Minutes of the TITAN Meeting

Held on the 30th of April, 2009

Present: Maxime Brodeur, Thomas Brunner, Jens Dilling, Stephan Ettenauer, Aaron Gallant, and Melvin Good

MPET

Max presented more details about his plans concerning the mpet upgrade. The prototype for the 500 V switch currently built in-house by Daryl Bishop is expected to be completed in a few weeks. From there it can go into the production line. The rise and fall time is expected to be below 100 ns, but to get rid of some ringing it will probably be around 200 ns. The Chassis mounting of the power supplies will be done in-house because it is much cheaper.
The total costs are estimated to be around 2300 CAD. Max will give the PO to Jens.

MPET purchase list:

1. RFQ PB5 P.S. ~ 4 800 Euros for 35 kV (worth it).
2. 2 P.S.I. (shouldn't be too expensive)
3. PT-1000 probe (can get it to be install by ISAC?)
4. Phosphore screen MCP for Daly detector (shoot through) ~4100$
5. Resistive anode MCP (replace current plates) ~1600$
6. 1000V, 18 ns rise time push-pull switches (5 of them for MPET trap) request quotation from EDR (company in KY)
7. 200V high stability PS (<25 ppm/K, <50 ppm/h, <0.01% ripple) request quotation from EMCO HV corporation (company in CA) (6 of them)

Vacuum

Titanium & baking: Stephan is looking through the literature to find the lowest possible baking temperature for titanium. The lowest value found is 125 degree Celsius. One needs to check all the expansion factors of materials in the trap vacuum chamber to make sure that the electrode structure is not affected by the baking.
Gutter material: REXEBIS has gutter material on the entire tube, and SMILETRAP reaches a vacuum of $2*10^{-9}$ in this way.
Charge exchange probability: is needed to calculate which level of vacuum we will need for HCI.
Leak check: Mel made a leak check in the MPET section: No leak was found in the high vacuum section, but there is one in the roughing system. This should not affect the HV in the trap itself.

Switchyard

The following actions are planned for the switchyard:
x) new switchyard split lens
x) new MCP vacuum chamber (there is a leak)
x) put in vacuum restrictor in front of the switchyard to separate the comparable poor vacuum after the RFQ from the vacuum in later sections

CPET
The magnet will arrive at TRIUMF over the weekend.

EC-BR
Thomas will make a schedule what needs to be done for the 2nd EC-BR testrun and communicate it with the tig10 people.

PAC
People are needed to guide the participants of PAC through TRIUMF on Saturday (9th of May) morning 10:00-12:00.