

Mo¹⁰⁰ to Mo⁹⁹ Production Target: Design, Analysis and Test Status

K. Woloshun, E. Olivas and G. Dale

AOT Division

Los Alamos National Laboratory, PO Box 1663, Los Alamos, NM – USA

ABSTRACT

The target for the Northstar Mo99 production facility is approaching the final stages of design. The desire to maximize production using a minimum amount of Mo100 target material has driven the design to a very high power density target, 120 kW_{th} in 27 cc, or 4.4 kW/cc average. This requires cooling at a heat flux greater than 1000 W/cm². The target design, predicted temperature and stress states, and experimental results will be presented.