

ISOLDE coordinator report





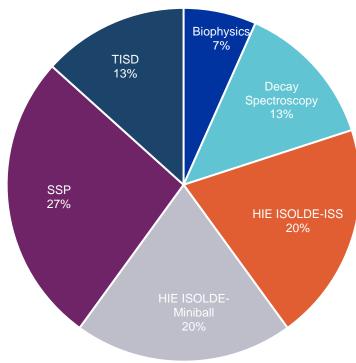
INTC 75 summary

1 shifts = 8 hours; 1 day \sim 1 x 10¹⁷ protons

	# of documents	Requested shifts	Requested protons
■ISOLDE	15	240	0
Addendum	1	14	0
Letter of Clarification	1	18	0
Letter of intent	2	12	0
Proposal	11	196	0
■nTOF	6	0	1.9E+19
Addendum	1	0	4.7E+18
Letter of intent	2	0	3.4E+18
Proposal	3	0	1.1E+19
Grand Total	21	240	1.9E+19

→ 206 of 240 shifts were approved for ISOLDE (full or partial endorsement)

ISOLDEDistribution of submitted documents per topic



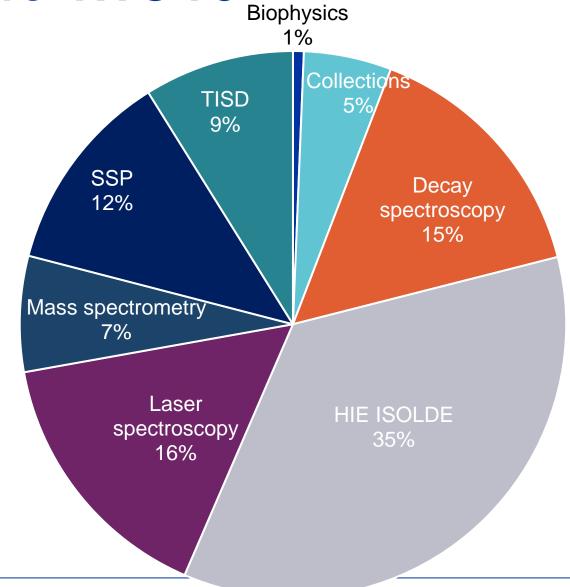


ISOLDE backlog before INTC 75

- ~1300 open shifts
- ~150 active experiments

First experience scheduling:

 Despite backlog, not so easy to find candidates for April





ISOLDE schedule 2023

Protons for physics to ISOLDE from **10 April – 30 October**→ 20% less than 2022 due to energy considerations

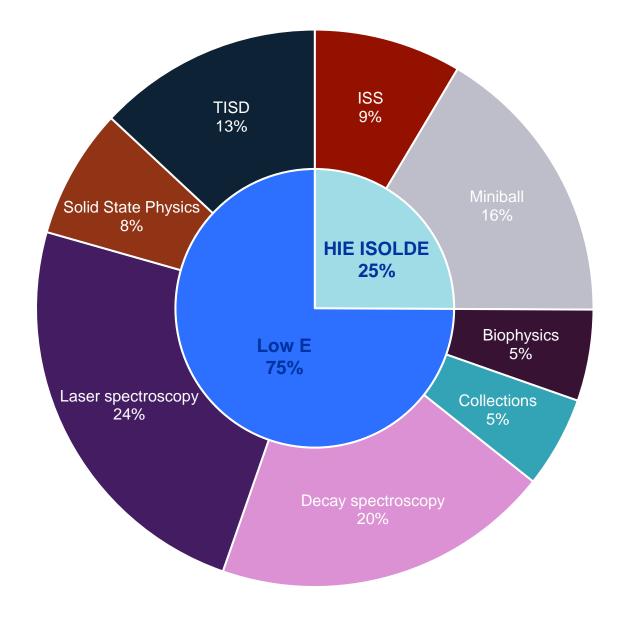


- In total there were **64 runs**, giving beam to **46 INTC** approved experiments (some ran more than once), including 10 HIE-ISOLDE experiments.
- At the end of November, Miguel and Lefteris hosted 39 participants during 3 sessions of the "separator course" → Much appreciated



ISOLDE schedule 2023

- 493 shifts were delivered, reducing the backlog by 426 shifts.
- 67 shifts (=13.5%) available for ad-hoc opportunities (extension of beam times, alternative measurements in case of failures, etc.)





Material provided by T.E. Cocolios/M. Deseyn

Winter physics

• IS672

- Preparation for absolute charge radii measurement of 108mAg via muonic x-ray spectroscopy at PSI
- Sample irradiated at PSI inserted in ISOLDE target
- Determine best conditions to separate 110mAg from the contaminants

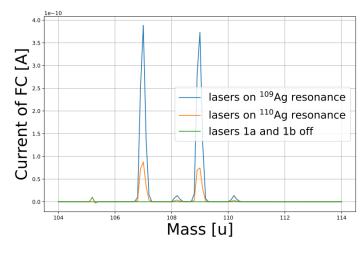
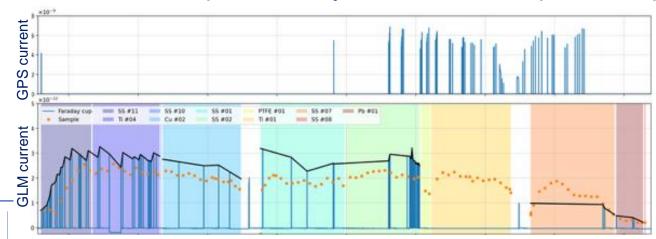


Figure 4: Mass scans for the lasers on the ¹⁰⁹Ag and ^{110m}Ag resonances as well as without lasers. The target and line temperature equals 0A and 260A, respectively.

IS725

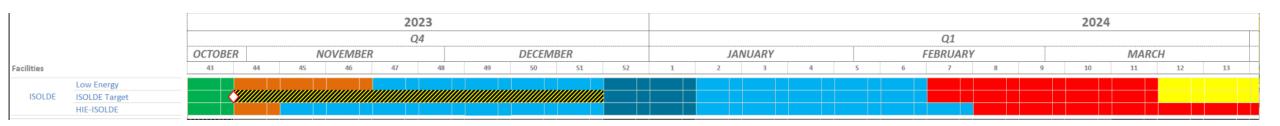
- 226Ra in several materials → transport to MPIK for detector characterization in the context of the XENON and DARWIN/XLZD direct dark matter search experiments.
- Didn't collect required activity, but nevertheless positive experience. Will come back.





Material provided by F. Joerg, G. Volta

Yearly Technical Stop (YETS) and 2024 Restart



Key dates

- 30th October 2023 End of proton physics and start of winter physics
- 6th November 2023 End of HIE winter physics (1 wk)
- 20th November 2023 End of Low Energy winter physics (3 wks)
- 19th February 2024 Start of Target, Low E and HIE ISOLDE HW Commissioning
- 18th March 2024 Start of Target and Low E Beam commissioning (first protons to ISOLDE 28th March. SEMGRID tests 28th March – 8th April)
- ** 8th April 2024 End of the Low E and Target Beam Commissioning / Start of Low E Physics
 - 13th May 2024 Start of HIE-ISOLDE Beam Commissioning
 - 21st June 2024 HIE ISOLDE stable beam to exp. Stations
- **→•** 11th July 2024 Start of HIE ISOLDE Physics
- 28th October 2024 End of protons



Cleaning of ISOLDE

- NICOLE removal continued
- B. 275 → Thanks, Liss!
- Generally, good cooperation ©
- Temporary storage in b. 263



