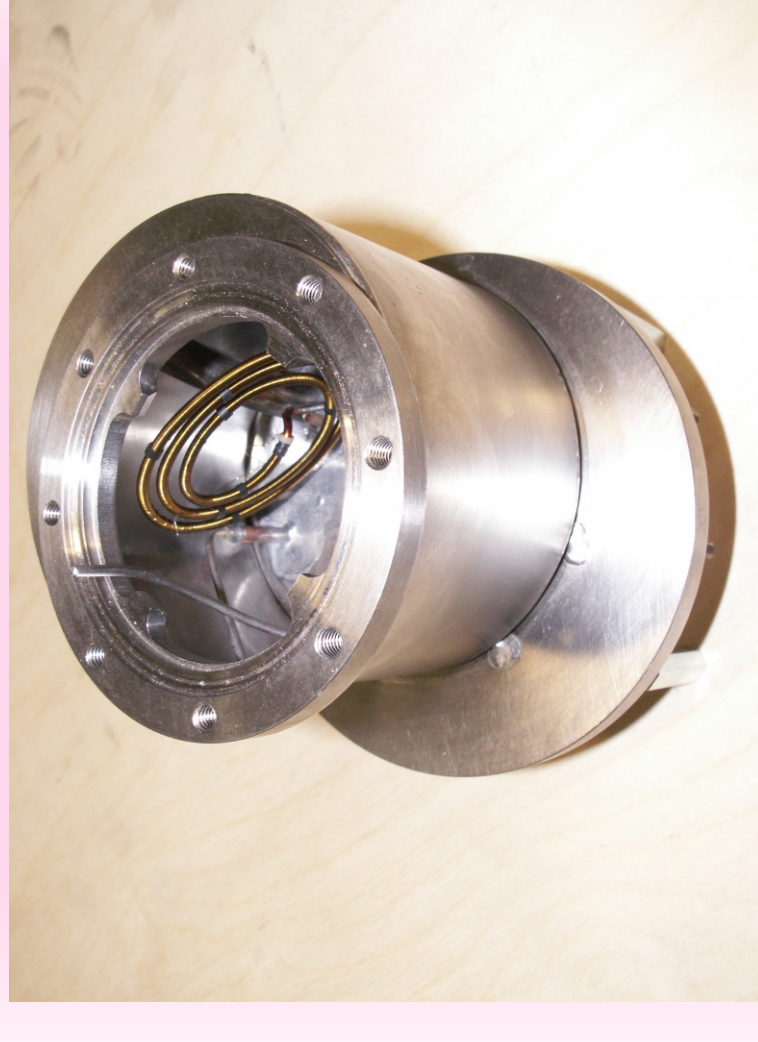
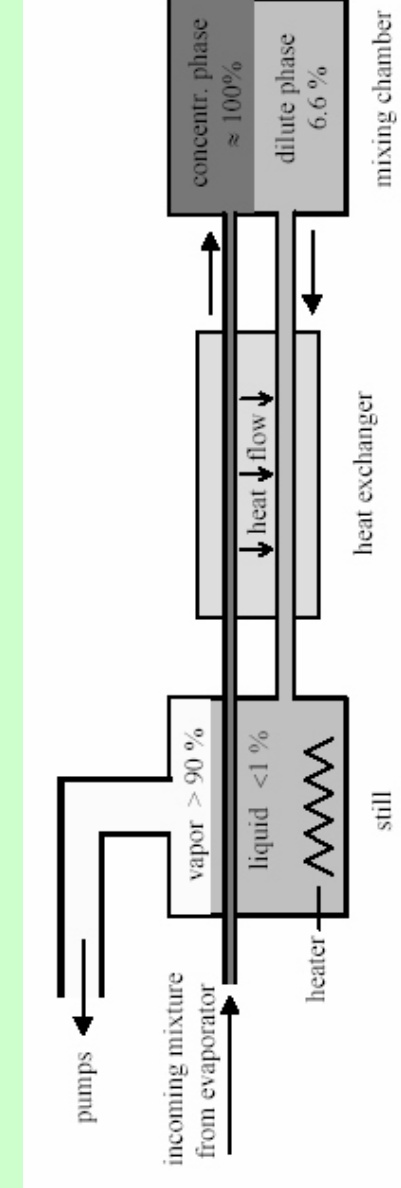
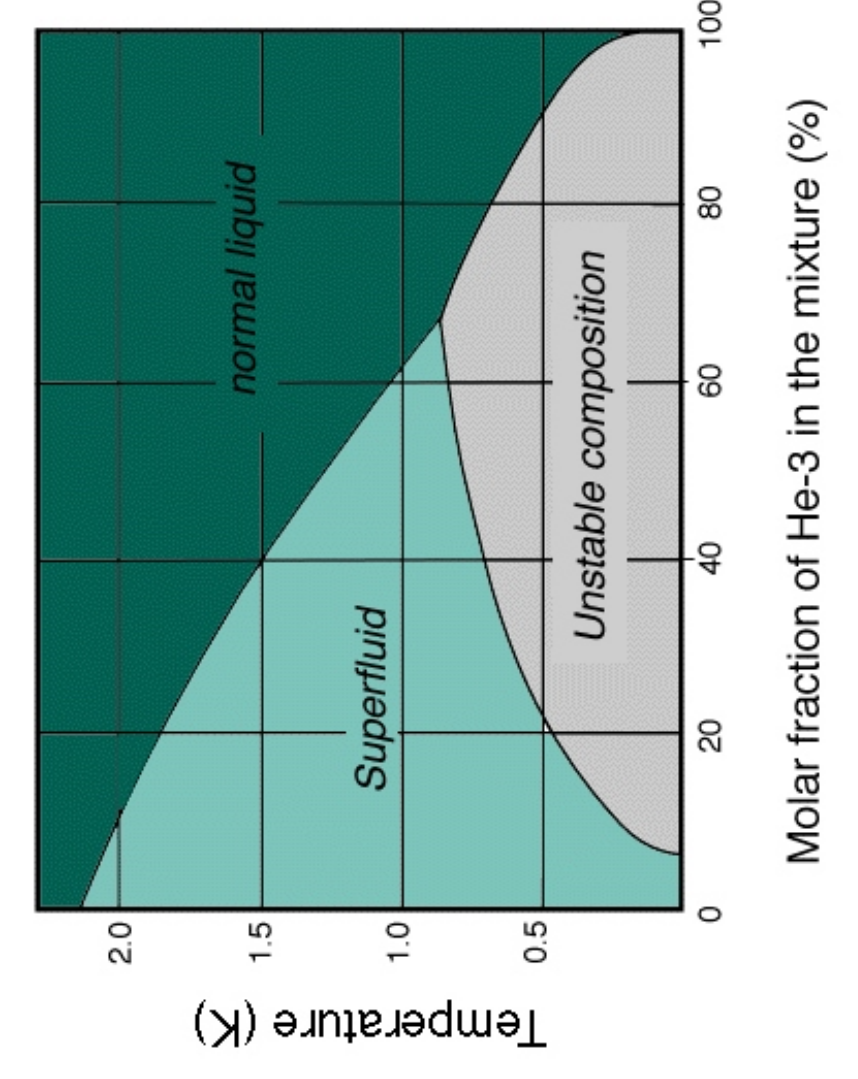


Mainz-Dubna Dilution Cryostat

He3-He4

Dilution Refrigerator

- * Below the tricritical point ($x=67\%$, $T=0.867\text{ K}$) the liquid separates into 2 phases:
 - upper: Concentrate phase
 - lower: Dilute phase
- * Pump out He3 gas of the dilute phase
- * The He3 make a transition of phase from concentrate to dilute. This transition consumes energy: cool down. Temp = few mK

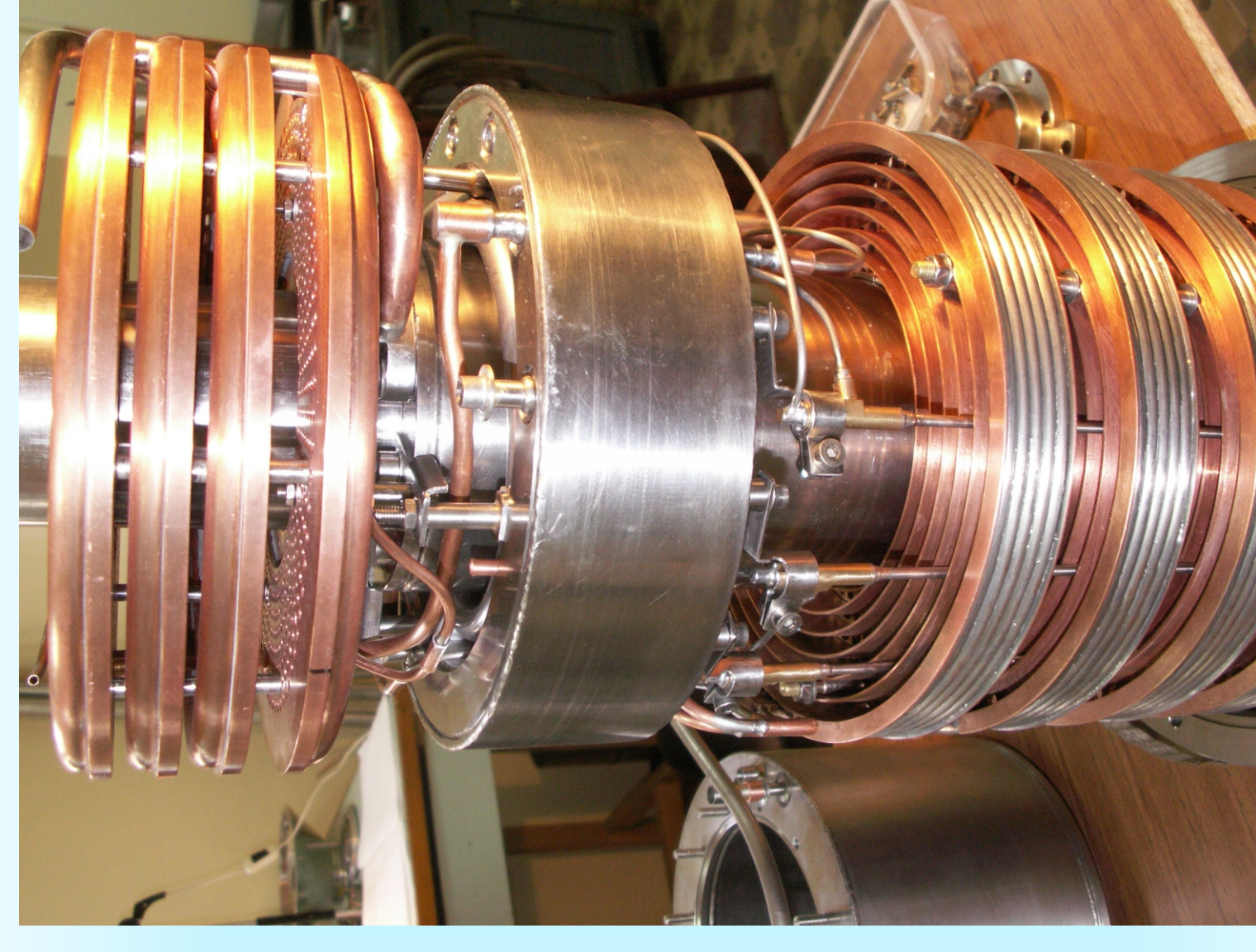


Still

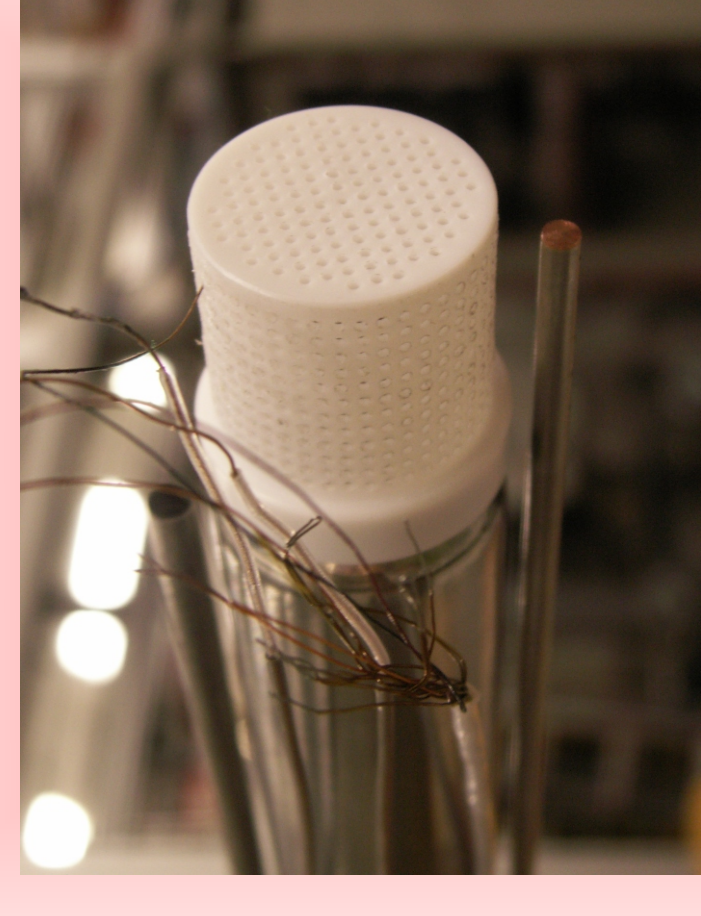
Evaporator Helix



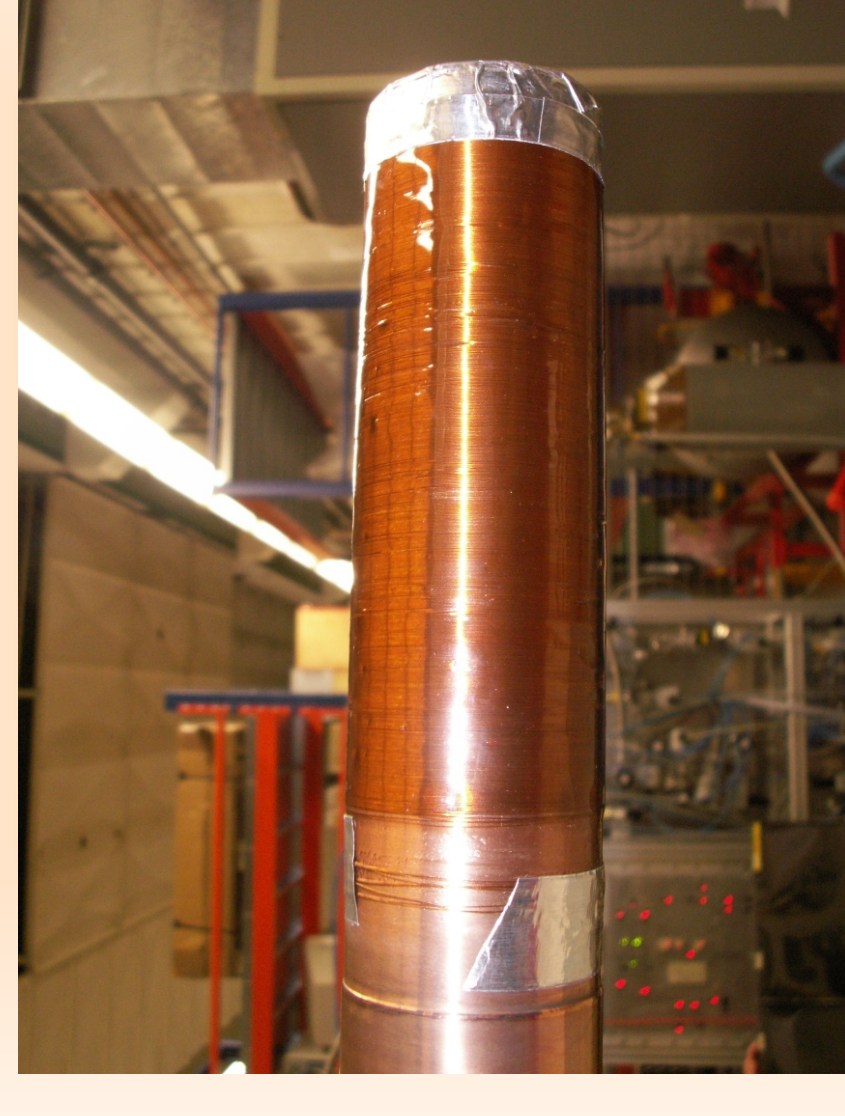
Evaporator



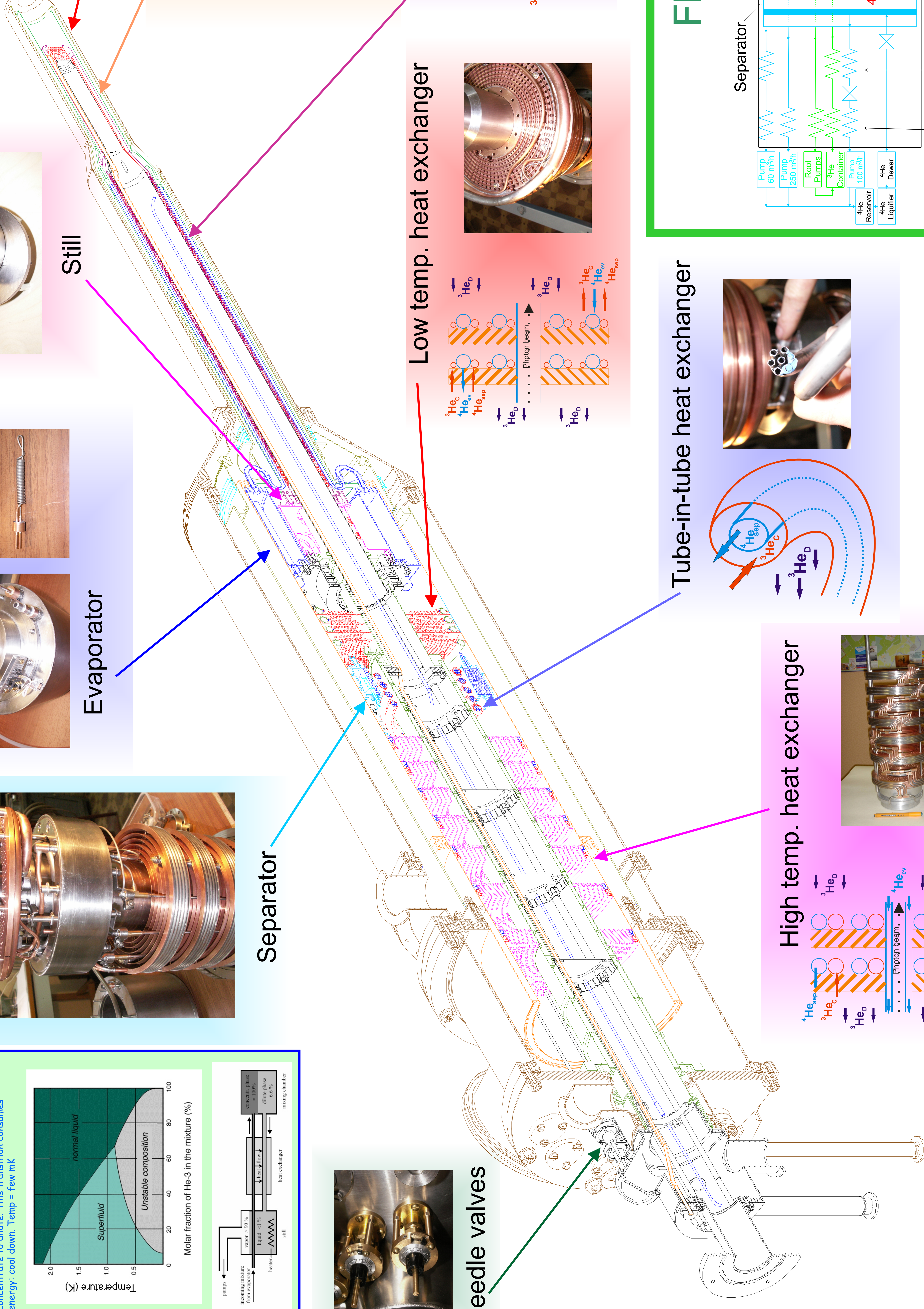
Separator



Target cell

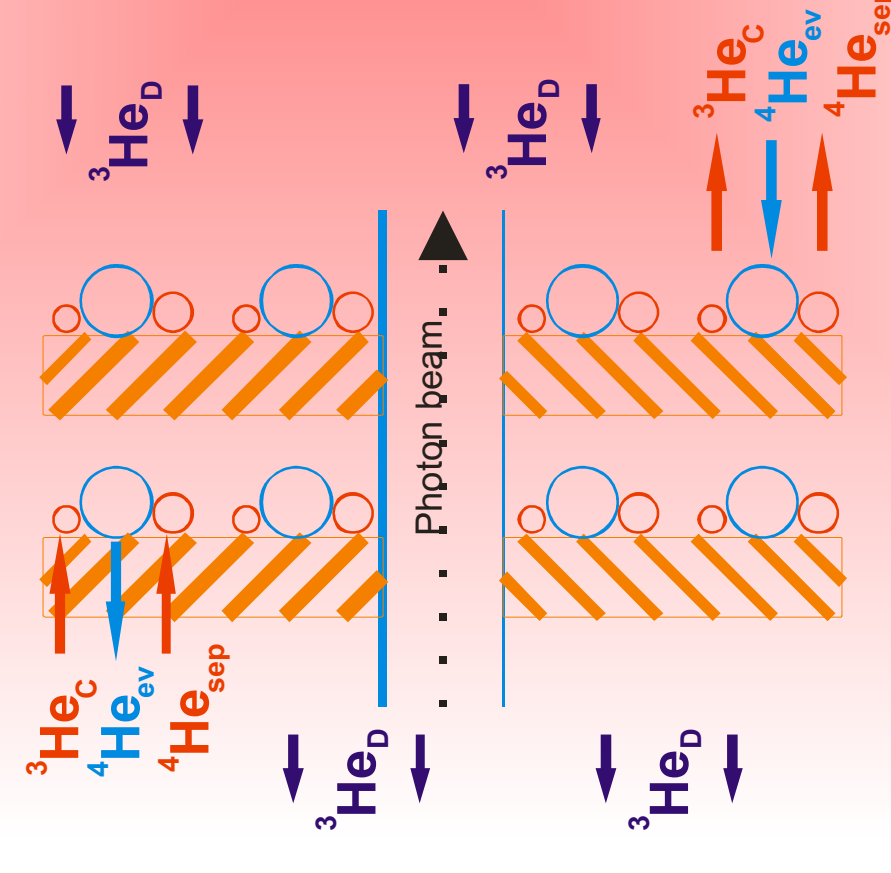


Holding coil

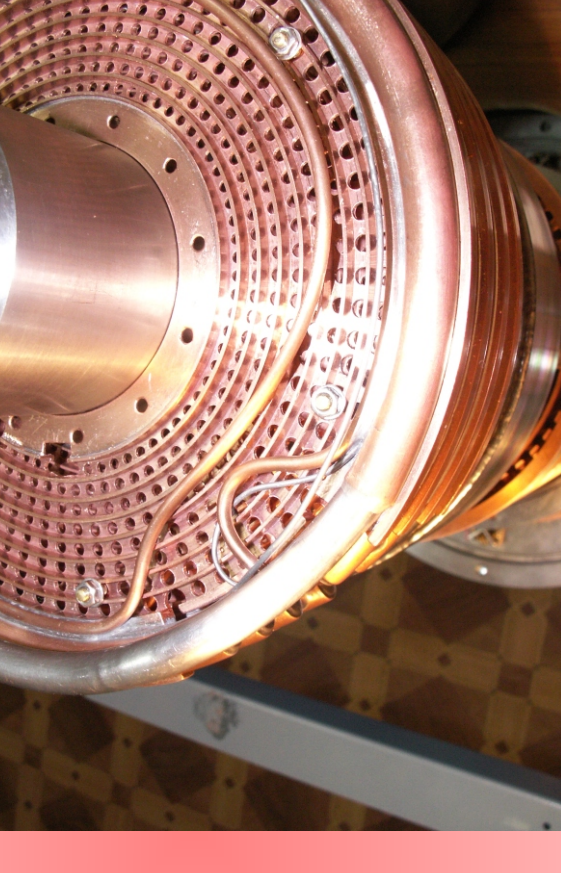
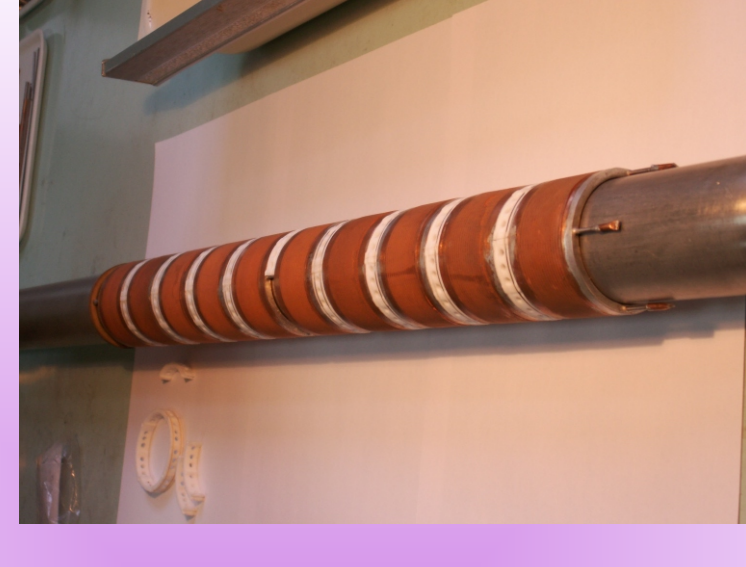


Needle valves

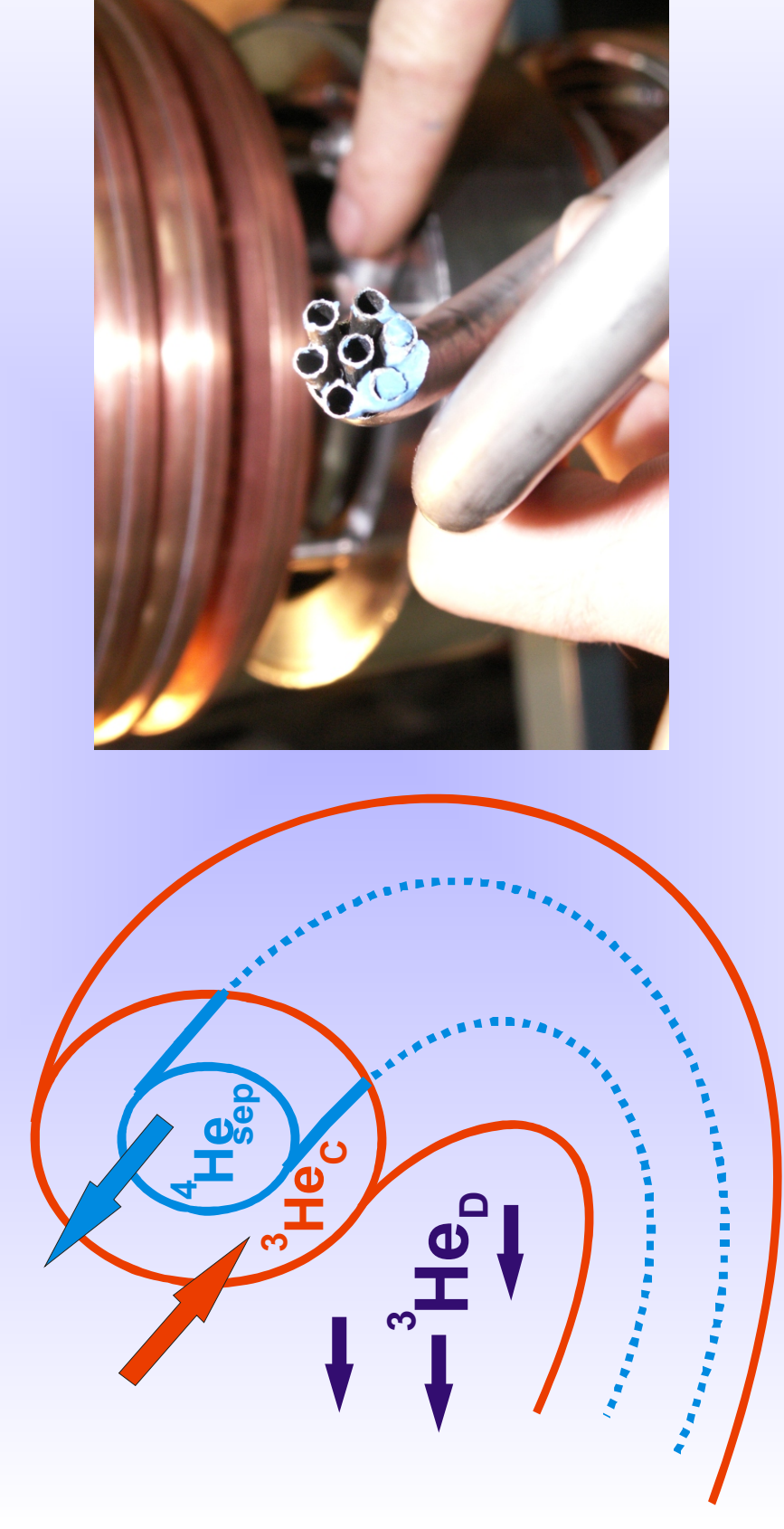
Low temp. heat exchanger



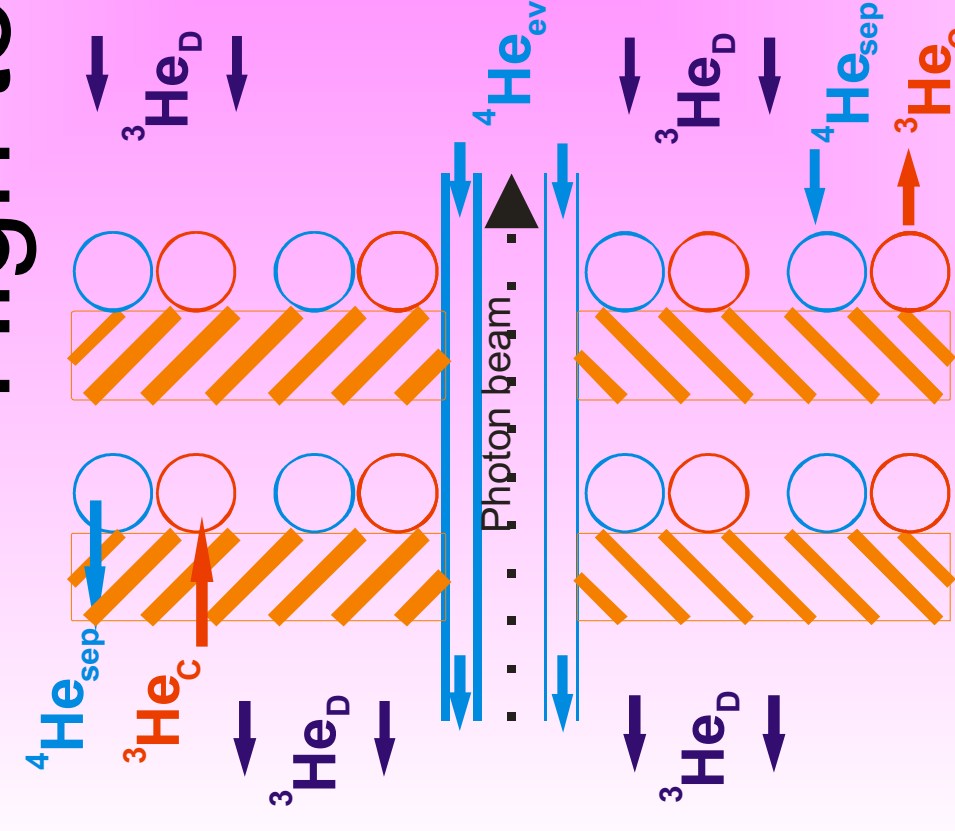
Sinter heat exchanger



Tube-in-tube heat exchanger



High temp. heat exchanger



Flow Diagram

