

Minutes of the ISOLDE Physics Group Meeting, November 16th 2016

There were no comments to the minutes of the previous physics group meeting.

Technical news

– GPS

- Last week the ^{66}Ni run continued at Miniball.
- The problems at Linac 2 led to a break in operation of about 36 hours, after which the run was resumed (Wednesday afternoon).
- On Saturday a leak developed on the GPS target. This time the proton count was a bit higher ($6.5\text{e}18$) but of the same order as the previous target units which have developed leaks. The GPS target was also using the new batch of bases.
- The HRS target had been installed as a backup, but since the GPS problem occurred only on Saturday there was no time to set up the post-accelerated beam. With this, the Miniball run had to come to an end.
- The GPS target was exchanged on Monday for a bare unit with a VD5 ion source.

– HRS

- After the leak developed on the GPS target, the HRS target was used to produce (at LA1) a calibration ^{66}Ga source for the Miniball run.
- Afterwards VITO performed further tests of their setup until Monday morning 6:00 AM, when the high-intensity proton beam was stopped.
- A low-intensity proton beam ($5\text{e}12$ ppp) was still delivered on Monday morning and used to irradiate Pb-Bi blocks for the LIEBE project (the MEDICIS Montrac was used). There were no issues with the irradiation, but a miscalculation led to a ten times higher than planned dose rate from the target. The samples are now being measured close to the ISOLDE tape station by a team from Kolkata.
- The first separator course started on Monday on HRS. The HRS target was exchanged for a bare unit with a surface ion source.

– HIE-ISOLDE

- Some energy tests have been performed by Alberto.
- Set-up for SPEDE tests will begin on Thursday.

– RILIS

- The ^{66}Ni ionization went without major problems until the end.
- Because of the broken GPS target the actinium ionisation tests were replaced with molybdenum tests.

Physics and schedule

- The ^{66}Ni users were happy with the physics outcome, despite the various delays and interruptions. The collected data look good in all channels, including particle-gamma coincidences. The calibrations with ^{66}Ga went well and also revealed that one of the preamps of the LaBr_3 detectors was saturated, but five others were functioning properly.
- VITO studied again $^{26,28}\text{Na}$ on Sunday. After getting the laser polarization under control the beta asymmetry obtained on-line was similar to the one obtained at Collaps in the past (about 25% for ^{26}Na and about 40% for ^{28}Na).
- Thirteen ^{181}Hf samples were received from Bonn by the SSP group, to be used for perturbed angular correlation measurements. This will ensure plenty of measurements for the upcoming months.

- Haraldur Pall Gunnlaugsson was at ISOLDE last week to oversee a series of collections which will be shipped to Bilbao for Mössbauer spectroscopy.
- The second separator course will take place next week.

Safety

- There were some reports about the hand-foot monitor near the ISOLDE stairs malfunctioning, but other users did not remember seeing a problem (as Maria explained some time ago it might be connected to the hand sensors which are not positioned optimally for people with small hands).
- The RP fundamentals e-course is no longer required for obtaining access to ISOLDE. What remains as compulsory for RP safety is the supervised area e-course and the classroom course.
- There was a meeting with safety officers concerning future improvements on the way collections are performed in the GLM/GHM area. A new working group was established to discuss and implement these improvements.

AOB

- The decisions for the next ISOLDE fellows, associates and corresponding associates have been communicated. ISOLDE fellows: André Welker and Stavroula Pallada, ISOLDE Associates: Angela Braco (6 months starting 1st February) and Andrei Andreyev (one year starting 1st April), ISOLDE Corresponding Associates: Olof Tengblad (4 months starting 1st February) and Nikolaos Patronis (2 months, might be dedicated to n_TOF).
- Users are asked not to forget to register for the ISOLDE Workshop and the also very attractive satellite workshop of the NUSPRASEN ENSAR network using the on-line application <https://indico.cern.ch/event/561089/registrations/30813/> and from there the [one to NUSPRASEN](#).
- Feed-back from the separator course was positive. Following the course some suggestions for the future operation of the facility are to establish a clear protocol for users to follow in case of problems and an updated/extended walk-through material available in the control room (the so-called ISOLDE baby-sitting guide).
- An end-of-the-year celebration is being planned for one of the following Fridays. To be announced.

Seminar

- The meeting was followed by a seminar of Martin Gonzalez-Alonso from Institut de Physique Nucléaire de Lyon on *Precision measurements in nuclear beta decay in the LHC era*.

The next PG meeting will be held Wednesday November 23rd at 14:00 followed by a seminar by Hanne Heylen from MPIK Heidelberg on *Nuclear moments of the neutron-rich Al isotopes at the border of the island of inversion*

Minutes taken by VM