

Nilsson States and Rotational Bands in Odd Nuclei from  
Coupling of Spherical Single Particles to Spherical  
Quadrupole Phonons

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A spherical single particle  $h_{11/2}$  was coupled to an  
anharmonic quadrupole phonon (with anharmonicities from  
the contribution corresponding to the SU(3) limit of the  
SU(6) symmetry). As a result, Nilsson levels appear as  
band heads of rotational bands,  $\beta$ - and  $\gamma$ -bands, etc. Fig. 1  
shows the result of the calculation for the particle-  
vibration coupling strength  $a=0.18$  (in units  $j/2$ ).

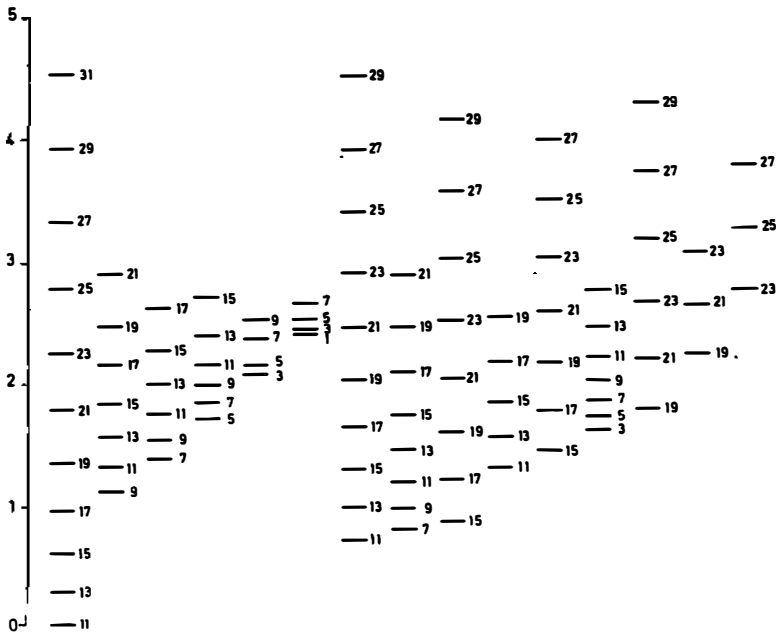


Fig. 1