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## Recent LANSCE efforts on improving H<sup>+</sup> duoplasmatron capabilities

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LANSCE uses a duoplasmatron ion source to produce H<sup>+</sup> ion beams for the Isotope Production Facility, which uses 100 MeV proton beams to produce a variety of therapeutic and diagnostic isotopes for research purposes and also supports a variety of other experiments for materials and nuclear physics. We have recently begun work to improve the reliability, peak current, and lifetime of the ion source, while restoring existing capabilities to build new ion sources and filaments. This poster will cover these efforts, with a particular focus on the work to re-establish and improve the filament production capability and production of higher peak current beams.

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