

Minutes of the ISOLDE Physics Group Meeting, June 21th 2017

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

Technical news

– GPS

- Last Tuesday the RILIS lasers were switched from Mn to In for Mössbauer spectroscopy, which continued until Wednesday.
- On Tuesday afternoon the line heating tripped, without any damage to the target unit.
- On Wednesday, Te yield checks were performed, with RILIS. There were problems starting the yield checks, due to the fact that the main beam-gate trigger had been disconnected in the old control room.
- On Friday the target was changed with the new unit for the Bi run (IS608). There were some problems with the clamping system. The calibration of the clamping system had to be redone in order for the clamping to work.
- The yield checks and stable beam tuning to LA1 (Windmill) and IDS were performed Monday afternoon/night.

– HRS

- Last week the CRIS experiment studied neutron-rich K isotopes on HRS (IS620).
- A recurring problem with the ISCOOL has been the overheating of the RF amplifier. A fan was installed as a temporary solution during the CRIS run and a permanent fan will be installed in the future.
- The voltage of the HRS.QP330 has been failing over the last weeks. It seems that a reset and was every time sufficient. The power supply was also replaced. One should keep an eye on this element in case anything strange is observed in beam transport during the next HRS runs.
- The proton scan and yield measurements were repeated on Wednesday, but the results determined on the tape station were inconsistent.
- The HRS slits were used by the CRIS team, but they got stuck on Thursday. It was however possible to reset and open them.
- It was found by Tim that the HRS.QP180-neg power supply had not been connected for some time, although it is not clear since when this has been the case (at least May 30th).
- The HRS target used for the CRIS run (#602) has not been performing very well. The production of all short-lived isotopes was a factor 10-20 lower than expected and the most exotic ones were not produced at all. The chromium contamination was also stronger than expected.
- As it is not clear if the HRS run only suffered from low-yield/high contamination or also some serious transport issues (thinking of the disconnected element). It would probably help to identify with the help of the HRS users of this year if there were any problems with one or more of the power supplies, which could determine a very low transmission (eg. during the In run of CRIS it was thought that the yields had been very low due to the venting of the target during the HRS window change, but a serious transport problem might have produced the same rates).

– REX/HIE-ISOLDE

- After the cryomodules were cooled and the setup was re-aligned, the beam setup through the cryomodule was readjusted last Friday.

Physics and schedule

- The CRIS run was not successful due to the very poor production of short-lived isotopes and due to large contamination. The CRIS team could only perform systematic studies during the scheduled shifts.
- The in-source laser spectroscopy run on Bi isotopes is ongoing, being the first time when the IDS is used for ion detection for HFS studies in the neutron-deficient lead region.
- Next week the ISOLTRAP run on neutron-rich cadmium isotopes will follow on HRS. The goal of the experiment is to measure the masses of ^{132}Cd and to separate and measure the isomers in ^{127}Cd and ^{129}Cd using the PI-ICR technique.
- The technical stop initially scheduled for early July was moved, allowing more preparation for the first HIE-ISOLDE run of the year.
- Next week will take place the second round of ISCC and INTC meetings of the year. There will be no Physics-Group meeting.

Safety

- The common space in building 275 is currently occupied by many large boxes and racks. Magdalena Kowalska (TSO of the building) suggested organizing another common cleaning effort of the people using the space. It is also important to follow-up on the transport of ASPIC and Witch materials back to Leuven. The current bottle neck is the approval of the material transport by Leuven.

AOB

- The wifi connection in building 508 has been reported to be bad by more than one person. A Service-Desk ticket was open, but so far with no outcome. The reason is that the building has only 2 wifi access points, therefore it is likely to lose the signal from both of them, especially when many network users are connected. The recommended approach is to follow-up on the problem, each user opening a ticket if this problem still occurs, in order to keep the problem in the attention of the IT support. A temporary solution would be to search for a wifi signal amplifier, if such a device exists.
- The MR-TOF MS/detector lab on the first floor of building 508 contains many devices which are not working anymore. Hervé Poirel can be contacted for disposing of broken devices. There are also many chairs in the laboratory, in case some are needed elsewhere.
- Maria Borge has chaired the last ISOLDE Physics Group meeting as Group Leader. From July 3rd her position will be occupied by Gerda Neyens. A small get-together will be organized next week by Maria in Restaurant 1, to be announced.

Seminar

- The meeting was followed by the seminar of Chloe Malbrunot from CERN on “Antimatter studies at the CERN Antiproton Decelerator”.

The next PG meeting will take place on Wednesday, July 5th, at 14:00. It will not be followed by a seminar.

Minutes taken by VM