GSI FAIR

ACCELERATOR SEMINAR

Technical proposal for upgrade of the present Gas Stripper at the GSI UNILAC

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Abstract

We propose a technical solution for upgrade of the present gas stripper setup at the GSI UNILAC. It can be realized by means of the using the narrow diverging conical nozzle (having a fast pulse gas valve directly connected to the nozzle entrance) combined with a gas catcher tube placed on the gas-jet axis at some distance downstream from the nozzle exit.

As a result, it will allow for considerable decrease (a factor of 40) the gas load from the gas stripper into the UNILAC vacuum system making it possible to achieve the required optimal thickness of the hydrogen and helium gas-jet targets. We explored the performance of this gas stripper modification by means of detailed gas dynamic computer simulations. The results of these simulations will be presented and discussed.

Monday, August 25th , 2025 at 4 PM

Side Room Theory (SB3.3.170a)
The seminar takes place exclusively in presence

Coordinator: Udo Weinrich
Secretary: Sarah Al Malih

https://indico.gsi.de/event/22741/