

Minutes of the TITAN Meeting

Held on the 7th of October, 2010

Present: Usman Chowdhury, Paul Delheij, Jens Dilling, Benjamin Eberhardt, Stephan Ettenauer, Aaron Gallant, Alexander Grossheim, Ernesto Mane, Matthew Pearson, and Martin Simon

RFQ

- Switchbox for deflection plates in front of RFQ and its power supplies were installed. Their commissioning will take place in the afternoon.
- The gas purifier is supposed to arrive next week.
- PSD problem did not occur recently. It appears to be indeed a temperature related problem.
- The ion source was changed to Rb
- EM and SE attempted to perform an AC efficiency measurement with the RFQ at 2 kV. Scaling the incoming beam down to values which are not observable on the FC was very ambiguous. But assuming a DC efficiency to MCP1 independent of the ion source current, the total efficiency (AC single ion counts to incoming ions at FC3), would be around 0.2-0.4 % which is comparable to Maxime's total efficiency (channeltron to MPET MCP). For more details see http://titan01.triumf.ca:8081/Elog_MPET/410
- MS discovered that the frequency of the beam breathing of the RFQ in bunched mode depends on the RF frequency and the extraction frequency. It is speculated that it depends on the phase between the two.
- Plans: reverse extraction during the weekend.

BN-Gate:

- MK and MS completed the test of the BN-gate. Switching both wire pairs certainly improved the performance, and switching times of about 150 ns are now possible.
- MK is currently preparing a report to document his work. It was considered to put all together into a NIM publication (together with the people at Stanford).

EBIT:

- MS is working on the injection into the EBIT. He also discussed with Rick (Baartman) about the optimal tune around the first bend after the RFQ. According to Rick, the beam should form a strong ellipse at MCP1, i.e. after first 45 degree.
- AG contacted the cryogenics company to ask if they could do the maintenance also on a short notice, but he has not received an answer yet.

CPET:

- UC and SE are preparing for the CPET tube baking, but due to the problems with the MPET ion pump baking this is delayed a bit.

- BE got the GSI switch working and the GSI LabVIEW software is now understood. AG put together a Labview VI to step through different voltages.

MPET:

- The first attempt to bake out the ion pump was stopped, because the pressure continued to rise even when temperatures were stable. It turned out that the backing valve was displayed incorrectly in EPICS and thus the turbo pump could not actually pump much. A second backing attempt is planned during the next days.
- MS and SE tried to test the Daly again but it was suddenly sparking when applying HV to the MCP. Additionally, a large pickup was observed on the MCP.
- SE contacted Joseph Lu regarding the rf amplitude balancing, but he appears to be very busy at this time. It was decided to wait until Amija Mitra is back from his vacations.
- AG showed first results of the analysis of the systematic tests K39 vs Na23 done at 10 Hz rep. rate shortly after the Al-beamtime. No definite conclusions can be drawn at this point.

TRFCBL:

A malfunctioning turbo pump need to be replaced. Mel would roughly need half a day to do this replacement. But since there is a second pump in the TRFCBL, it was decided to postpone this work.

additional coffee meetings:

In order to 'fine tune' the daily preparations for the upcoming beamtimes, we will have short coffee meetings every Tuesday and Friday at 9:30am in the ISAC II lunch room.