

Low-energy fission in the lead region: the synergy of beta-delayed, Coulex-induced and fusion-fission approaches

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In the last decade, through technological, experimental and theoretical advances, the situation in experimental low-energy fission studies has changed dramatically. With the use of advanced production and detection techniques, much more detailed fission information can be obtained for traditional regions of fission research and, very importantly, new regions of nuclei have become accessible for fission studies.

The talk will give a review of recent low-energy fission experiments in very proton-rich nuclei in the lead region. Three complementary methods of fission studies in this region will be discussed: beta-delayed fission [1,2,3], Coulex-induced fission [4] and fusion-fission reactions induced by charged particles [5,6].

Recent theoretical efforts in respect of low-energy fission calculations in this region of nuclei will also be reviewed.

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4. J.-F. Martin et al, Eur. Phys. J. A51, 174 (2015)
5. K. Nishio et al. Phys. Lett. B, 748, 89 (2015)
6. E. Prasad et al., Phys. Rev. C 91, 064605 (2015)