

Eötvös Experiment zum Vergleich von gravitativer und träger Masse

ONE HUNDRED YEARS OF THE EÖTVÖS EXPERIMENT*

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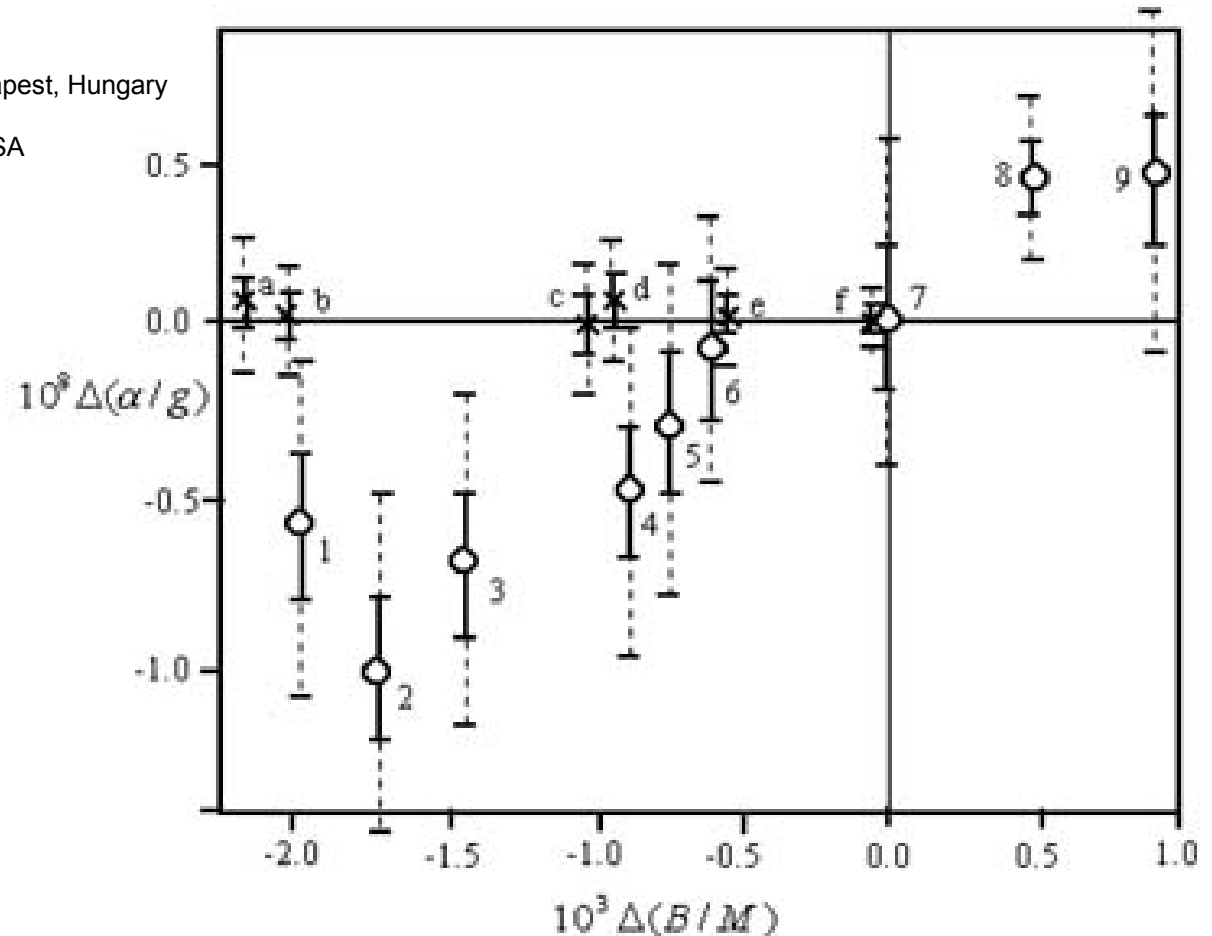
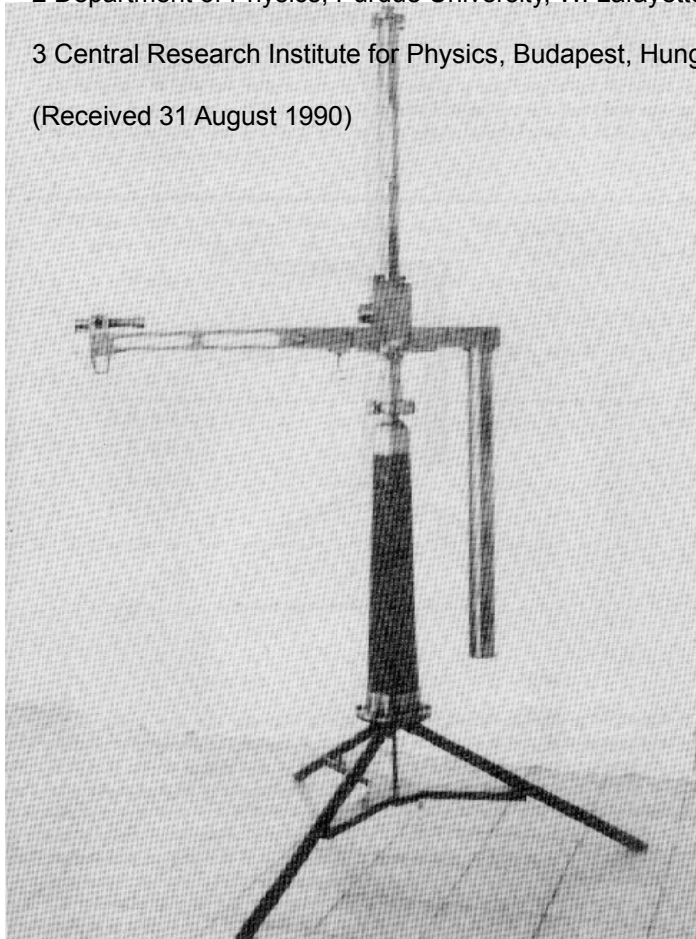
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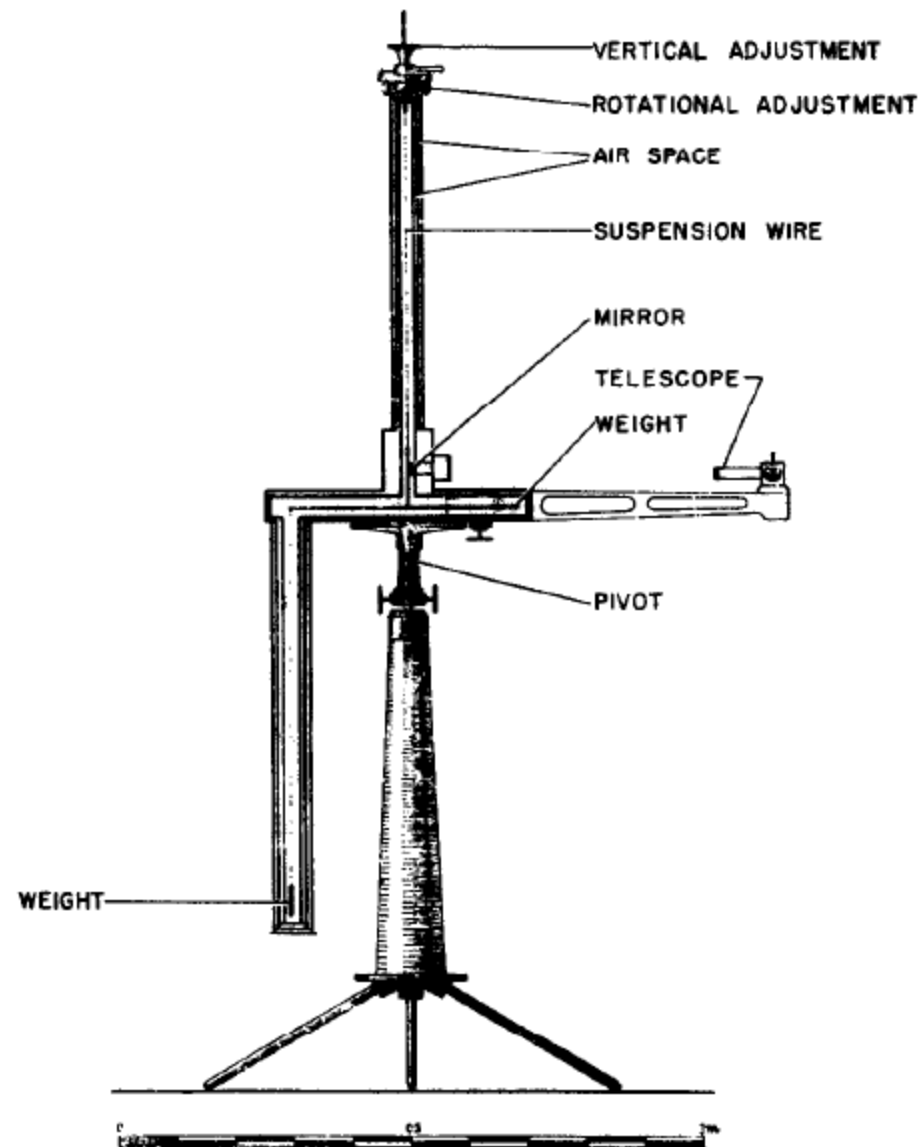
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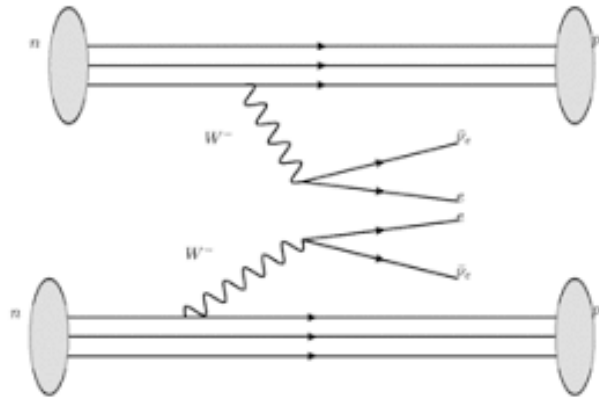
Eötvös, Pekar, Fekete, 1906-1909: 1-9, jeweils verschiedene Materialien im Vergleich, z.B. 1 Talk-Cu ... 9 Cu-Pt und Renner (student of Eötvös) 15 Jahre später: a-f

Fig. 8-1a

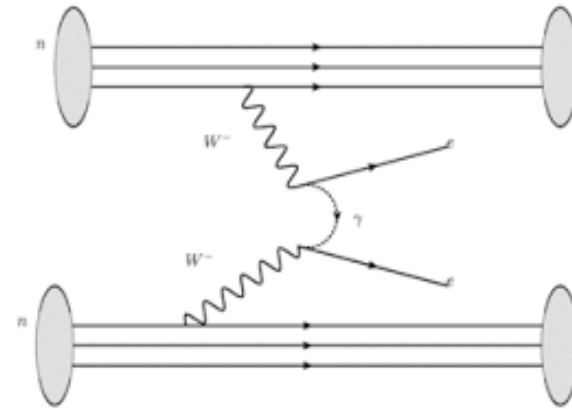


Doppelter beta-Zerfall

2-Neutrino Zerfall



0-Neutrino Zerfall



beta-Spektrum

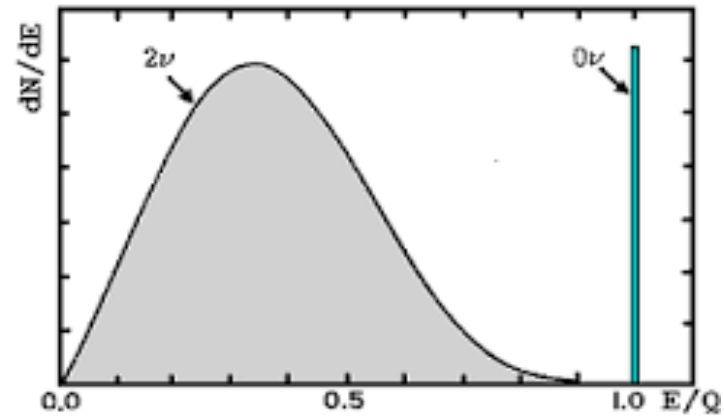
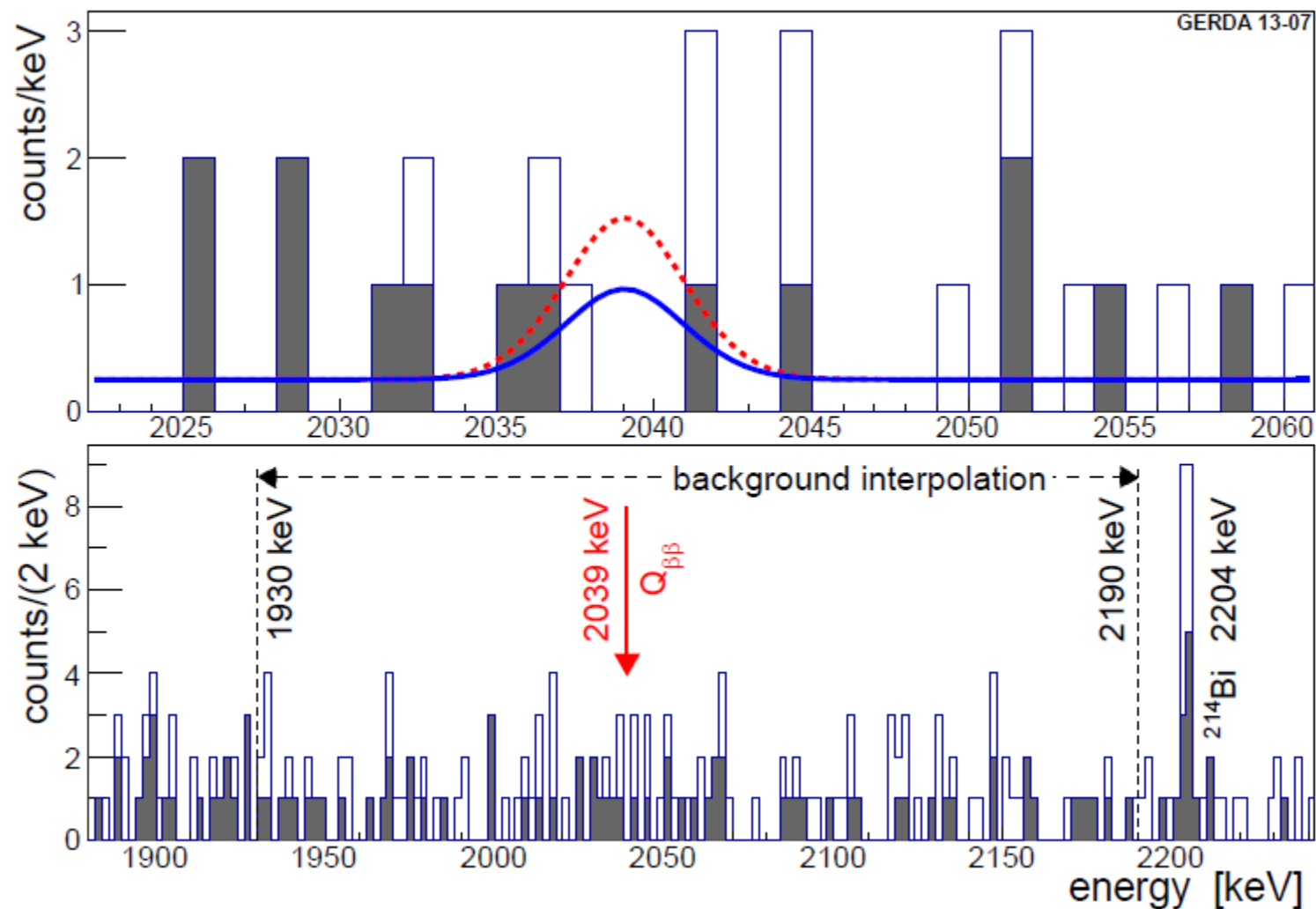


Fig. 8-1b

Suche nach neutrinolosem doppeltem beta-Zerfall

blau: bester Fit
rot: $T_{1/2} = 1.19 \cdot 10^{25} \text{ y}$
(Klapdor-Kleingrothaus et al. 2004)

offen/voll: mit und
ohne
Pulsformdiskriminierung



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Fig. 8-1

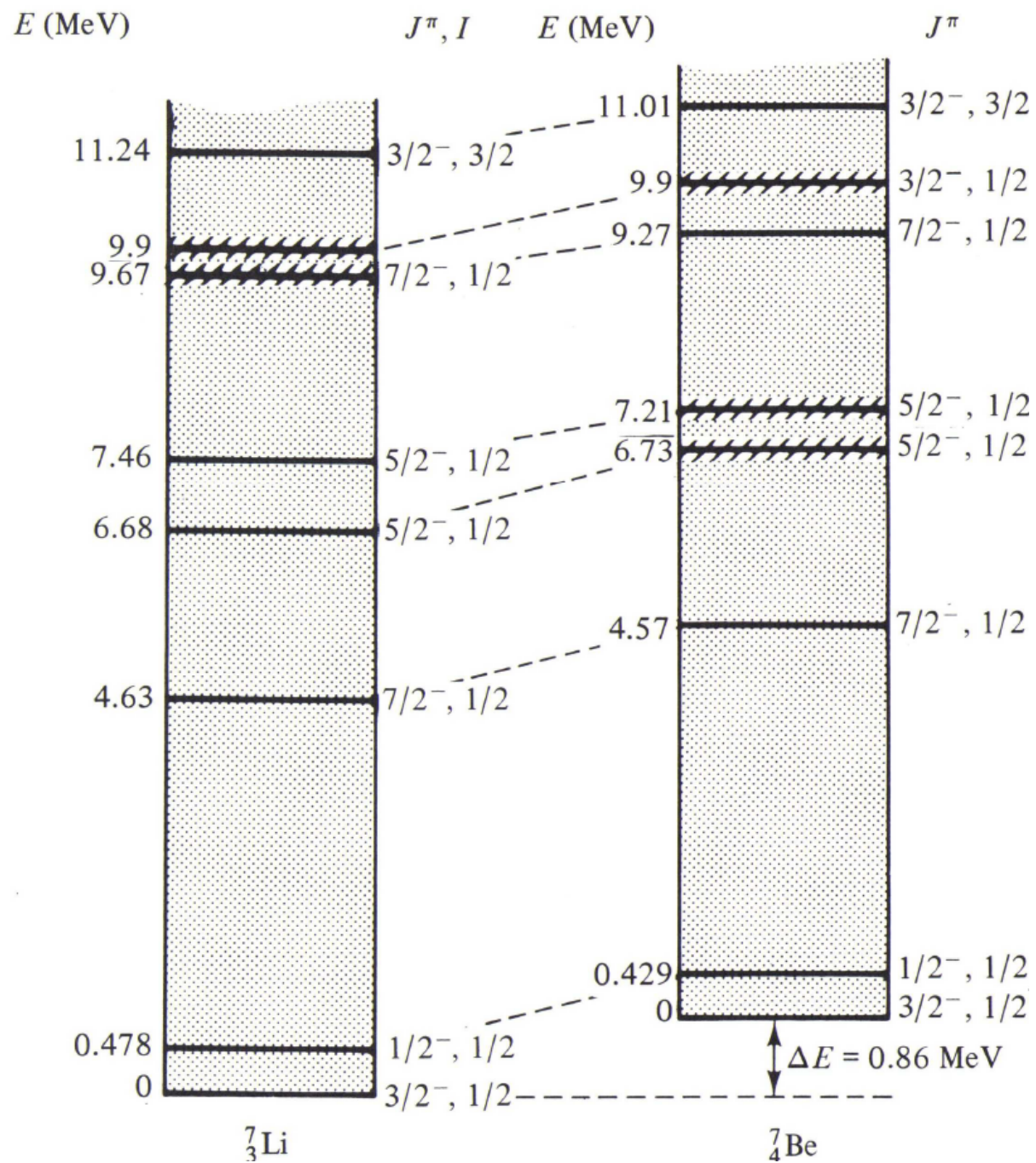


Fig. 8-2

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

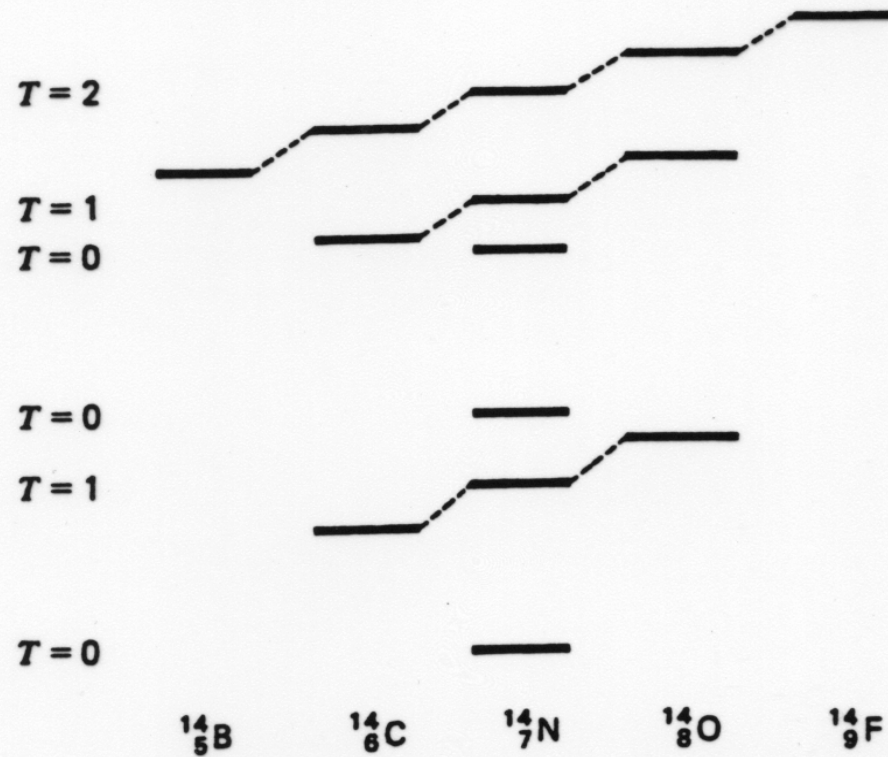


Fig. 10-2 Isobaric analog states in $A = 14$ nuclei. States are classified according to the T quantum numbers. [Adapted from *Concepts of Nuclear Physics* by B. L. Cohen. Copyright © 1971 by McGraw Hill, Inc. Used with the permission of McGraw Hill Book Company.]

$$T_{\min} = T_z =$$

$$T_{\max} =$$

2	1	0	1	2
7	7	7	7	7

Fig. 8-3