



Contribution ID: 57

Type: **not specified**

Study opportunities with the LOHENGRIN fission fragment separator

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The recoil mass-separator LOHENGRIN at Institut Laue-Langevin (ILL) selects fission fragments produced by actinide targets in a thermal neutron flux of about 5×10^{14} n/cm²/s in an in-pile position of the high-flux reactor. The experimental study of nuclear fission and fission products is of particular interest for both fundamental and applied physics. The performance of the LOHENGRIN spectrometer, allowing ion selection with excellent mass- and energy resolution, contributes to

- improving the understanding of the nuclear fission process with fission studies (fission yields and dynamics);
- giving access to many neutron-rich medium-mass nuclide enabling investigation of nuclear structure by nuclear spectroscopy: beta- or isomeric decays, gamma-ray and conversion electron spectroscopy, fast-timing, etc.;
- detector characterisations where ions of various masses, from protons to very heavy ions, and kinetic energies, from MeV to above 100 MeV, can be selected.

A large panel of experiments performed with the LOHENGRIN spectrometer will be presented and discussed.

Type of contribution

Invited Speaker

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