

# TITAN meeting

Thu January 13<sup>th</sup>, 2011 (14:30)

*Present:* Jens, Aaron, Benjamin, Brad, Ernesto, Usman, Vanessa, Martin

## **Comment on $^{78,78m}\text{Rb}^{8+}$ (Aaron):**

Aaron found a paper where  $^{81,81m}\text{Se}$  was resolved in a Penning trap (link below), which is a lower lying isomer at higher mass and similar half live (couple of minutes). This was achieved with singly charged ions and more than 1s excitation time. Hence we have to focus on the fact that our approach (highly charged) is transferable to very short lived species (we used only 200ms excitation time).

<http://www.springerlink.com/content/224n06020h507406/>

Jens introduced Brad Schultz, the new Post Doc of the CPET team.

## **RFQ (Ernesto):**

- The new gas purifier will be installed
- Phase locking: To get control over the breathing-effect in the RFQ extraction the whole TITAN setup needs to be synchronized to one “master-clock”. This should be achieved during the shutdown period.
- Quantifying the transmission of the RFQ at low yields:
  - o counting based detection before RFQ (e.g. channeltron)
  - o improved detection after the RFQ (Emittance meter straight above)
- Laser spectroscopy:
  - o OLIS beam for RFQ systematic?
  - o LA offline work
  - o  $^{74}\text{Rb}$  paper to be written (Data evaluation almost finished)

## **EBIT (Martin):**

- EBIT maintenance:
  - o Electronics: repair and implement missing signals for EPICS
  - o Venting of EBIT will be necessary: leaks at egun and collector turbo pump; can be combined with a visual check of the gas injector and mounting of the Ge-detector
  - o Cold head maintenance by Cryogenics around April (date will be fixed, when TITAN project plans for the next months take form)

- HV voltage duct: This project has to be pushed in order to finish it before next beam times (approx. 4 months). Modification of the design for the vertical parts of the duct work are necessary, however, Zlatko Bjelic will be on vacation from 21<sup>st</sup> Jan to 21<sup>st</sup> Feb → a timeline needs to be worked out together with the design office (similar for CPET)
- Not EBIT specific pending work was mentioned: beam diagnostics from EBIT to MPET and an EPICS review (see at end 1, 2)
- Further EBIT related issues (have been mentioned at the end of the meeting):
  - o Mounting of the detectors for TITAN EC will require to cut into the support structure of the EBIT
  - o It will be difficult to accommodate the FPCR project (Fourier Transform Cyclotron Resonance) with Martin Eibach and Klaus Blaum in the time schedule. This should be discussed in telephone meeting in about a week.

**CPET (Vanessa, Usman, Benjamin):**

- The dirty assembly of the trap structure is in progress
- The delays in machining of the parts for the test setup reached a critical point → needs to be clarified with the design office
- Baking/activation tests of the CPET vacuum pipe are in progress, however some problems with the computer occurred → back up data
- SIMION simulations are almost finished and Benjamin will sum up the conclusions. In this context Jens mentioned a comparable work of another group, indicating that conclusions from their simulations could not be fully confirmed experimentally.

**(1) Beam diagnostics from EBIT to MPET:**

It was agreed that getting beam profile and position information in these beamline sections should be given high priority. First the problems of the MPET MCP (resistive anode) have to be solved (repair Quantar Model 2401B) and based on that a concept for the other MCPs can be developed.

**(2) EPICS review:**

Discrepancies between the EPICS panels and the real TITAN setup and other shortcomings (missing signals of status of power supplies especially for HV switches, inappropriate default increments...) have to be rectified. A set of reliable and sensible request files has to be made so that snapshots can replace the habit of screenshots.

*Meeting ends 15:20*