

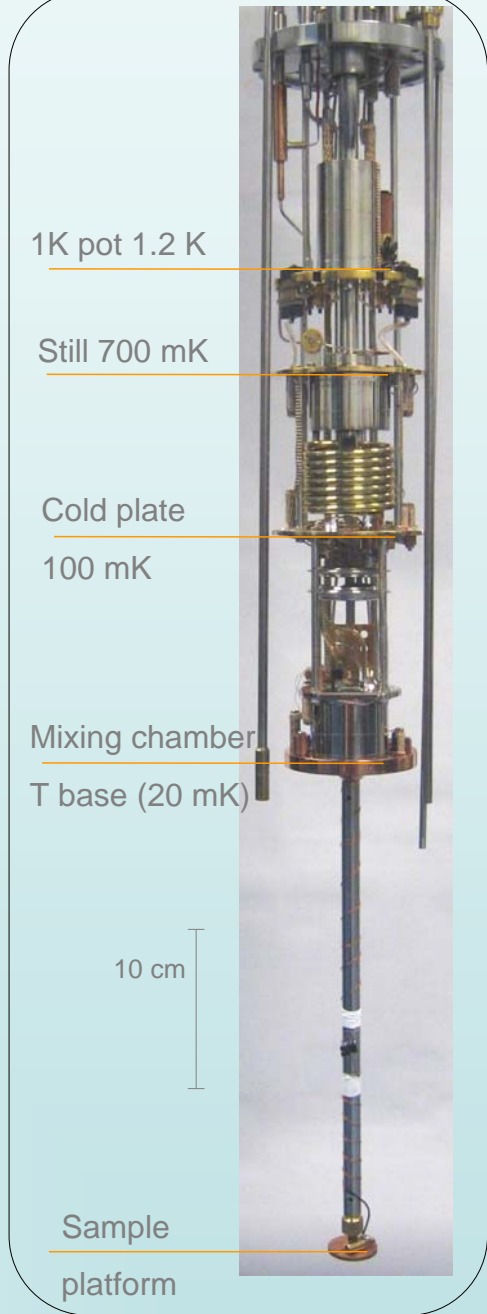
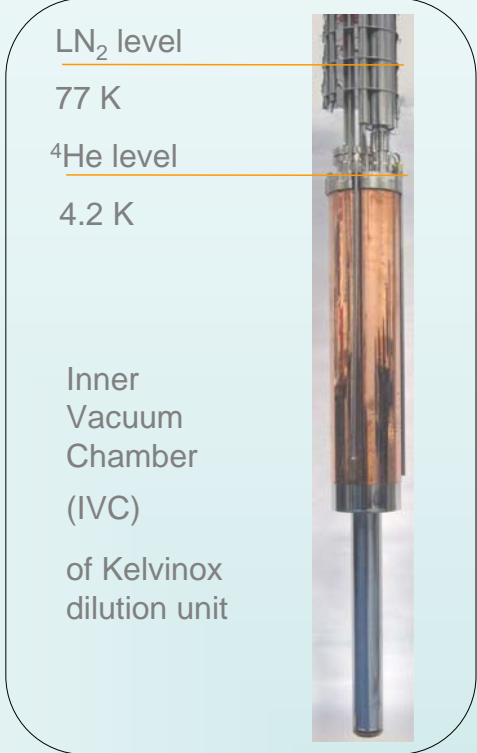
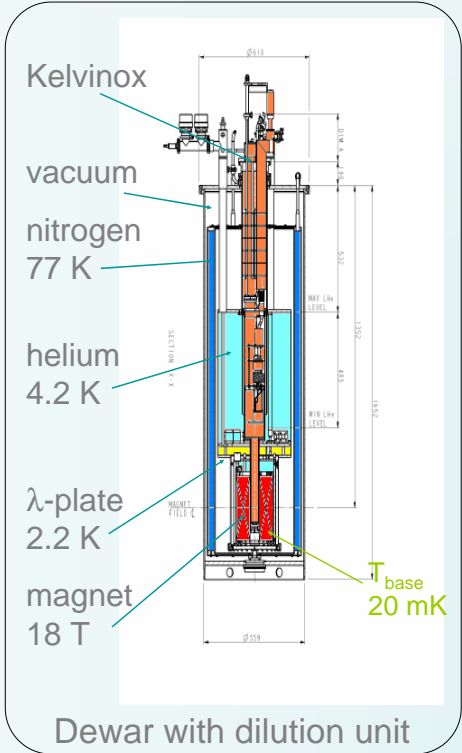


# Dilution refrigerator

Oxford Instruments Kelvinox MX100



**Base temperature 20 mK**  
**Cooling power 100  $\mu$ W at 100 mK**  
**Magnetic field 18 T**

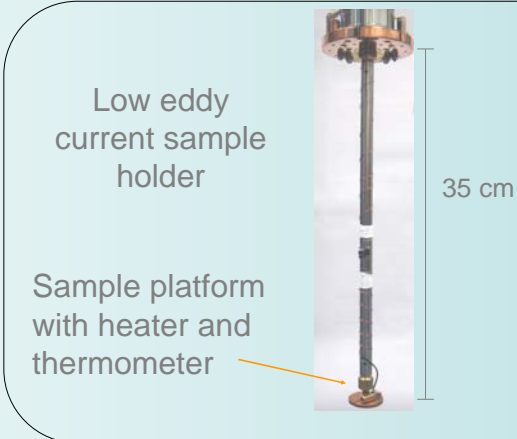


Dilution refrigeration principle instead of evaporation of a liquid, dilution of <sup>3</sup>He in a <sup>3</sup>He/<sup>4</sup>He mixture is used

<sup>3</sup>He/<sup>4</sup>He mixture phase separates below 0.9 K

Schematic overview dilution refrigerator

- Experiments:
- magnetoresistance
  - thermal expansion and magnetostriction
  - specific heat



Resistance thermometry

