

**2018 Mo-99 TOPICAL MEETING ON
MOLYBDENUM-99 PRODUCTION TECHNOLOGY DEVELOPMENT**

**SEPTEMBER 23-26, 2018
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**LANL Engineering and Design Support for an Accelerator Facility to
Produce Mo99 from Mo100**

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ABSTRACT

Northstar is on an aggressive schedule to break ground on a facility to produce Mo99 from Mo100 using a 42 MeV electron beam produced by rhodotrons. Each Mo100 target will have 2 rhodotrons so as to impact the target on both ends with 2.86 mA. There will be 8 target stations. LANL is working with Northstar to establish the layout of the equipment. This includes shielding analysis, beamline configuration, target handling, target cooling system component placement and personnel access. Up to date status of this preparatory work will be presented. In addition, the rhodotrons are delivering a pulsed beam at 25 Hz with a 5 μ s pulse width. The effect of this pulsed beam on target performance and fatigue life will also be presented.