

Pushing the Limits of RF Superconductivity Workshop

Abstract Submission Form for Contributed Talks

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Session: High Q, Field Emission, Q-Slopes

ABSTRACT:

Title: Low, Medium, High Field Q-Slopes Change With Surface Treatments

HF chemistry, warm chemistries, plasma, different kinds of baking... several surface treatments modify the $Q_0(E_{acc})$ profile of bulk niobium cavities. The analysis of these modifications allows a critical comparison with predictions put forward by theories.

Furthermore, regard to the high field Q-slope improvement, the diffusion process could not be only considered as a consequence of the thermal process during the cavity baking. In this perspective some additional experiments are undertaken at Saclay where an “integrated baking system” will be soon built.