

The JYFL fission model results

Milestone **M3.1** – The *JYFL fission model results* have been achieved according to the schedule. The calculation code **FIPRODY** (**F**ission **PRO**duct **Y**ields) for the cross section formation of fission product yields has been updated by inclusion a more advanced version of the pre-equilibrium exciton model and neutron spectra calculations.

The *GSI-USDC fission model* has been extended to include the production of intermediate-mass fragments with $Z \geq 3$ from binary reactions (extremely asymmetric fission). (This reaction mechanism has been used very successfully for the production of very neutron-rich isotopes of elements below $Z = 20$ in uranium targets at ISOLDE). The particle emission during the dynamical descent from saddle to scission has been modelled on the basis of three-dimensional Langevin calculations. The role of transient effects on the fission probabilities and on the mass distributions of fission fragments was analyzed from experimental data obtained in spallation-fission experiments.