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Fission of heavy Λ hypernuclei with the Skyrme-Hartree-Fock approach FUTOSHI MINATO, Japan Atomic Energy Agency, KOUICHI HAGINO, Tohoku University, SATOSHI CHIBA, Japan Atomic Energy Agency — It has been shown that the shape of a few deformed nuclei change toward spherical when a Λ particle is added to them. This is caused because the interaction between a Λ particle and a nucleon is attractive. This fact has motivated us to investigate the influence of Λ particle on the fission of heavy nuclei. In this talk, we will discuss the fission-related phenomena of heavy Λ hypernuclei with the constraint Skyrme-Hartree-Fock+BCS (SHF+BCS) method. We employ a Skyrme-type interaction for the ΛN interaction and assume adiabaticity, that is, the Λ particle is assumed to be in the lowest state at all deformations. We will show that the fission barrier heights increase by about 200 keV by adding a Λ particle. Our result confirms that the Λ particle is stuck to the heavier fission fragment, which is consistent with the experimental result of CERN. We will also discuss the deformation of heavy Λ hypernuclei and the Λ particle motion inside the core nuclei.

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