

Minutes of the ISOLDE Physics Group Meeting, April 19th 2017

There were no comments to the minutes of the last ISOLDE PGM.

Technical news

– ISOLDE/REX/HIE-ISOLDE

- A lot of the recent activity was dedicated to the procedures required for obtaining clearance to take protons from the PSB. Yesterday the ISOLDE balloons were emptied and RP gave their signature on the beam permit this morning.
- On Tuesday the SEM grids were installed on HRS. The goal is to finish the HRS tests by tomorrow and install the grids also on GPS on Thursday, which would allow installing the CaO target this week. The PSB had some instabilities and diagnostics problems, but now everything is working.
- The HIE-ISOLDE superconducting cavities were preconditioned to 100K, so far everything went well.
- There were some difficulties with the IH structure, but nothing major.
- A 10-day baking of the EBIS cathode will begin tomorrow.
- The HIE-ISOLDE beam-line parts are in place, work is now focused on cabling.
- The crane for lifting the lid of the scattering chamber will be installed in the next 7-10 days.
- Some scaffolding will be put in place for the ISS to allow a refill of the liquid helium.

– RILIS

- The test of selenium ionization worked, achieving an ionization efficiency of about 1% with a two-step scheme, using the Blaze for the non-resonant step. Three-step schemes were also tested, aiming at an auto-ionizing last step. Although several auto-ionizing states were found, the three-step schemes were less efficient than the two-step one.

Physics and schedule

- A CaO target will be installed on the HRS for the first runs of the year. The time on the target will be shared between the VITO and the IDS experiments.
- VITO will perform the first test beam time on ³⁵Ar. The goal of the experiment is two-fold. First of all, a measurement of the unknown isotope shift of ³⁵Ar will be attempted, which is necessary for the laser polarization of ³⁵Ar to be possible. Second of all, five options for a beta-NMR crystal will be tested. The time required to vent the vacuum chamber, replace the crystal and pump again will be used by IDS.
- IDS would like to use ¹⁷N to calibrate its neutron-detector array.

Visits

- A professional photographer will pass by ISOLDE at 16:30. He is interested to take photos of people working in the lab.
- A large visit of Leuven master students (physics and bio-engineering) will take place tomorrow. One additional guide would be necessary to perfectly cover the different parts of the program.
- Three VIP visits are announced for next week (representatives of Kuwait, France and Lithuania).

Seminar

- The meeting was followed by the first part in a series of three lectures by Angela Bracco, from INFN, Milano, on "Study of giant resonances: selected topics."

The next PG meeting will take place on Wednesday, April 26th, at 14:00. It will be followed by the second part of the lecture series of Angela Bracco.

Minutes taken by VM