

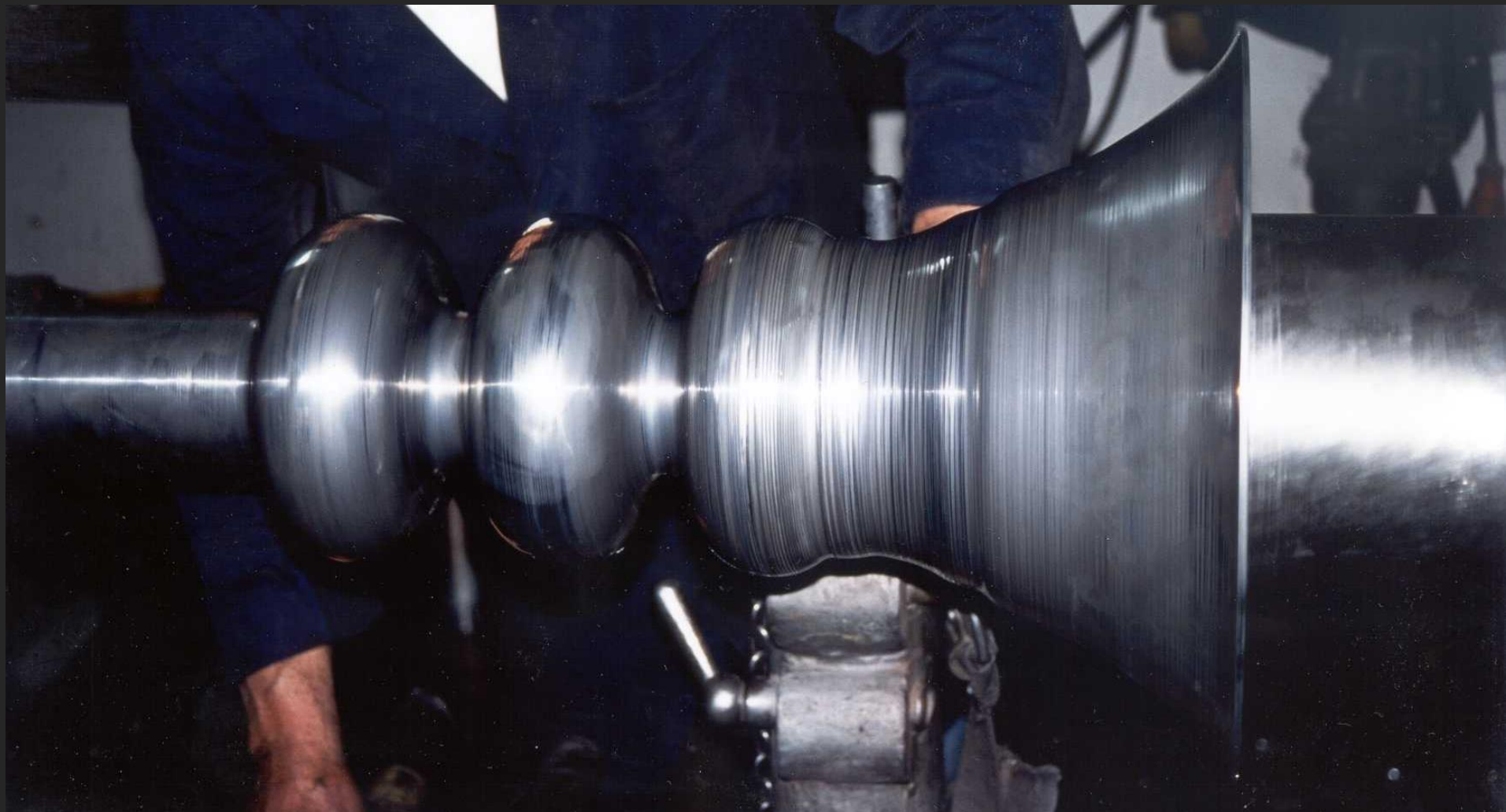
# **New perspectives on thin film technology for SRF**

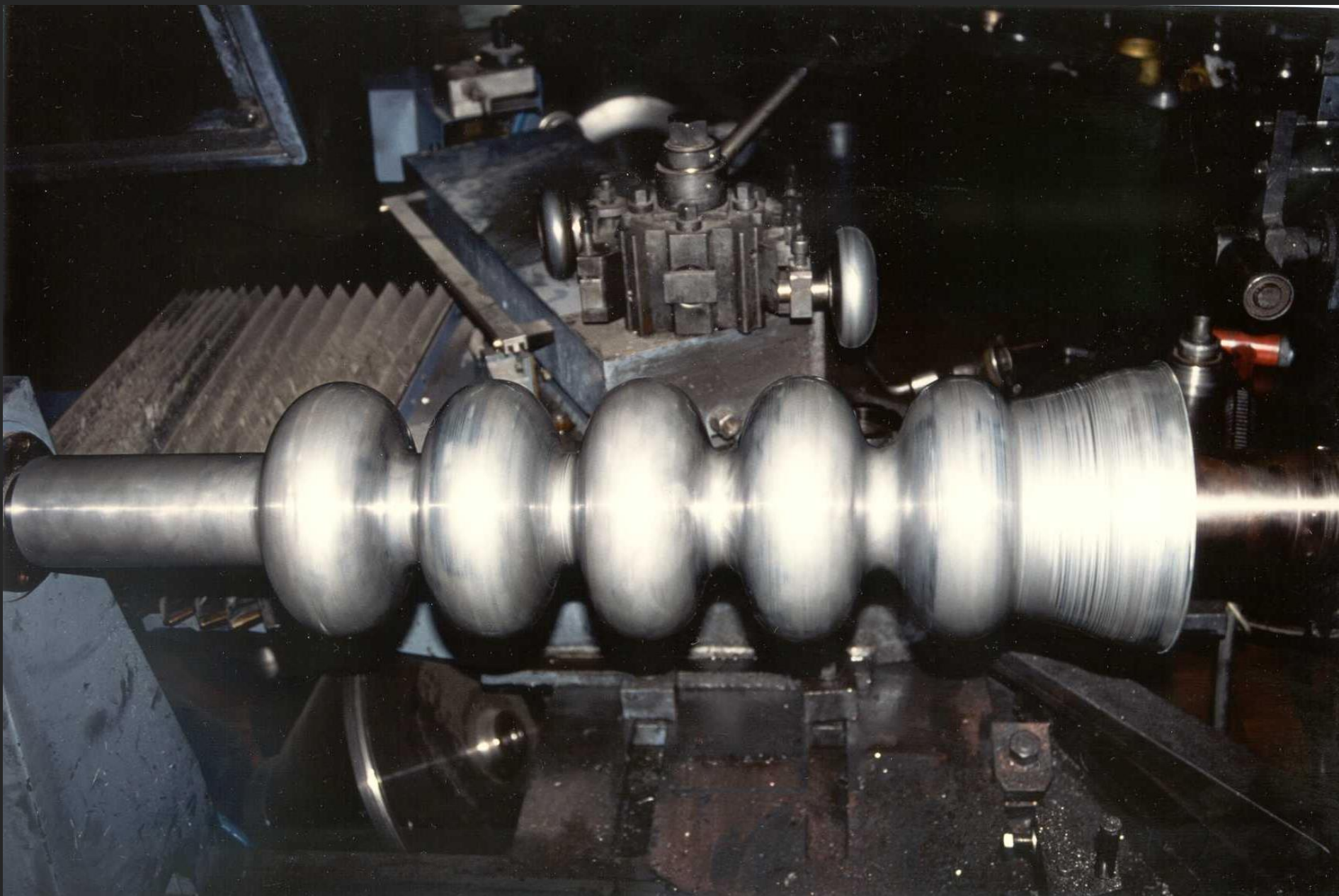
Enzo Palmieri

Legnaro National Laboratories  
ISTITUTO NAZIONALE DI FISICA NUCLEARE  
&  
Padua University

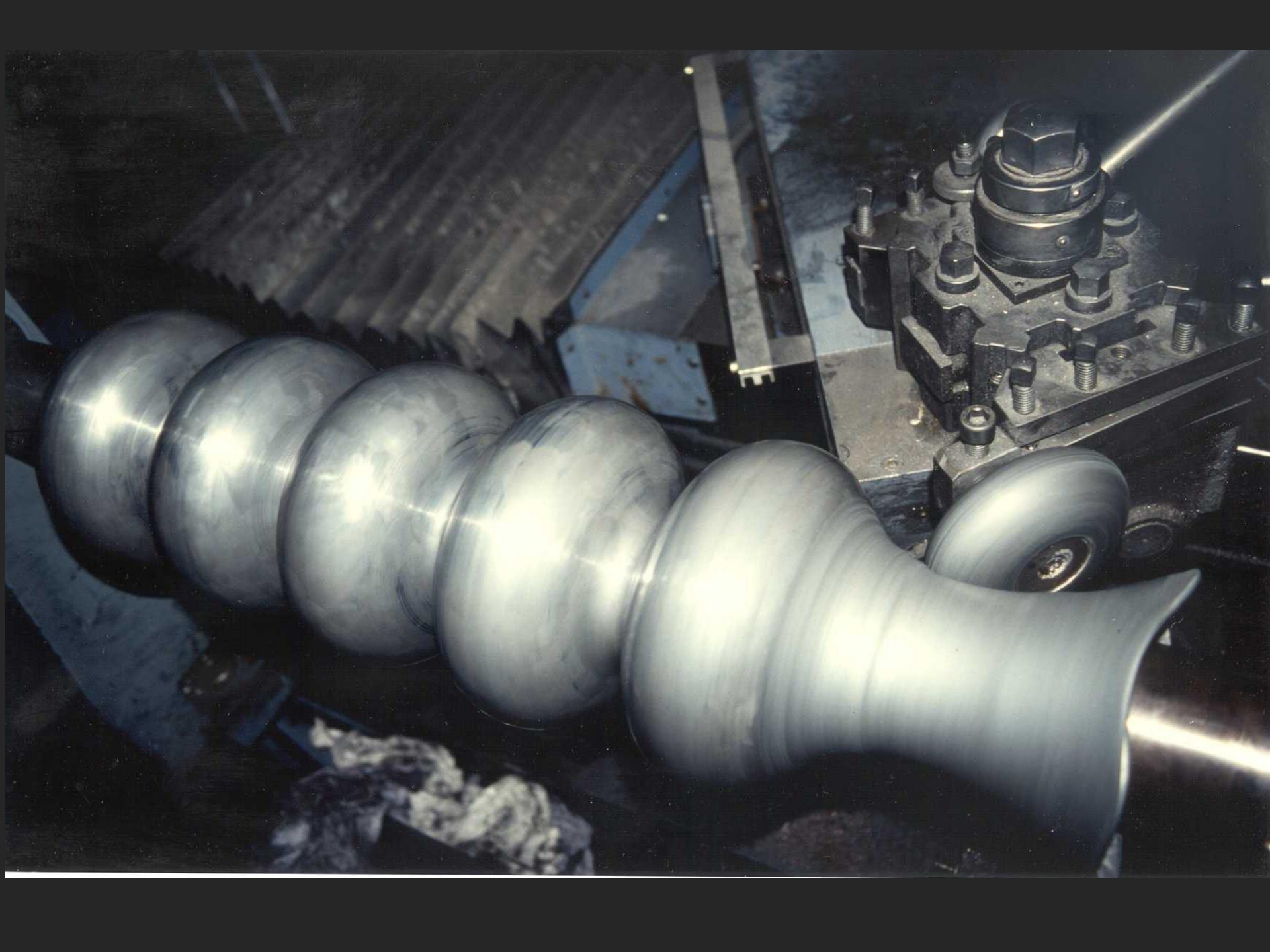
Toward **low cost** substrates

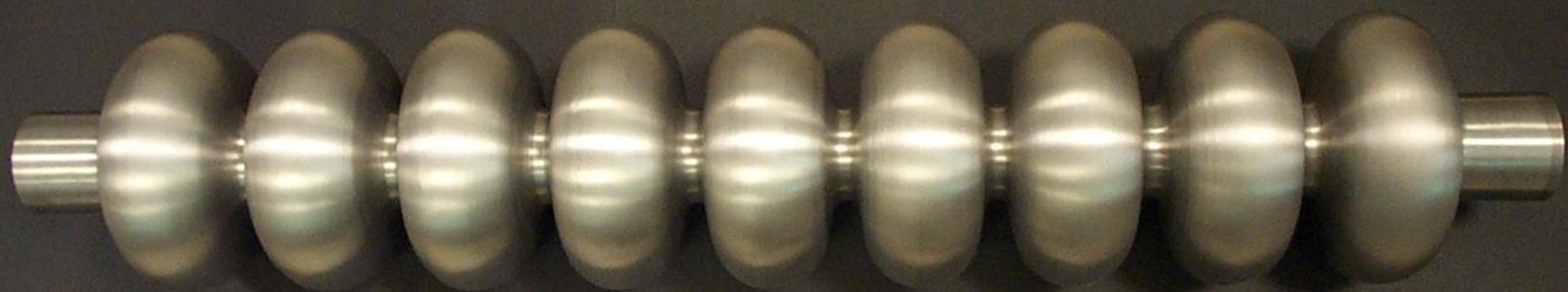
**Seamless** Cavity Cold Forming







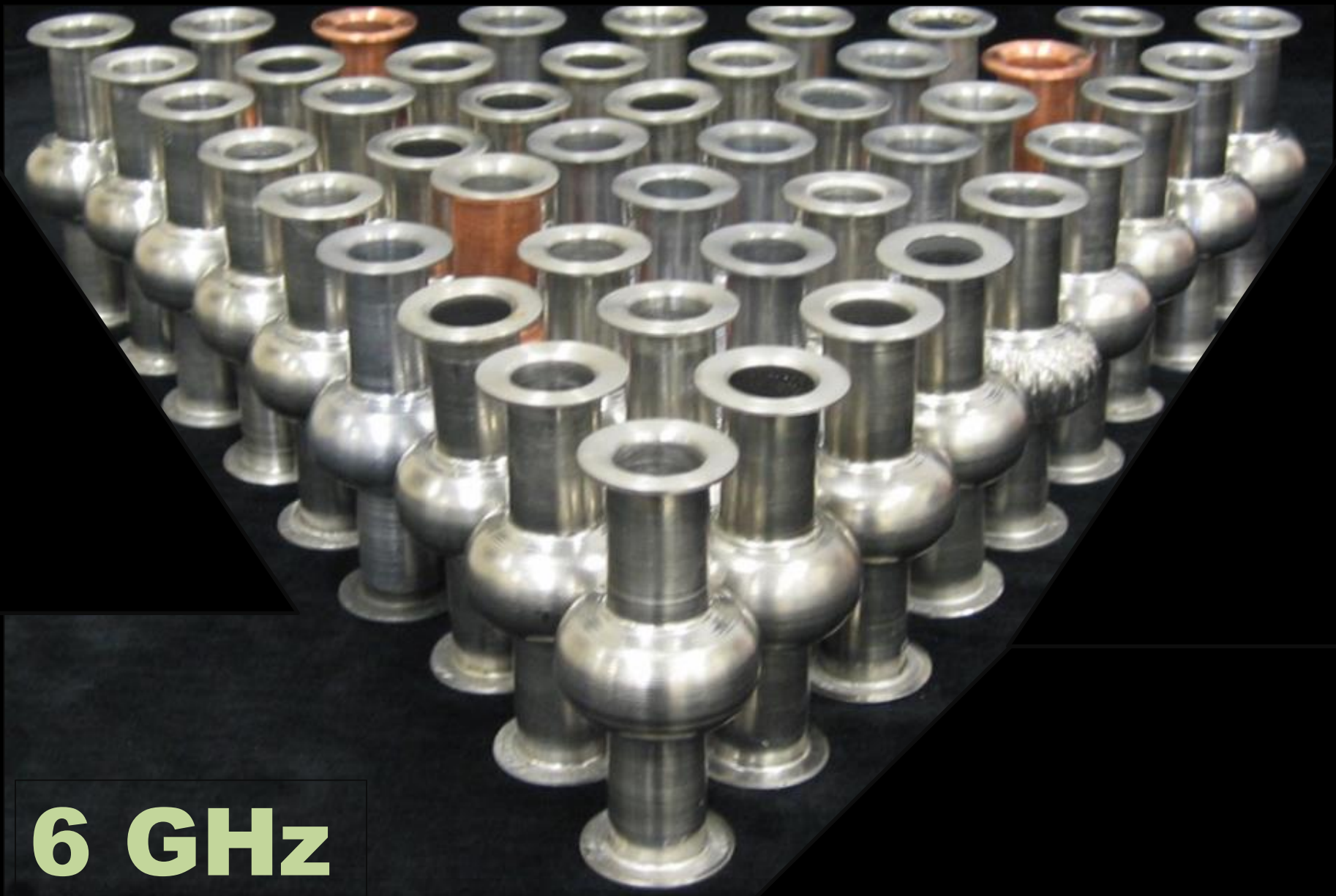




**SRF requires**

**a large Statistics**





**6 GHz**

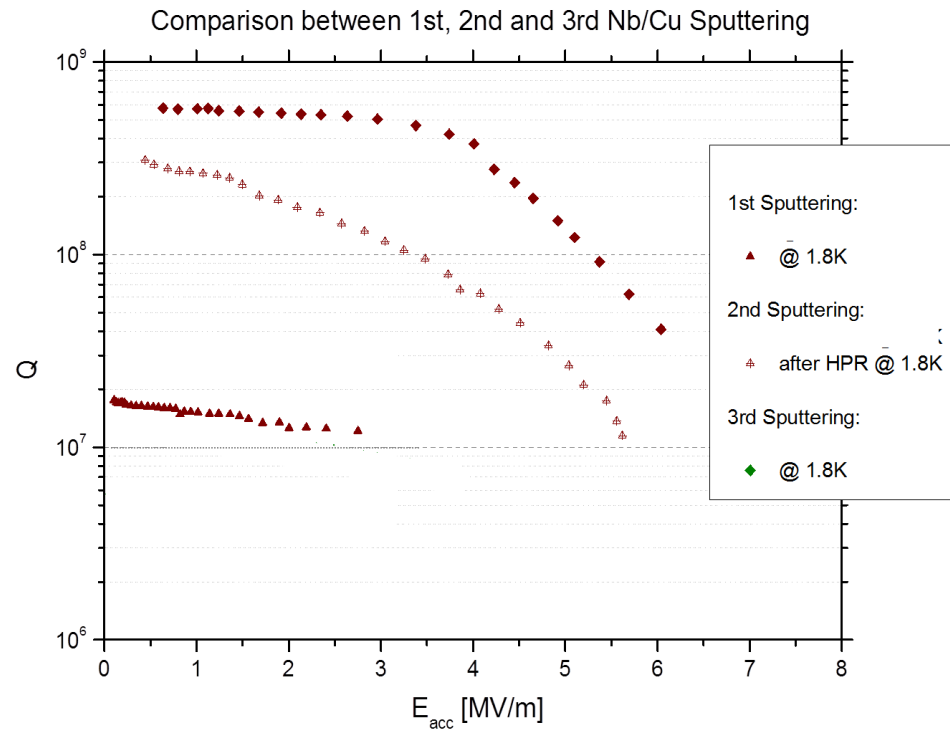
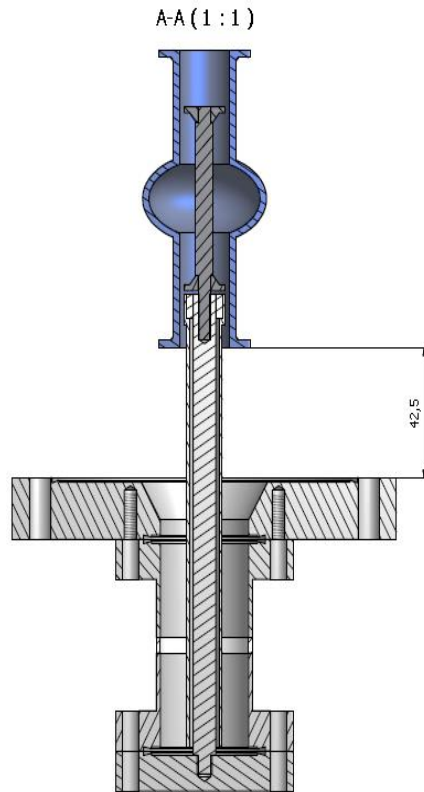
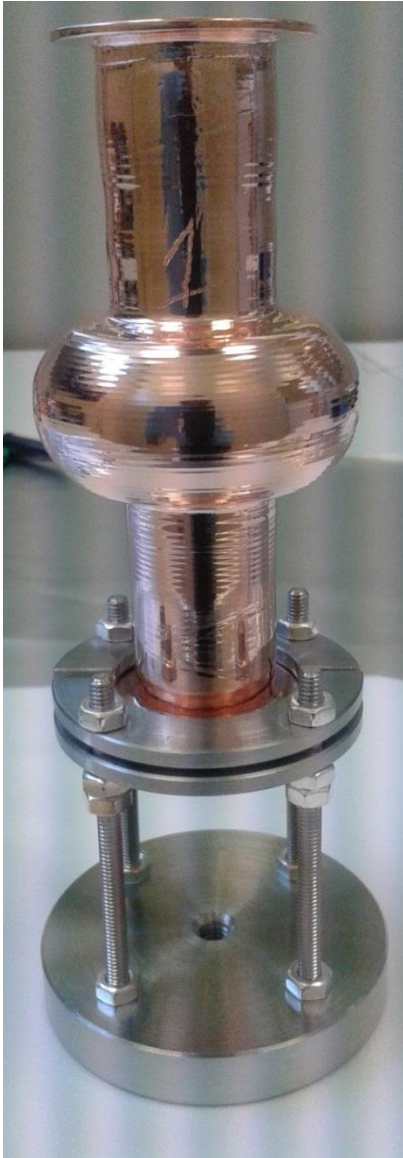


**New perspectives on thin films**

**when working on the**

**Niobium-Copper Interface**

# Nb Sputtering into Cu Cavities



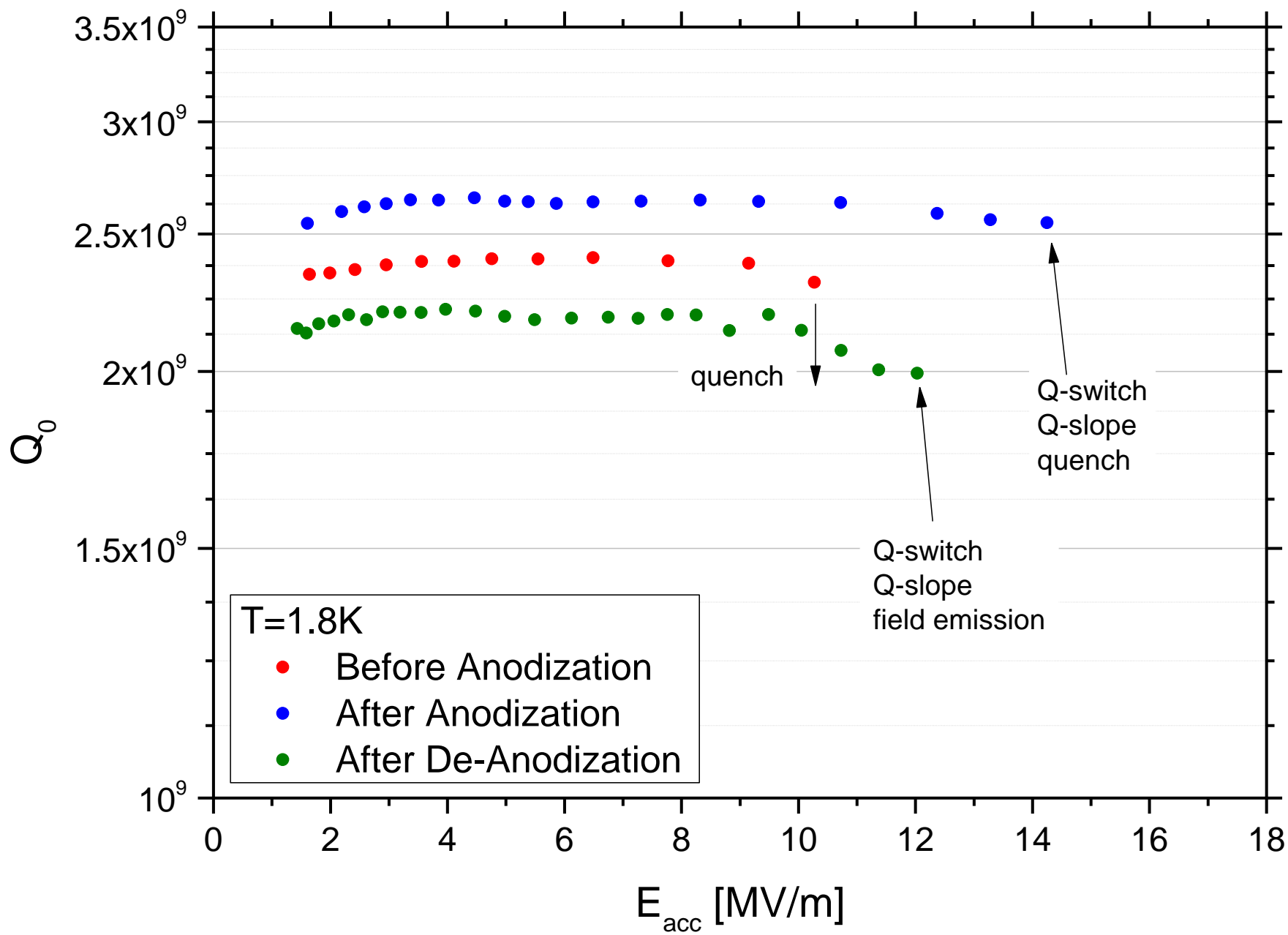
# **RF losses**

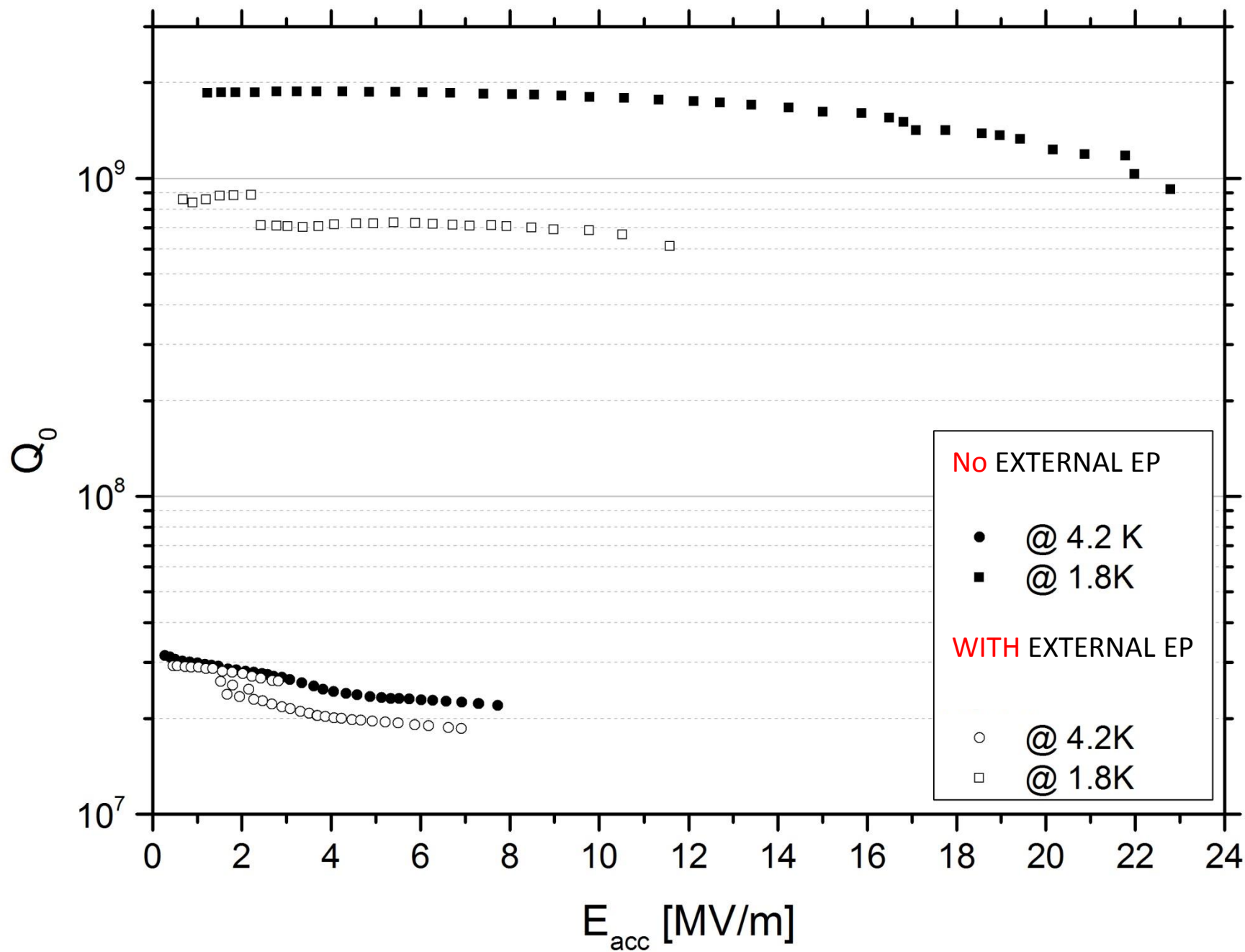
**depend also on the status of the**

**cavity external surface**









**Any SRF improvement**

**must pass for a deeper comprehension  
of the heat flux transport mechanism to**

**Liq-He**



The Sixth International Workshop on  
**THIN FILMS AND  
NEW IDEAS FOR RF  
SUPERCONDUCTIVITY**

OCTOBER 6-8, 2014

Legnaro National Laboratories - ISTITUTO NAZIONALE FISICA NUCLEARE, ITALY  
[www.surface-treatments.it/thinfilms-2014](http://www.surface-treatments.it/thinfilms-2014)

[silvia.martin@fnl.infn.it](mailto:silvia.martin@fnl.infn.it) - [palmieri@fnl.infn.it](mailto:palmieri@fnl.infn.it)