COMPETITION BETWEEN CLUSTER
AND ALPHA DECAY IN EVEN ATOMIC NUMBER
SUPERHEAVY NUCLEI $110 \leq Z \leq 126$

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We have investigated the competition between $\alpha$-decay, spontaneous fission and cluster decay processes of the superheavy even nuclei such as $^{261-280}$Ds, $^{274-283}$Cn, $^{280-288}$Fl, $^{282-295}$Lv, $^{286-303}$Og, $^{288-306}$, $^{292-310}$120, $^{292-312}$122, $^{292-312}$124 and $^{292-314}$126 by using the modified generalized liquid drop model and the Coulomb and proximity potential model. Barrier penetrability is evaluated using WKB approximation. The half-lives resulting from these models were compared with those of the effective liquid drop model and Dong et al. (Nucl. Phys. A. 2010. V.832. P.198). The predicted dominant decay modes are presented in chart for the superheavy elements with even atomic number of range $110 \leq Z \leq 126$. The current research will be helpful in the synthesis of new superheavy elements and also unexplored isotopes of known superheavy elements.

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