

Minutes of the TITAN Meeting

Held on the 19th of February 2008

Present: Jens Dilling, Maxime Brodeur, Thomas Brunner, Christian Champagne, Paul Delheij, Stephan Etterbauer, Alain Lapierre, Ryan Ringle, Vladimir Ryjkov.

Y-BOX

*The convoluted bellow that goes after the Y-box on the EBIT beam line side is cracked.

*The delivery time for a new bellow is estimated to 6-8 weeks.

*Solution: either move the EBIT beam line to compensate for the gap created by the bellow or install an existing 8 inches edge-welded bellows (if it fits).

*There will be a meeting on Thursday with Cam about the alignment procedure of the Y-box.

RFQ

*The discharge of the pulse drift tube after the RFQ was found to be caused by an electrical discharge to the ion gauge. Moving the gauge away by placing it inside a nipple solved the problem.

*Now can switch up to 50 kV (but the feed through are design to handle 40 kV).

*A resistor was added at the output of the switch to reduce the 10 ms ringing that happened when switching to HV. This increased the rise time of the switch from ~100 ns but about 10 μ s. This is well below 10 ms, which is the highest rep rate we intend to use.

*No jittering was observed at the 10 V level, so the installation of that new switch will not worsen the current 20-50 eV energy spread of the beam.

MPET

*One of the amplifiers is bad and has to go back. It will take about 4 weeks to fix it at the manufacturer.

*Two pairs of amplifiers are different in their bandwidth and current drawn as well as their jitter splitter noise level.

*The priorities for the next weeks:

1 – As the TOF resonance get worse with increased mass, we plan to get better injection parameters using Na-23 beam.

2 – Perform mass measurement of Li-7, Na-23 and possibly K-39, 41 to get a better number on the mass-dependent systematic shift.

*We should re-analyse the Be-11 data before publishing and in April, do another Be-11 measurement to confirm our value.

*C-12 should also be re-taken using the same condition as the measurements taken during the Li-11 beam time in order to get a better idea of the mass-dependent shift that happen during the Be/Li-11 measurement.

*The drawings of the modified pumping station structure after the MPET are finished.

Jens will talk with Veejay about the timeline for submitting the job at the machine shop.

EBIT

*The EBIT magnet is now about 0.016" off. Alain is investigating whether it's necessary to perform an extra (one week) alignment procedure to go down to 0.010".

*New targets that are more fixed are installed.

*The EBIT drawings updates are finished.

*Alain will discuss with Ralf about getting an EBIT EPICS webpage.

*Thomas is working on his DSPEC DAC and got a Co-57 spectrum. He is currently using 12 bits ADC and thinks about going to 16 bits to get a better resolution.

*He will get a flash ADC from TIGRESS to integrate the signal.

*Stephan is working on time-life simulations and is having some problems generating random numbers. Vladimir suggested installing the GSL C-library.

*Chris is waiting for the RFA pieces from the shop and lost Cecilia's mesh.