

Overview of delivered beams in 2017: physics

Running period: 24th April – 4th December 2017

HIE – ISOLDE from July 7th

ISOLDE Schedule 2017: weeks 16 - 48

GPS	April				May				June				July				August				September				October				November				Dec	
Wk	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Mo	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
TU			(IS611)									setting	#612 ZrO2-HP	#607 UC Ta	142Ba						IS528*							XT03						
WE	SEMgrid				#599 Ti foils		Tech stop					Tech stop									IS638/ISOLTRAP/RILIS		Tech stop		(IS528)									
TH						Ascension																			(IS528)									
FR	#595 UC - n		#575 UC - CP	ISOL TRAP	IS453		#601 UC - n	IS578	#603 UC - n	IS580	#605 ZrO2 - HP	IS597 72Se @ 4.4MeV/u (IS626)	IS569 70Se @ 5.5MeV/u (IS612)	Set for 4.1MeV/u	IS553: 144Ba @ 4.1MeV/u	#608 Ta - Gdbk	Solid state				IS619 15C @ 4.3 MeV/u													
SA																																		
SU																																		
			In RILIS	In RILIS	98Kr/48Ar	Mg RILIS	8B	Mn RILIS	In RILIS	Bi RILIS		Se (mol) beam	BaF beams	BaF beams							1 Coulomb excitation				Nd RILIS									

Row Labels	Sum of Requested shifts (summary)
Biophysics	8
COLLAPS	25
Collection	7
CRIS	50.5
GANDALPH	9
HIE	583
IDS	49.001
ISOLTRAP	41
LA1	22
Medical	10.5
NICOLE	8
SSP	88
TISD	17
VITO	18
Windmill	16
(blank)	41
Grand Total	993.001

COLLAPS
Al beams
IS617
all Sn
IS573
n-rich Ni
IS568
CRIS
In beams
IS639
K beams
IS620
n-rich Ga
IS571

VITO
26-28Na
I168
35Ar
IS601
IDS
133In
IS632
8B
IS633

ISOLTRAP
132Cd...
IS574
142Cs
IS592
98/99Kr
IS490
Windmill
several Bi
IS608

Biophysics
199Hg
IS602
26-28Na
I168
IS645
Rare earths; 111Cd
IS638
Medical Physics
152Tb; 155Tb
IS528

111Cd
IS647
111Cd; 199Hg
IS640
111In; 111Cd;
IS611
IS612
199Hg; 111Cd
IS85
199Hg;111Cd
IS515
27Mg
IS453
IS634
56Mn
IS492
IS580
57Mn/119In
IS576
IS578
IS630

108Sn
IS562
140Nd; 142Sm
IS546
140Sm
IS558
144Ba; 142Ba
IS553
206Hg
IS547
70Se
IS569
72Se
IS597
94Rb
IS572

Row Labels	Count of Experiment
Biophysics	3
COLLAPS	3
CRIS	3
HIE	10
IDS	2
ISOLTRAP	3
Medical	1
SSP	13
TISD	1
VITO	2
Windmill	1
Grand Total	42

HRS	April				May				June				July				September				October				November				Dec		
Wk	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
Mo	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49
TU	#596 CaO	IS601																													
WE																															
TH		(IS632)																													
FR		#597 UC - n																													
SA																															
SU																															
			In RILIS	In RILIS			Al RILIS		51-53K		Cd RILIS																				



Target change

CERN holiday

Setting up/proton scan/yield

Physics GPS

Physics HRS

COLLAPS



- 108-134Sn measured. Good run.

IS573

- Al beams: setup problems from HRS (quadrupole disconnected)

IS617

- Ni beams. Standard target. No new data

IS568

CRIS



- Ga yields from used target low; but Tatra setup kept breaking

IS571

- In beams for CRIS; most exotic not seen; target vented just before run

IS639

- K beams to CRIS: suspected bad target, no physics possible

IS620

IDS

- 8B from #513: excellent yields and stable

IS633

- neutron rich In: excellent

IS632

- Windmill

- Bi beams ok: better in past, but transmission questions

IS608



ISOLTRAP

- Cd beams taken. 132Cd measured. Quartz line stable

IS574

- Cs test for PI-ICR.

IS592

- On second chance excellent

IS490



SSP

- Cd and Hg beams. No problems

IS640

- Cd beams for SSP. Excellent

IS647

- Cd/Hg: Cd excellent Hg compromised

IS585

- Hg in VADIS mode; compromised run

IS515

- In/Cd/Mn: all fine

IS611

IS612

- Mg beams for channelling: excellent. Low Al

IS634

- Mg: excellent

IS453

- Mn ok

IS492

- Mn taken. RILIS didn't affect channelling.

IS580

- Mn/In for Mossbauer. RILIS issues; transmission...alignment

IS630

- Mn/In Mn difficult due to RILIS instability; transmission...alignment

IS576

IS578

Biophysics

- Hg in VADIS mode; compromised run

- Biophysics

IS602

- Na beams to VITO: test rather than final use

- Biophysics

IS645

- VITO

I168

- rare earths: good beam; Cd intensity excellent

- Biophysics

IS638

VITO



- 35Ar. Beam was fine

IS601

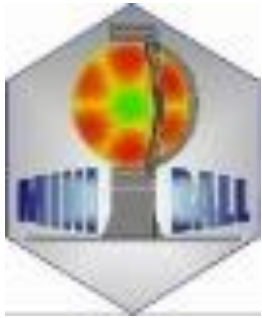
- Na beams to VITO: test rather than final use

I168

Medical

- Tb excellent

IS528



XT03

▣ Coulomb excitation

▣ IS546

Nd difficult, Sm taken

▣ IS547

Hg in VADLIS mode; compromised run

▣ IS553

BaF very good till leak blocked; target broke

▣ IS558

140Sm taken; excellent. New RILIS scheme

▣ IS562

108Sn. RILIS back to old scheme. Otherwise very good

▣ IS569

Intention for Se beams; Ge-66 taken.

▣ IS572

Rb beams strong as expected. Proof demonstrated. Safety problems

▣ IS597

Se beam desired; Seen for 3 shifts then disappeared.

▣ Scattering Chamber

▣ IS561

Li beam; Ta rather than W; target underperforming

▣ IS619

15C beams to XT03: yields fine. Transmission issues, but ok

General feedback:

- Se beams: knowledge/material lost?
- Molecular beams: more in demand, time needed for development + for the machine (HIE) e.g. SnS for ^{136}Sn ...
- Ni beams
- GdB6 for Nd?
- Ge beams are reliable?
- 8B beams: options if #513 fails?
- Gas leak at ISOLDE?
- Status of Sigradur...e.g. for Ni?

From next INTC:

- Sc beams for COLLAPS
- SbS beams for Miniball