

Minutes of the ISOLDE Physics Group Meeting, April 26th 2017

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

Technical news

– ISOLDE/REX/HIE-ISOLDE

- The SEM-grid tests of the proton-beam position took place last week. First, the tests were performed on HRS on Tuesday-Wednesday, then until Friday on GPS.
- There were initially some problems with the HRS target, due to a combination of the robot trajectory calibration and piston friction. Eventually the problem was solved.
- VITO has taken stable beam over the week-end.
- The HRS setup was performed again on Monday. Apparently, at 20 nA beam the cooler saturates. Tim promised to prepare a document with conclusions of his work performed over the winter shutdown.
- There were some problems with the patrols. The seal of the lead door on top of the hill above the target area was found broken.
- The bake-out of the REX-EBIS cathode was finished early and Fredrik is satisfied with its performance.
- The filling of the ISS magnet with liquid helium is being set up. A 500 L helium dewar will be used for the process and the filling will take place tomorrow. Connections were already made to the helium recovery system and scaffolding was put in place. It is not yet sure what the hold time of the helium in the cryostat is, but a 12-month time is expected. Because the topping up will not be performed when the helium level is at 0, the next filling will in any case happen earlier than 12 months.
- The stand for the ISS magnet will be brought at end of May, with a deadline for installation on June 20th. The setting-up of the HIE-ISOLDE beam lines should be finished before the stand is brought in, in order to allow the height adjustment.

– RILIS

- The setting-up of the indium scheme is ongoing. A narrowband setup will also be put in place (apart from the broadband scheme) for IDS, which is interested in the possibility of isomer selection with RILIS.
- The UV crystals were returned to China for polishing. Apparently these crystals came with a coating which was burning under the intense laser light and led to coating of optics and windows in the RILIS beam path. The deadline for this operation is the ISOLTRAP cadmium beam time in June, when the crystals would be next needed.

– Targets

- Target #596 is being used for the argon run of VITO.
- Target #595 will be used for the indium run at IDS.
- Target #597 for the CRIS indium run is ready to fill and put on-line. It is important to install it on Friday evening in order to allow it to outgas over the week-end, especially since Monday is a holiday, as the pre-baked targets seem to require more outgassing time than a fresh unit.

Physics and schedule

- VITO is performing a number of tests during their beam time: crystal optimization, dependence on temperature, chamber design optimization.
- Things are looking up with a possible resonance in ³⁵Ar to be obtained shortly.
- In the breaks the beam was given to IDS for calibration of their neutron detectors.

- Friday evening IDS will begin their experiment on the decay of ^{133}In to ^{133}Sn . The beam time has two goals, first of all to identify the most populated state in the daughter, then to cross-check some assignments made in the literature. RILIS might be used in narrowband mode to perform isomer selection.
- The ISOLDE Astrophysics School will begin on May 9th. It will include lectures and practical courses with actual calculations.
- Now that the running period has started users are reminded of the importance of writing regularly in the ISOLDE e-log, with proper signature of the entries (initials of the people making the entry).

Safety

- Today takes place the presentation of the MEDICIS safety file to the OFSP and French authorities. Users are reminded to wear proper safety equipment in the lab.

Visits

- Today there was a VIP visit from the Speaker of the House of Parliament of Lithuania.

Seminar

- The meeting was followed by the second 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, May 3rd, at 14:00. It will not be followed by a seminar.

Minutes taken by VM