



# Investigation of Nb thin films deposited on QPR sample B2

**Stewart Leith, Michael Vogel**



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- QPR sample coated with 2 μm Nb layer by DCMS
  - SUBU treated Cu – Pitting evident
  - High  $T_C = 9.5$  K,  $\lambda(0$  K) =  $120 \pm 4$  nm
  - Spots on surface due to dust incorporation
    - No surface blow prior to fitting



- Homogeneous film thickness across QPR sample
- Poor performance due to dust?
  - Ionising gun and gas line filters purchased



415MHz:

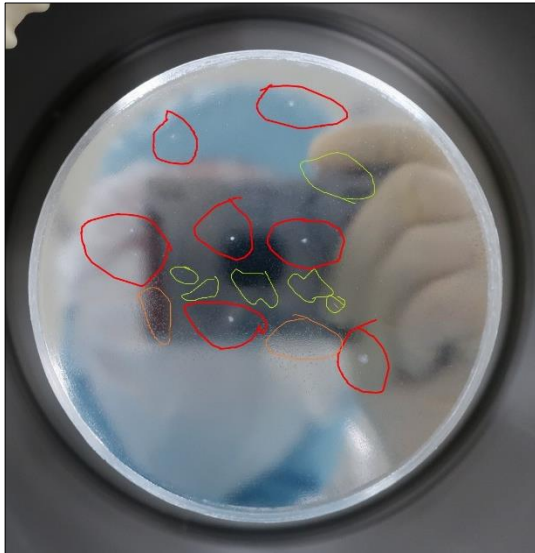
$R_{\text{res}} \sim 125 \text{ nOhm}$

$B_{\text{quench}} > 70 \text{ mT}$

848MHz:

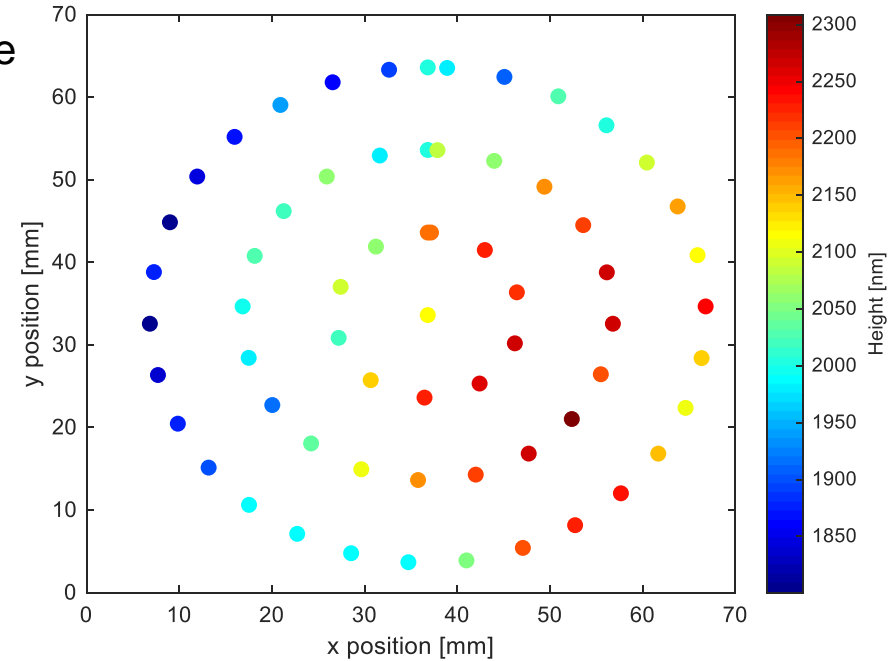
$R_{\text{res}} \sim 295 \text{ nOhm}$

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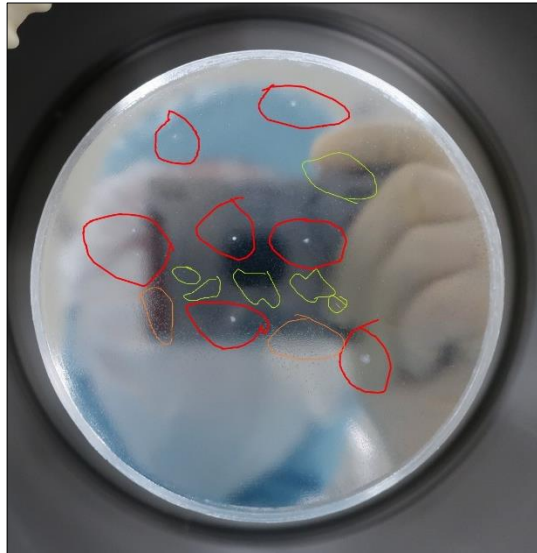
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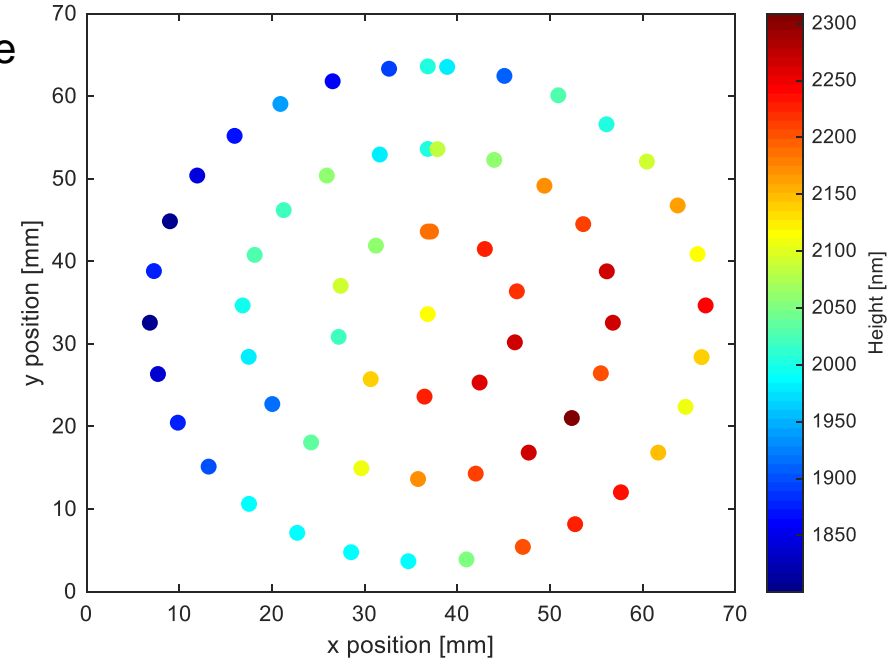
XRF measurement of QPR sample surface.  
 Measurement courtesy of G. Rosaz

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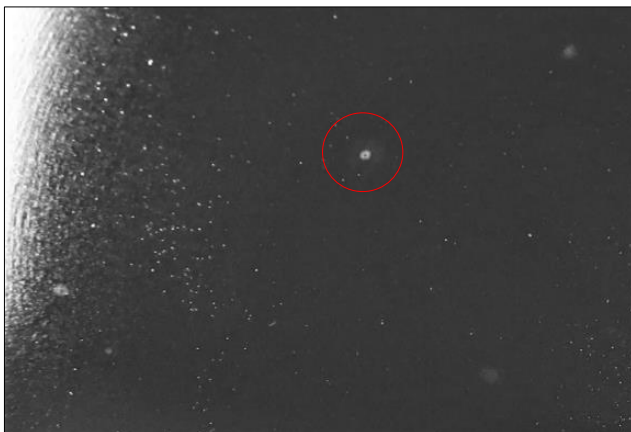


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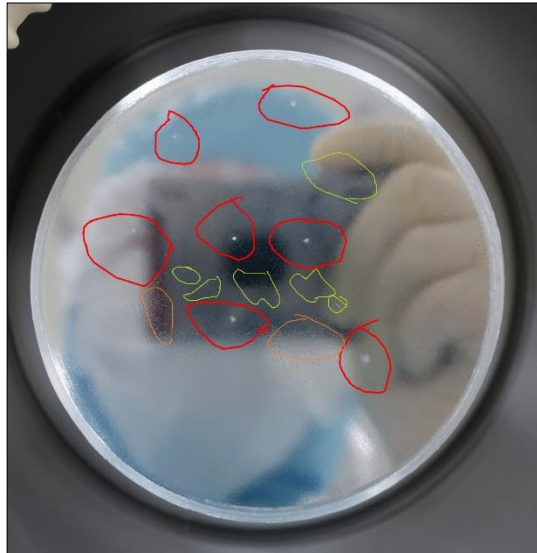


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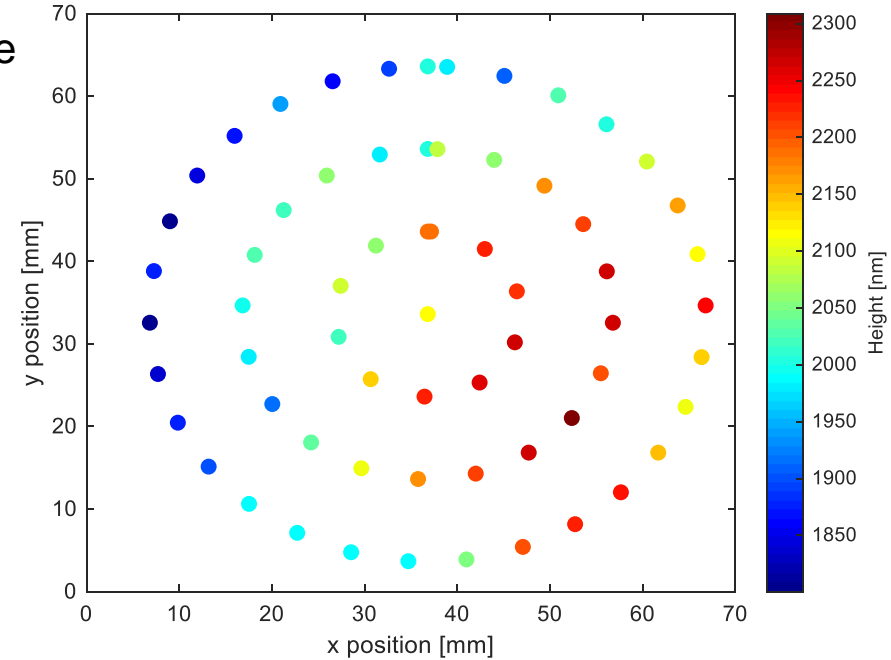
Images courtesy of A. Perez Fontenla

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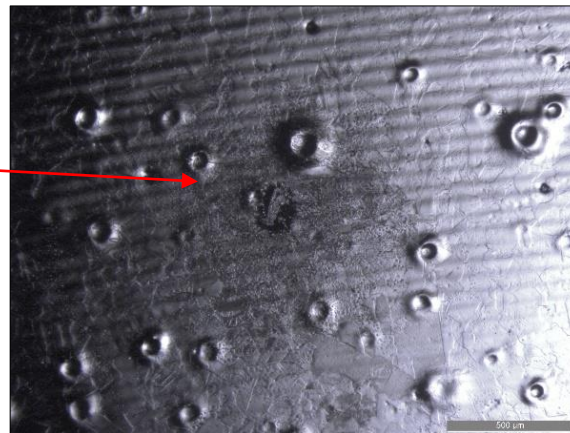
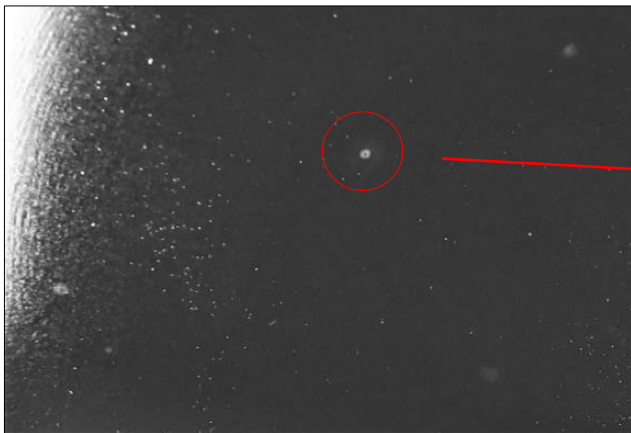


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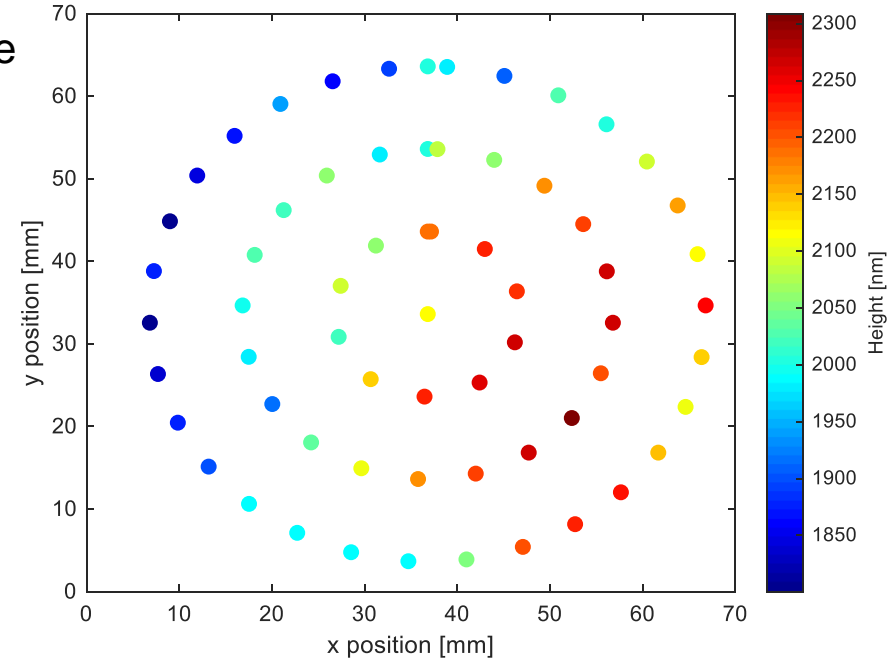
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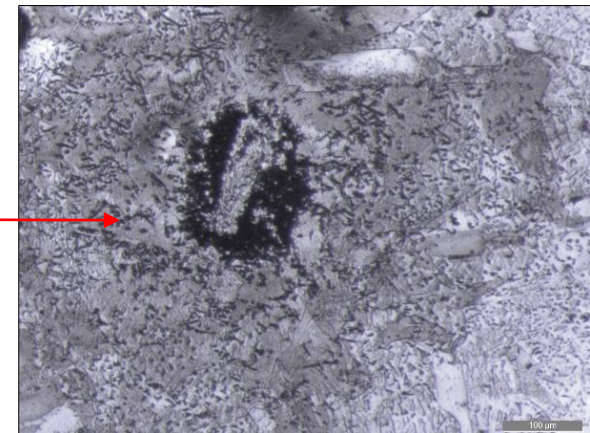
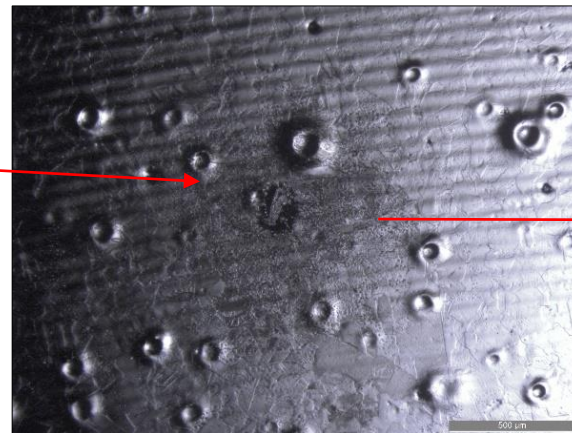
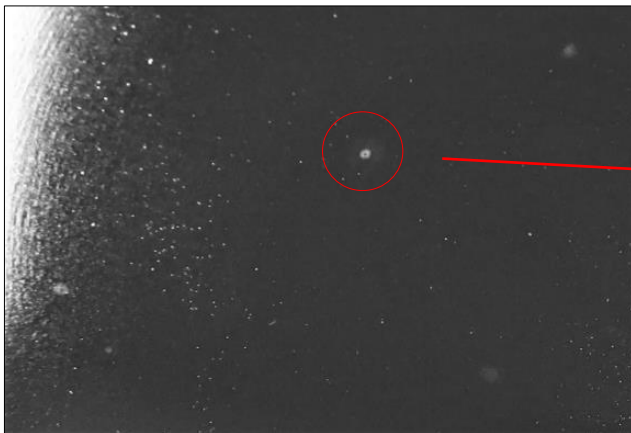


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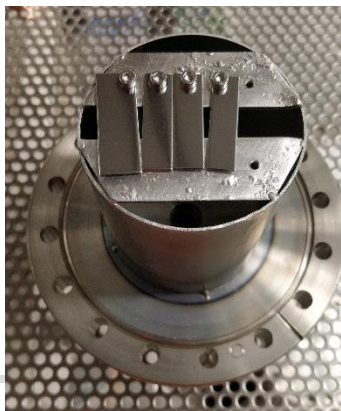
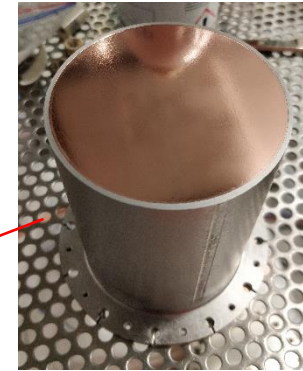
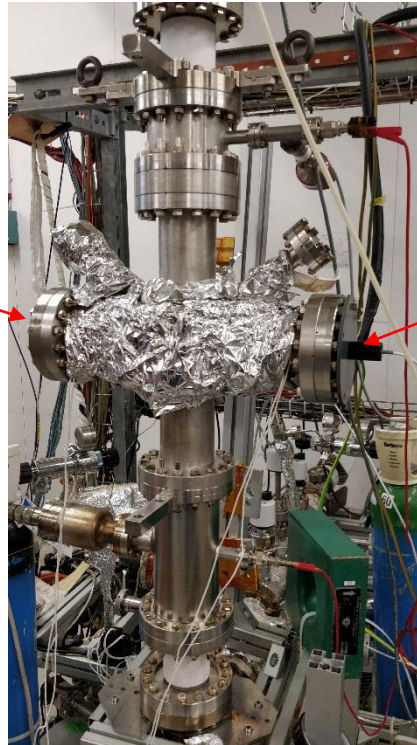
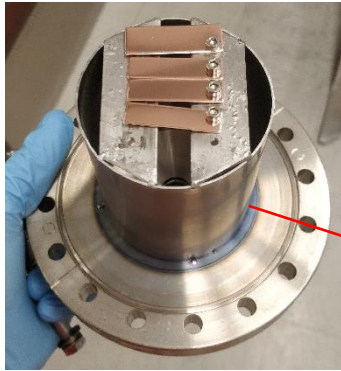
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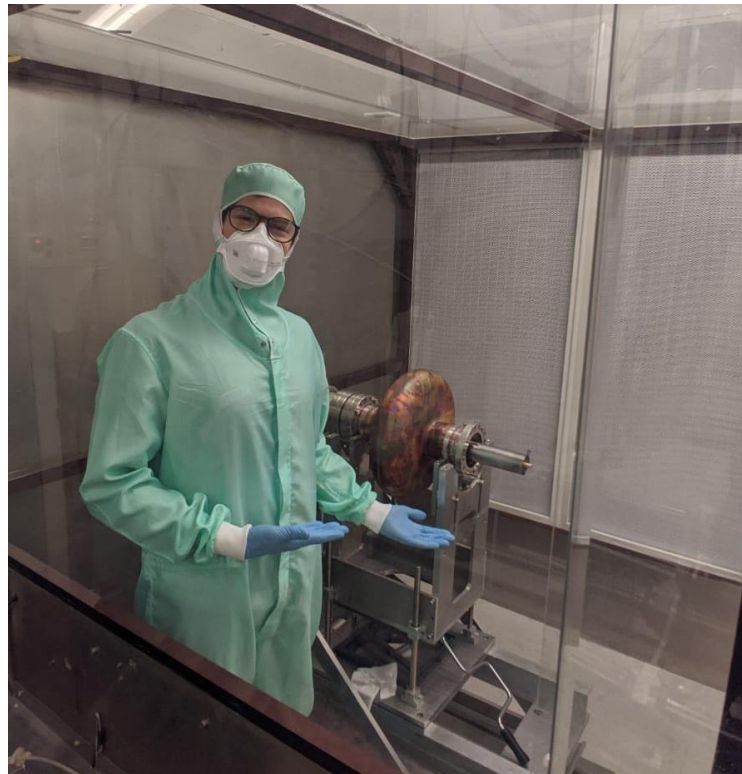


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# Thanks for your attention!



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