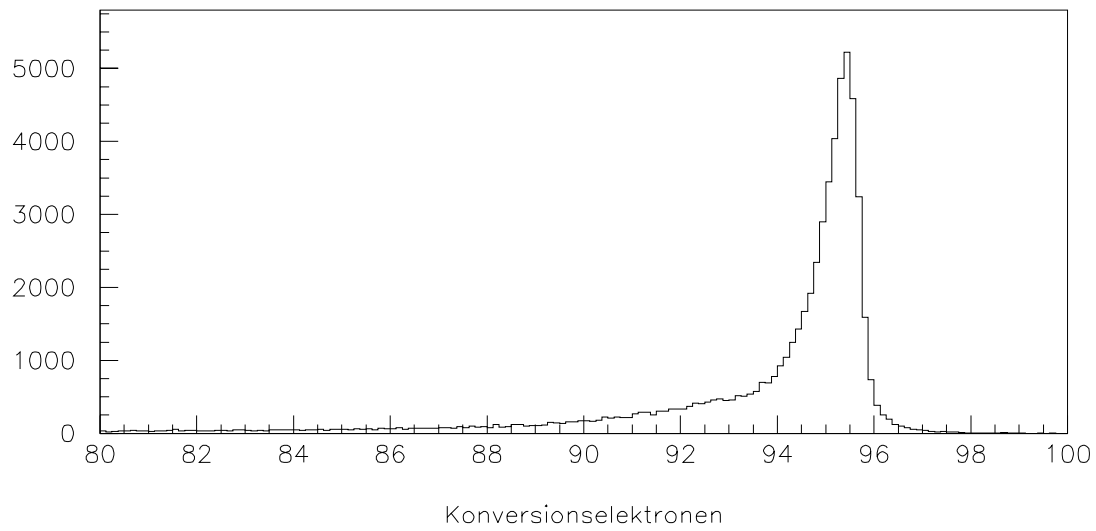
- NaI was only available for the last 2 weeks of the analyzed data.
- Beam settings changed during data taking period, so no relation between proton current of accelerator and myon stops made
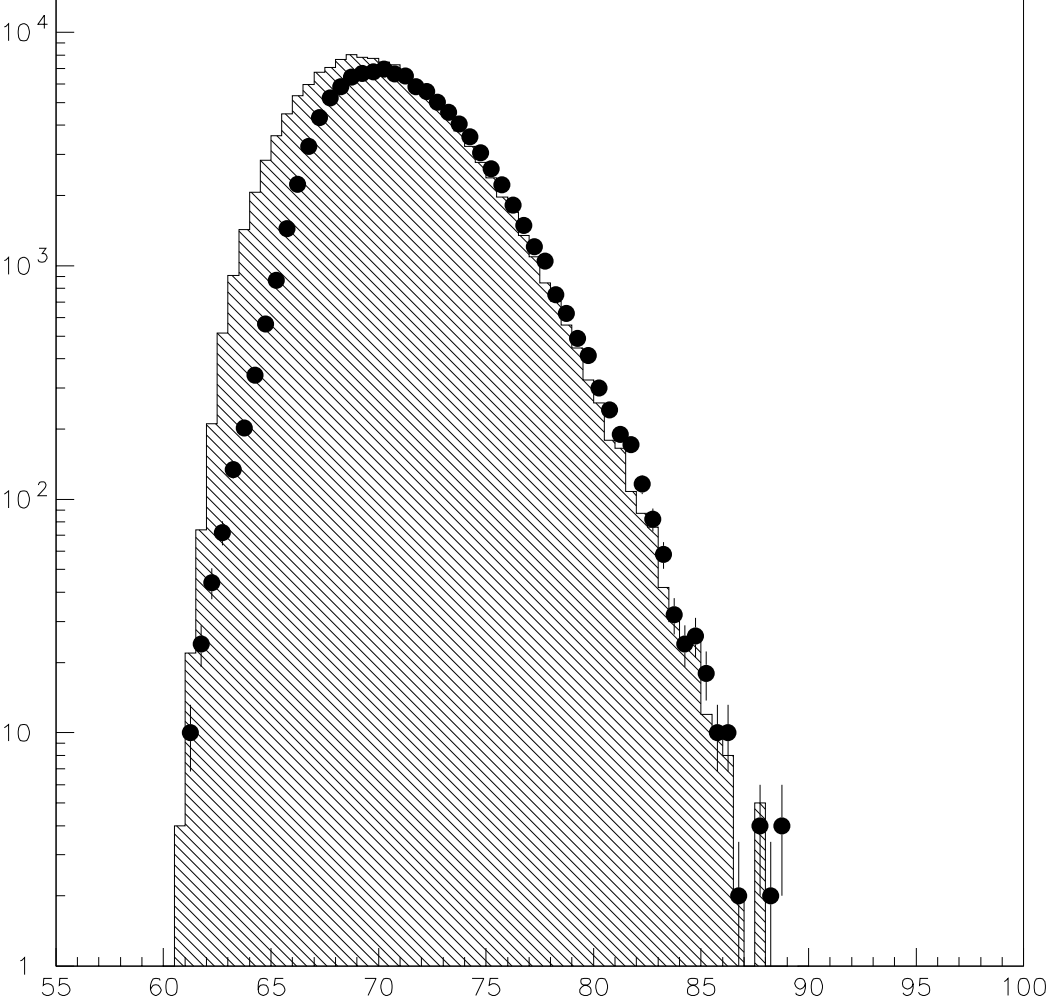- calculated ratio between myon stops and measured MIOs is:

$$R_{MIO/\mu^-} = (7.4 \pm 1.5) \cdot 10^7$$

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Monte Carlo for Conversion

Konversionselektronen

Simulated Events	200'000
FWHM	1.0 MeV

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Myon-Stops	1.03×10^{12}
Analyzed Events	850'000
MIO Events	140'000
Highest Energy measured	87.7 MeV

Result

- Prelimenary Result!

- Data analyzed for data taking period June 16th to August 9th.

- Data taken at 53 MeV/c beam momentum

- Magnetic field of spectrometer at 1.05 T

- End of data taking period October 30th 2000

$$\boxed{B_{\mu e} < 1.78 \cdot 10^{-12} \ (90\% \ \text{C.L.})}$$

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