

The structure of  $^{100}\text{Tc}$  and  $^{96}\text{Nb}$  from  $^{100}\text{Mo} (p,n)^{100}\text{Tc}$  and  $^{96}\text{Zr} (p,n)^{96}\text{Nb}$  reactions and the Parabolic rule

Z.Arvas, T.Fenyas, J.Gulyas, T.Kibedi  
E.Koltay, A.Krasznahorkay, S.Laszlo

Institute of Nuclear Research of the Hungarian Academy of Sciences,  
Debrecen, Hungary

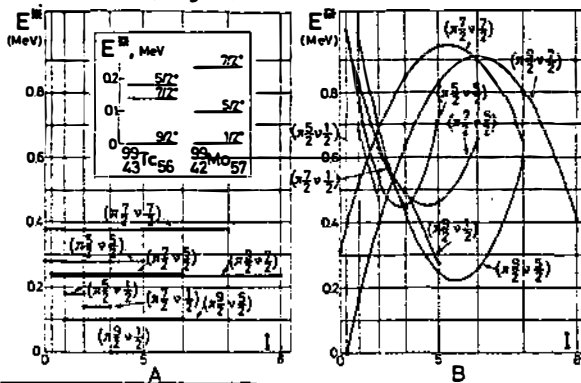
B.D.Kern

Department of Physics and Astronomy, University of Kentucky, 40506  
Lexington, USA

V.Paar, S.Brant, Z.Hloušek

Prirodoslovno-matematički fakultet, University of Zagreb, Zagreb,  
Yugoslavia

The  $\gamma$ - spectra and excitation functions of the  $(p,n)$  reactions were measured (in the proton energy range 1.2 - 3.6 MeV for  $^{100}\text{Tc}$ , and 1.3 - 5.1 MeV for  $^{96}\text{Nb}$ ). On the basis of experimental results level schemes of  $^{100}\text{Tc}$  and  $^{96}\text{Nb}$  were deduced and interpreted<sup>1,2)</sup> in terms of the parabolic rule<sup>3)</sup>. As an illustration, we present here the application of the zeroth-order classification (fig.A) and of the parabolic rule (fig.B) to the states of  $^{100}\text{Tc}$ .



1) Z.Arvas, T.Fenyas, J.Gulyas, T.Kibedi, E.Koltay, A.Krasznahorkay, S.Laszlo, V.Paar, S.Brant and Z.Hloušek, Z.Phys. 299 (1981)139

2) B.D.Kern, T.Fenyas, S.Brant and V.Paar, Nucl.Phys. to be published

3) V.Paar, Nucl.Phys. A331 (1979)16; V.Paar, Fizika 11 (1979)209; S.Brant and V.Paar, to be published