

Minutes of the TITAN Meeting

Held on the 16th of March, 2009

Present: Maxime Brodeur, Thomas Brunner, Paul Delheij, Jens Dilling, Stephan Ettenauer, Melvin Good, Alain Lapierre, and Ryan Ringle

EBIT

Alain investigated if it is possible to inject ions, charge-bred with the electron beam (80mA) and observe x-rays: as soon as the e-beam was turned on, no x-rays were seen.

The injection settings were optimized in the following way:

- 1) Inject ions without bias on collector and optimize settings
- 2) Inject ions with 1kV on collector, then 2 kV: settings needed to be improved.
- 3) Turn on electron beam

With bias on the collector the beam size is always larger than without.

Another idea would be to inject and eject ions without electron beam and voltage on the collector. This will be tried in the next week.

MPET

Pierre began to investigate the oscillation-noise problem on the softdac module. He suggested using the amplifiers in differential mode. Maxime e-mailed with the person who built the amplifiers, but currently there is no option for a differential mode.

Using the MCS instead of the scope it was investigated what is in the beam from the RFQ. Our settings for Li-6, Li-7, Na-23, and K-39 are clean, i.e. there is no contamination passing the TOF gate. However, K-41 and the oil molecule at A=58 are not clean. Considering the upcoming beamtime for Be-12 (and Be-14), Maxime and Stephan also looked in this mass range: A=12 is clean, but there is something at A=14, which is probably only there when sending full beam from the ion source into the RFQ. Since the yield of Be-14 will be very low this won't be an issue. Nevertheless, it will be tried to identify the stuff at A=14.

Investigating other mass ranges it was found that stuff seems so come in islands, but starting at around A=85 we see something at every mass unit.

Could we get rid of all these molecules by a cold panel?

CPET

The magnet is still not shipped.

A meeting with Gerald is planned for this Thursday. Ryan will perform simulations for the Lorentz steerer. Mel will look into safety issues concerning moving the magnet while the magnetic field is on.

In-107: EC-BR

Thomas and Stephan made efficiency measurements with the big Ge detector. For high energy gammas the efficiency behaves as expected but for the low energy range the data is not conclusive. Unfortunately, we do not have more sources to investigate this in more detail. Based on this efficiency a first calculation of the EC-BR for In-107 was done: The literature value is within the error of our value, but our error is very big (due to the problems of our efficiency and to the fit of the relatively few counts in the peak.)

Action Items:

Thomas: continues In-107 analysis

Ryan: simulation of Lorentz steerer

Maxime & Stephan: preparation for beamtime

Alain: switch between e-beam on / off, check with Gerald concerning the meeting