Klausuren:
Modul 1 - Mittwoch 2. Dezember 9:15 – 10:45
Gruppen 1-4 Gr. Hoersaal Phys. Inst
Gruppen 5-10 Otto Haxel Hoersaal KIP

Modul 2 - Mittwoch 3. Februar 9:15 - 10:45

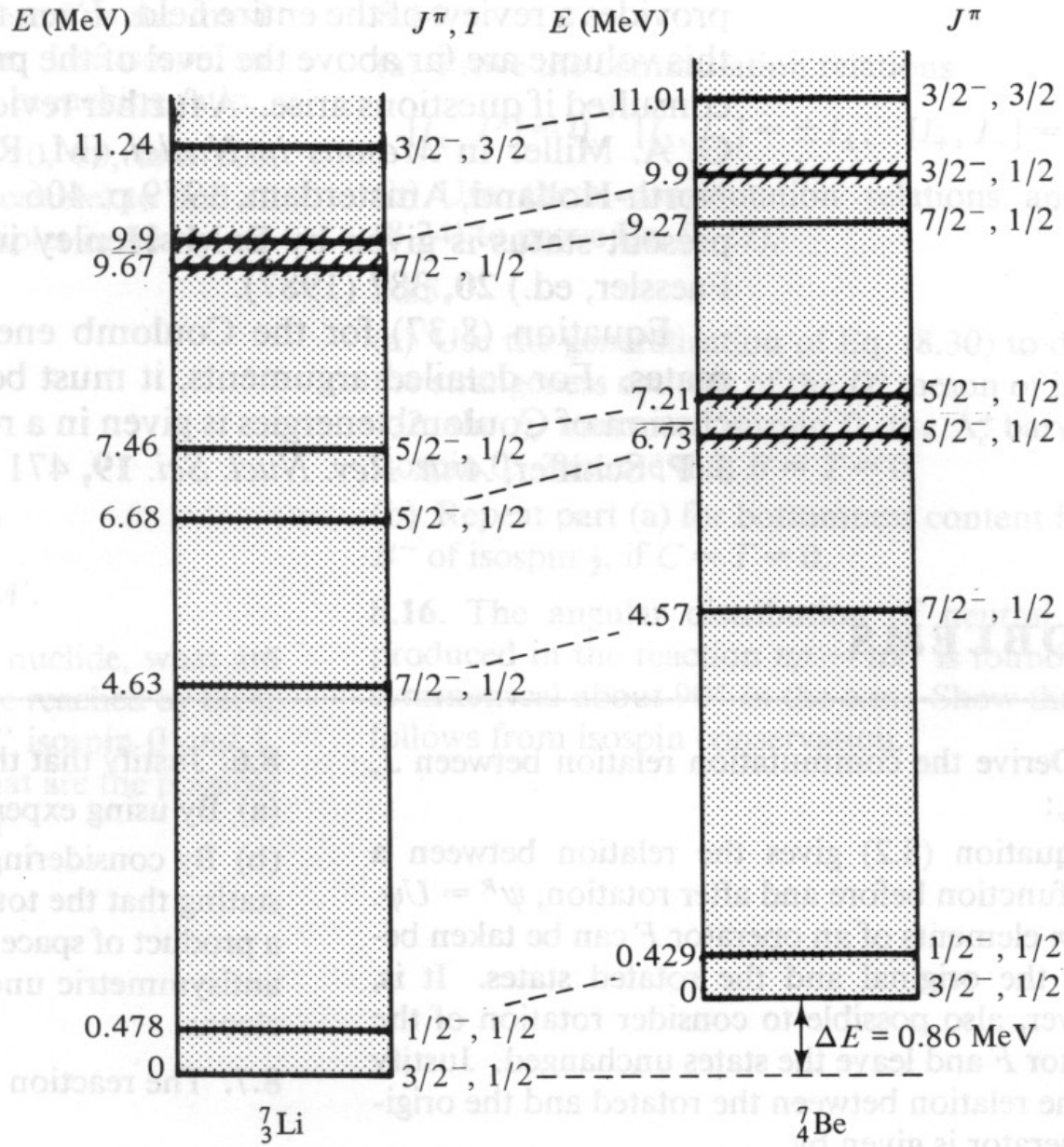


Fig. 8.6. Level structure in the two isobars ^{7}Li and ^{7}Be. These two nuclides contain the same number of nucleons; apart from electromagnetic effect, their level schemes should be identical. J^π denotes spin and parity of a level, I its isospin. Parity will be discussed in Chapter 9. [For reference see F. Ajzenberg-Selove, *Nucl. Phys.* **A490**, 1 (1988).]

Fig. 4-1

$$E_{IA}(Z+1) = E_{IA}(Z) + \Delta E_c - (m_n - m_H)c^2, \tag{10-8}$$

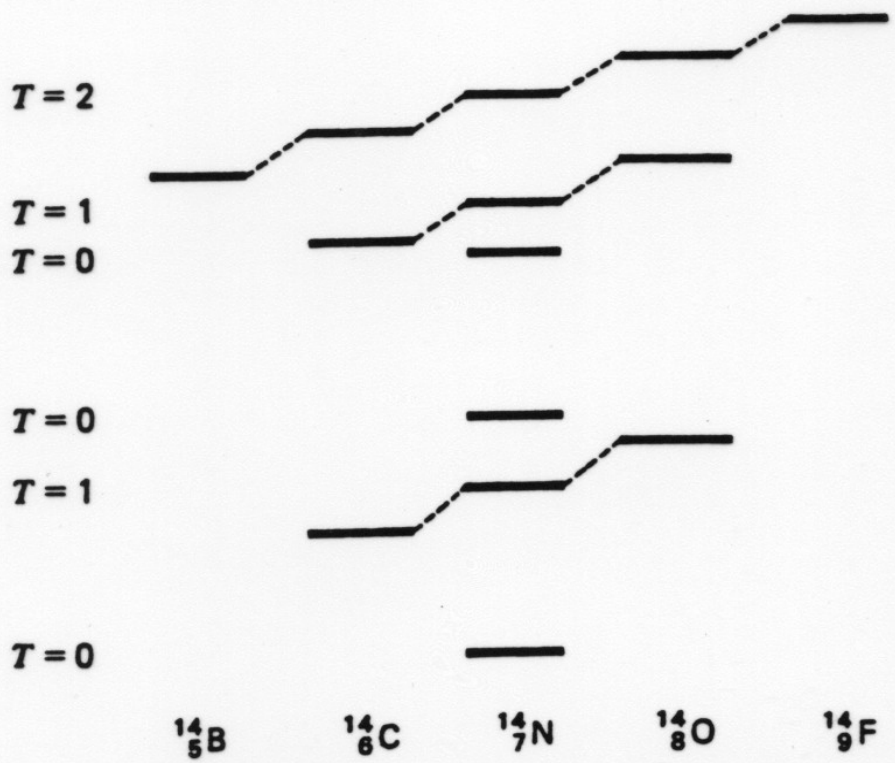
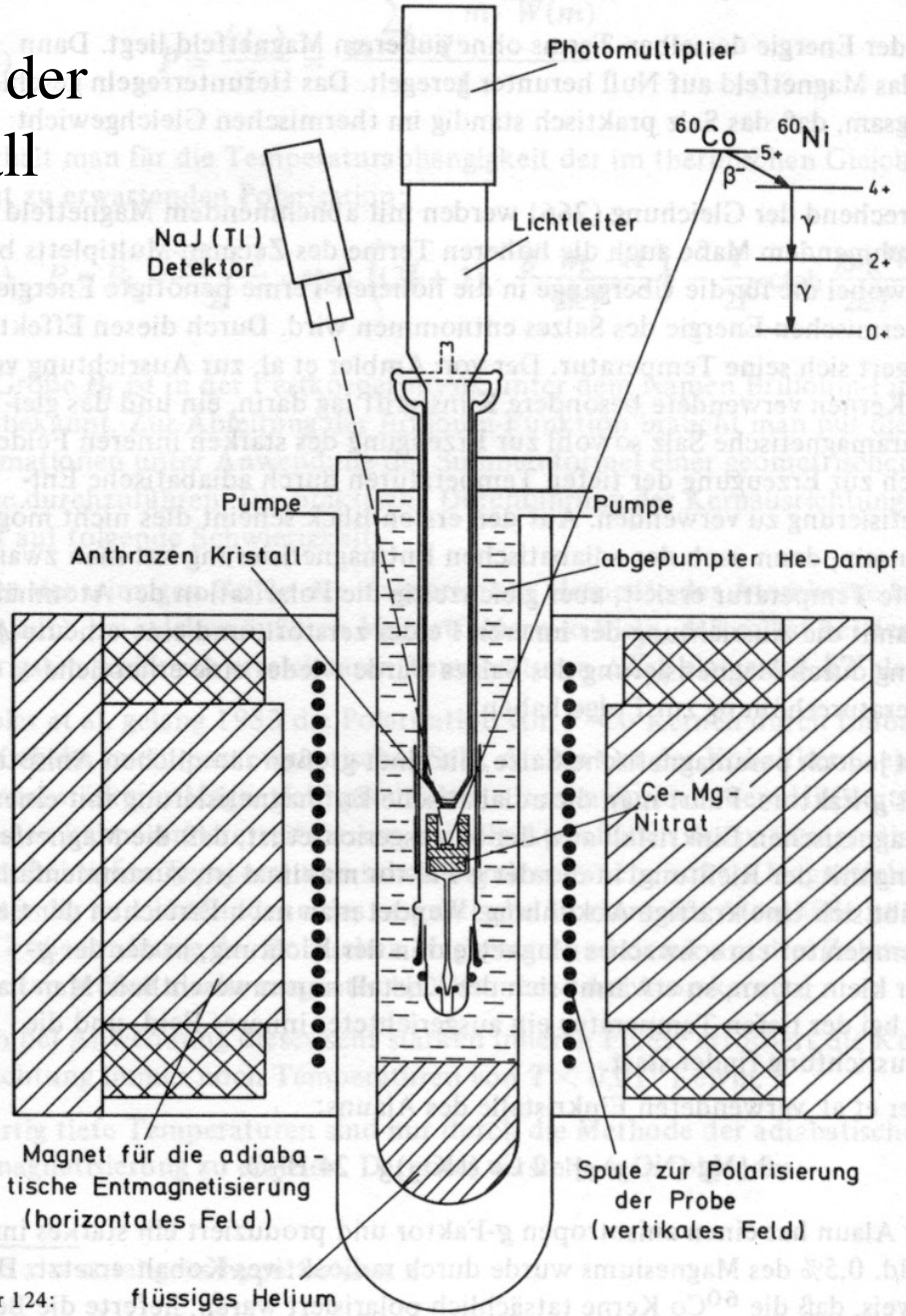


Fig. 10-2 Isobaric analog states in $A = 14$ nuclei. States are classified according to the T quantum numbers. [Adapted from *Concepts of Nuclear Physics* by B. L. Cohen. Copyright © 1971 by McGraw Hill, Inc. Used with the permission of McGraw Hill Book Company.]

$T_{min} = T_z =$	2	1	0	1	2
$T_{max} =$	7	7	7	7	7

Fig. 4-2

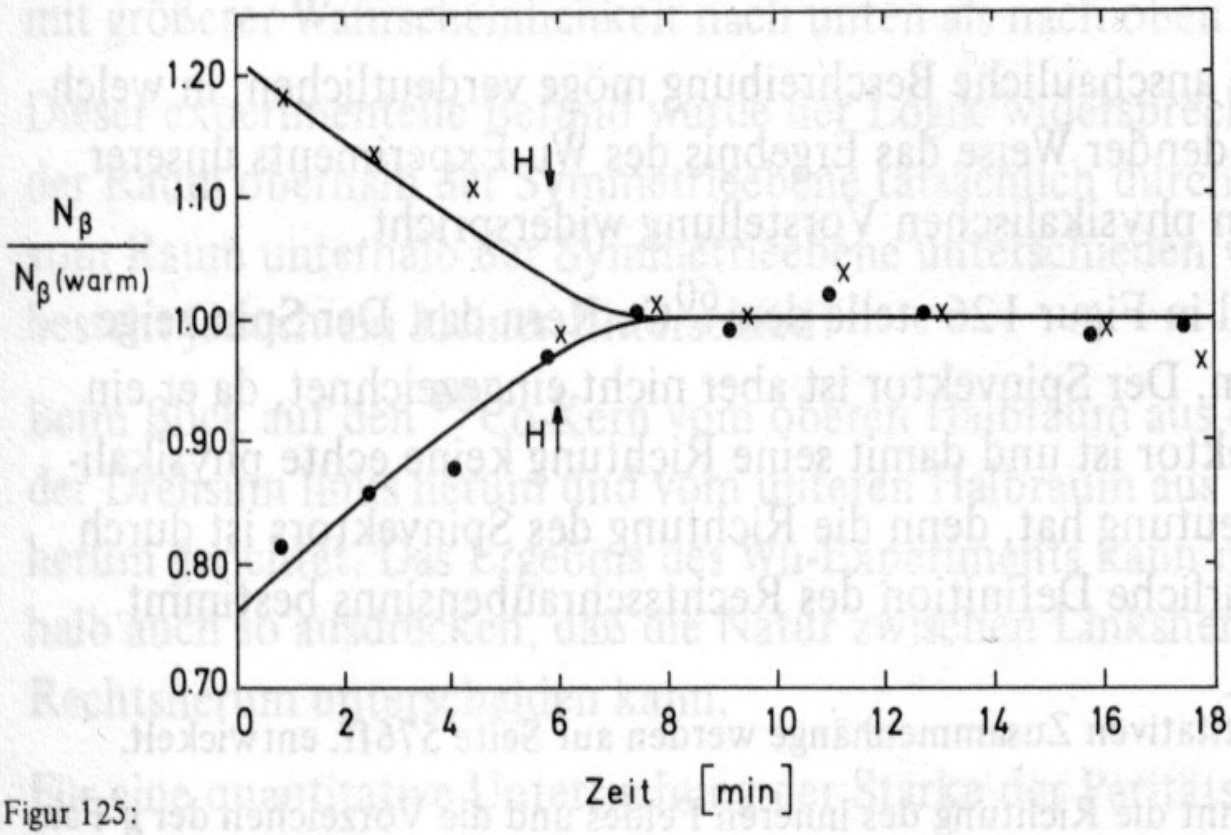
Wu Experiment zur Entdeckung der Paritätsverletzung im Beta-Zerfall



Figur 124:

Anordnung von Wu et al., Phys.Rev. 105, 1413 (1957) zur Beobachtung der Paritätsverletzung beim Beta-Zerfall.

Fig. 4-3

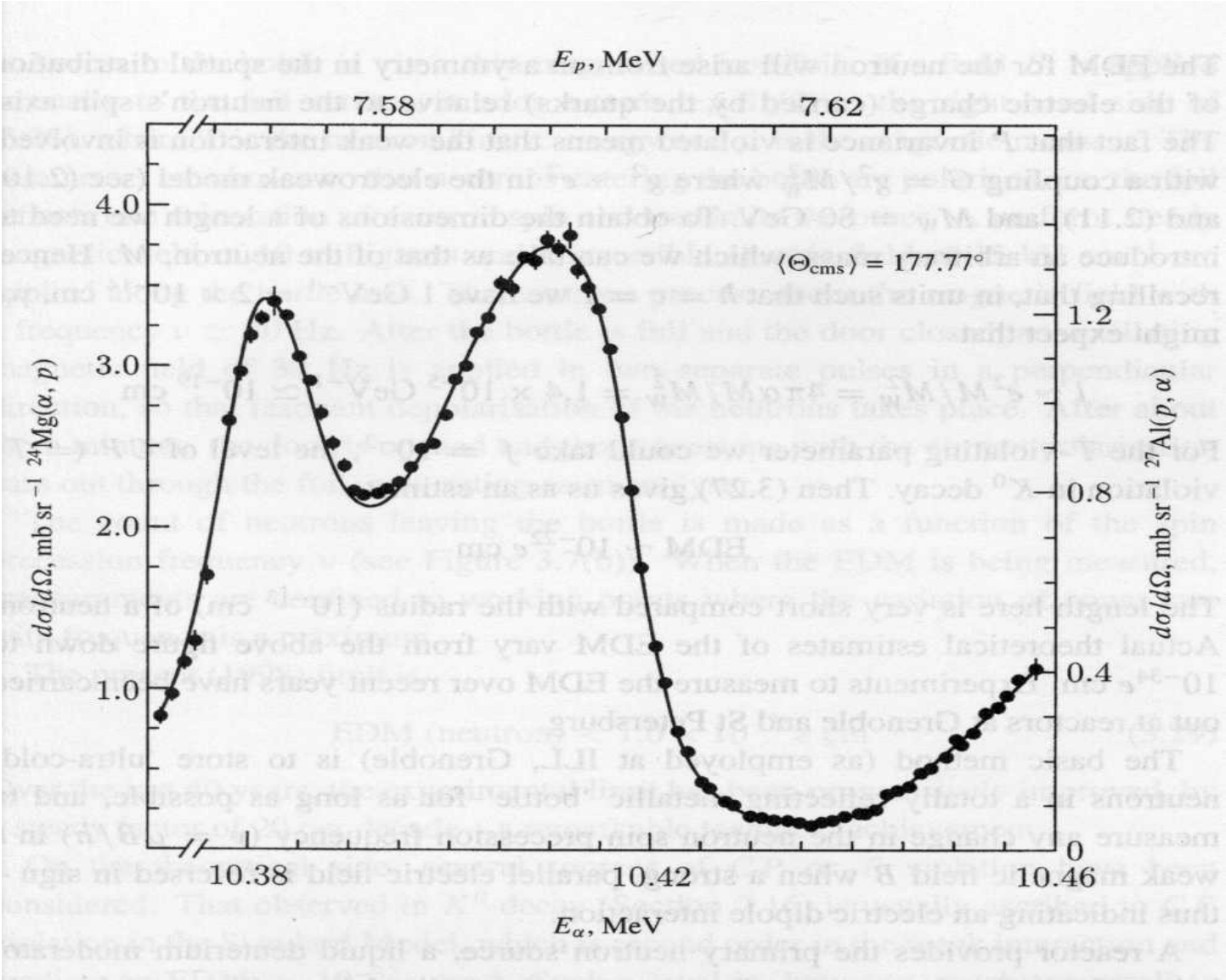


Figur 125:

Beobachtete Beta-Zählrate als Funktion der Zeit in der Anordnung der Figur 111. Diese Meßkurve ist der Arbeit von Wu et al., Phys.Rev. 105, 1413 (1957) entnommen.

Fig. 4-4

Test für Zeitumkehrinvarianz in der starken Wechselwirkung:
Wirkungsquerschnitt für reversible Reaktion $p +^{27} Al \leftrightarrow \alpha +^{24} Mg$



Blanke et al, 1983

Amplitude für Verletzung von T-Invarianz < 5 10^{-4}

Fig. 4-5