Fig. 8.5. Single-neutron levels in the actinide region drawn as functions of the set of prolate shapes defined in terms of ε and ε_4 as noted below the figure. The $\varepsilon_4 \rho^2 Y_{40}$ term couples the different N-shells, $N' = N \pm 2$, which means that orbitals having the same parity and the same Ω-value never cross. Regions of almost degenerate orbitals with $n_z = 0$ and $n_z = 1$ are indicated. These orbitals lead to a high level density for special deformations and particle numbers and are largely responsible for the octupole ε_3-deformations at large ε-values as discussed in chapter 9 (from Ragnarsson *et al.*, 1978).