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## Improved modelling and characterization of the LANSCE PSR stripper foils

*Tuesday, 21 May 2024 16:00 (2 hours)*

This paper will describe efforts to simulate and test materials for the LANSCE PSR stripper foils. Stripper foils convert H<sup>-</sup> beams to H<sup>+</sup> as part of the charge-exchange injection process in the LANSCE PSR that produces high intensity proton beams. The foil properties directly affect the total current and activation in the ring, and their overall robustness also determines the types of experiments that can be done, as the number of available foils is limited and some modes are particularly destructive to the foils. We will describe a preliminary approach to modelling, characterizing, testing and optimizing PSR foils performance and lifetime given the extreme heat and radiation conditions which can heavily constrain both characterization and testing, and note potential opportunities for a PSR upgrade as part of LAMP.

### Footnotes

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North America

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