PT status and planning

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Outline

• Magnet commissioning and dry-run outcome
• Gunn diode status
• Planning
Magnet timeline

- 29/10 magnet at 4K
- 3/11 cryostat full with lHe
- 3/11 start MSS commissioning
- 11/11 dipole at full current
- 16/11 solenoid at full current
- 23/11 NMR communication test
- 24/11 safety region for field rotation check, dipole + to solenoid + to dipole +
Field rotation
Magnet summary

- Magnet cooling test successful!
- Very efficient work with EP-DT
- Few minor hiccups due to upgraded power convertor system
- To be done before next cool-down:
  - exchange LN2 turret o-ring
  - clean power cables connection at magnet turret
  - check lHe level gauge
Gunn diode test

- Gunn diode delivered in October
- 1/12 First test in “laboratory conditions”
**Gunn diode test**

- 3/12 move the test setup to 888
- Successful generation without magnetic field
- Generation stopped in magnetic field (~30mT)
- Fuse exchanged in the PS
- 7/12 measure cooling fan consumption in magnetic field
- Exchange 5 A fuse for 10 A
- 8/12 USB connection problem → fix USB connection in the synthesizer box
- 9/12 successful generation with and without field
Gunn diode test

- Full system sent back to manufacturer for modifications:
  - improve the cooling system (fans)
  - frequency modulation
  - larger frequency range (currently 69.8-70.2 GHz)
  - fuse holder (for easier fuse exchange)
  - heat protection and temperature monitoring (via DCS)
Gunn diode installation

- New support table needed (about 1 m from DR)
- New air blower to be installed (cooling)
- Long wave guides needed
General

- LHe stopped on 8/12 → warming up
- Diffusion pump stopped on 16/12
- 3He circuit to be reconnected
# Planning

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Manpower

- Nori, Christophe, MP
- Jaakko: available
- Gerhard R., Kaori, Stefan R., others: tbc
Spares
Safety region for field rotation

MSS for field rotation

Dip

+465 A

-236 A

-135 A

+80 A

+135 A

-80 A

-465 A

+236 A

Sol

To be checked

Allowed region by MSS