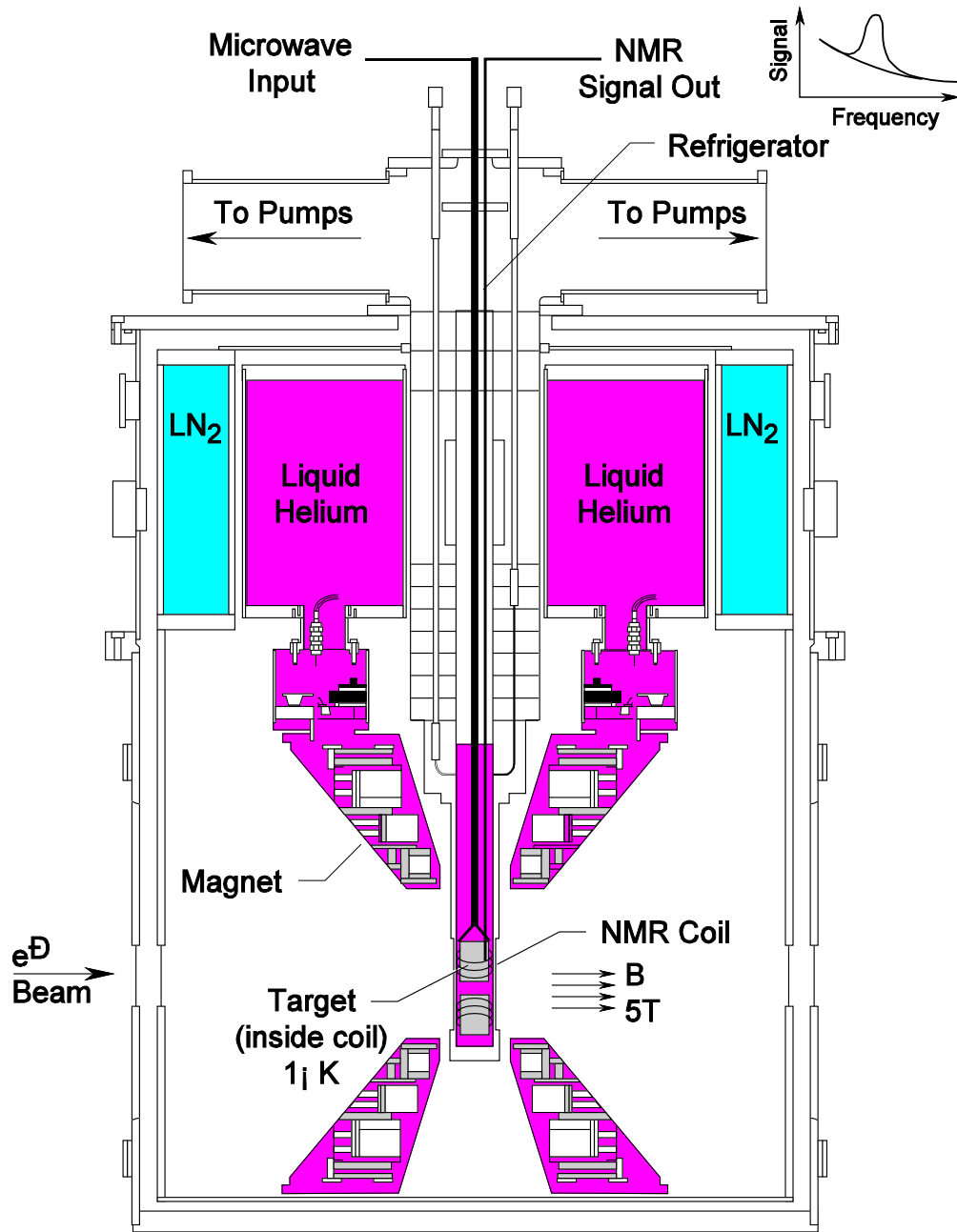


POLARIZED TARGET ISSUES

What needs to be done

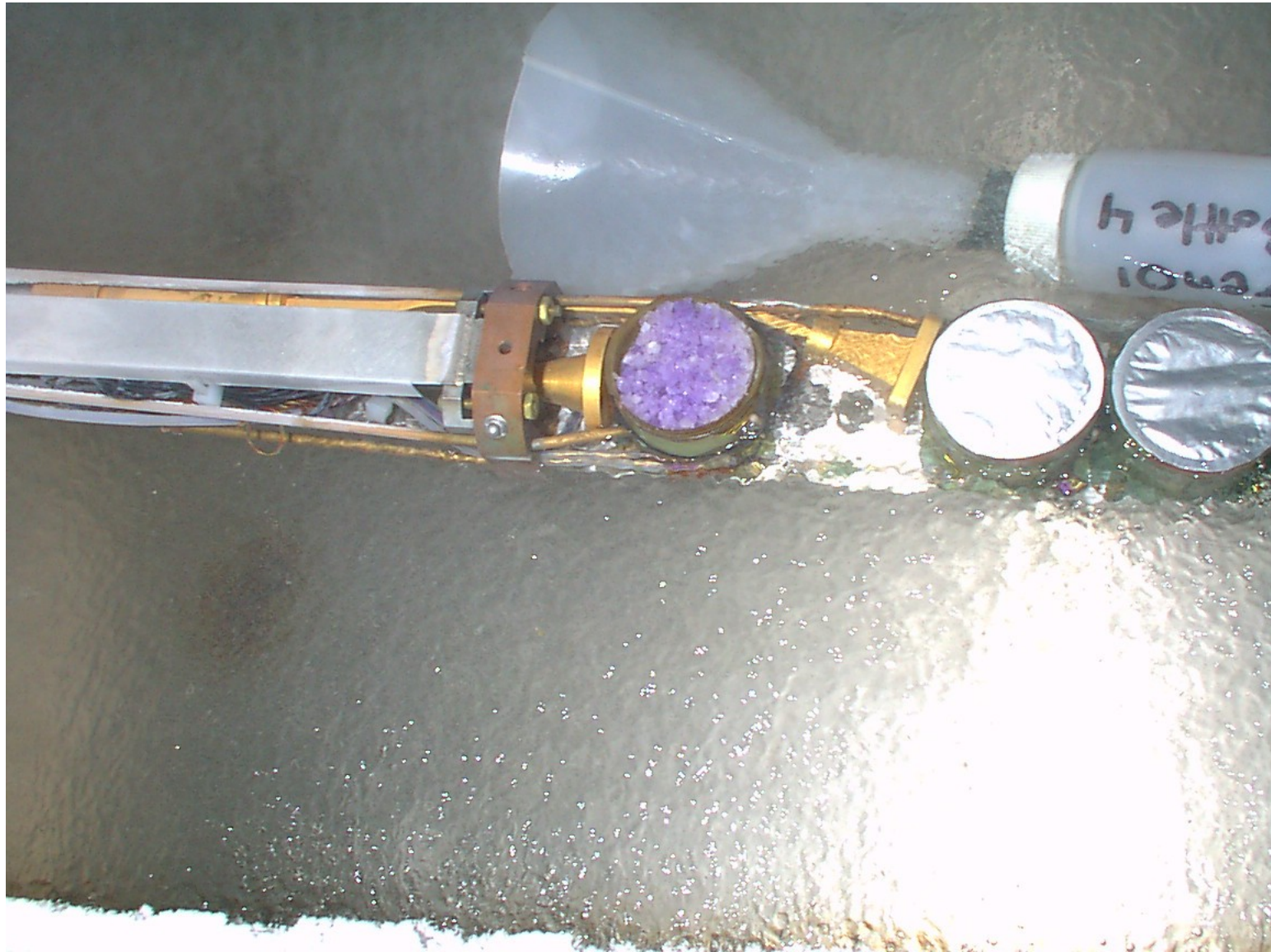


Cans and Shields

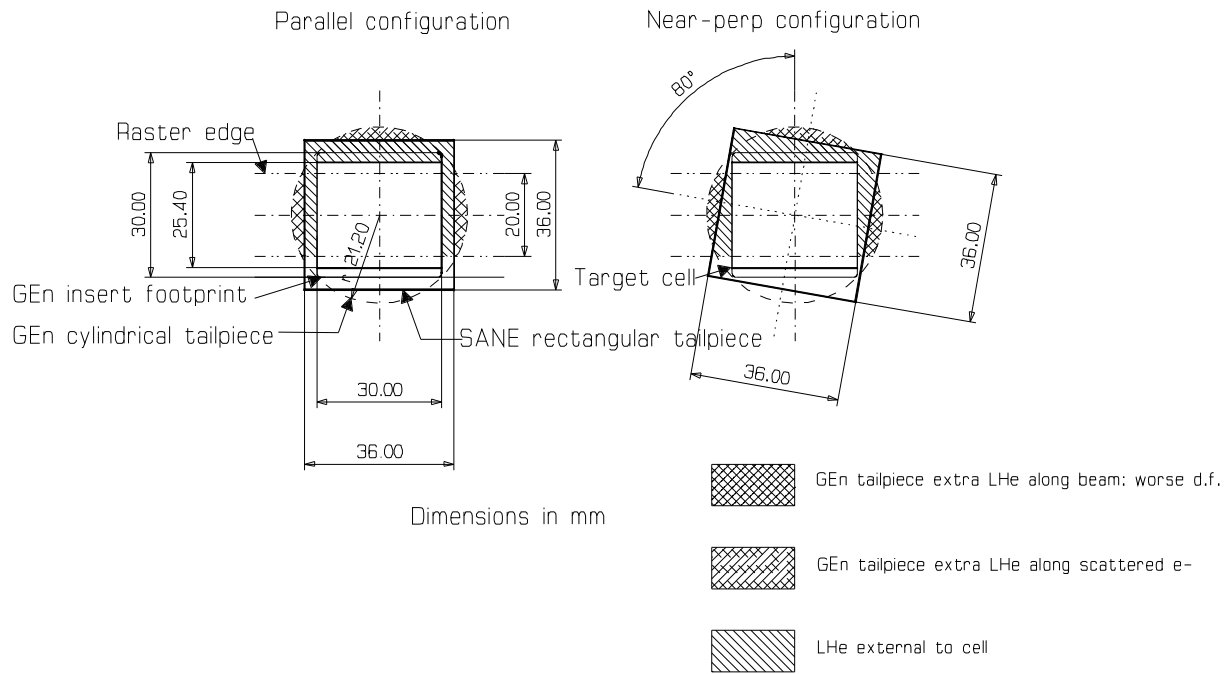
- OVC and Nitrogen shield - Shige
- 4K Shield – redesign. Simple tube of .001” Aluminum?
- Refrigerator Tail piece – rectangular (SLAC) or cylindrical (GeN/RSS)

Insert and Material

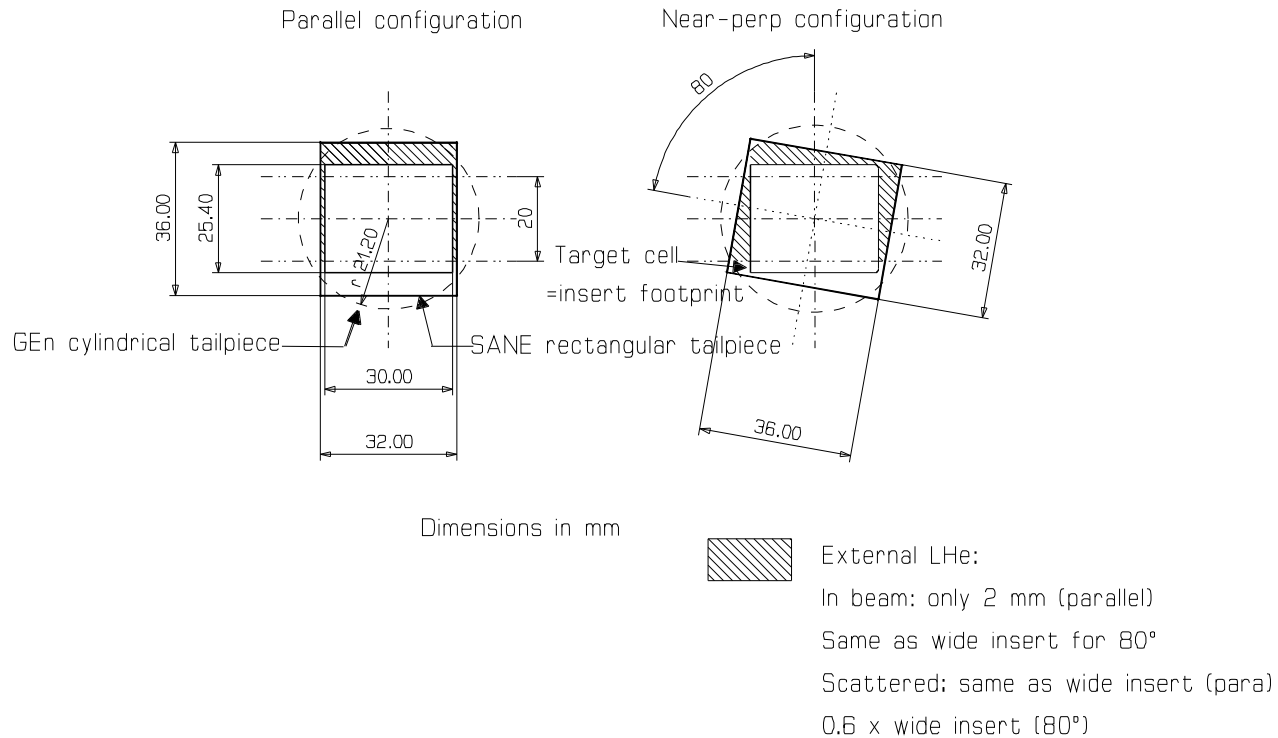
- Inserts to be refurbished. Radiation damage to the Kel- F cups
- Have 3 + 1 inserts, Probably need all 4.
- Other materials to be used besides Kel- F for radiation resistance? Most such materials (Kapton, Torlon) have some hydrogen (3 – 5%).
- Requires extra step in TE and might acquire some polarization during experiment.
- Redesign Cup - some ideas from Oscar.
- Most particles go through side wall of cup, except for the beam.
- Need to figure out a fool proof method for insertion



Insert Design Options (I)



Insert Design Options (II)



Ammonia ($^{14}\text{NH}_3$)

- Oscar estimates 14 full cell loads
- (8 g/load) for SANE
- Have ~200g on hand at UVA, but unirradiated. The MIRF facility has been down for several months (broken part) but expect to start up in early May. So will irradiate in the summer and polarize to test the effectiveness of the irradiation. I hope the price of helium will have gone down by then

TESTING

- The refrigerator and the shell for this experiment are at UVA and more or less identical to that being operated in our Lab.
- Testing of inserts and material will be done at UVA before moving the operation to JLab
- The magnet needs to be taken out of storage and operated.