

# PROPERTIES OF HEAVY AND SUPERHEAVY NUCLEI

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Recent studies of the properties of heaviest nuclei done in our theoretical group in Warsaw are shortly reviewed. They concentrate mainly on two topics: heights of static fission barriers  $B_f^{\text{st}}$  and single-particle properties of these nuclei. In the analysis of  $B_f^{\text{st}}$ , a crucial role is played by the deformation space used in the analysis. Results obtained in the case when only axially symmetric shapes of a nucleus are admitted, and also when non-axial deformations are included, are illustrated. Concerning the single-particle properties of heaviest nuclei, one-quasiparticle spectra of them are discussed. Influence of the spectra on the transition energies in the  $\alpha$ -decay chains and also on the  $\alpha$ -decay half-lives are illustrated.