

ULTRAHEAVY NUCLEI: SHELL CORRECTIONS, MAGIC NUMBERS, FISSION BARRIERS AND ALPHA-DECAY PERIODS

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Proton and neutron shell corrections are calculated for nuclei with proton numbers in the range $76 \leq Z \leq 400$ along the beta-stability line described by Green's approximation. Proton and neutron magic numbers are determined for ultraheavy nuclei. Alpha-decay periods and fission barriers of ultraheavy double-magic nuclei are estimated.