

805 MHz cavity refurbishment

NFMCC collaboration meeting

LBNL

1-09

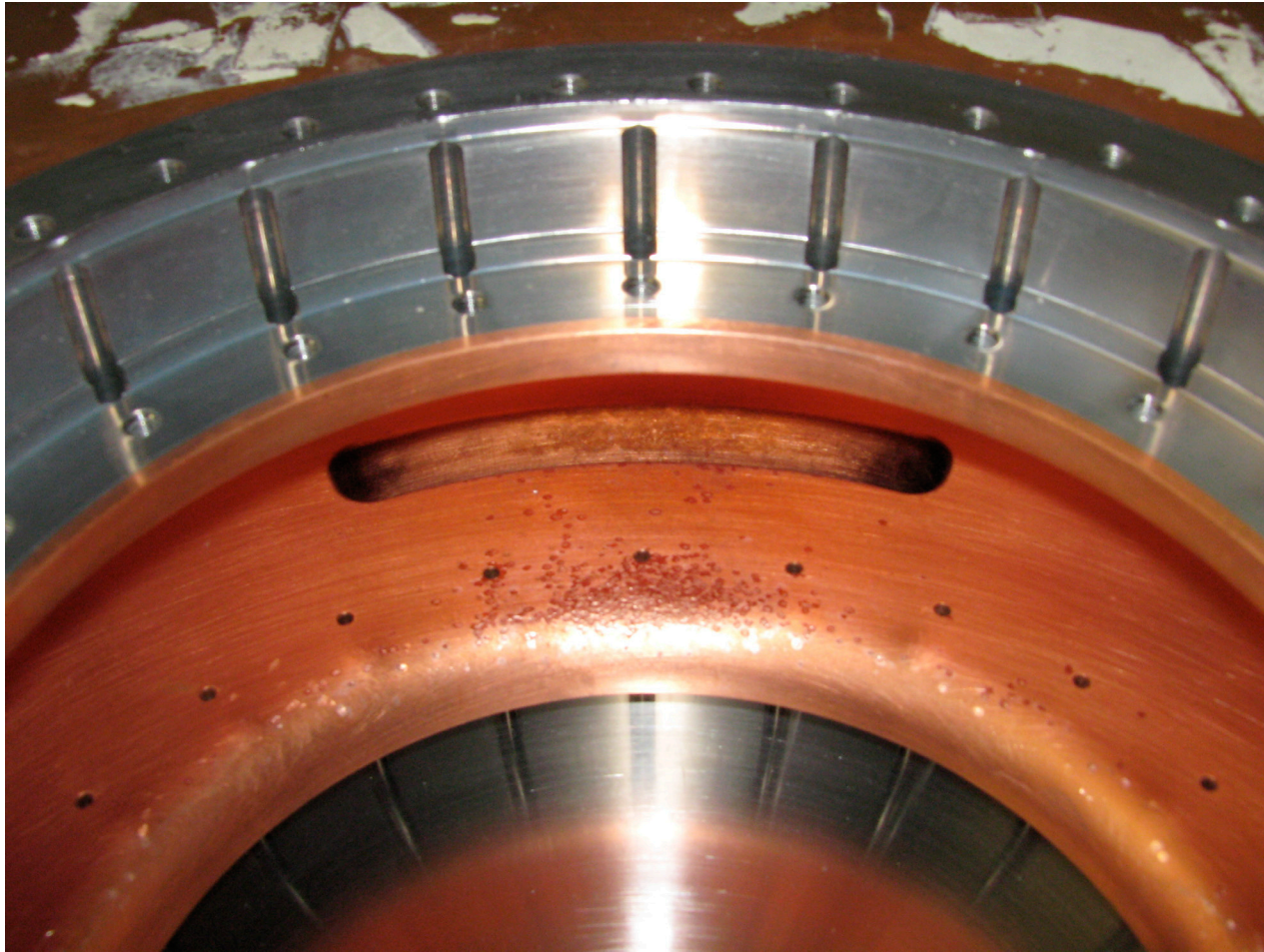
Bob Rimmer

JLab

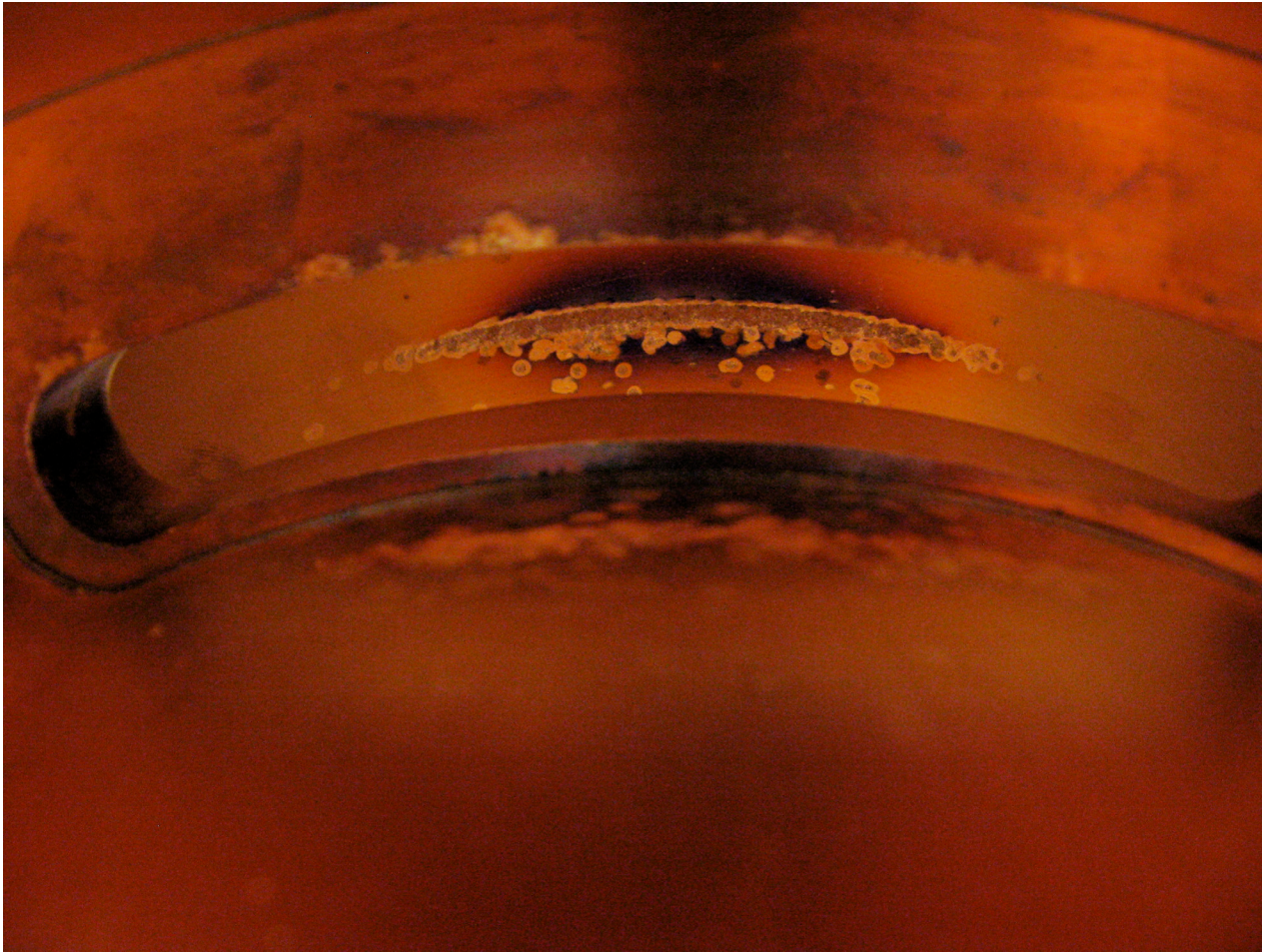
805 MHz cavity refurbishment

- Cavity was heavily arc damaged after many runs at high magnetic field
- Heavy pitting on button holder, irises (with slight “dipole” asymmetry)
- Further inspection revealed significant damage in the coupler region
- May explain why all button tests followed similar processing curve with magnetic field

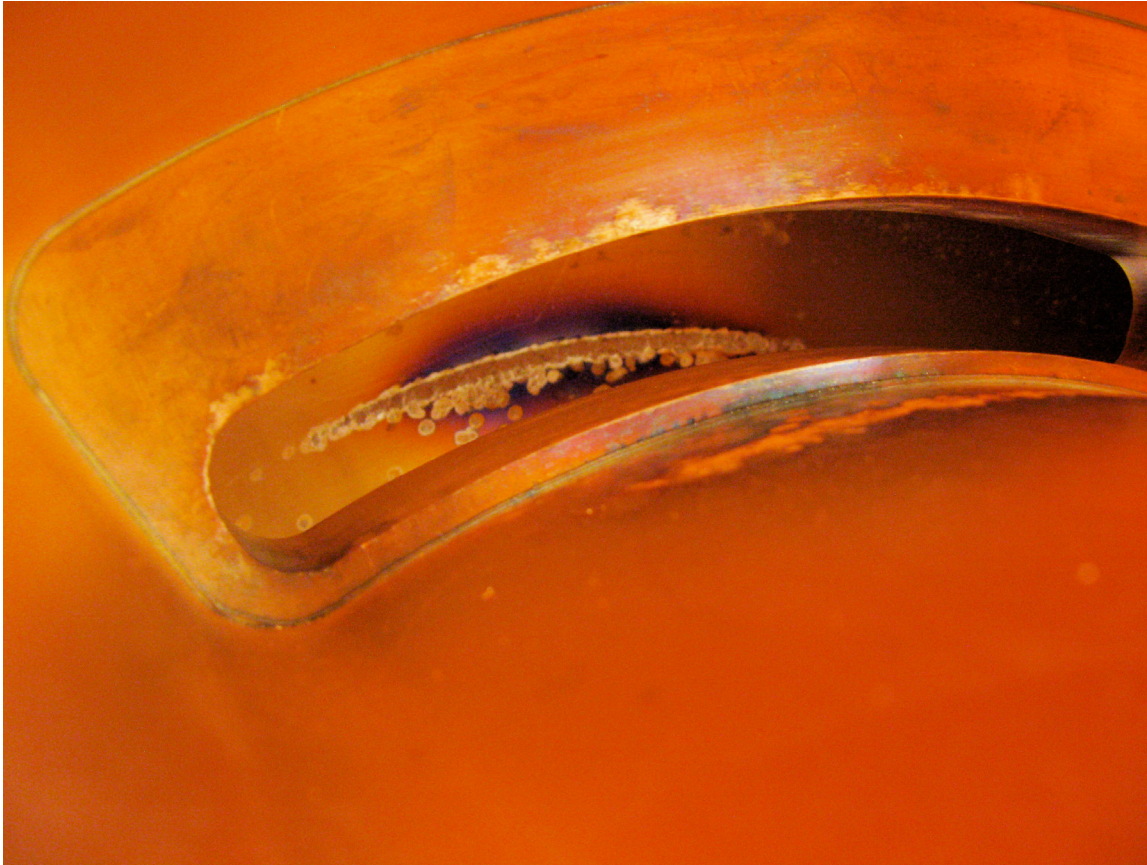
805 Cavity “before”



Coupler region damage



Coupler region damage



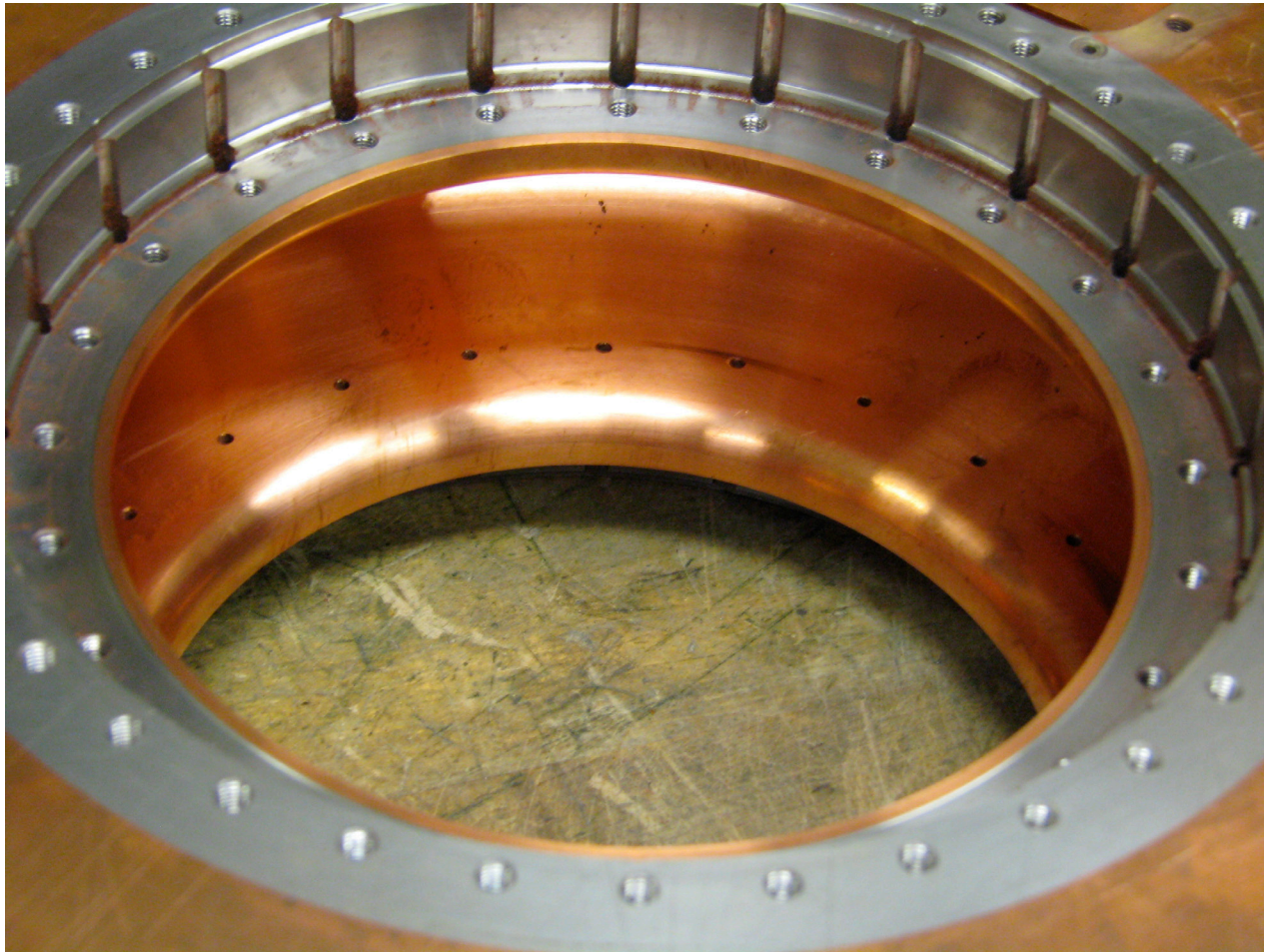
Coupler extension damage



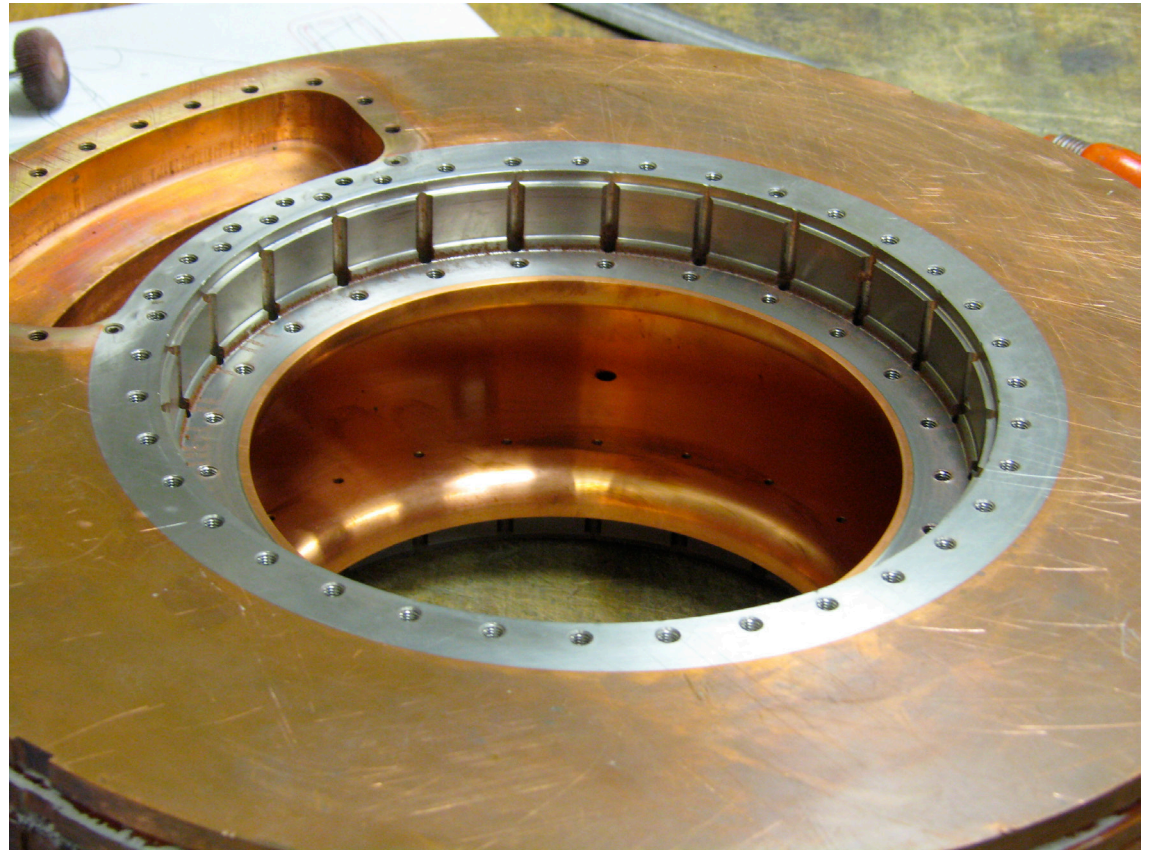
Refurbishment

- Polish out all visible iris damage
- Polish out arc marks in coupler region
- Polish out arc marks in coupler extension
- Cut inner and outer blend radii on coupler
- Ultrasonic clean and DI water rinse (HPR)
- Clean room assembly (to be done)
 - Cu and Be windows available
 - Button holder needs to be re-worked or re-made
- No electropolishing

Irises restored by hand-working



Key cutter used for inside blend



Copper windows

