

Minutes of the TITAN Meeting (taken by C. Champagne)
Held on the 19th of July 2007

Present: Paul Delheij, Mel Good, Vladimir Ryjkov, Alexei Bylinskii, Christian Champagne, Thomas Brunner, Cecilia Leung, Maxime Brodeur, Mathew Smith, Alain Lapierre.

RFQ

- The composition of the ions entering the RFQ were most likely Lithium. For positive confirmation, we decided to use Matt Pearson's laser to detect them.
- In order to get a higher degree of certainty with the laser, the voltage applied on the RFQ must be as high as possible.
- Once the applied voltage on the RFQ reached 40 kV, a spark was detected. Most likely from the filament supply. A Push-Pull switch was short-circuited and has to be replaced.
- A spark was also detected on the Einzel lenses and a second Push-Pull switch was short-circuited.
- May borrow some switches from Vladimir on Monday as a temporary solution.
- We can send the broken switches to McGill to fix them. The run-around time is about a week.
- The RFQ should be fully operational within one week.
- We should condition the RFQ system at HV before online beam time.

EBIT

- The Machine Shop is still working on the Einzel Lenses Housing. Should be completed within a week.
- Planning to turn on and condition the EBIT on the 2nd week of August.
- The drawings of Cecilia's detector are in the Machine Shop. ETA: 1-2 months
- PEPS detector is working now in the TITAN Cage.
 - o Did some sample spectra of Alpha emissions of an Am source.
 - o Planning to measure the efficiency and change the distance between the source and detector.
 - o Can't use the electron source. It's being used by 8Pi. Planning of using it in 2 weeks.
 - o Planning to measure pulse length spectrum
 - Will use the computer on TITAN Platform
 - Need to look at the timing issue with the Maestro software.

Penning Trap

- The vacuum in the trap is currently around 4×10^{-8} .
- Planning of creating ions inside the trap and extracting them.
- Perform extraction by RF excitation parallel to Magnet field to see the composition of the ions.

- Need to test MIDAS properly and make it work too. Pierre Amaudruz will work on it.
- Need to make sure that the data acquisition system works properly.
- Within one week, some preliminary spectra measurements will be done.
- The EPICS commissioning of the Penning Trap was delayed until this past Tuesday. It's almost complete: some software bugs and reversed power supplies polarity need to be fix.
- Brian Lee is working on the MIDAS micro-controller.
- Alexei is working on the HV amplifiers, trying to resolve the noise issue: seems to appear randomly (20 mV). The spec where asking for < 10 mV. Will have to consider other avenues if can't solve it.
- The Penning Trap will take the beam from the RFQ on the 1st week of August.
- After TOF testing, we'll need to install a pressure regulation system to test the magnetic field drifting of the Penning Trap.
- RF Amplification:
 - o Whole system (minus amplifiers) is assembled. Currently doing some measurements on it.
 - o The 50 ohm cable doesn't act properly with shield.
 - o DC cable should be ready tomorrow (Friday)
 - o Will test everything next week (RF generator)
 - o Did some noise tests today: < 10% of pulse got reflected and there's more reflection in the first part of cable.
- Maxime measure the effects of pulsing on the drift tubes @ 10 MHz
 - o A 150 mV pickup on the Lorentz Steerers.
 - o A 30 mV pickup on injection electrode.
 - o Will need to use a capacitor and resistor to isolate the pickup.
- Will fit a 4-channel temperature sensor (resolution 10 mK) for monitoring.

Misc.

- For extended leaves, should fill out a Travel Commitment form to know who's gone.
- Summer Student presentations on July 31st.
 - o Will have a practice presentation on July 27st @ 3:30 pm for them and for Alain's presentation.