

Minutes of the ISOLDE Physics Group Meeting, October 12th 2016

The meeting started with a summary by Tim Giles concerning the status of the new fast ISOLDE tape-station.

- The tape transport time from implantation to decay point is a bit larger than 60 ms.
- The tape station was installed at LA2, then aligned and the transport was tested with stable beam.
- The remaining task is to test the detector system, which consists of silicon photomultipliers. The signal is still noisy and the readout electronics is being rebuilt.
- There is only little radioactive beam time available for tests, therefore a test stand is under construction to compensate for that.
- The goal is to have the tape station ready for next year's start-up in April. However, the station will remain installed at LA2 for the first year of operation.

Technical news

• GPS/REX/ HIE-ISOLDE

- The setup of the ^{78}Zn beam for Miniball was complicated. The 9-gap amplifier became unstable when trying to reach the power required for the $A/q = 4$ beam. It required intervention from the RF team.
- Synchronization problems were encountered with the transfer of the ion bunches between REXTRAP and REXEBIS. A temporary workaround was found.
- A leak in the sector GPS20 developed on Friday afternoon. It was found to be correlated to the laser beam being turned on and eventually linked to the laser window on GPS which had probably cracked. A visual inspection confirmed this. Without sufficient time for a proper intervention on Friday, the beam time was interrupted.
- On Monday, the window was replaced and in the same day the section was pumped, the lasers were optimized and the ^{78}Zn beam was delivered to Minball in the early afternoon.
- On Tuesday early morning (1:30) one valve at the EBIS closed and blocked the beam. The users did not inform the engineer in charge before 6:45, which led to a loss of useful beam time. It is important to have at least one experienced person in the night shift to avoid such situations. For long interruptions of data taking it is also recommended to stop the proton beam.

• HRS

- There was a BI intervention on the HRS scanner electronics/software as part of the upgrade campaign, but the outcome was not satisfactory and for now the old system is still in place.
- A new UC_x target with a hot plasma source will be installed tomorrow (if ready) for the upcoming ^{132}Sn run next week.
- Efforts will be made to prepare the upcoming run as much as possible before Friday, due to the absences next week caused by the EURISOL DF conference.

• Targets

- The target production is on time, the spare target for the Zn run is completed.

• RILIS

- There have been some problems with the stability of the Zn beam ionization.
- RILIS will set up the Sn ionization scheme, in case the proposed production mode of ^{132}Sn does not give sufficient yield during next week's run.

Physics and schedule

- Following the problems with the laser window the Zn run started only Monday night on ^{78}Zn .
- The run will continue with the current conditions until Monday morning. There will be no switch to ^{80}Zn , from converter to target and no STAGISO proton-beam tests, in order not to risk further delays which could lead to none of the physics goals being reached.
- The next run will take place on HRS and concern the study of ^{132}Sn with Miniball. The Sn beam will be ionized with a plasma source and extracted as a sulphide, which will then be broken up in the EBIS. RILIS will be in standby in case this method does not work.
- There were many proposals submitted for the next INTC. The meeting on November 2nd will start at 8:30 and has to cover both the open and the closed sessions during the same day.
- The deadline of abstract submission for the upcoming ISOLDE workshop was extended until Sunday October 16th.

Safety

- There are new access doors to the chemical labs in building 508, which require special EDH access. The conditions for granting access are the same as for the ISOHALL but include additionally the on-line course for “Chemical Safety – Awareness” (<http://sir.cern.ch>)

Visits

- The Radionova group visited ISOLDE yesterday, but the visit of the Polish group was cancelled.
- There are no other visits scheduled this week.

AOB

- Wireless internet is being installed in building 275.
- The EPS Divisional Conference: Towards EURISOL Distributed Facility takes place next week in Leuven (October 18th-21st). There will be no physics group meeting next week .

Seminar

- The meeting was followed by a seminar of Thorsten Kröll from TU Darmstadt on “*Nuclear reactions in storage rings*”.

The next PG meeting will be held on October 26th at 14:00, followed by a seminar given by Georgi Rainovski.

Minutes taken by VM