

Superconducting properties evaluation

**Oleg Malyshev,
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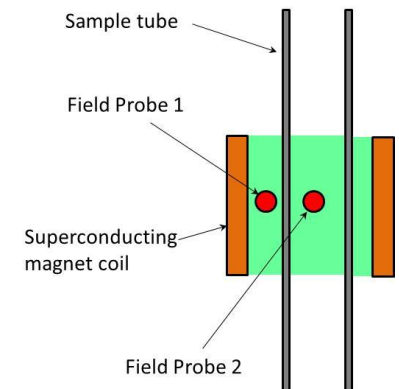
EXP800

- **EXP800 VTI-A**
 - RRR
 - RRR in magnetic field
 - Magnetic field penetration measurements on tubes
- **EXP800 VTI-B**
 - Tubular resonator
 - Magnetic field penetration measurements on tubes
- **Cryostat is operational**
 - **T= \sim 3.5 K reached at stage 2, but only T= \sim 7.5 K at the sample**
 - **Problem to be investigated**
 - Screen modified
 - Colling down now



EXP800 VTI-A

- RRR
 - is operational and in use
- RRR in magnetic field
 - is not operational
 - magnet coil does not work, HTSC wires should be rewired
 - Awaiting for another slot to vent + when SP is available
- Magnetic field penetration measurements on tubes
 - has been re-designed
 - All pieces have being machined and brazed at ETC
 - Wiring Hall probes and thermometry
 - it requires solving a coil problem as well



EXP800 VTI-B

- Tubular resonator

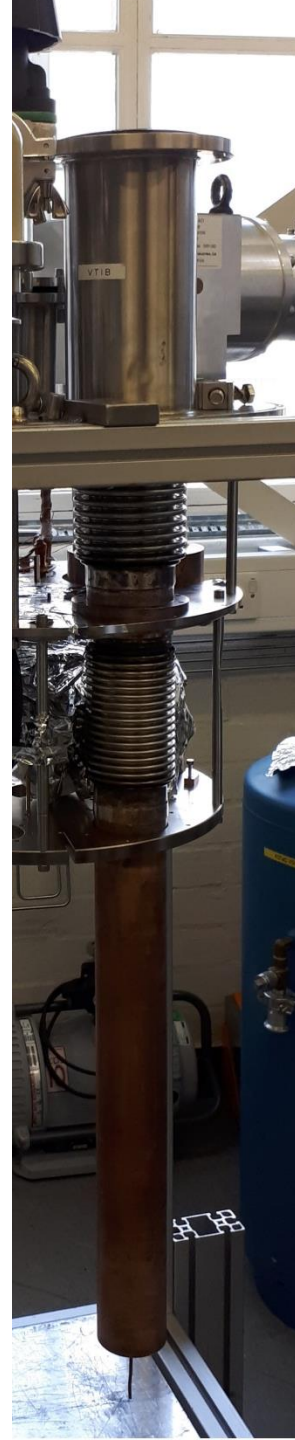
– Is being tested

- Further investigations into improving Q-factor
- It will require tubular samples in ~2 months



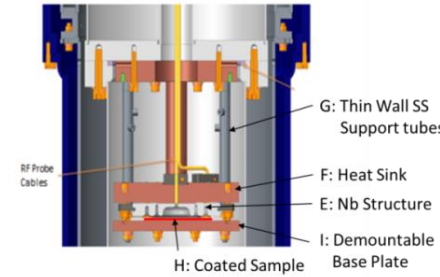
EXP800 VTI-B

- **Magnetic field penetration measurements on planar samples**
 - All stick pieces have been produced
 - Welding and braizing completed
- **Wiring has to be done**
 - Heaters & Thermocouples
 - Hall Probes



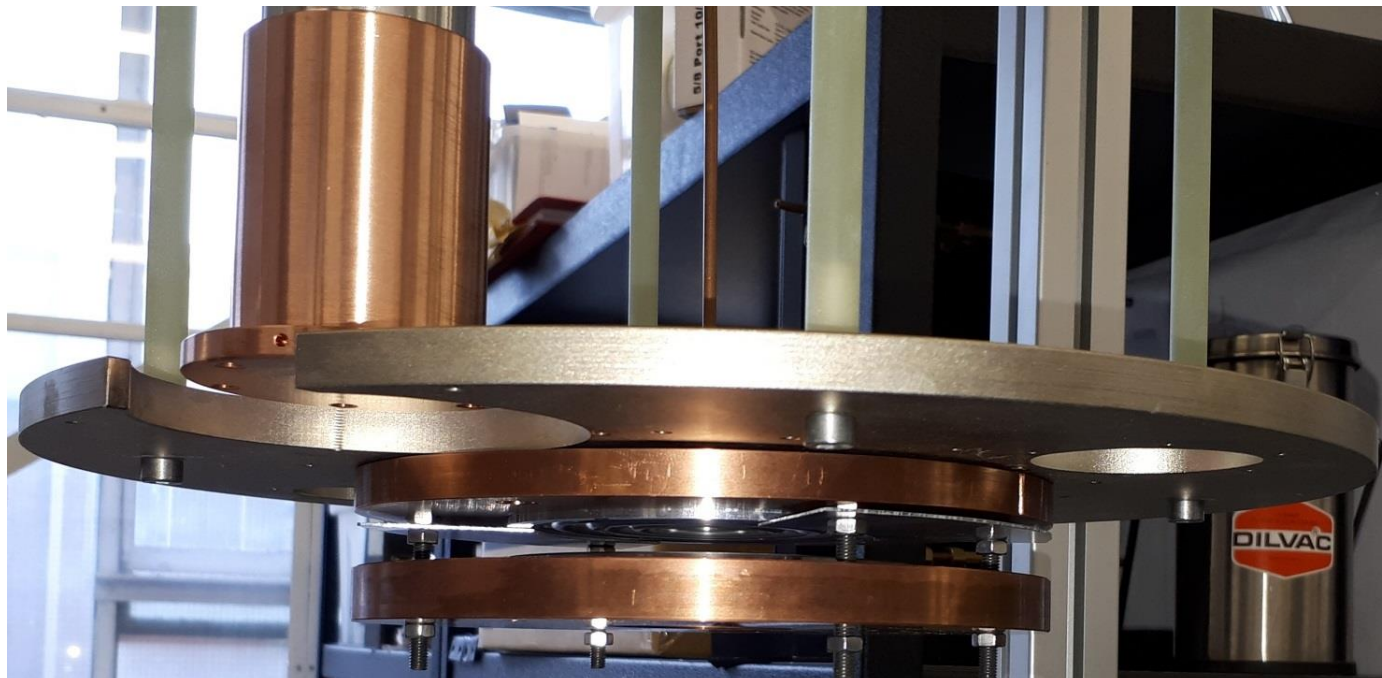
EXP500 -Superconducting thin film test cavity with LHe cryostat

- Two previously performed experiment analysis
 - complete
- The Magnetic shield
 - Arrived
- After installation of the magnetic shield the experiments will be repeated
 - After a new dry system assembled
 - On hold until resources available



Exp400 Superconducting thin film test cavity in a dry cryostat

- Cryogenic and all mechanical / vacuum hardware is ready
 - Thermometers have arrived
 - Wiring for heaters & thermometers started
 - Stainless RF cable being re-terminated
 - 2 flexible connectors and a feedthrough being manufactured
- All parts arrived:
- Dismounted and cleaned in vacuum services - complete
 - Assembled in clean environment
 - Heat links have being cleaned and will be mounted next week



Exp400 Superconducting thin film test cavity in dry cryostat

- A new frame with an air filter is ready in the crab laboratory
 - A filter is ON
- He hoses from the compressor should be relocated to the crab lab.
 - Job in progress
- He and N₂ lines installed
- Pumps have arrived
- Turbomolecular pump is mounted

