

Minutes of the ISOLDE Physics Group Meeting, August 2nd 2017

The meeting took place in the visitors' room of b. 508. There were no comments to the minutes of the last ISOLDE PGM.

Technical news

– GPS/REX/HIE-ISOLDE

- The barium experiment concluded on Thursday, when the target developed a leak. For the remainder of the week, Miniball tests with stable were performed, which are important for calibrations.
- Despite recurring reports of problems with the Faraday cup GPS.FC490 and even a visual inspection signaling a physical damage of the cup, now the cup seems to be working. Because the intervention required to exchange it is very complicated, it will not be performed now.
- The transmission until the end of the high-energy line was 75%.

– HRS

- During the set-up of the beam for the upcoming VITO experiment, the extraction electrode (of HRS this time) moved by itself. Christoph Mitifiot solved the problem remotely. Due to the frequency with which such problems occur, it is crucial to find a permanent solution which does not depend on a single expert being reachable.
- The automatic proton scan is working, it now takes 8 minutes to perform a scan.
- The software limit for the ISCOOL RF amplitude needs to be increased, as tests showed that 2V is the real hardware limit.
- There was a failure of the HRS.QP330 power supply. It sufficed to restart it. Users on HRS should be aware that sudden loss of beam could be due to a tripped power supply.
- One of the power outlets next to the CRIS experiment was connected to the same distributor box as some of the ISOLDE vacuum system. Plugging a heavy load into the socket led to a trip of the main breaker, stopping also the vacuum pumps. The problem will be addressed, in order to always have general-purpose or experiment mains sockets separated from ISOLDE circuit breakers.
- Currently, a CaO target is installed on the front-end, to produce argon beams for the VITO experiment. There is some inconsistency between the yields measured on the tape station and the Faraday-cup readout. Some feed-back from the users would be appreciated, in order to clarify this issue.

– RILIS

- A new TiSa samarium scheme is being sought for the upcoming HIE-ISOLDE run, because the existing dye scheme does not benefit of the RILIS stabilization system and would require on-shift operation.

Physics and schedule

- The new schedule was released. This year there are two additional weeks of beam time, which will be included in the complete schedule, to be soon released.
- It might be possible to begin next year's running period one week earlier.
- The Miniball barium run ended prematurely, but some statistics could be collected on both cases of interest. ^{144}Ba is the case which benefitted of most allocated time, as the target broke soon after the program switched to ^{142}Ba .

- The next run will take place on HRS, where the VITO team will continue its campaign of finding an optimal crystal (i.e. one providing maximum beta-decay asymmetry) for polarized ^{35}Ar . Up to now the team has worked with stable beam and is ready to take optical resonances.
- The NICOLE team is also present at ISOLDE, currently filling cryogenic liquids into the cryostat.

Safety

- The reports of the safety inspection arrived (both for b. 170 and b. 508). They will be distributed to the people concerned.

Visits

- August is relatively quiet from the visits point of view.
- In September Hanne will take over from Kara the organization of the ISOLDE visits.

AOB

- With the help of the two technicians available for ISOLDE, Bertram is building a test chamber for detectors. People interested in using the chamber can contact Bertram for details.

Seminar

- The meeting was followed by the summer-student seminar of Borak Ur Rahman Rano on “Mapping hyperfine fields with ^{181}Hf (^{181}Ta) in EuTiO_3 by TDPAC”.

The next PG meeting will take place on Wednesday, August 9th, at 14:00 in the visitors’ room of b. 508. It will be followed by the ISOLDE summer-student presentations by Yuen Ting Chung, Savannah Clawson and Caitlin Beattie.

Minutes taken by VM