Minutes of the ISOLDE Physics Group Meeting, November 22nd 2017

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

Technical news

- GPS/REX/HIE-ISOLDE
  - Since Wednesday there have been tests with stable ^{22}Ne of the Miniball plunger system, as well as some tests of CO break-up and cooling in REXTRAP.
- HRS
  - On Thursday target #624 was installed on HRS using the Montrac and then set up.
  - On Friday RILIS optimized the Mg ionization scheme.
  - On Monday the final laser setup took place.
  - On Tuesday the $^{28}Mg^{9+}$ beam was delivered to Miniball.
- RILIS
  - There have been some stability problems with the lasers for the Mg scheme, but everything is so far OK.
  - A water chiller was replaced on Monday, requiring a short intervention.
- Targets
  - The LIEBE tests are postponed, there were too many problems to attempt a test in the last week. Instead of the LIEBE target, a UO/MgO unit with a special plasma source will be installed online for ion-source studies and for yield tests of refractory elements.
  - There was a mix-up between the line and target heating connections on the original SiC target for the Miniball experiment, which made the line break in the off-line tests. The back-up target was installed instead. In the meantime, the original target was repaired and now acts as a back-up.

Physics and schedule

- The objective of the current Miniball experiment is to determine the g-factor of the first excited 2^+ state of ^{28}Mg with a 5% precision. During this experiment, the plunger setup at Miniball will be used for the first time. In the preparation phase, a ^{22}Ne beam was used for tests, which was very useful as it allowed discovering some space limitations for the plunger movement. The yield of ^{28}Mg is preliminarily higher than anticipated, which leads to a faster build-up of activity at Miniball than was planned for.

Safety

- The ISS magnet was mapped and the shielding was tested. The magnetic field in the vicinity of the shielding slightly surpasses the 0.5 mT threshold. Therefore, next year during operation some additional warning signs will be included.
- It will be necessary to paint the lead bricks of the various setups at ISOLDE. They will be first moved to a different building and then a call for volunteers will be made.
- There will be a safety meeting concerning the on-line safety courses and ISOLDE access rules.

Visits

- A visit of 20 journalists will take place on November 29th, in the afternoon. They are interested in the MEDICIS facility. The users are requested to keep the visitors' room in b. 508 in good shape for the visit.

Seminar

– The meeting was followed by the seminar of Camilo Granados from CERN with the title “In-gas laser ionisation and spectroscopy”.

The next PG meeting will take place on Wednesday, November 29th, at 14:00 in the ISOLDE visitors’ room (26-1-022). It will be followed by the seminar of Robert Berger Philipps-Universität Marburg with the title “Molecules as versatile probes for physics beyond the standard model”.

Minutes taken by VM