

LEVEL DENSITIES OF NUCLEI WITH $Z = 112-120$

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The intrinsic level densities of superheavy nuclei with $Z = 112-120$ are calculated using the single-particle spectra obtained with the modified two-center shell model. The role of the shell and pairing effects on the level density are studied. The extracted level density parameter is represented as a function of mass number and ground-state shell correction.

1. J.Maruhn, W.Greiner // *Z. Phys. A.* 1972. V.251. P.431.
2. G.D.Adeev, P.A.Cherdantsev // *Yad. Fiz.* 1975. V.21. P.491.
3. V.G.Soloviev, *Theory of Complex Nuclei.* Pergamon Press. Oxford. 1976.