

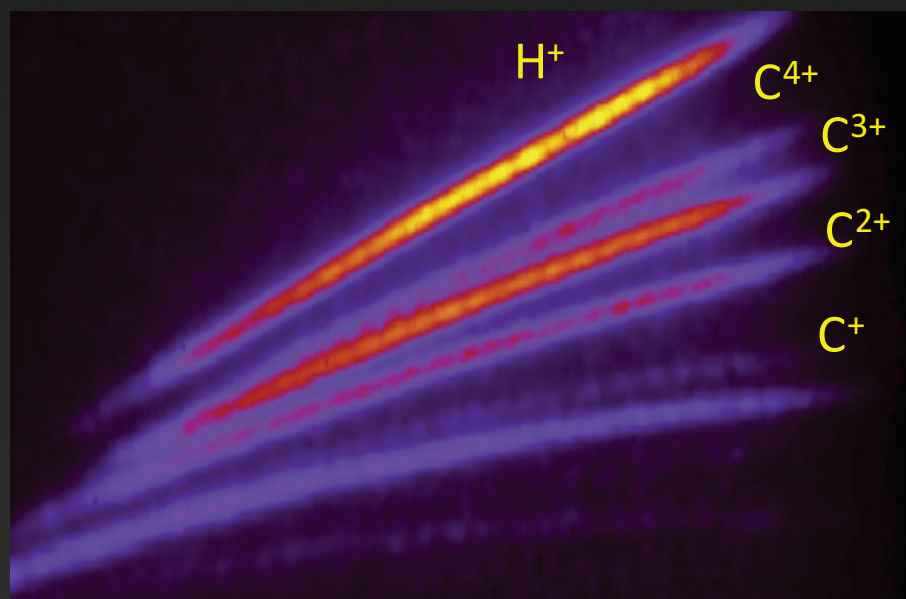
SourceLAB

Targetry Products

SL-KAIO

Plug & play ion generator

On-target laser diagnostic

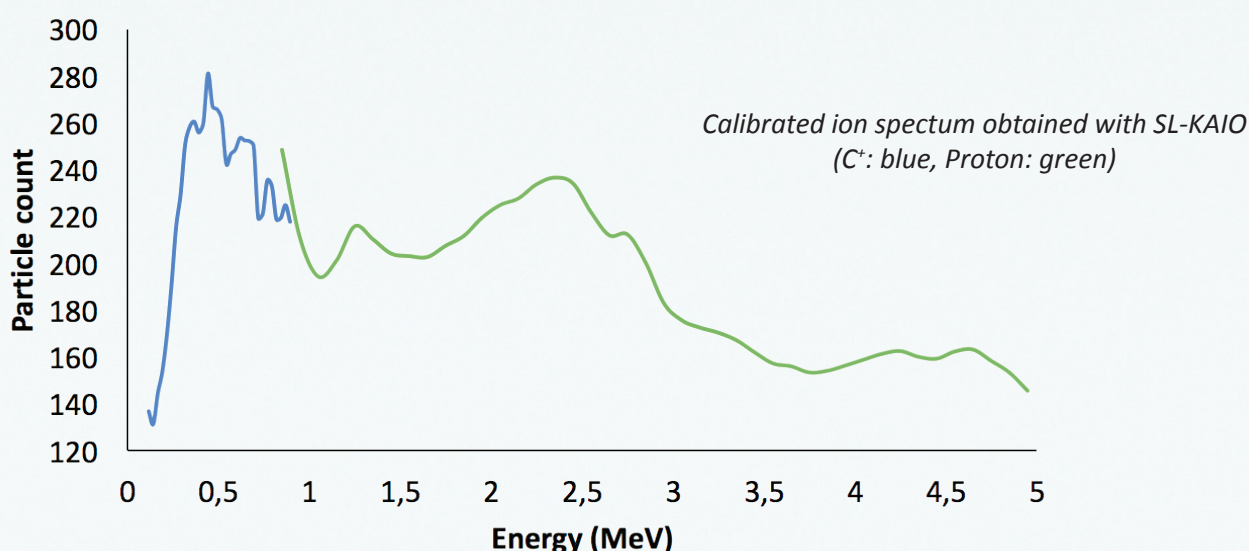


A unique powerful tool for ion generation and “on-target” laser monitoring

Users of intense lasers rely on several methods and devices to characterize a laser short pulse before the experiments.

However, even if all these methods and devices are implemented, it is still very difficult to assess the suitability of the pulse characteristics for the interaction with a plasma since:

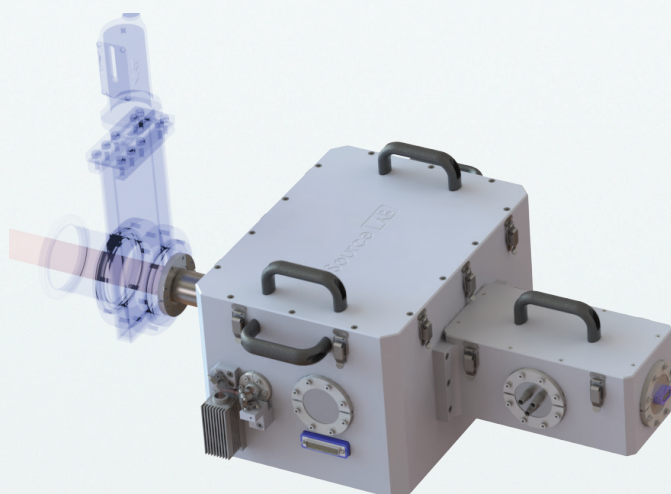
- the laser pulse must be prepared / transformed for the characterisation
- the characterization is made before the interaction chamber
- the devices have limited precisions
- the interplay between each pulse characteristic and the plasma is not fully clarified



SourceLAB developed a new versatile device based on TNSA protons, that gives unambiguous and quantitative indications on the suitability of a pulse for the interaction with a plasma, and how to improve it.

The SL-KAIO is a unique plug-and-play box to accelerate ions with an intense laser, giving instant access to high energy particle beams.

Laser ion accelerator $E_{\text{Proton}} = 4 - 5 \text{ MeV}$ (cut-off)
«On-target» laser monitoring (suitability for plasma interaction)
Laser referencing (from the factory to the laboratory)
Control of contrast, divergence, duration via ion generation
Highly compact suitability (30 x 30 x 30 cm)
Fully automated and self-aligning



The SL-KAIO system