

# Thin gold layers on niobium for SRF cavities

*Monday 26 August 2024 15:00 (5 minutes)*

New materials beyond the standard bulk niobium have the potential to greatly improve the performance of Superconducting Radio Frequency (SRF) cavities. Specifically, thin coatings of normal conductors such as gold have the potential to improve the key RF performance metric of quality factor. We present progress on depositing thin gold layers onto 2.6 GHz SRF cavities and testing their RF performance.

## Footnotes

## Funding Agency

U.S. National Science Foundation under Award PHY-1549132, the Center for Bright Beams; U.S. Department of Energy under Award DE-SC0024137.

**Primary author:** SEDDON-STETTLER, Sadie (Cornell University (CLASSE))

**Co-authors:** LIEPE, Matthias (Cornell University (CLASSE)); SITARAMAN, Nathan (Cornell University); OSEROFF, Thomas (Cornell University (CLASSE)); LEW-KIEDROWSKA, Helena (The University of Chicago); WANG, Chi (National Cheng Kung University); DO, Van (The University of Chicago); SIBENER, Steven (The University of Chicago)

**Presenter:** SEDDON-STETTLER, Sadie (Cornell University (CLASSE))

**Session Classification:** Monday Oral Posters

**Track Classification:** MC4: Technology: MC4.8 Superconducting RF