

Nuclear fragmentation measurements for hadrontherapy

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Nuclear fragmentation processes are relevant in different fields of basic research and applied physics and are of particular interest for light ion tumour therapy by means of light ions beam, and for space radiation protection applications.

The informations about the yields and the spectra of secondaries produced by a therapeutical ion beam in the path to the tumour inside the patient are crucial to estimate the dose imparted to the health tissues around the tumor. Furthermore the fraction of secondaries escaping from the patient can provide informations about the pattern and the amount of the dose released, being of interest for monitoring purpose.

Experiments focused on fragmentation studies applied to hadrontherapy at GSI and LNS will be presented and the first analysis results will be reported.