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## Gamma-ray cascade study in Kr and Ba fission fragments with the EXILL experiment

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The poor accuracy of microscopic models in the prediction of fission observables constrains nuclear industry to rely on semi-empirical models, which in turns need systematic and accurate experimental data on a significant number of observables. In the last decade, large efforts were made in the fission community to improve models of the fission process and of the de-excitation of fission fragments. This is performed through reliable Monte Carlo simulations that take into account prompt neutrons and gamma-ray emission. An ultimate aim of such a simulation is to predict e.g. gamma-heating effect in nuclear reactor. The FIFRELIN code developed by CEA Cadarache is able to estimate the intensities of gamma-ray transitions in all the fission fragments.

In the EXILL experiment conducted in 2012 and 2013 at ILL, a target made of  $^{235}\text{U}$  (and also  $^{241}\text{Pu}$ , which was not investigated in this work) was surrounded by an array of high-resolution, germanium gamma-ray detectors and irradiated by an intense cold neutrons beam. We have extracted the intensities of the main discrete gamma-ray transitions in a set of fission fragments, using the triple gamma-ray coincidence technique, and we have compared our results to FIFRELIN outputs. The result of our study on the gamma-ray cascades in Kr and Ba fragment pairs will be presented.

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