

Minutes of the ISOLDE Physics Group Meeting, July 4th 2018

Technical news

- **HRS**
 - RFQ development has been going on for most of the week.
 - HRS90 has been tripping. Seems to be okay now, but not clear why this happened. Keep an eye on it.
- **GPS**
 - HT was tripping at beginning of the week related to CPU problems in middle computing. It will keep running like this until LS2
 - Radioactive shippings are being sent to more different places now (a.o Dresden, Helsinki).
 - Expected sample intensities were reached.
 - IDS group was always on standby in case beam was available for laser spectroscopy of Dy. Overall good run for amount of beam time that was available. Laser spec was only performed on Faraday Cups, not in IDS.
 - Suppressor on FC of LA1 seems to not be working.
- **REX/HIE-ISOLDE**
 - Setup for next week's run continuing.
For heavy masses, the maximum energy will be 7.36 MeV/u.
For lower masses, higher energies can be reached
 - Miniball will get the beam on Monday night
(^{22}Ne @ $\sim 4.4\text{MeV/u}$) for tuning
- **RILIS**
 - Running Dy for medical collections. Was very successful.
 - Short period for Sc
 - Setup for narrow-band mode for IDS work on Bi this week.
 - Also new scheme has been set up for Ac production measurements
- **Targets**
 - Target operation for Dy and Tb collections went very well
 - Target for Bi beam has been installed this morning. Yield tests ongoing
 - At HRS, a UCx will be installed tomorrow at 14h.
Off-line efficiency of it seems promising

Physics

Last week:

- Medical isotopes for UK, Helsinki and PSI (main customer). 149Tb for completion of low-to-high dose study. Initial problems at PSI were overcome with the chemistry and enough treatments were administered for the study to be completed, requires a few weeks before the progress is known. ISOLDE side was excellent: beam and support from logistics and RP. Shipments left on time every morning. No observed deterioration in beam quality over the course of the week.

This week:

- Fast timing experiments for Bi:
(Andrei) Study even-even Po via decay of Bi.
Standard setup of IDS as used earlier.
- Windmill 2.0 will be used at LA1 for yield of Fr Ra Ac isotopes between mass 200 and 230 and Ra 233 for shipping to NPL on Monday morning.
- In-source spec of heavy Bi isotopes over the weekend. Hopefully reach 220Bi, depending on the beam intensity.

Safety

- General Safety inspection in the ISOHALL went very well. Minor comments.
- Removal of Rn samples at LA1 for shipping planned on Monday morning. 15 minutes of no access to the hall allowed. Precise time will be sent later.

AOB

- All summer students have arrived and presented themselves in the group meeting
- Karl will be away for the half of next week. Liam Gaffney will replace him during this time. Most physics planned at that time related to HIE-ISOLDE.

Seminar

- The PGM was followed by a seminar of Moazam Mehmood Kahn with the title: "Fission Molybdenum-99 Production (Medical radioisotope) in Pakistan".

Information on the time and location of the next group meeting will follow by email.

Minutes taken by SMS