TITAN General Meeting

Date: Tuesday, November 6th, 2007

Present: Jens Dilling, Paul Delheij, Ryan Ringle, Mathew Smith, Nikolina Ilic, Maxime Brodeur, Mel Good, Alain Lapierre, Thomas Brunner, Christian Champagne, Dave Lunney

Beamtime

- Saturday
  - Tried to measure ^{17}Ne, but we unsuccessful (see eLog book)
  - Tried to measure "other stuff": H_20, ^{16}O, ^{18}O, F, ^{20} Ne, ^{23}Na
- Sunday
  - Operators tuned the beam to get the maximum output for mass 8
    - The beam was mostly composed of $^{16}O^{+2}$, not ^{8}Li
  - After scanning the beam and measuring radioactivity at the Yield Station, the proper settings were found for ^{8}Li and the beam was transferred down to the RFQ & Penning Trap.
- FIBIAT is still outgassing and its emittance should shrink from 100 π-mm-mrad to at least 50, maybe even 20.
- For the next run:
  - We should rerun the same procedure to determine the composition of the outgoing beam using the Yield Station.
  - Shouldn't change the setting of the Penning Trap and RFQ once a run in is progress. Only change it one sufficient statistical data has be captured.
  - Start with ^{8}Li, and then proceed to switch the beam to ^{8}He.
  - Current date for next run: Wednesday, Nov. 14th 12 am – 12 pm (?)
- Will need to ask Cam about safety procedures involved in setting a Hydrogen line to the RFQ.
- The RFQ's maximum bunching rate is now 50 Hz. We should increase the run rate of the Penning Trap from 2 to 5 Hz.
- A Channeltron will be provided next week by Rolf.

EBIT

- Receiving new ceramic part for the Trap from Sasha this week

- Chris did simulation of the electrical wiring inside the trap. He did find a resonance at 60 MHz, as seen by Alain.
    - A few resistors connected in series were able to reduce a great part of the resonance.
- David Ross has finished the preliminary design of the Offline Ion Source Support Structure and now needs to be looked at for safety regulations.
- RFA drawings have been sent to the Machine Shop.
- There's a programming bug with the redesigned Simion Simulation, Christian is trying to find why.
- Brunner's nipple (between the Egun & Trap) is currently under construction at the Machine Shop. This was build to make enough space for the PEPS detector.
- MSU is asking for some of Gunter's Simulation of the EGun. Alain will take care of it.
- Alain is proposing, with the help of Nina, a rotating wall cooling design & either an Ion Cyclotron resonance or a sideband cooling system for the EBIT. Further discussion is needed.

Misc.

- Jens is proposing a group weekend (Thursday-Sunday) retreat (Hemlock Ski resort?)
    - A few presentations from current members about their latest work.
    - A date has to be decided shortly (next meeting ?)
- Matthew will be doing a presentation this Friday.