



Contribution ID: 15

Type: **Oral presentation**

Growth Studies and Optimization of Nb₃Sn Coatings

Wednesday, 11 November 2020 08:45 (20 minutes)

Improving the performance of Nb₃Sn cavities requires altering the growth process to produce better films. A good understanding of how Nb₃Sn grows via the Sn diffusion process is required in order to know how to modify the process to achieve a better film. Here we present experimental studies of Nb₃Sn layer growth that further our understanding of the Nb₃Sn growth process. This includes microscopy of samples that were grown with different substrate preparations, modified growth processes, or stopped during growth. The results are interpreted and methods proposed to prevent several forms of defects from forming (thin film regions, Sn-depleted sites, and surface roughness).

Primary author: PORTER, Ryan

Co-authors: HU, Hannah (Cornell University); BARAISSOV, Zhaslan; SITARAMAN, Nathan; MULLER, David; LIEPE, Matthias; CUEVA, Paul; ARIAS, Tomas; SUN, Zeming (CLASSE)

Presenter: PORTER, Ryan

Session Classification: Growth Studies

Track Classification: Growth studies