TRIUMF Memo

Date: July 2, 2013

RE: Beam Strategy Meeting June 13 2013, V3

Attending:
F. Ames, P. Kunz, J. Lassen, Ch. Ruiz, J. Dilling (chair on behalf of R. Kruecken), A. Garnsworthy

Excused: L. Merminga, J. Behr, R. Kruecken

Minutes:

1. Follow up on action items from last meeting (Feb. 25 2013) and other developments:
    a. Stable and RIB beam development:
        i. 7Be development was carried out online with a low-power Ta target and SIS/LIS. The yield measured was ~1.5e7 pps. It is anticipated that with a HPSiC+SIS/LIS, the yield will be much higher. However, there will be substantial 7Li contamination. Thus it should be considered to use the IG-LIS for this development.
        ii. Off-line capabilities (batch mode) has not been tested yet. Discussions took place around the reduced ionization efficiency for batch mode operation and the OLIS efficiencies (Friedhelm estimated a reduction of off-line vs on-line of 2-3 orders of magnitude). Tests to follow, Colin and Friedhelm to coordinate with Keerthi. Needs to be scheduled (should ask for dedicated development time in beam request).
    b. Fast kicker installation for laser ion source:
        i. Jens L. reported that Behlke has encountered some problems with the necessary integrated water cooling system for the fast switch, and Jens L. is investigating an in-house solution based on a regular fast kicker unit. Possible installation foreseen for shut-down 2013-14.
    c. Rotating proton beam on target:
        i. Friedhelm reported that a design note is currently under review, and external biding will follow. The installation could happen as early as next shut-down 2013-14.
    d. Target developments for future tests:
        i. Neutron converter target, no clear time line defined, needs further discussions.
        ii. 14Be target: Peter Kunz wanted to investigate possibilities to build thin Ta disc target as possible first target for 2014 operation. Also needs further discussions.
2. Schedule 125 (Sept 12 2013 – Dec 20 2013) plan for target ion source combinations:

The plan is to have TM3 ready for rotation in the second half of the schedule, but still use TM1 as the very first module after the mini-shutdown. Moreover, with this plan, will allow to have TM1 as the backup for MT3 and simplifies needed modifications.

	Tgt	Ion-source	TM	Example beams	Possible experiments	Comments
Mini Shutdown						
6	UCx	SIS/LIS	TM1 west	Fr, K, Mg, Sc, Rb, In,	FR-trap, laser, 8Pi, TITAN	Routine target, laser only second half due to conferences
7	NiO	FEBIAD	TM4 East	^{10}C	IRIS, 8pi, GPS, TITAN	Could be a shorter run
8	Ta	SIS/LIS	TM3 west	^{11}Be,^{8,9,11}Li, other	TIGRESS, TUDA, bNMR	Low power target
9	UC	SIS/LIS-RFQ	TM4 east	^{221}At, Ac, Cd, Zn	8pi, TITAN	Need some time for developments and test of suppression (laser-only ion source)