

Beam Strategy Meeting

Monday, October 31, 2011, 15:00-16:00

Attending:

F. Ames, P. Bricault, J. Dilling, M. Dombisky, B. Jennings, R. Kruecken, R. Laxdal, L. Merminga, Ch. Ruiz

In the new SAP-EEC system only two categories of proposals will exist: Proposal and Letter of Intent. For each category only high or medium priority can be assigned. All stage 1 and deferred experiments as well as those stage 2 experiments that did not take beam for more than 2 years will be reviewed in the EEC meeting in December. Stage 2 experiments that have been approved within the last 2 years and/or that have taken beam within the last 2 years will be moved to the category of Proposal. The priority of all MH experiments will be evaluated to be changed to either high or medium.

Status reports for all experiments in question have been submitted. In order to get input from the collaborations and to provide better guidance to the EEC for the available beams and planned beam developments in the next year a Beam Development Plan will be developed.

Important Notes:

- 1) Beam development priorities will to first order be only driven by the High priority experiments in the new system, which are H and most MH experiments in the current system.
- 2) Medium priority experiments will be used to fill the schedule for ISAC targets were possible but will not be driving the development or operational schedule of the facility. Thus Medium priority experiments cannot count on being performed. Any Proposal that has not taken shifts for two years will be reevaluated and the EEC may decide to close it.

The submissions are labeled by

- Lol: requesting Letter of Intent status and beam development
- P: stage 1/deferred asking to be moved to Proposal
- P1: stage 2 without beam for > 2 years asking to be Proposal
- P2: stage 2 and active or approved within last 2 years

The file **Backlog-2011-10-31.pdf** shows a table for RIB and stable beams of approved and requested shifts with the current priorities H, MH, M. The backlog of approved shifts for P2 type experiments is 515 for H and MH experiments, which is between 1.4 and 2.1 years, if 4500 to 3000 hours of RIB beam can be delivered per year.

The requested RIB shifts of H and MH experiments of type P1 are 255 and of type P 551 shifts. A healthy total backlog of approved shifts for High priority experiments may be around 2 years.

The file **Targets-2011-10-31.pdf** shows the different target and ion-source combinations that are needed to deliver the requested isotopes to the experiments as well as the number of experiments and shifts of experiments by label (P2, P1, P, Lol). Only experiments with priorities H and MH are included.

Also indicated is, if the target and ion-source combination has been successfully used before (done), if a new combination of target and ion-source is needed (new combination), or if a development of either new target material or ion-source is needed (Development).

Many of the experiments in the backlog can be carried out with established target and ion-source combinations.

P. Bricault provided an overview of the status of the target modules and the plans for refurbishments as well as some perspectives for developments. (T-IS-DevPlan.pdf).

The following development plans were agreed to:

- For 2012 the development of a CaO target combined with a FEBIAD source and a UC target combined with a FEBIAD source are planned. This will mostly benefit the production of exotic carbon isotopes.
- A kicker to be used in conjunction with the RILIS will be developed and can become operational in Q3 of 2012. This will reduce contaminations for RILIS beams.
- During 2012 and early 2013 a RFQ for the RILIS will be developed which will further clean RILIS beams and will be brought online 2013. Beam developments with this RILIS/RFQ combination are planned in 2013 for a SiC and a UC target.
- After the bulk of the ARIEL design work has been completed in the second half of 2012 it should be possible to have sufficient resources available in the design office to complete the design of the ECRIS source. With TM 3 and TM 4 in operation and after TM 2 refurbishment completed in 2013 TM1 could be converted to a ECRIS only module and come into operation by 2014.

Concerning the acceleration of $A > 30$ beams to ISAC-II there will be High Mass Task Force workshop with external conveners at the end of November 2011. This will help to spell out the strategy to take in the immediate future. However, a viable plan could be to decide on 1-2 beams that we could develop for successful experiments in 2012. Development beam time to try out beam purification scheme taking advantage of the full accelerator chain could be scheduled early in 2012 and if successful experiments could take advantage of these beams later in the year.

Reiner Kruecken