

New mass search procedures in the measurements with PIN diodes

Use of semiconductor detectors for spectrometry of heavy ions is known to have several methodological issues that are necessary to be addressed. First of them is pulse-height defect (PHD) that is manifested in a form of seemingly less energies than particles actually have. Second one is plasma delay effect (PD), which prevents precise measurements (TOF technique) due to creation of plasma in detectors, which obstructs the charge collection. We discuss new approaches to the HI mass reconstruction using Si PIN diodes for measuring both energy and time-of-flight.

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