



Contribution ID: 30

Type: not specified

Correlation of forward and backward acceleration at TNSA

Friday, 1 November 2024 12:20 (25 minutes)

Laser-driven particle accelerators offer a wide range of applications, especially with the development of ultra-fast ultra-high-power lasers. Particle beams are produced on both sides of the Target during this process. Finding a correlation between both beams would allow us to use one of these for the actual application, while the other can be used for monitoring the spectrum.

Summer this year an experiment was done using a liquid leaf target at the JETI200 Laser at the Helmholtz-Institut HI-Jena. In this experimental campaign, the acceleration was characterized regarding different parameters like laser energy, polarization, focus position, fluid, and others. Two Ion Spectrometers were installed, one in each acceleration direction. Furthermore, a Lithium Fluoride (LiF) converter was used to produce neutrons. Some of the preliminary results will be presented.

Primary author: KOHL, Jonas

Co-authors: Mr HOFMANN, Daniel (TU Darmstadt); Ms SALAHELDIN, Isra; Mr SEUPEL, Thomas (TU Darmstadt); HILZ, Peter

Presenter: KOHL, Jonas

Session Classification: Oral contributions X