

Does a Coulomb –barrier-free- fission exist ?

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Can the peak at symmetry of the mass spectrum of $^{258}\text{Fm}(\text{s.f.})$ simply result from a total permissiveness of this $Z=100$ nucleus for a few $Z=50$ fission fragments ? And could the gradual changes in the asymmetric mass distribution of the neutron-induced fission of ^{235}U observed in 1970 in going from thermal to 14 MeV neutrons be simply the result of a gradual suppression of the Coulomb barrier for a few fission fragments pairs ?

But can the broadly symmetric mass distributions of high- Z nuclei, or of excited nuclei, be only disfigured asymmetric distributions resulting from the partial abolition of the Coulomb barrier; or be a new aspect of cluster-fission, but differing from the fission mode observed in excited superheavy nuclei, in which only the emission of hard cores such as ^{218}U , ^{208}Pb , ^{132}Sn and complementary clusters remains strongly favoured ?

An attempt will be made to answer these questions, and some others.