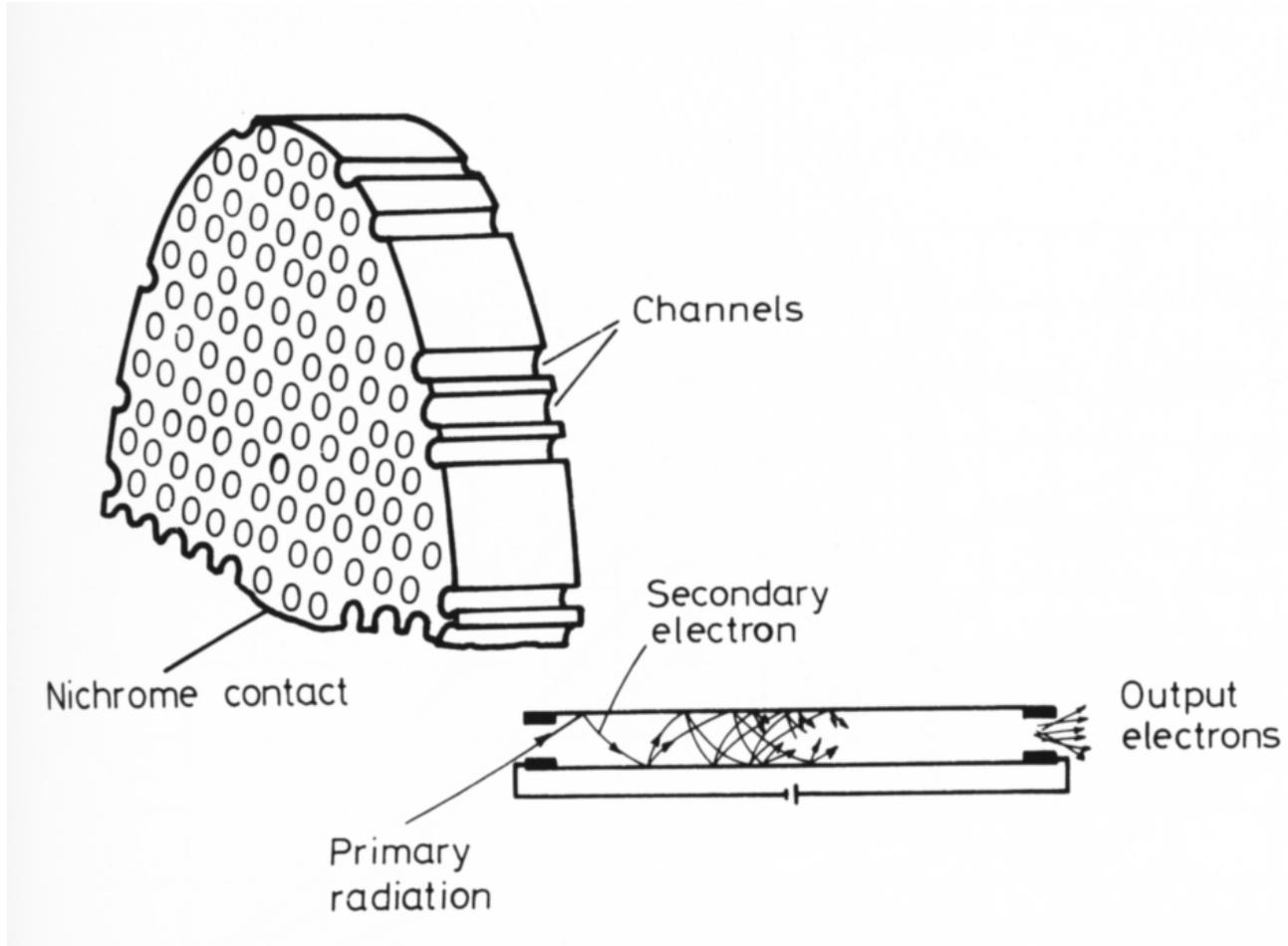
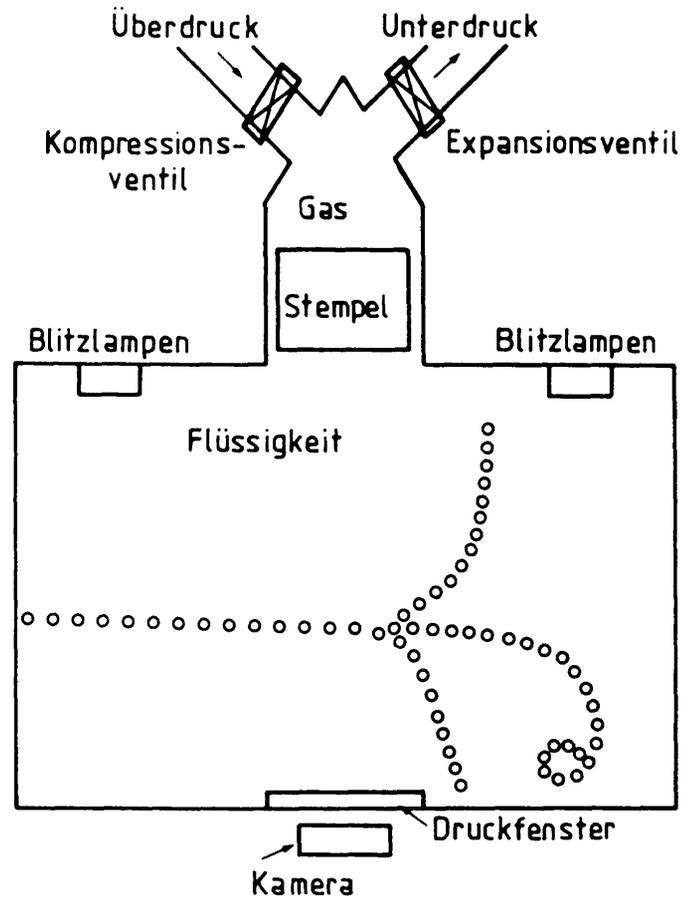


Detektoren

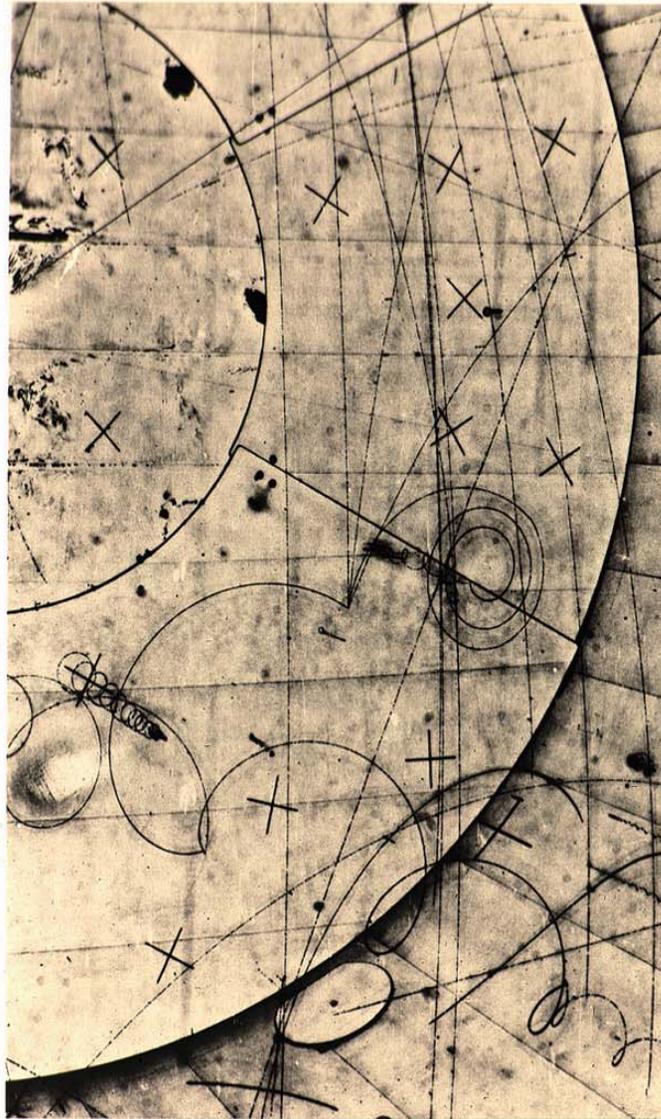
Microchannelplates



Blasenkammer



Blasenkammerereignis



AACHEN-BONN-CERN-MUNICH-OXFORD COLLABORATION

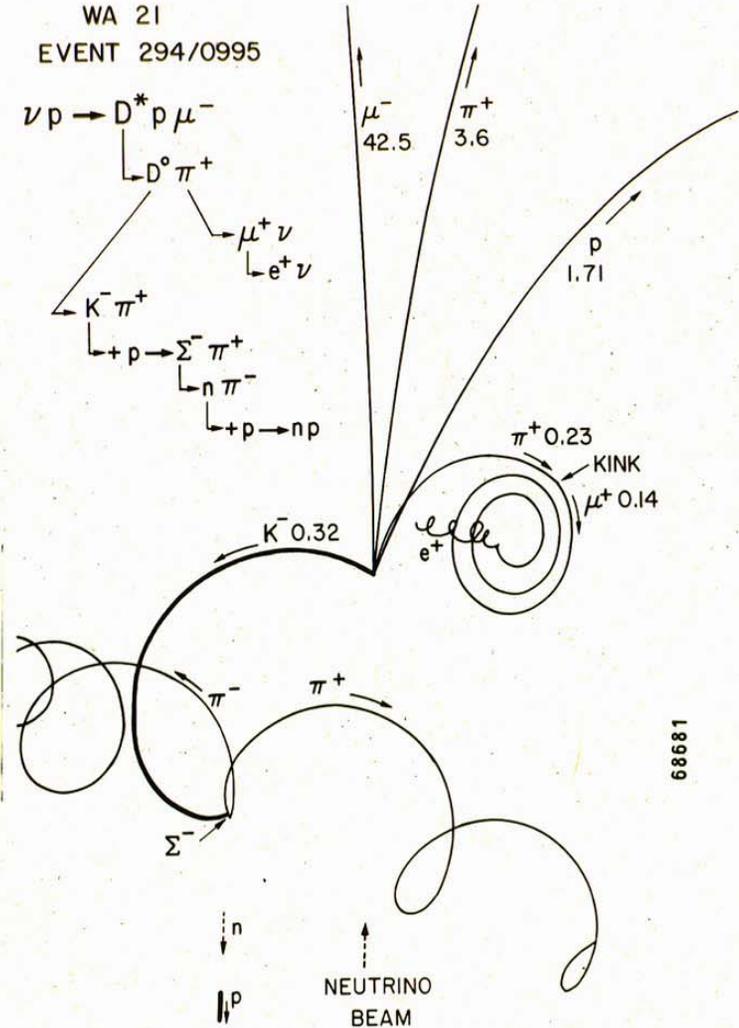
WA 21

EVENT 294/0995

$\nu p \rightarrow D^* p \mu^-$

$D^* \rightarrow D^0 \pi^+$
 $\mu^- \rightarrow \mu^+ \nu$
 $\mu^- \rightarrow e^+ \nu$

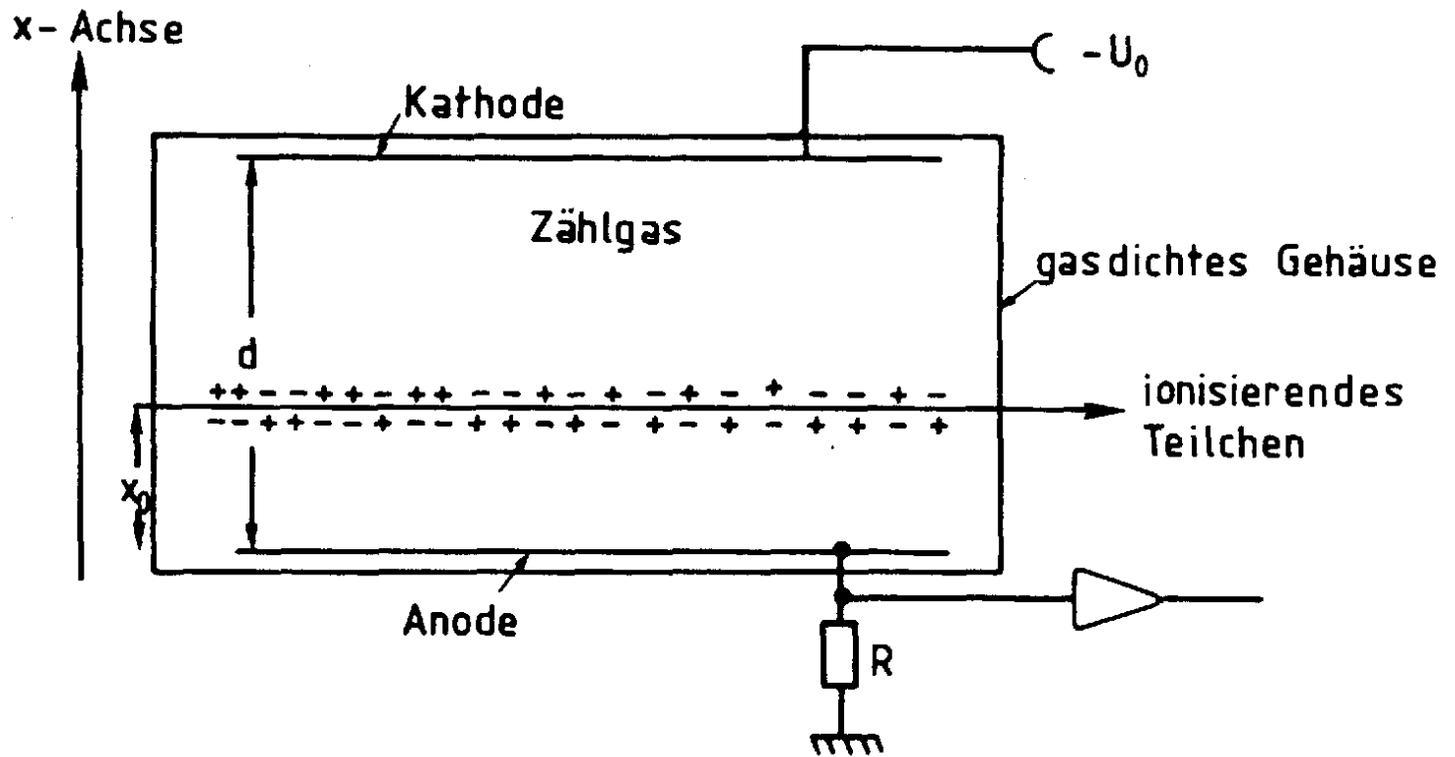
$K^- \pi^+$
 $+ p \rightarrow \Sigma^- \pi^+$
 $\Sigma^- \rightarrow n \pi^-$
 $+ p \rightarrow np$



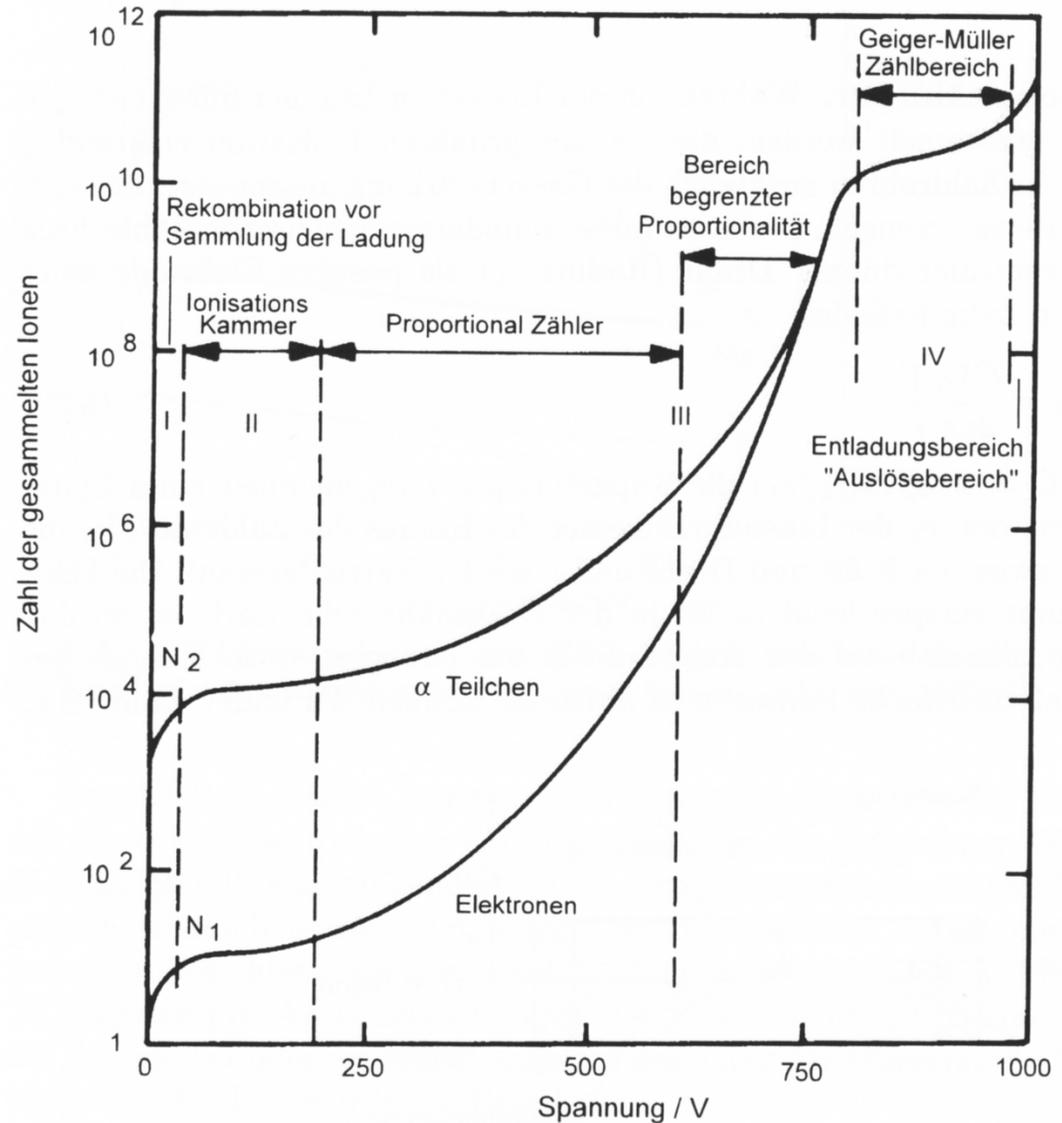
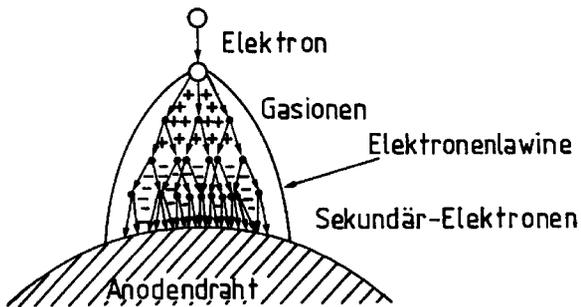
68681

MOMENTUM IN GeV/c

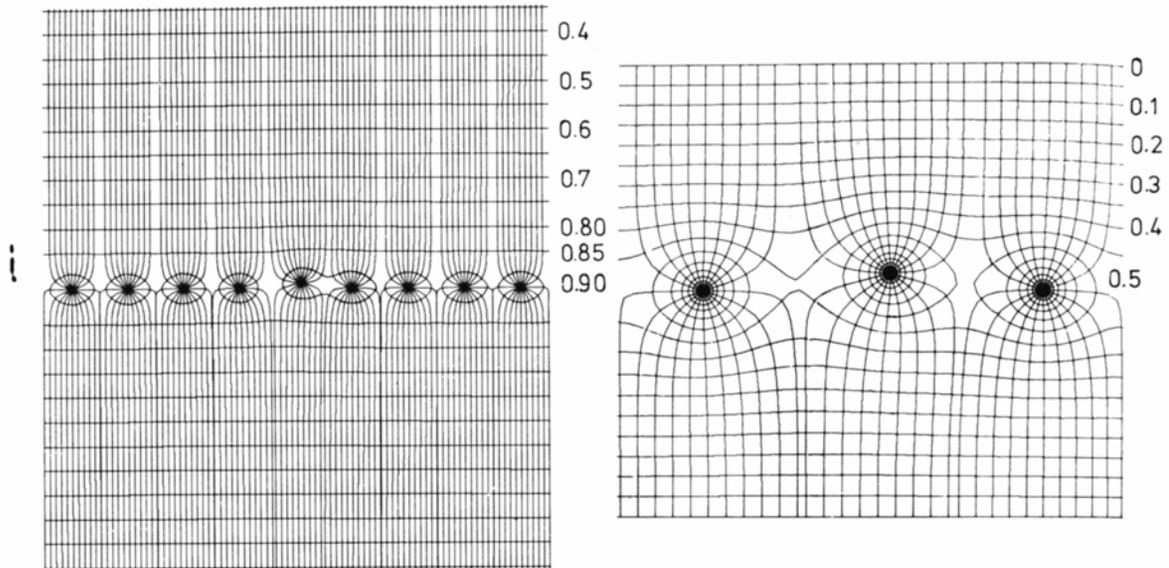
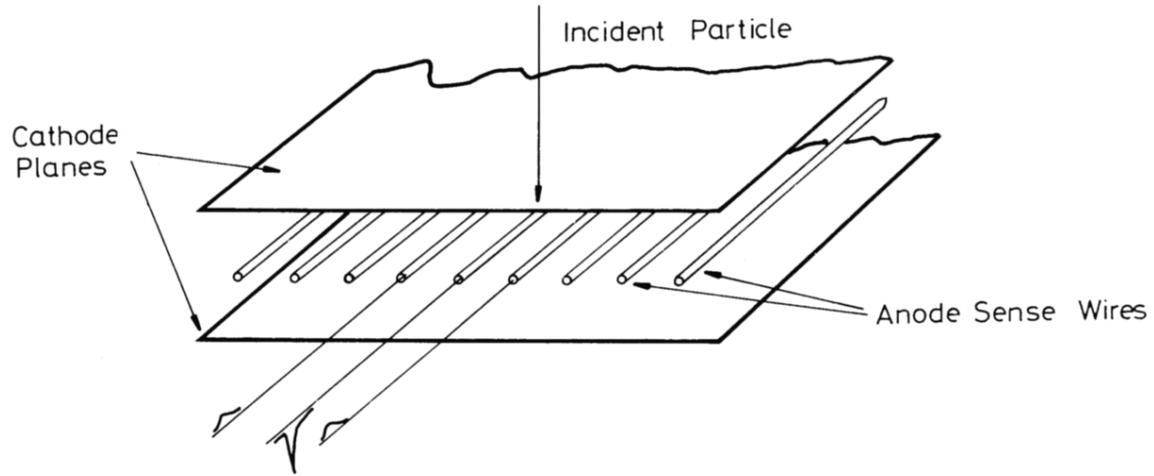
Ionisationsdetektor



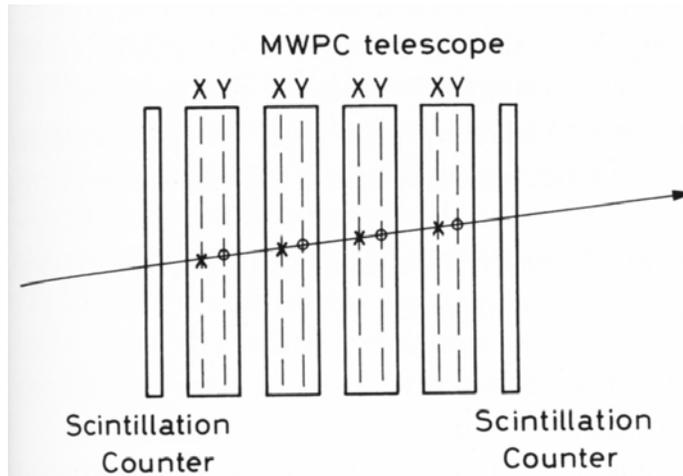
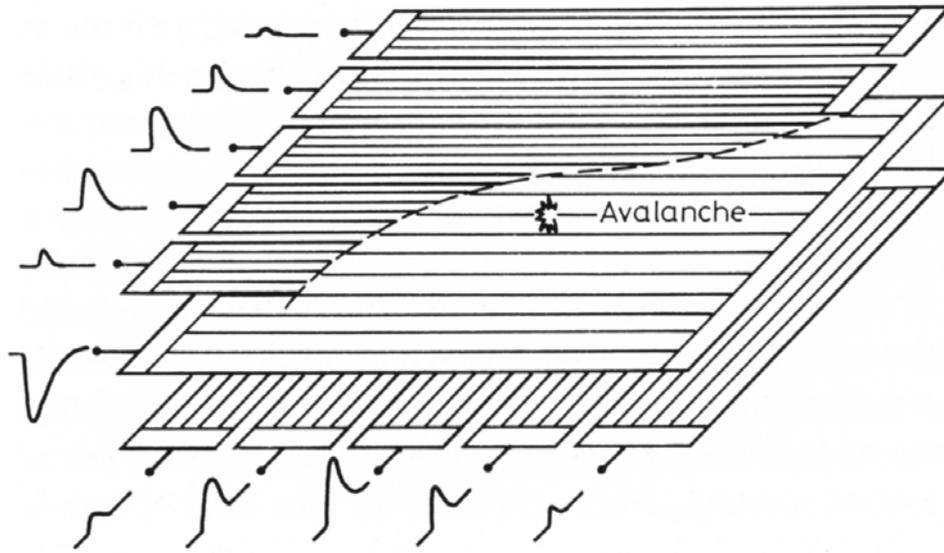
Ionisationsdetektoren



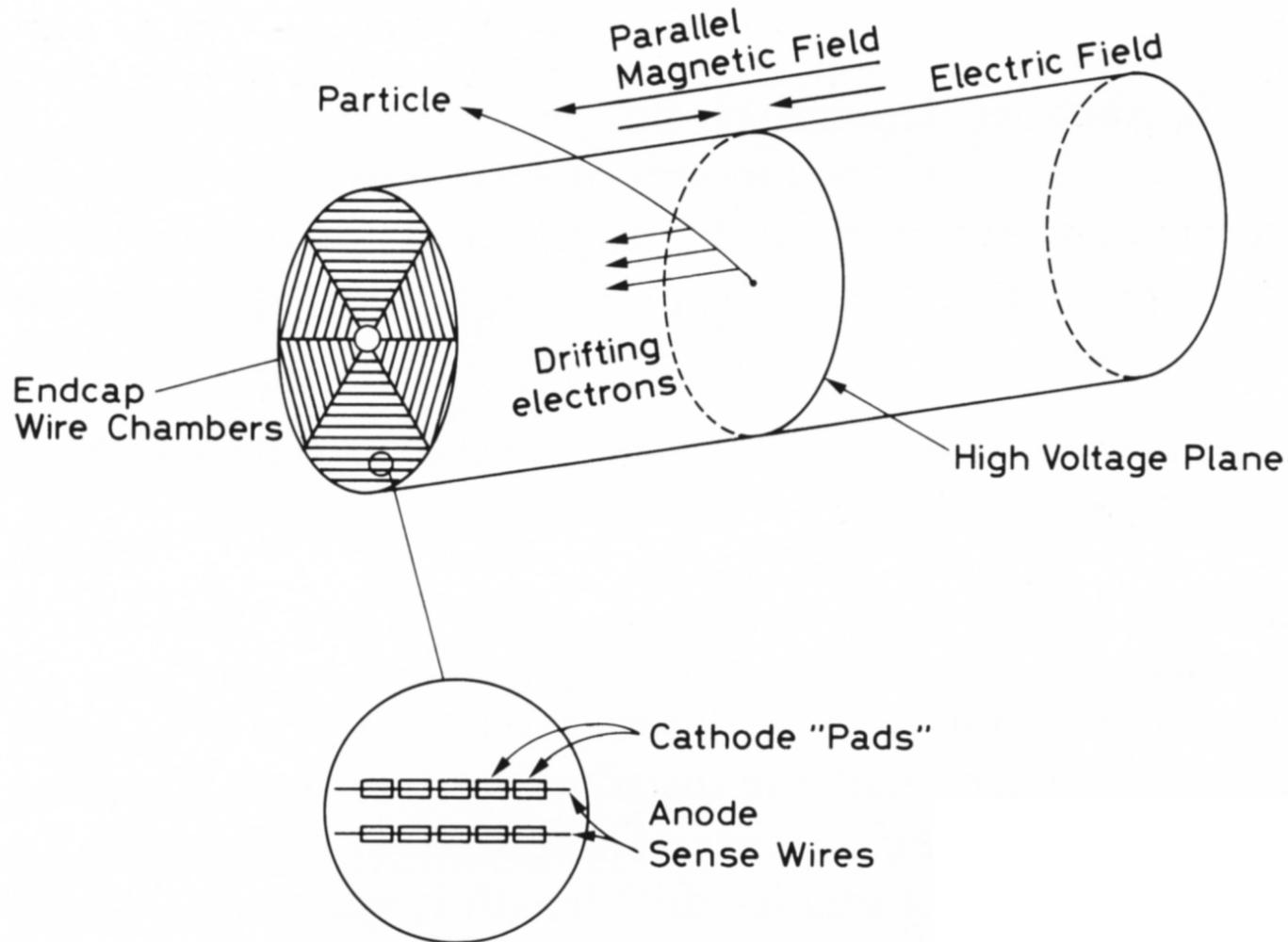
Violdrahtkammer



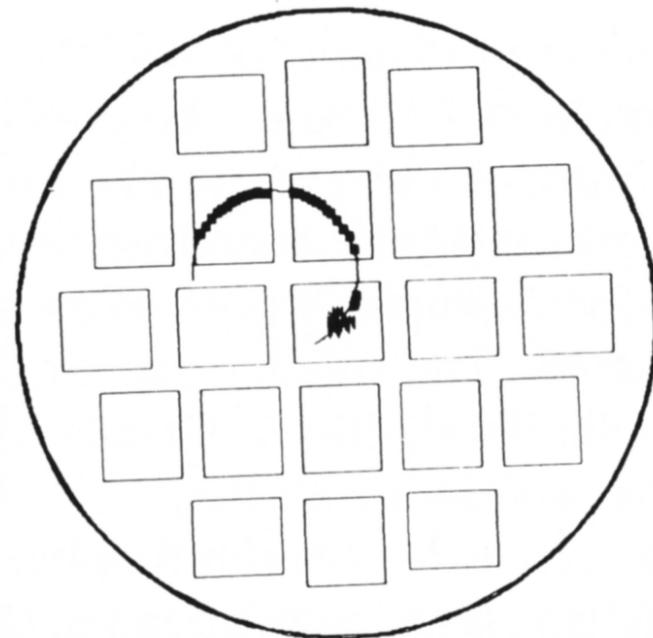
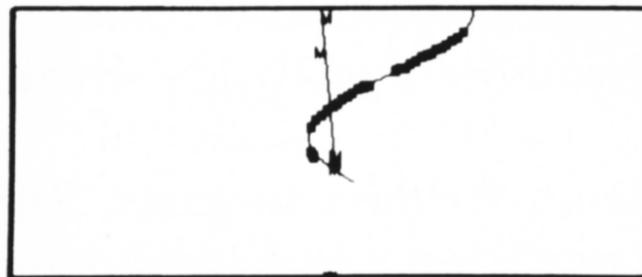
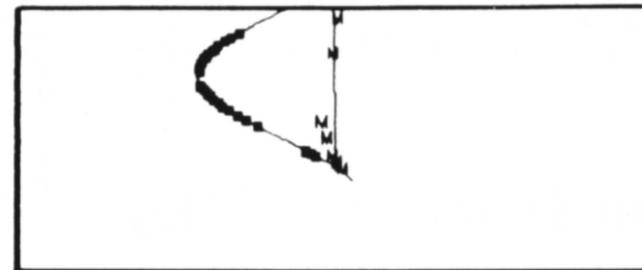
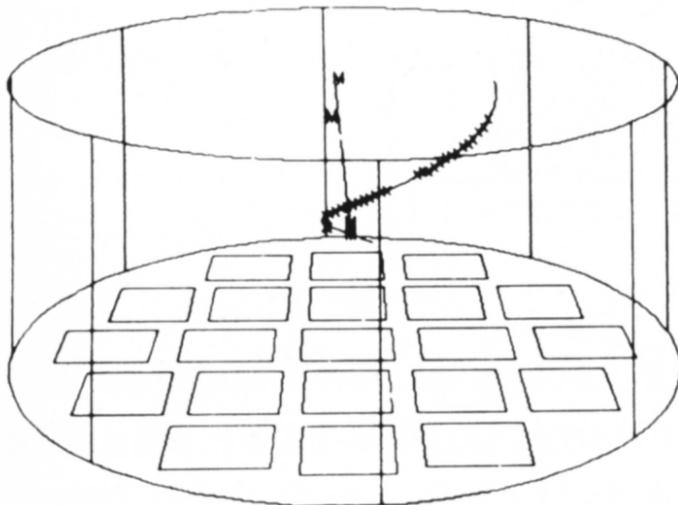
x-y MWPC



Time Projection Chamber

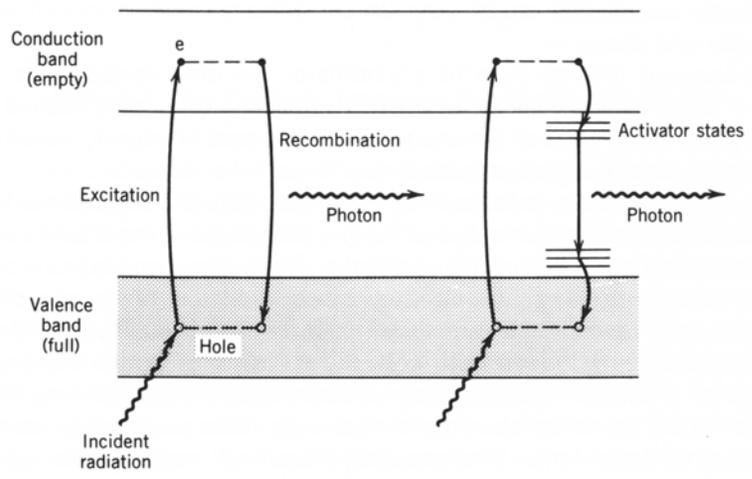
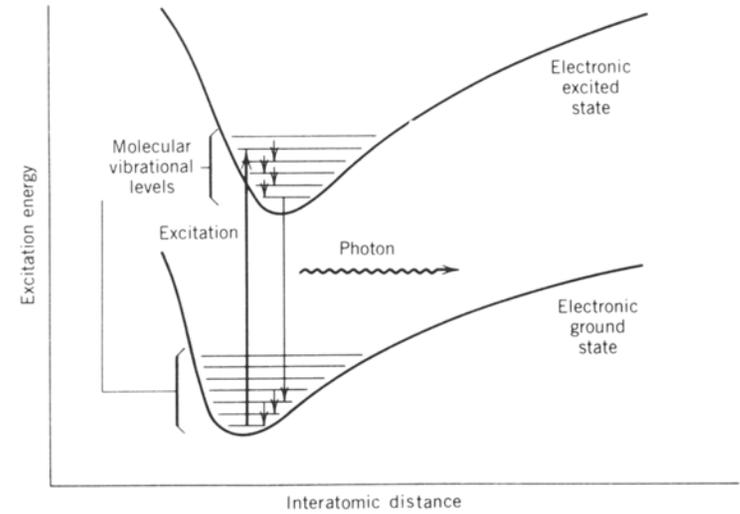


Tracking im TPC



Szintillator

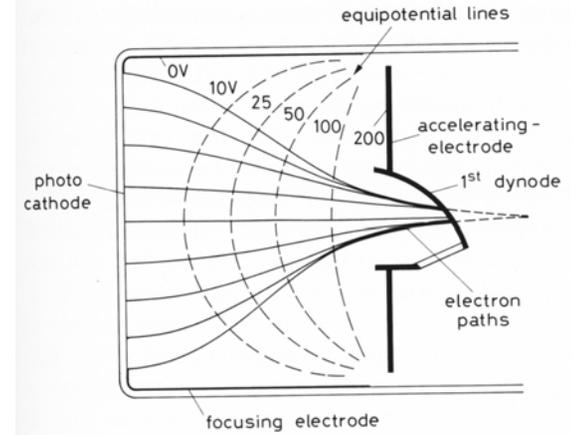
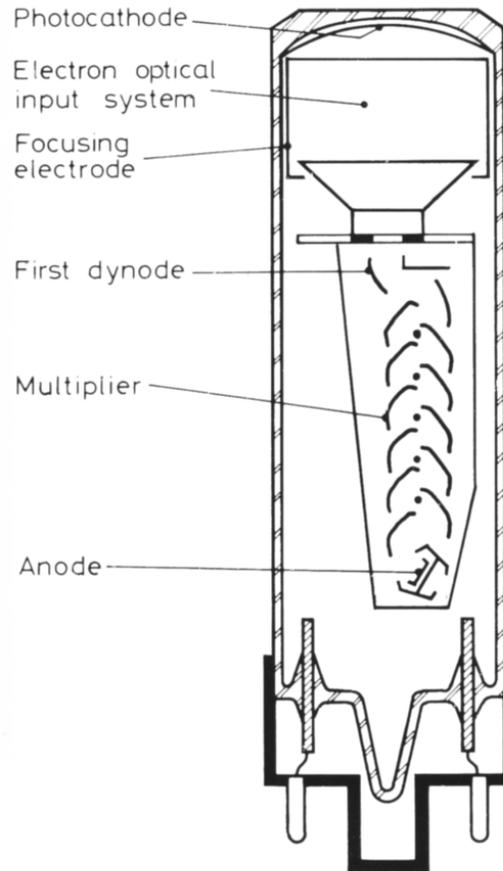
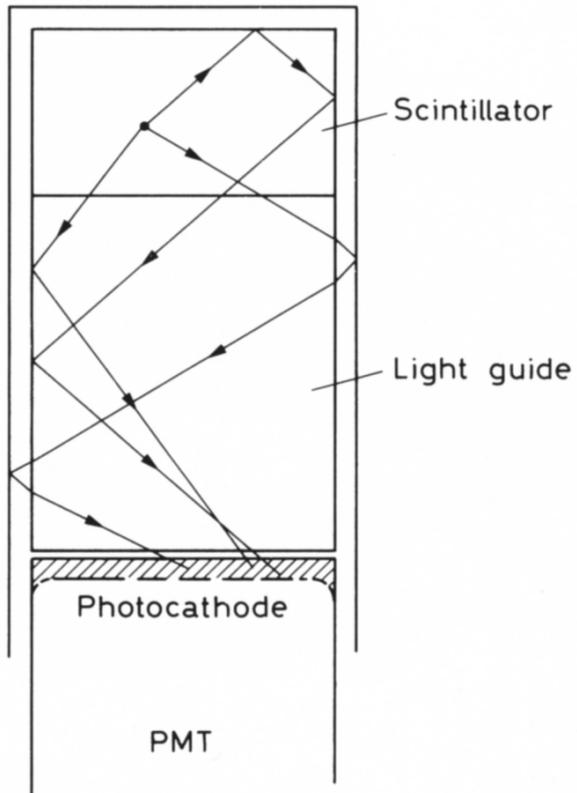
organischer Szintillator



anorganischer Szintillator

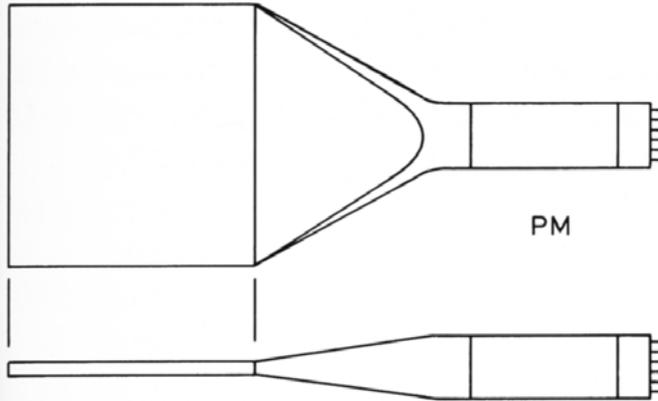


Photomultiplier

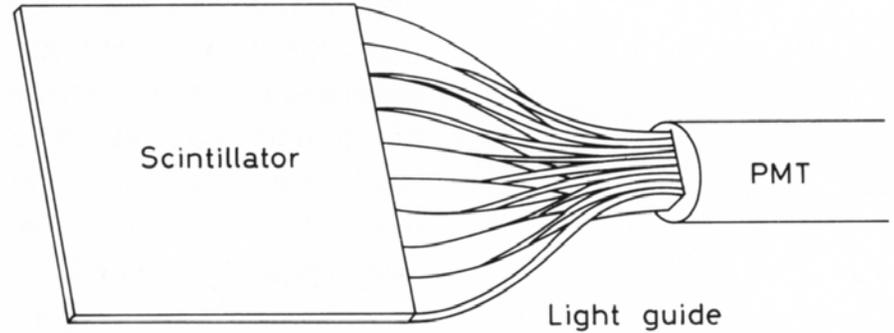


Szintillatoren + Photomultiplier

Light guide



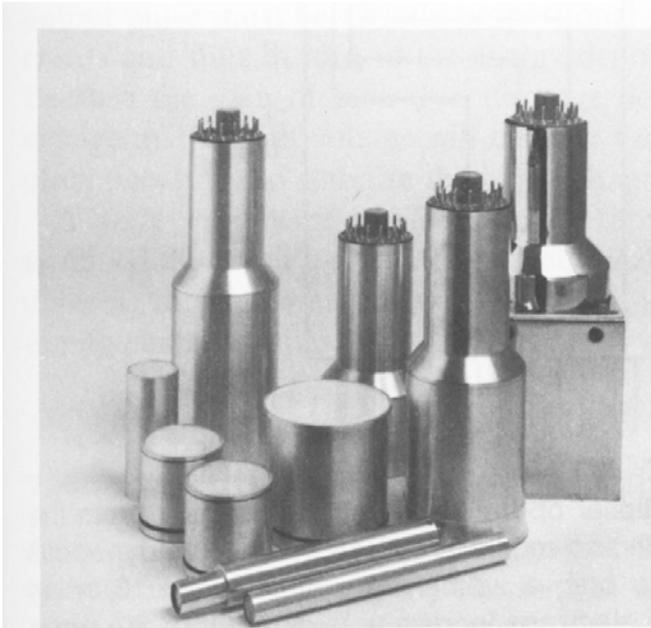
PM



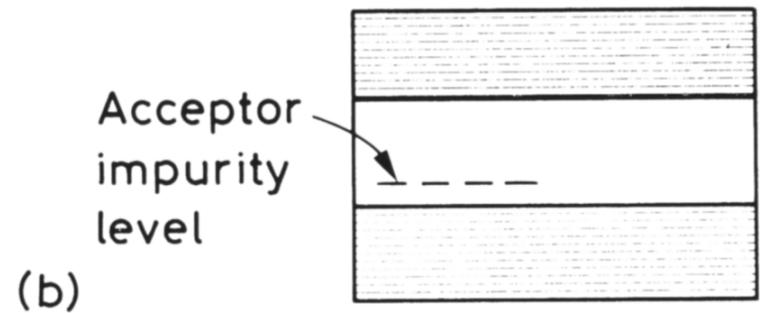
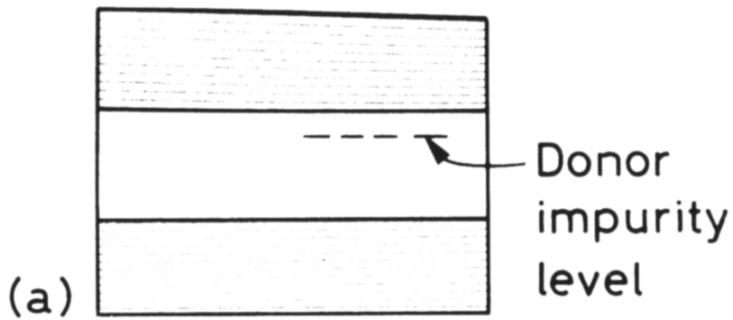
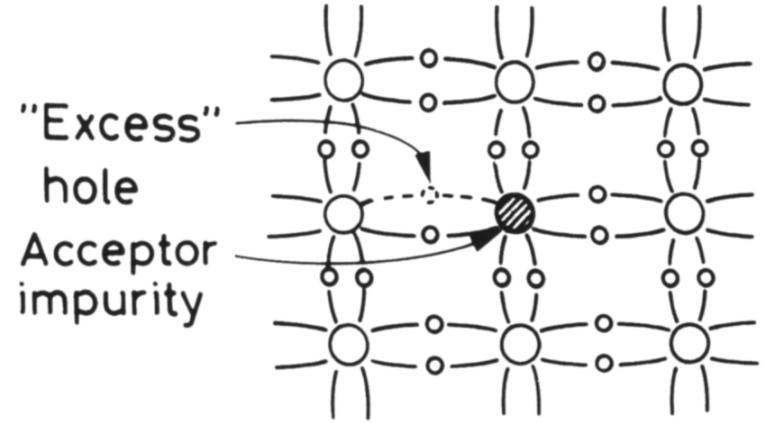
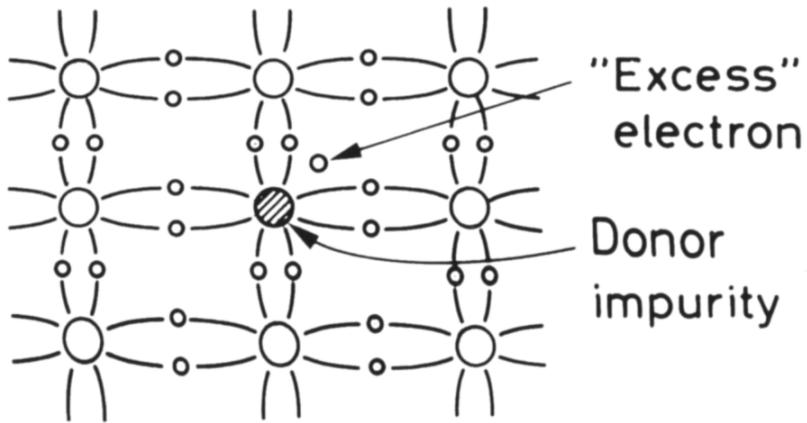
Scintillator

PMT

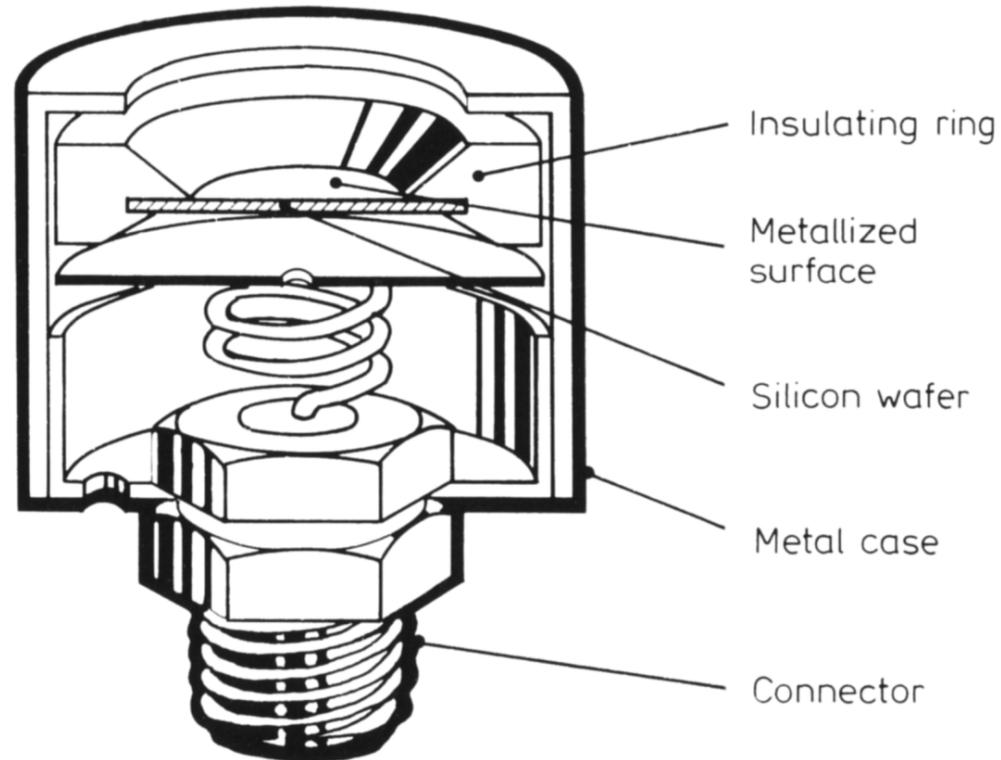
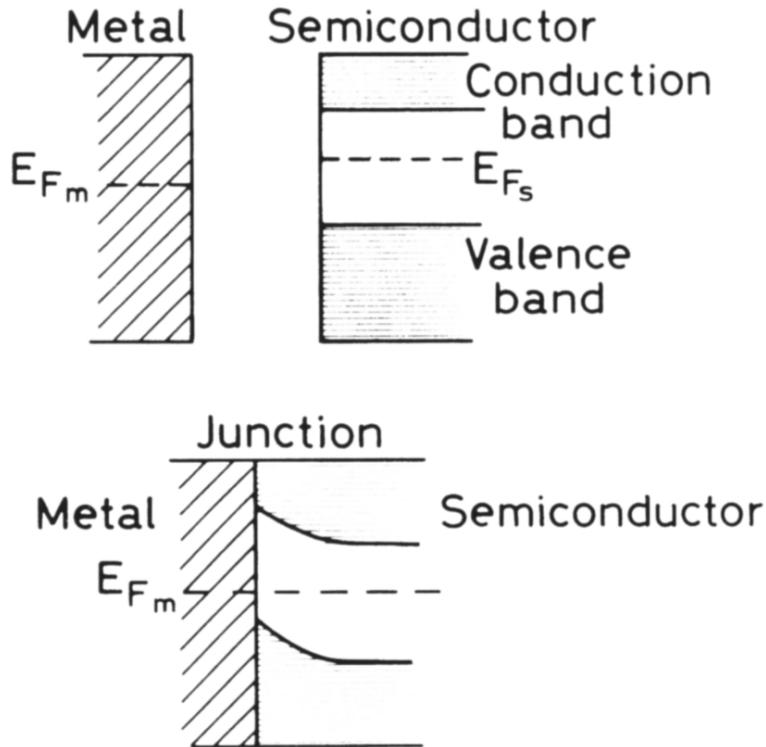
Light guide



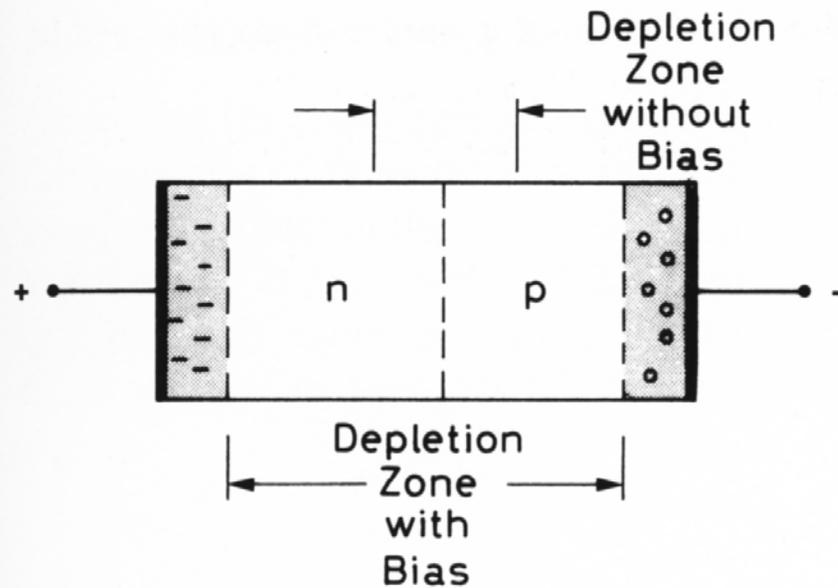
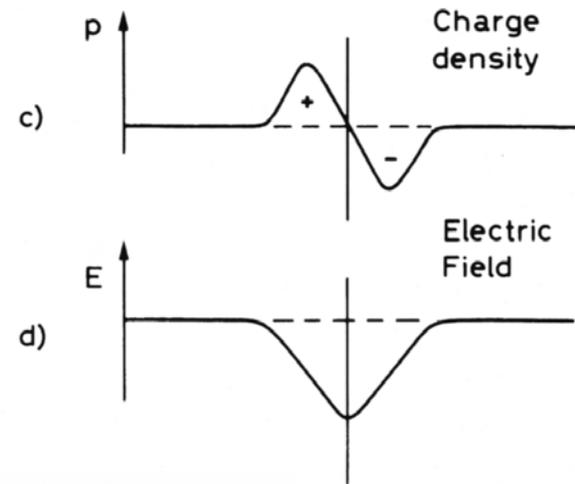
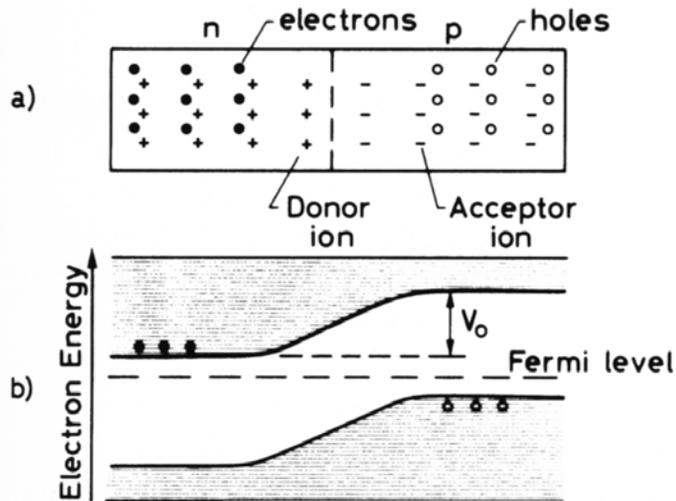
Dotierte Halbleiter



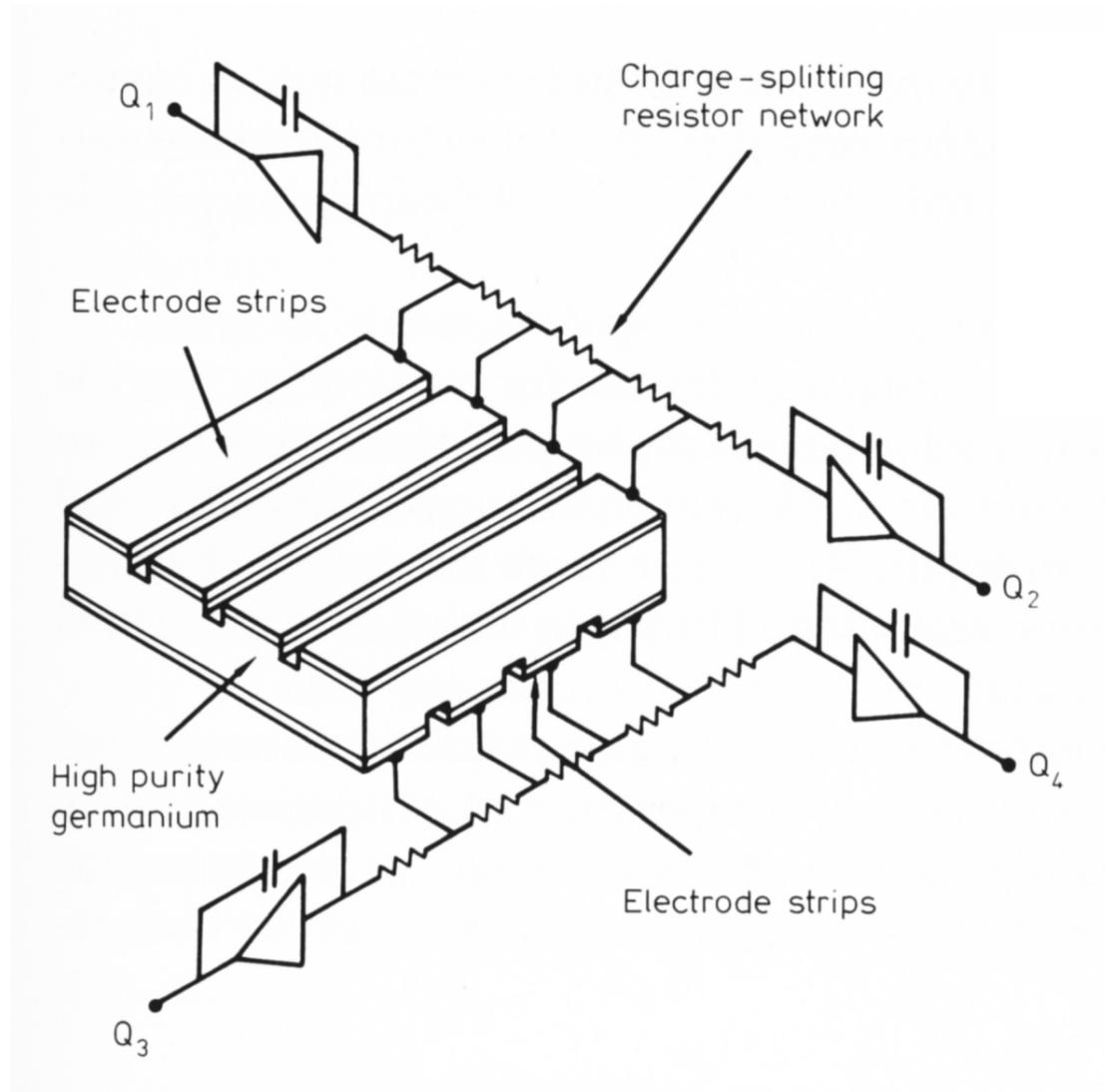
Si - Oberflächensperrschichtzähler



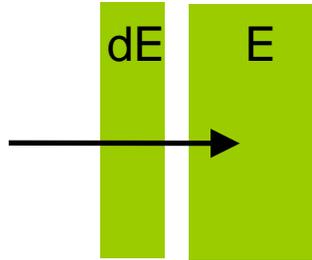
p-n-Kontakt



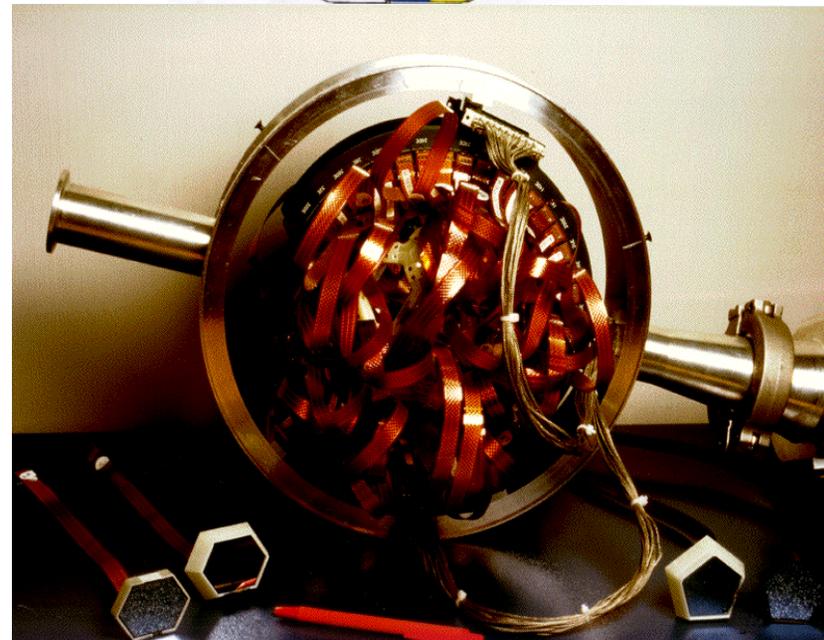
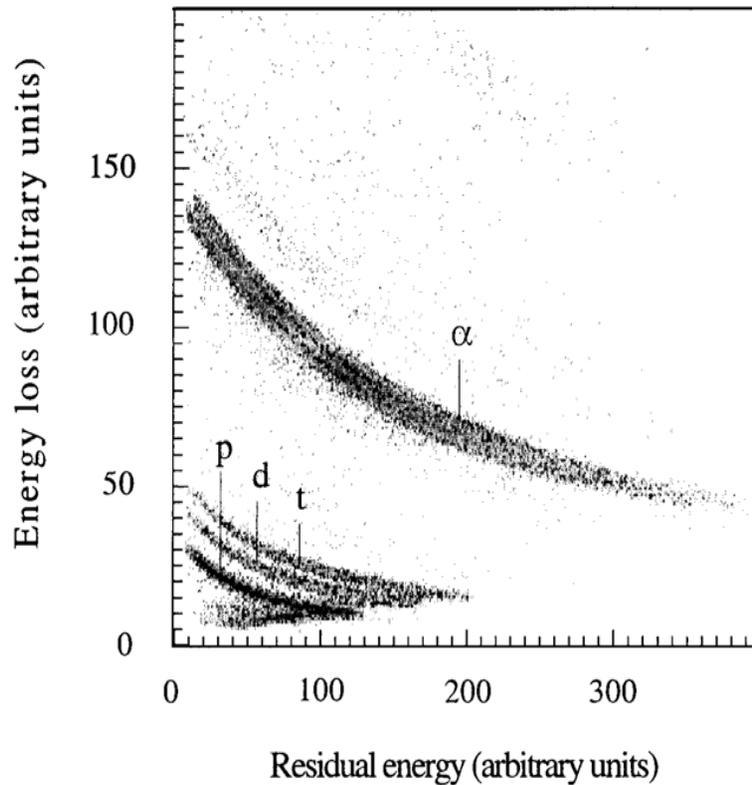
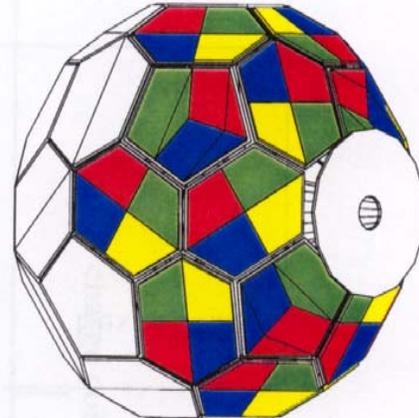
Positionsempfindliche Halbleiterzähler



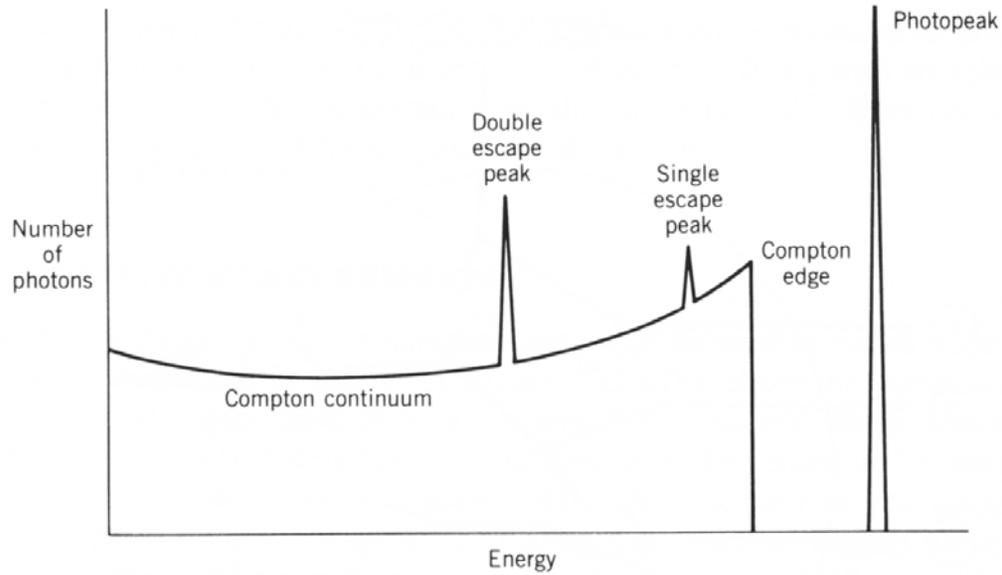
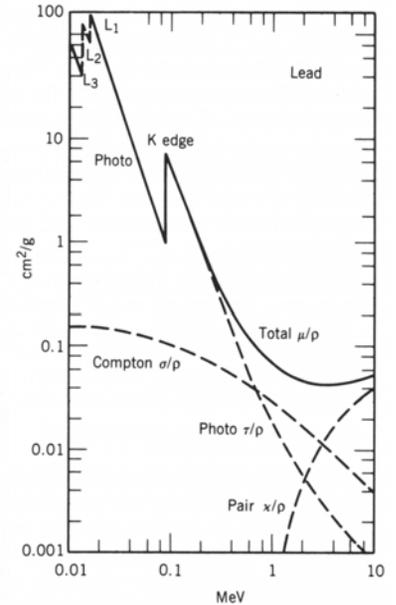
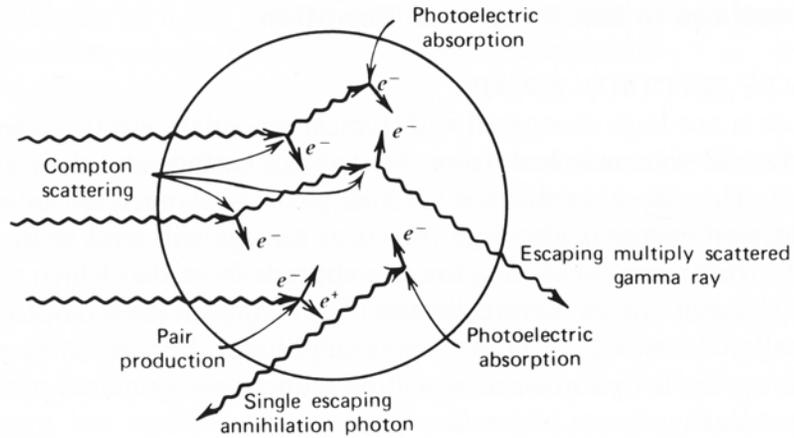
Teilchenidentifikation mit dE/dx



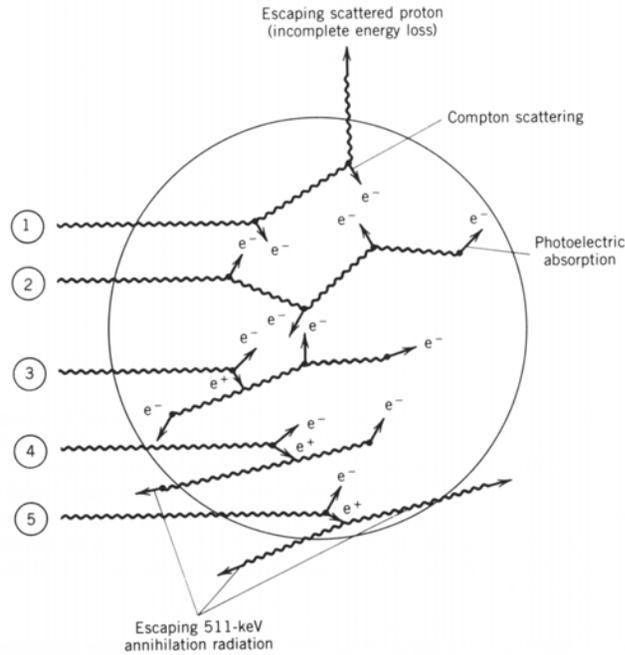
$$\frac{dE}{dx} \propto \frac{mZ^2}{E}$$



Gamma-Spektren 1

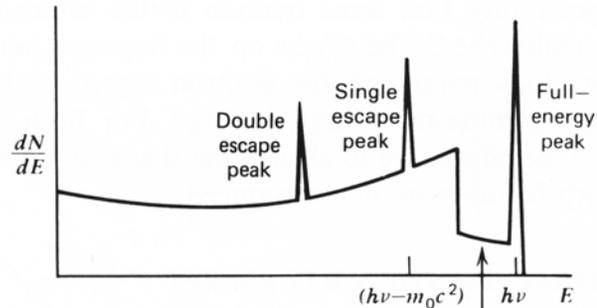
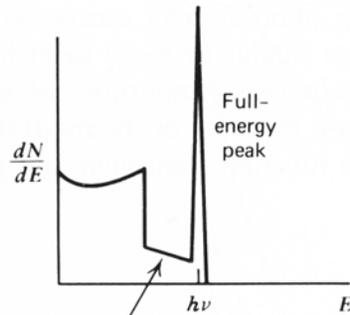


Gamma-Spektren 2

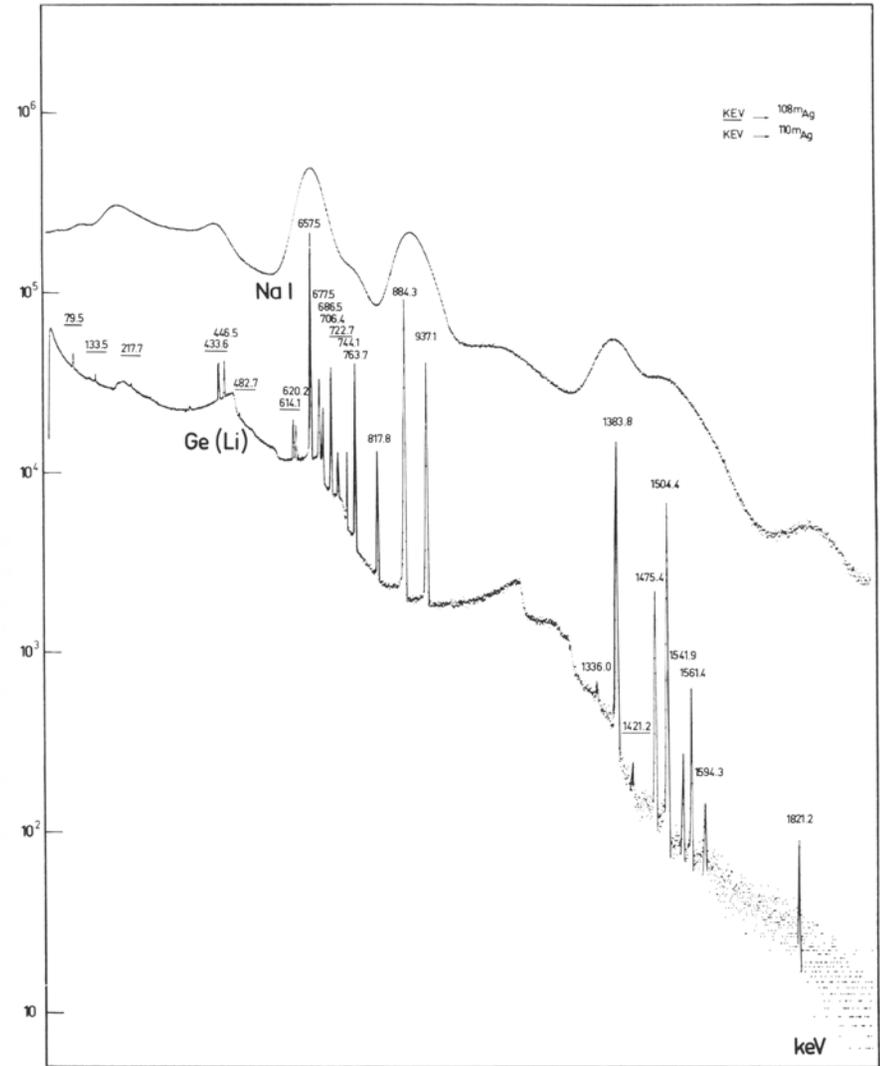
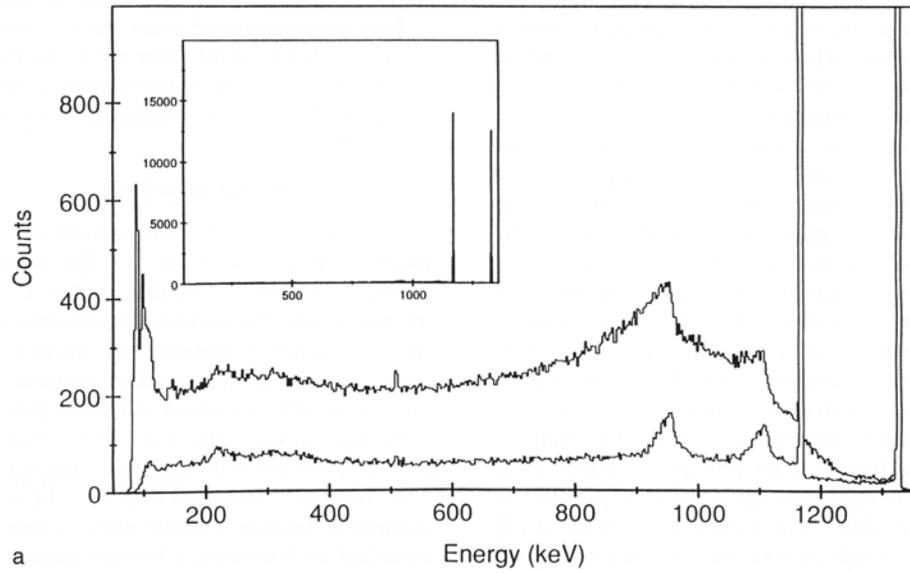
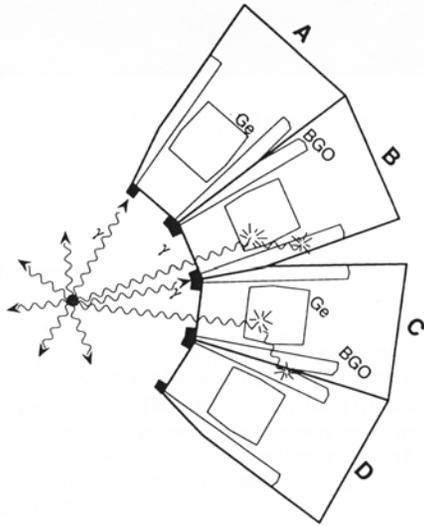


$$h\nu < 2m_0c^2$$

$$h\nu \gg 2m_0c^2$$



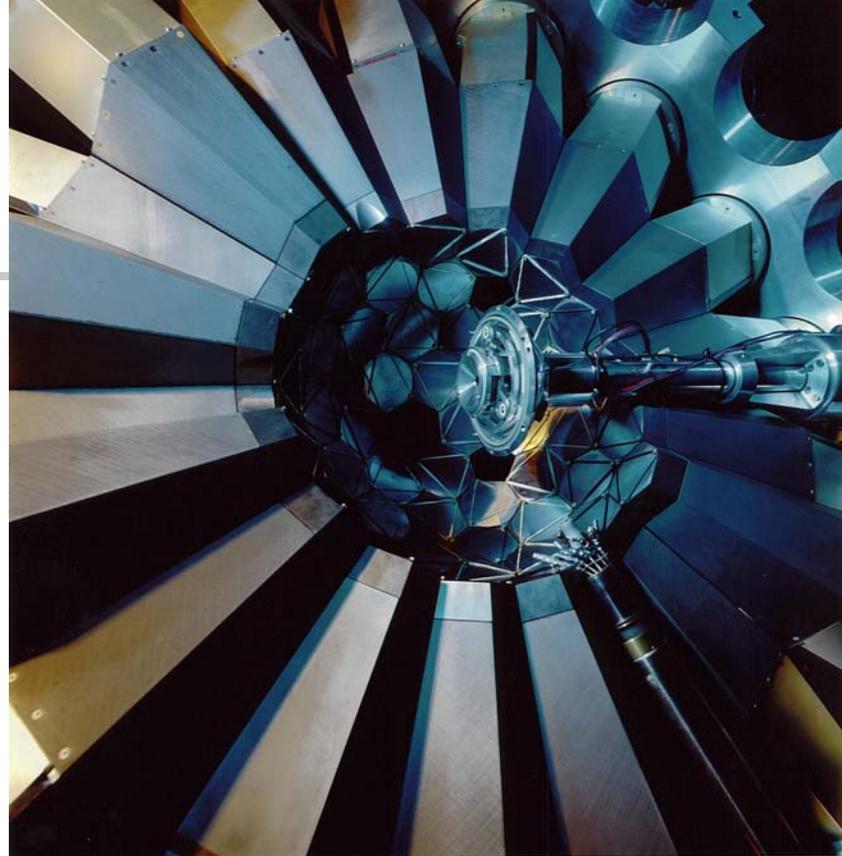
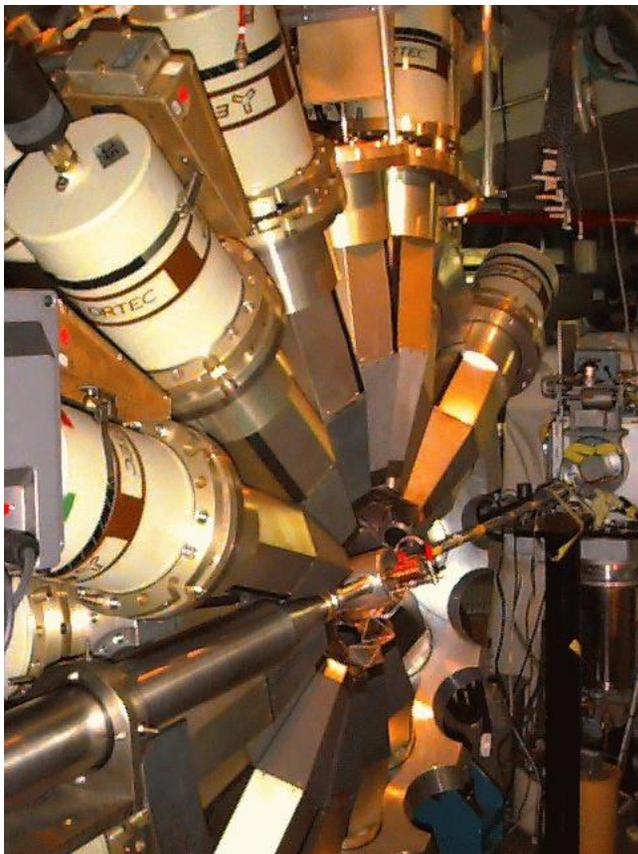
Gamma-Spektren



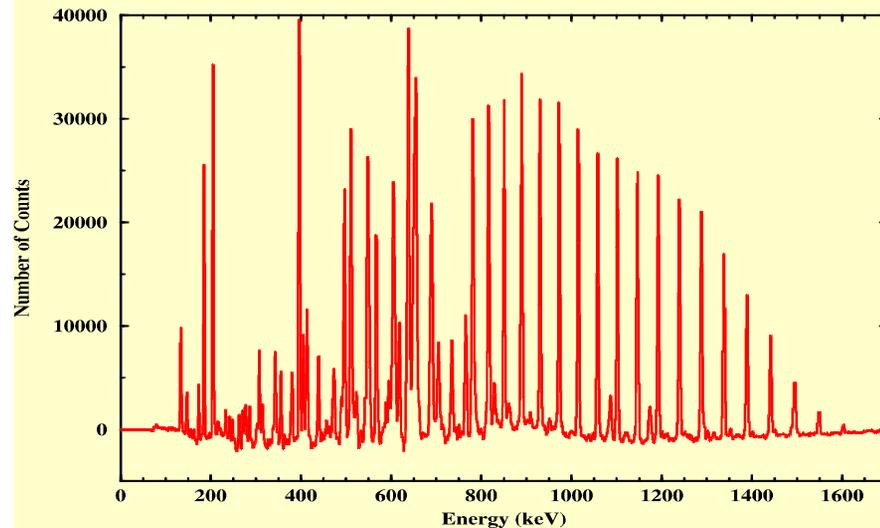
Schema moderner Gammaskpektrometer



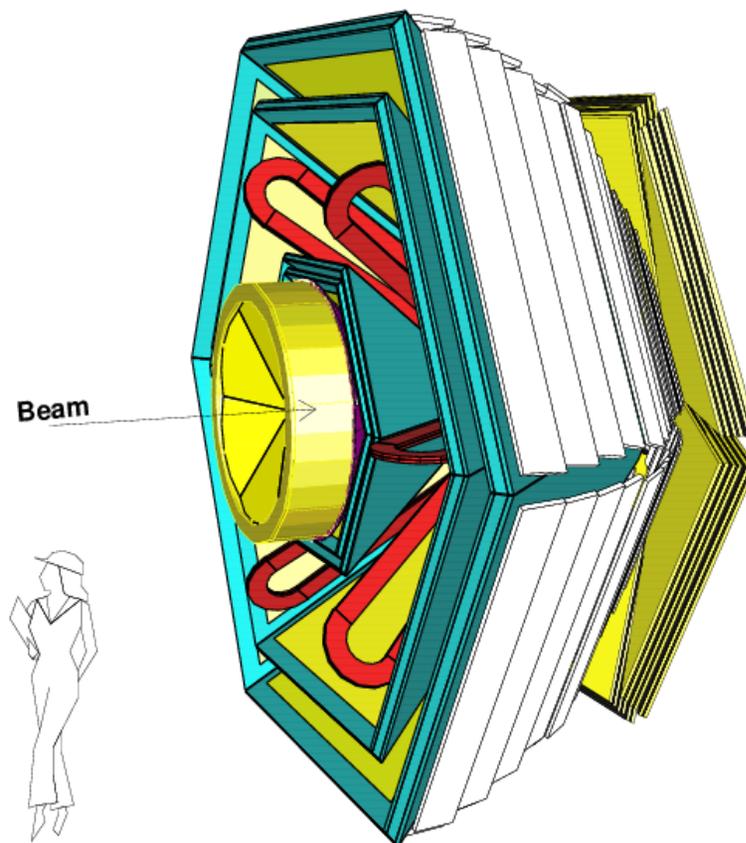
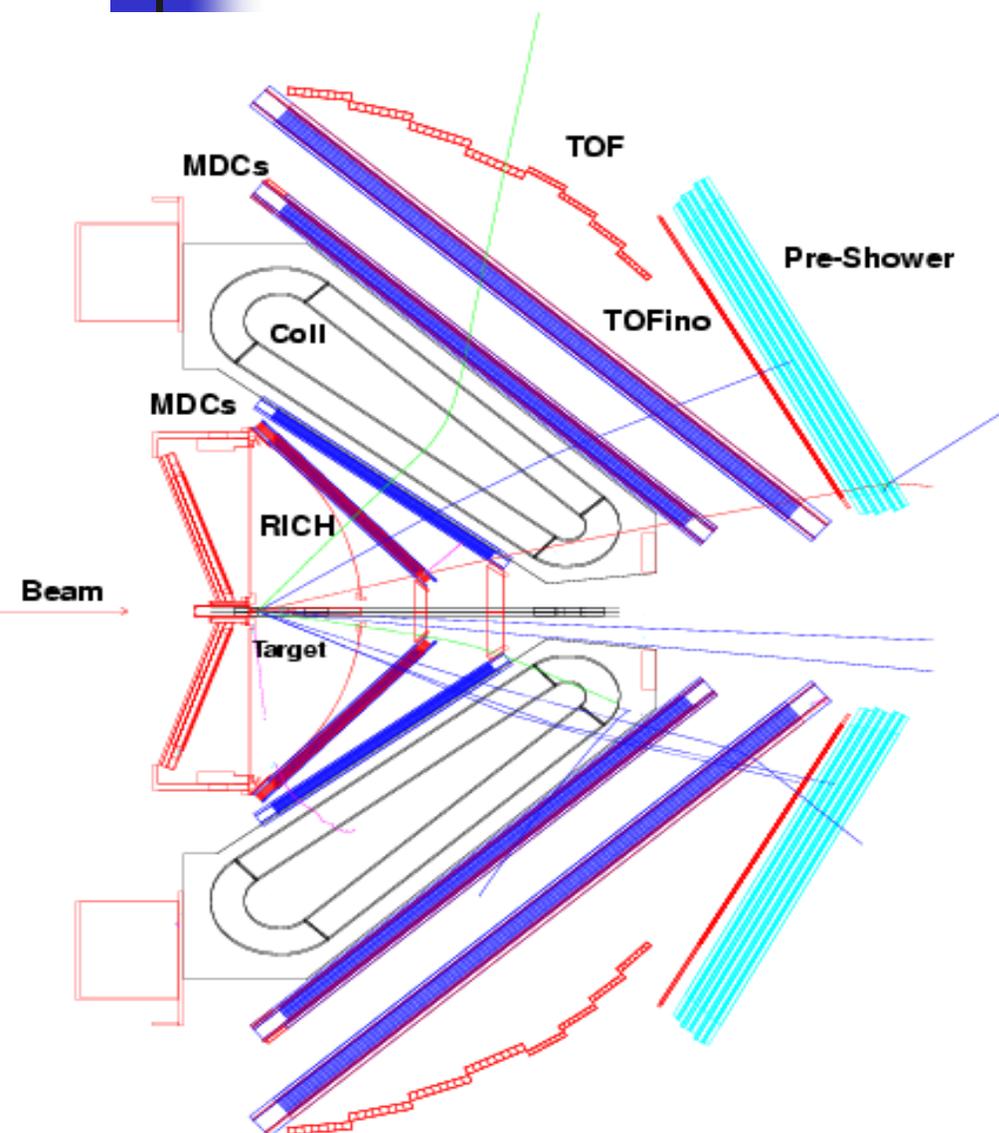
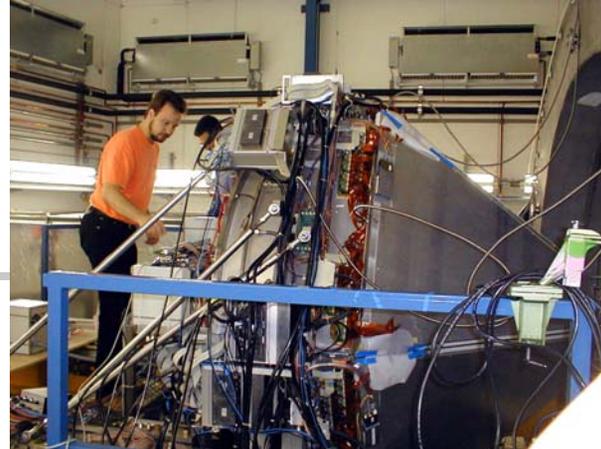
GammaSphere



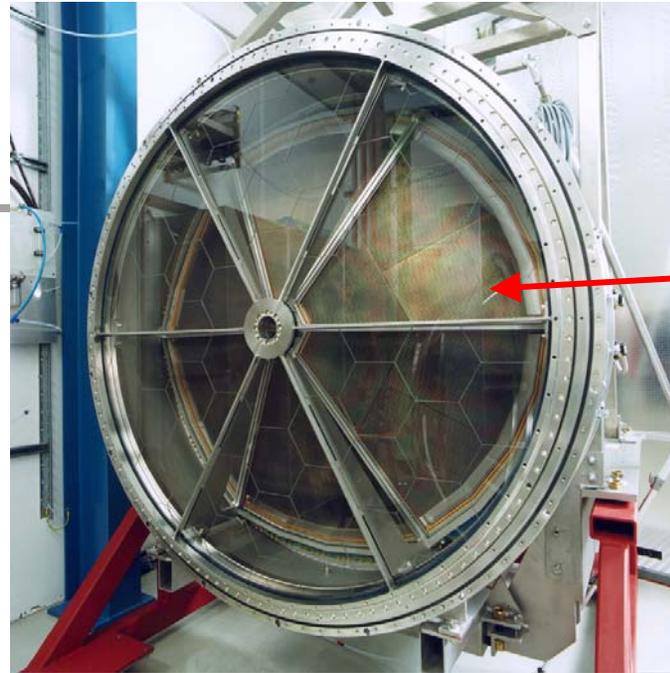
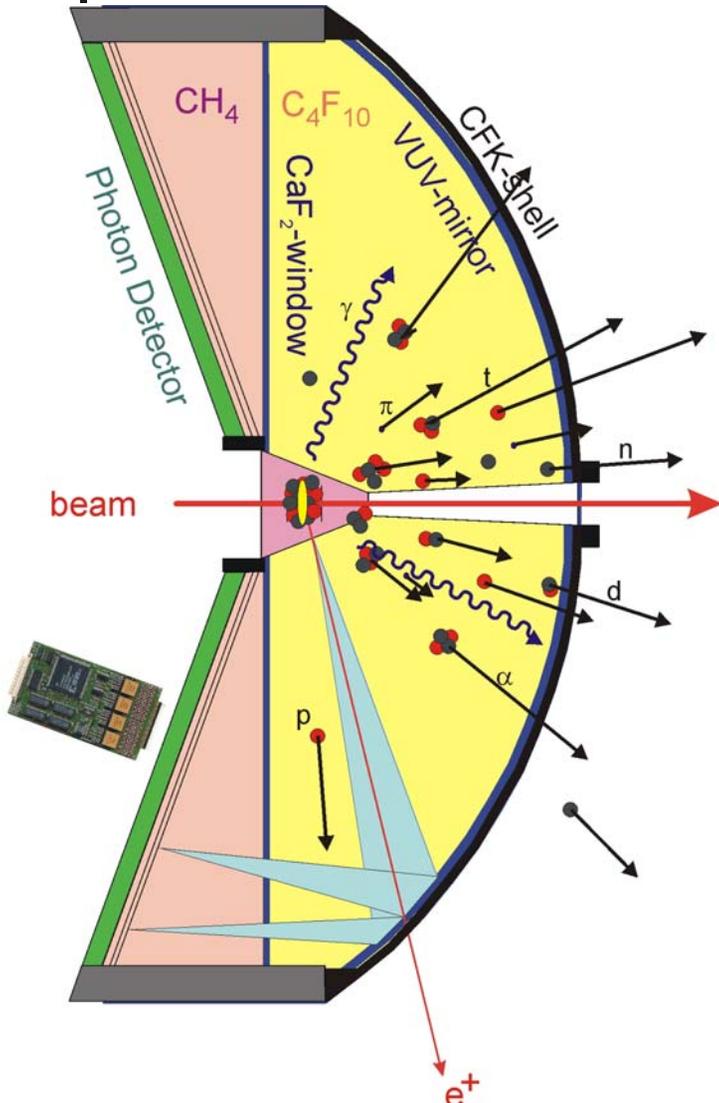
Gamma-ray from SD and ND 150Gd



HADES an der GSI

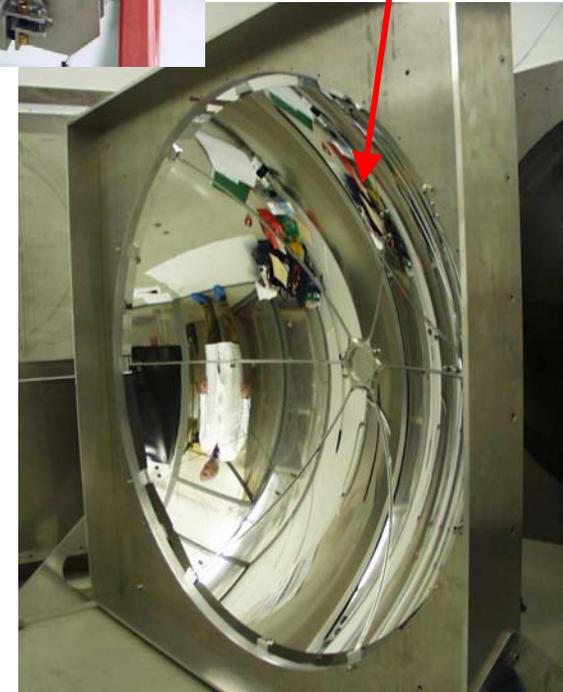


HADES RICH



CaF₂ Fenster

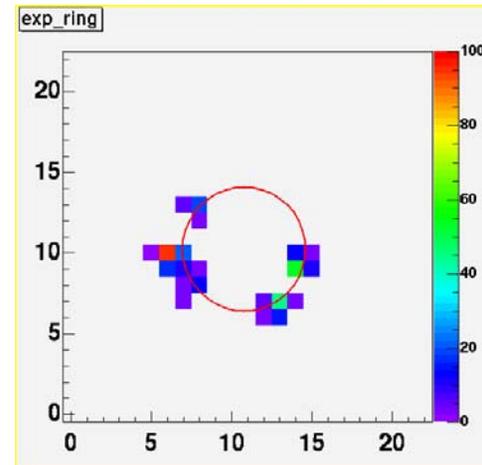
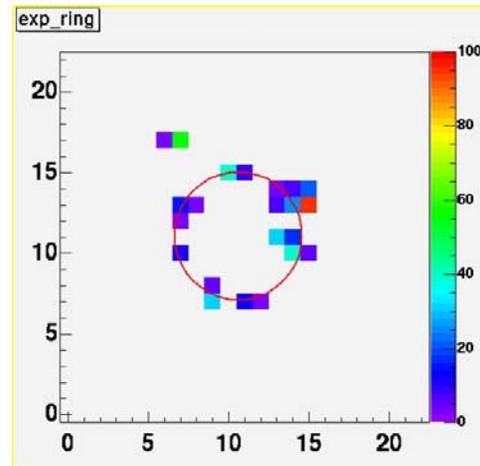
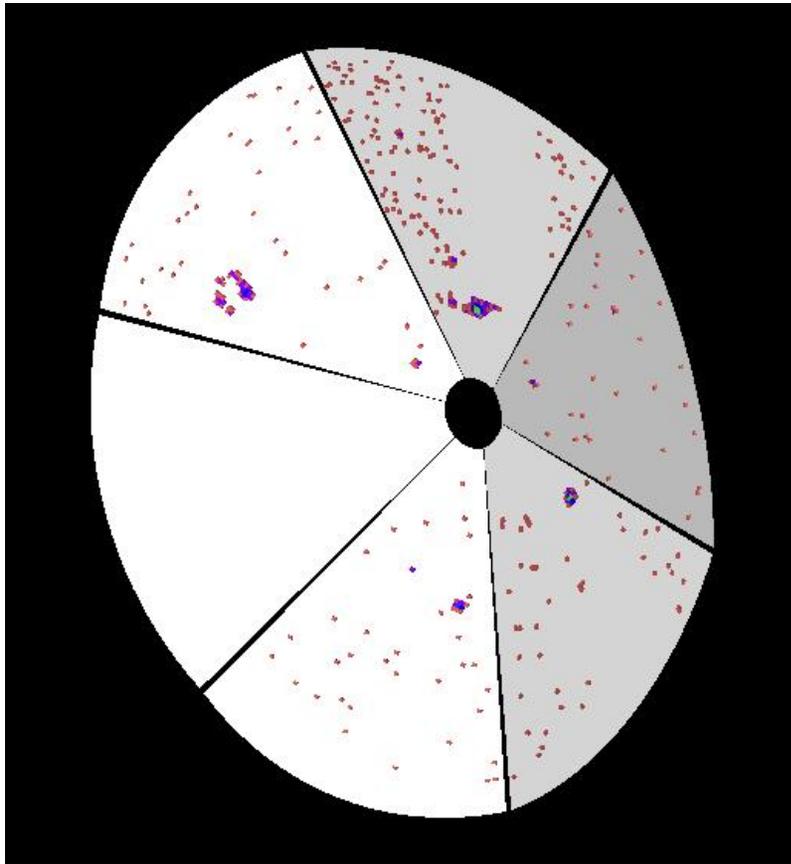
VUV Spiegel



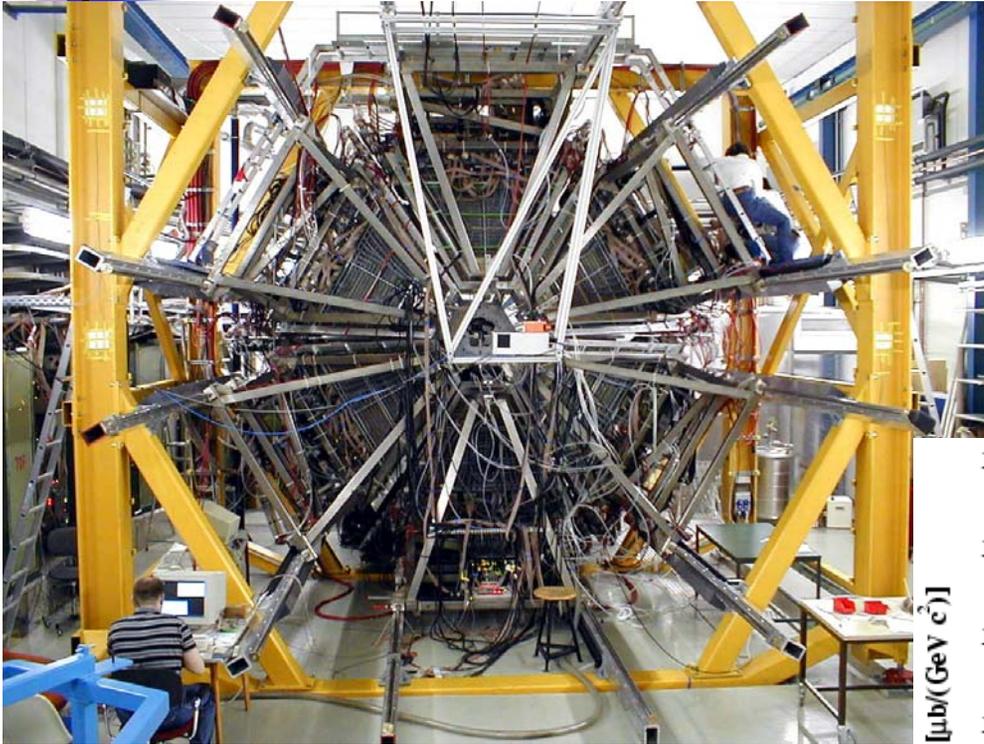
Photon Detector :

- CH₄ MWPC
- CsI Kathode
- 28.600 Pads
- 10 μ s Ereignisrate

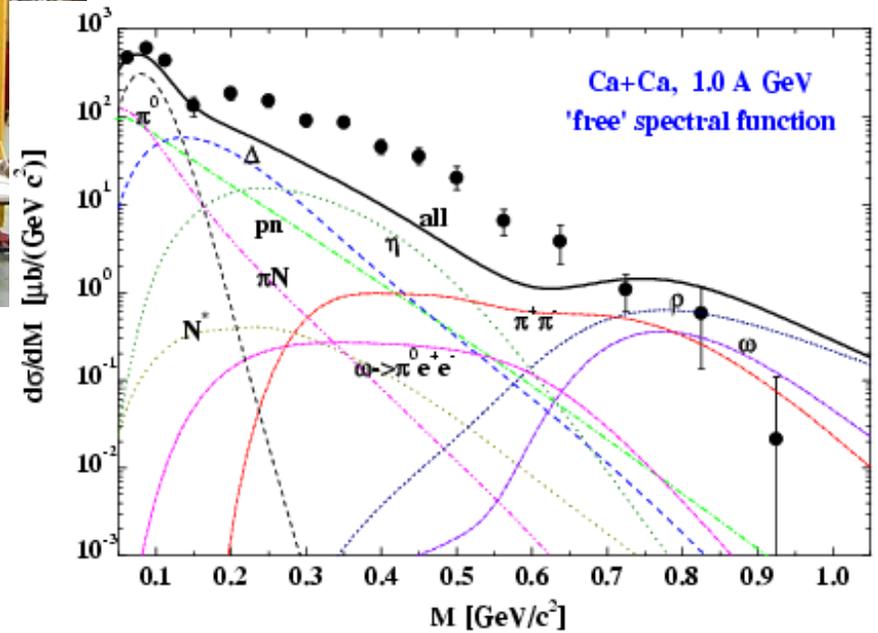
HADES-RICH Ereignis



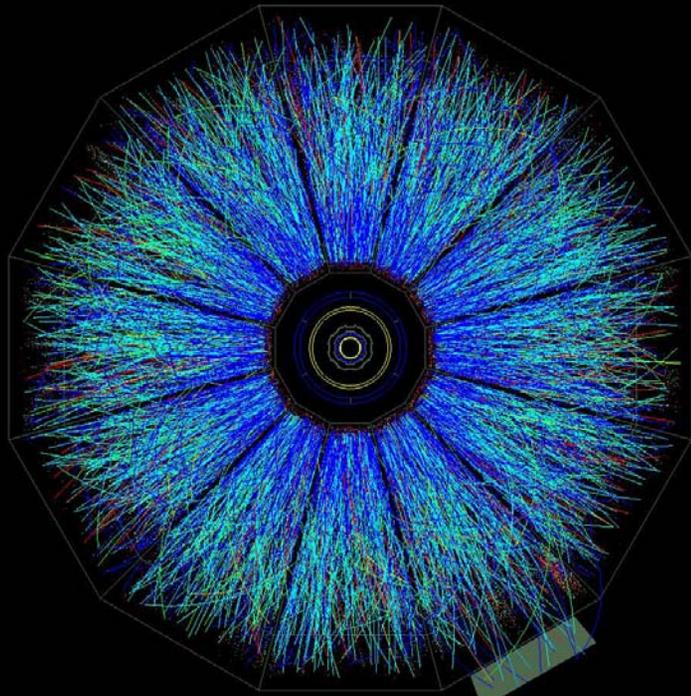
HADES



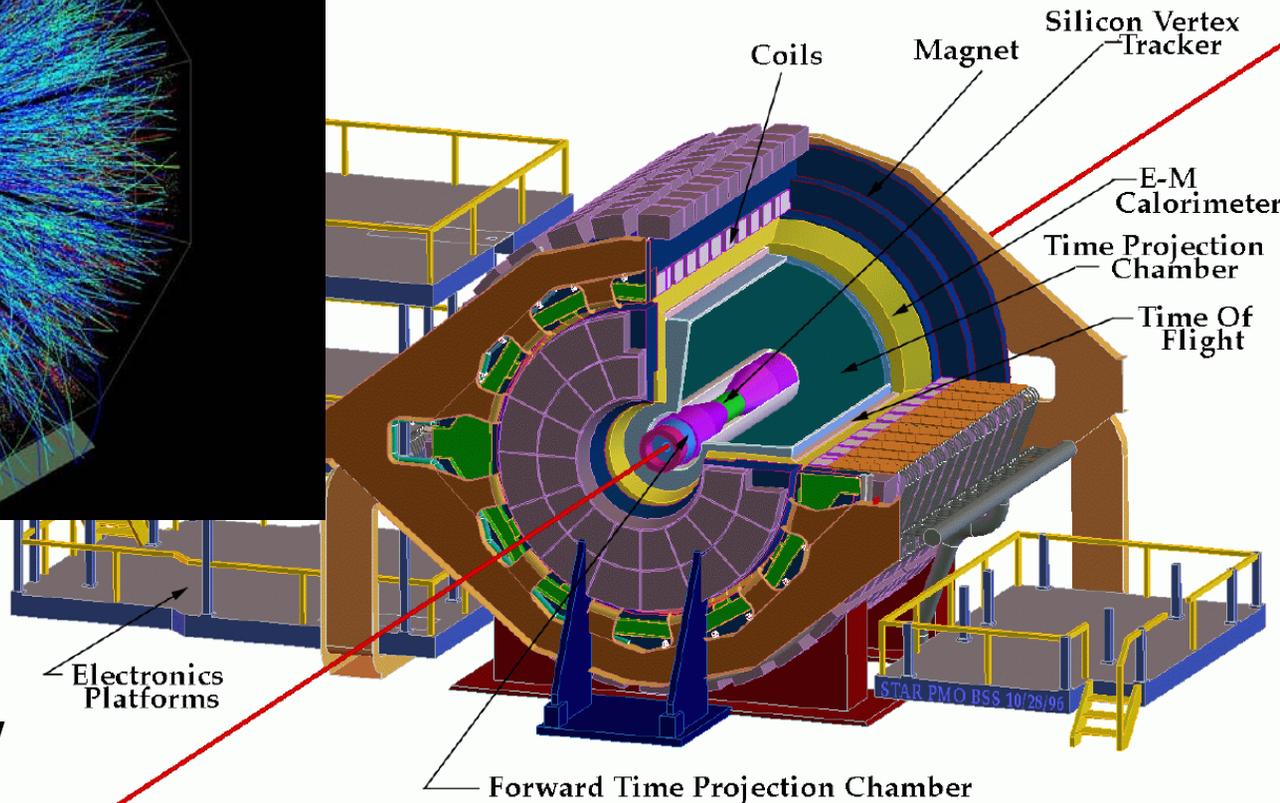
Massenspektrum



STAR am RHIC (Quark-Gluon Plasma)

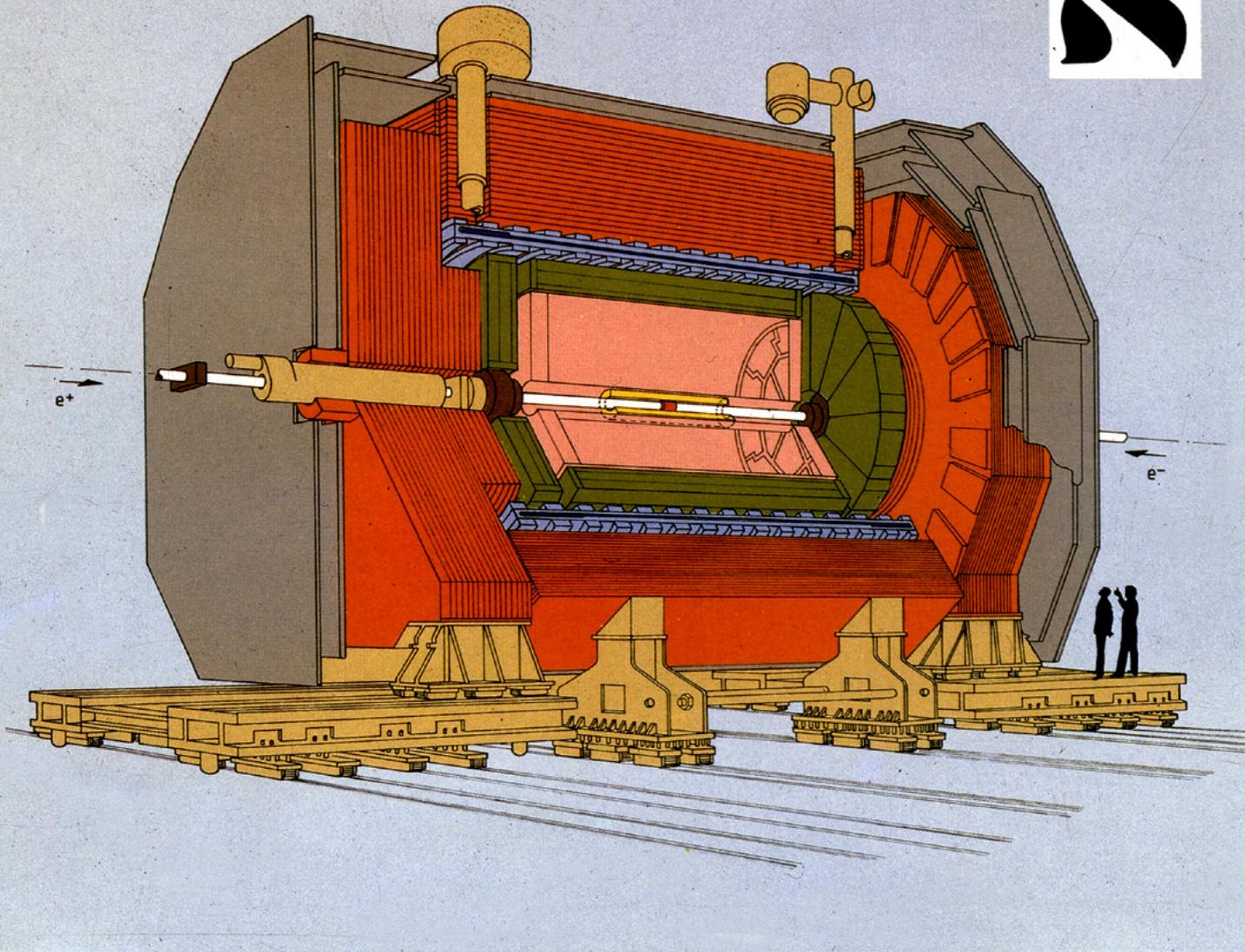


STAR Detector



Au+Au bei 100 A GeV

Entdeckung des Z^0 Bosons



-  Vertex Detector
-  Inner Track Chamber
-  Time Projection Chamber
-  Electromagnetic Calorimeter
-  Superconducting Magnet Coil
-  Hadron Calorimeter
-  Muon Detection Chambers
-  Luminosity Monitors

Fig. 1 - The ALEPH Detector

