

ISOLDE Physics Coordinator Report

Schedule

Access to the hall

Visits

b275 and b508



Magdalena Kowalska



ISOLDE schedule

v1.51 27May			
	info	GPS	HRS
6-Apr	Easter		
7-Apr	protons to ISOLDE	separator course - surf ion source	separator course
8-Apr	7-17h, technical stop no protons	stable beam for RILIS	separator course
9-Apr		separator course stable beam for RILIS SEM grid on	separator course
10-Apr		SEM-grid test SEM-grid test	separator course
11-Apr		sem-grid test	stable beam available
12-Apr		sem-grid test	stable beam available
13-Apr		Target change: nanoC #513, new	SEM-grid on
14-Apr		separator setup to CA0 sep setup to tape station stable beam to IDS?	SEM-grid test SEM-grid test
15-Apr		p-scan yield checks #8	Target change: mass mark #537: Ca, K
16-Apr		Hg 8B yield checks ISOLDE tape station, LA1	
17-Apr		yield checks ISOLDE tape station, LA1	stable beam to COLLAPS
18-Apr		yield checks ISOLDE tape station, LA1, IDS?	stable beam to COLLAPS
19-Apr		yield checks ISOLDE tape station, LA1, IDS?	stable beam to COLLAPS
20-Apr		Hg Target change: molten Pb #511, new (as many pulses as poss)	Target change: SiC-Ta #522, new
21-Apr		separator setup to CA0 sep setup to tape station stable beam to ISOLTRAP, LA1	
22-Apr		Hg p-scan yield checks physics 1.5	
23-Apr		Hg, IS598 Hg, Windmill-LA1, MR-TOF 4.5	separator setup to ISCOOL
24-Apr		Hg, IS598 Hg, Windmill-LA1, MR-TOF 7.5	separator setup to ISCOOL ISCOOL setup
25-Apr		Hg, IS598 Hg, Windmill-LA1, MR-TOF 10.5	
26-Apr		Hg, IS598 Hg, Windmill-LA1, MR-TOF 13.5	
27-Apr		Hg, IS598 Hg, Windmill-LA1, MR-TOF 16.5	
28-Apr		Hg collections?	Mg separator setup to CA0 sep setup to tape station stable beam to IDS
	from 7h, injector MD		Mg p-scan

29-Apr	to 17h, injector MD						physics 2
18 30-Apr			Target change: UC-Ta #524, new mm: Au, Ti, Mn				yield checks IS507, 20Mg, IDS 4.5
1-May	1st May						IS507, 20Mg, IDS 7.5
2-May							IS507, 20Mg, IDS 10.5
3-May							IS507, 20Mg, IDS 13.5
4-May		Au	separator setup to CA0 sep setup to tape station				
5-May		Au	p-scan yield checks physics 1.5				
6-May	from 7h, injector MC to 17h, injector MD		Au, IS534 Windmill-LA1, Isoltrap 4.5			Target change: CaO-VD7 #538, new	
19 7-May			Au, IS534 Windmill-LA1, Isoltrap 7.5			separator setup to ISCOOL ISCOOL setup	
8-May			Au, IS534 Windmill-LA1, Isoltrap 10.5			separator setup to CA0 sep setup to tape station stable beam to LA1	
9-May			Au, IS534 Windmill-LA1, Isoltrap 13.5				
10-May			Au, IS534 Windmill-LA1, Isoltrap 16.5				
11-May			cooling			p-scan yield checks physics 2	
12-May			cooling			physics IS603, 10C, LA1 4.5	
13-May	from 7h, injector MC to 17h, injector MD		Target change: Ta-W #508, used			IS603, 10C, LA1 7.5	
20 14-May	Ascension					IS603, 10C, LA1 10.5	
15-May			separator setup to CA0			IS603, 10C, LA1 13.5	
16-May						IS603, 10C, LA1 16.5	
17-May						IS603, 10C, LA1 19.5	
18-May		Be	sep setup to tape station p-scan IS528, Tb 1.5			CA0 for GPS GPS physics 21	
19-May			physics IS528, Tb, GLM, GHM? 3			Target change: Ta-Re? #532, new,	
20-May	from 7h, injector MC to 17h, injector MD	Be	IS453, 11Be, GHM 2-3			separator setup to ISCOOL ISCOOL setup	
21 21-May			Target change: UC-surf #, used	Be		separator setup to CA0 sep setup to tape station stable beam	
22-May		In D+Y	separator setup to CA0 p-scan stable beam to GLM, GHM	Be		p-scan yield checks, p-scan GPS stable beam to LA1	
23-May			stable beam to GLM, GHM	T+D		IS541, LA1 11Be 4.5	
						IS541, LA1	

- V1.0 – Mar 9th, Apr-Jun
- V1.51 – May 27th, July-mid-Oct
- 470 low-energy shifts requested
- About 390 scheduled:
 - 27 wks
 - 38 IS exp., 4 LOIs
- In-source laser spectroscopy on Hg and Au (RILIS + WINDMILL + ISOLTRAP)
- IDS: decay of 20Mg
- LA1: decay of 10C
- GLM: Tb tests
- LA1: 11Be βp emission

ISOLDE schedule

22	24-May				11Be	7.5
	25-May	Whit Monday	In	IS501,576,578,580; day off		
	26-May		In	111,119In physics, GLM, GHM 2		
23	27-May		rem	yield checks GLM, GHM	stable beam to VITO-ASPIC?	5
	28-May	from 7h, Injector MD to 17h, Injector MD	Mn 3D	surface collections - In? GLM, GHM	Target change: UC-Ta-n_conv #533, new,	
	29-May		Mn	physics, GLM, GHM 56,57,59,61Mn	separator setup to ISCOOL ISCOOL setup	2
	30-May		3D rem	IS489,492,501,576,578,580 physics, GLM, GHM	separator setup to CA0 sep setup to tape station stable beam to IDS, COLLAPS	5
	31-May			IS489,492,501,576,578,580 GLM, GHM	stable beam to IDS, COLLAPS stable beam to CRIS	8
	1-Jun			IS489,492,501,576,578,580 56,57,59,61Mn	stable beam to CRIS stable beam to VITO-ASPIC?	11
	2-Jun			cooling	p-scan yield checks physics	1.5
24	3-Jun			IS590 68Mn, IDS	68Mn, IS590, IDS	4.5
	4-Jun			Target change: molten Sn #514, used #534 as backup, new,	68Mn, IS590, IDS	7.5
	5-Jun			68Mn, IS590, IDS	IDS COLLAPS	11
	6-Jun			cooling	n-rich Mn, IS508 COLLAPS	2
	7-Jun			cooling	n-rich Mn, IS508 COLLAPS	5
	8-Jun			separator setup to CA0 sep setup to tape station stable beam to GLM, VITO	collaps 8.5 ?	8
	9-Jun			p-scan yield checks physics	cooling	1.5
	10-Jun	from 7h, Injector MD to 17h, Injector MD		IS481,487,514,515,585,1147,(IS580) GLM, GHM?, VITO-ASPIC	cooling	4.5
	11-Jun			IS481,487,514,515,585,1147 GLM, GHM?, VITO-ASPIC	Target change: UC-Ta-n_conv #539, new,	7.5
	12-Jun			IS481,487,514,515,585,1147 GLM, GHM?, (CA0 for HRS)	separator setup to ISCOOL sep setup to tape station stable beam	10.5
25	13-Jun			IS481,487,514,515,585,1147,(IS580) GLM, GHM?, VITO-ASPIC	stable beam to CRIS, ISOLTRAP	13.5
	14-Jun			IS481,487,514,515,585,1147,(IS580) GLM, GHM?, VITO-ASPIC	stable beam to CRIS, ISOLTRAP	16.5
	15-Jun	technical stop, 24h no p's no p's		Target change: UC-surf used	p-scan	2
	16-Jun		Ag	separator setup to CA0 sep setup to tape station p-scan	(yield checks - longer, new UO2)	2
	17-Jun		Ag	IS481,487,488,489,492,585,602 GLM, VITO-ASPIC (share CA0)	(yield checks - longer, new UO2)	5
				IS481,487,488,489,492,585,602	(yield checks - longer, new UO2)	5
	18-Jun			GLM, VITO-ASPIC (share CA0)	GLM, VITO-ASPIC (share CA0)	8
	19-Jun			yield checks - longer, new UO2	stable beam to CRIS, ISOLTRAP	8
	20-Jun			yield checks - Cu physics	76-79Cu, IS535 ISOLTRAP, 40kV	1.5
	21-Jun			cooling	76-79Cu, IS535 ISOLTRAP	4.5
26	22-Jun			cooling	76-79Cu, IS535 ISOLTRAP	7.5
	23-Jun			Target change: Nb-foils #535, negative ions, mm: target ready?	76-79Cu, IS535 ISOLTRAP	10.5
	24-Jun	from 7h, Injector MD to 17h, Injector MD		ISOLTRAP CRIS	ISOLTRAP CRIS	11
	25-Jun			HV swap to negative ions	stable beam to CRIS CRIS, 10h, or 1 day earlier?	2
	26-Jun			HV swap to negative ions	76-78Cu, IS531 CRIS	5
	27-Jun			separator setup to CA0 and to GLM?	76-78Cu, IS531 CRIS	7
	28-Jun			stable beam to GLM?	76-78Cu, IS531 sh req 10	10
	29-Jun			stable beam to GLM?	76-78Cu, IS531 ?	10
	30-Jun			separator setup to tape station p-scan stable beam to LA1	separator setup to tape station and LA1 yield checks, tape station measurements, LA1	10.5
	1-Jul	from 7h, Injector MD to 17h, Injector MD		neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	2
	2-Jul			neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	5
	27	3-Jul			neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1
4-Jul				neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	5
5-Jul				neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	5
6-Jul				neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	5
7-Jul				neg-ions yield checks measurements, LA1	neg-ions yield checks measurements, LA1	5
8-Jul		from 7h, Injector MD to 17h, Injector MD		Target change: ThO-neg new, #540, or Wednesday? new, mm: 1,	separator setup to CA0 sep setup to tape station	5
9-Jul				separator setup to CA0 sep setup to tape station	sep setup to tape station p-scan	5
10-Jul				yield checks I148, GLM (measurements LA1)	yield checks I148, GLM (measurements LA1)	5
11-Jul				yield checks I148, GLM (measurements LA1)	Target change: UC-CP #543, new ready maybe for 13th?	5
12-Jul				yield checks I148, GLM (measurements LA1)	yield checks I148, GLM (measurements LA1)	5
13-Jul				yield checks I148, GLM (measurements LA1)	yield checks I148, GLM (measurements LA1)	5

SSP: In and Mn for Mosbauer and EC

68Mn to IDS

N-rich Mn to COLLAPS

SSP: Cd for PAC

Biophysics: Ag

N-rich Cu from new UC batch:

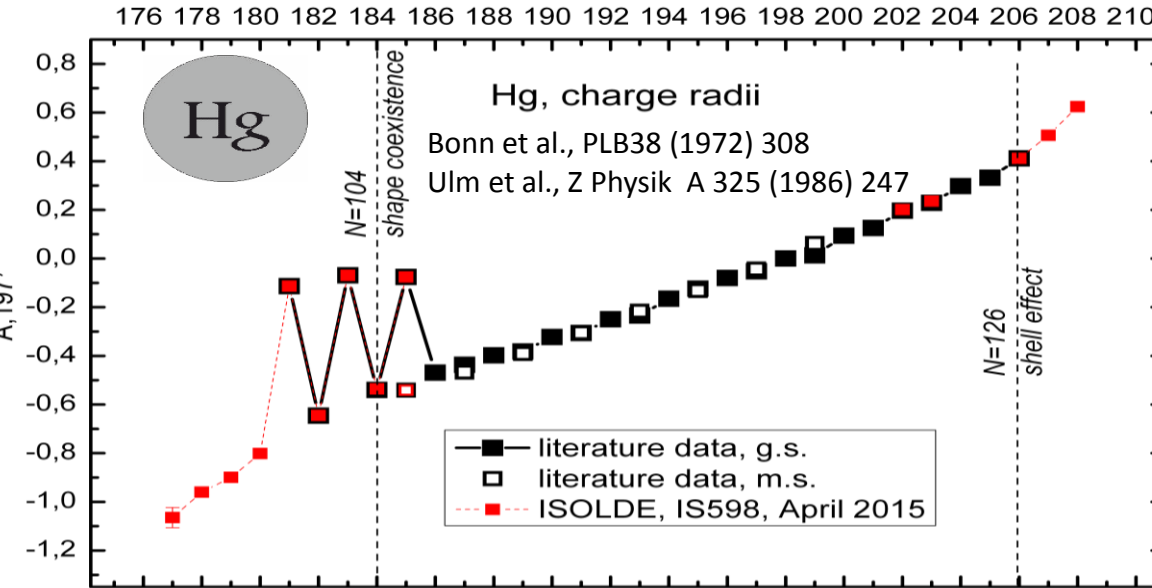
➤ ISOLTRAP

➤ CRIS

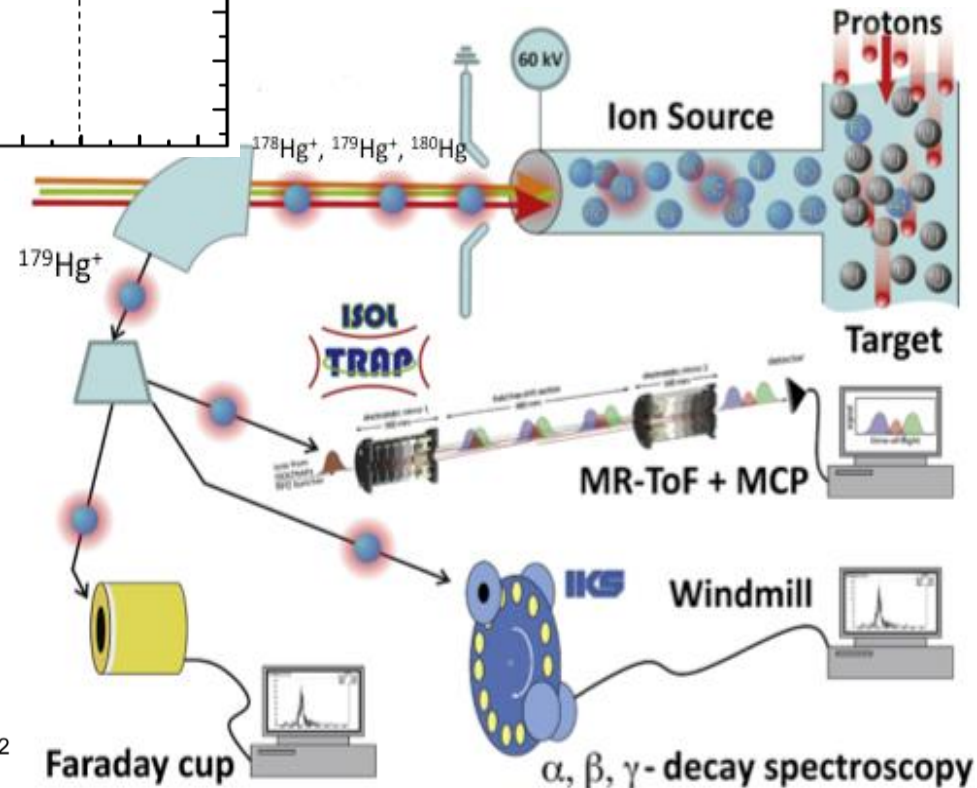
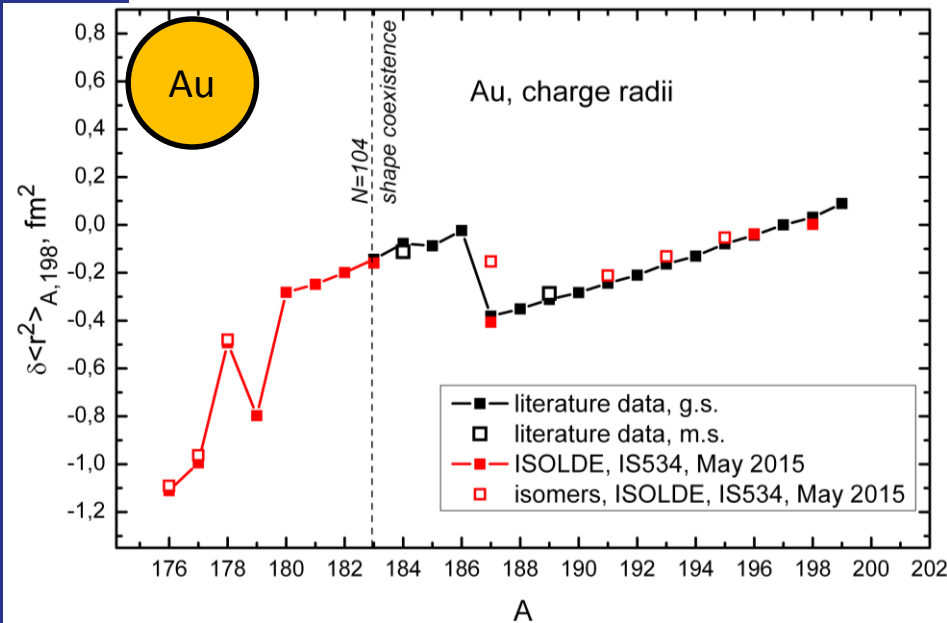
Coming now: yields of negative ions on GPS

Physics example: n-def Hg & Au isotopes

RILIS, Windmill, ISOLTRAP teams



- Several techniques combined
- RILIS lasers to probe the hyperfine structure of Hg & Au isotopes
- Detection:
 - Alpha spectroscopy with Windmill
 - Selective ion counting in MR-ToF



ISOLDE schedule

Coming until mid-October:

- IDS – neutron-delayed emission from Cd and Ca
- Tb medical isotopes
- COLLAPS – 53-54Ca
- ISOLTRAP: Po, 34Mg
- CRIS: Ga
- IDS – 68Mn rescheduled, 34Mg
- Preliminary:
 - Pb to IDS
 - Ni to COLLAPS

From mid-October till mid-Nov:

- HIE-ISOLDE runs:
 - Coulex of 74-80Zn
 - Coulex + SPEDE – Hg or Pb
 - Run at 2nd beamline?
- SSP run on Hg

Access to ISOLDE

Users with and without dosimeter: (www.cern.ch/isolde/get-access-isolde-facility)

- No temporary dosimeters possible

- To obtain dosimeter:
 - Follow online courses on general safety (as before)
 - Follow online RP course on Supervised Areas (as before)
 - Follow ISOLDE online RP course
 - Present RP form signed by home institute – **this year modified version**

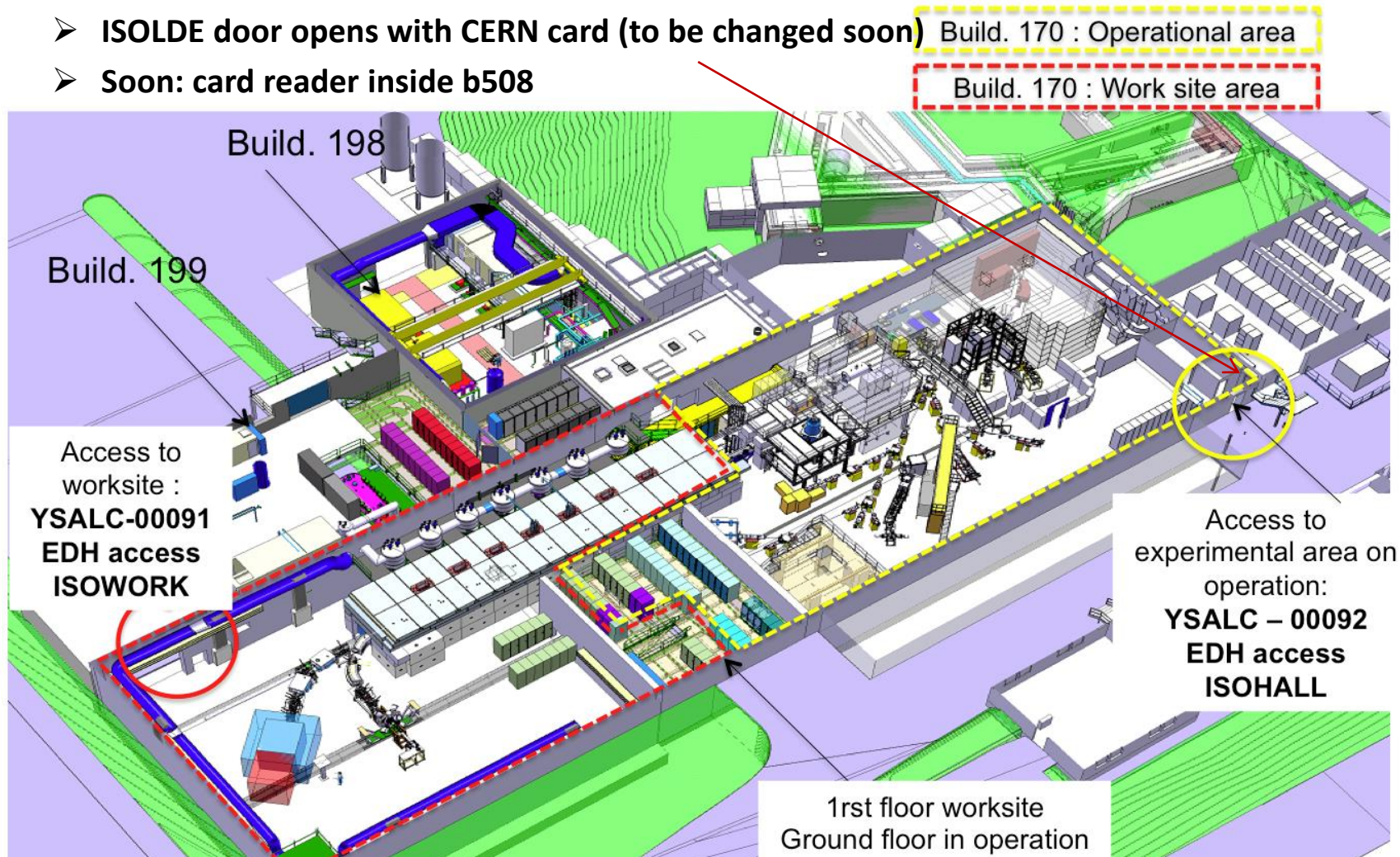
- To access ISOLDE:
 - Follow 2-h RP ISOLDE practical course – **introduced July14, Tuesdays at 15h**

- To do by December 2015:
 - Follow 2-h ISOLDE electrical practical course - **introduced April15, Tuesdays at 13h**

- **NOTE for online courses: soon – registration min 1 week before, only via EDH (new users - course preregistration via email, but once registered: also via EDH)**

Access to ISOLDE

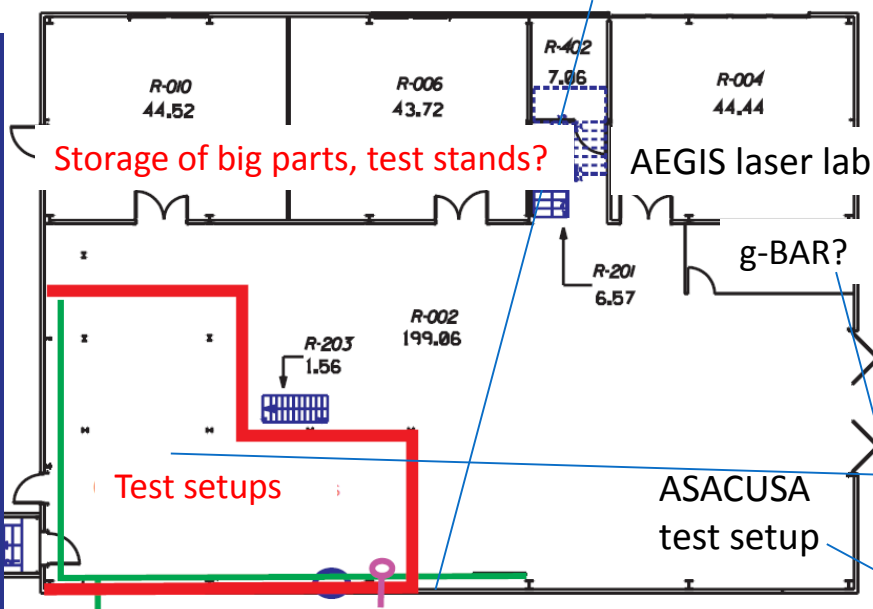
- Access to HIE-ISOLDE worksite: **STILL** only local physicists when moving equipment
- Access for users from Jura side for all, **from May 2015**:
 - **NEW: Tourniquet operational, opens via dosimeter**
 - **ISOLDE door opens with CERN card (to be changed soon)**
 - **Soon: card reader inside b508**



Visits to ISOLDE

- ISOLDE as Controlled RP area
- Only professional visits allowed
 - Our suggestion – university students, uni and school teachers, VIPs
- Non-professional visits access on case-by-case basis
 - High-school students above 16y
 - Private-public visits: friends, family
- No visits when opening beamlines or making high-intensity collections
- All visits
 - announced to myself, Richard, or Kara
 - Included in weekly schedule
 - discussed and (not-)approved in Tuesday Isolde technical meeting
- Up-to date procedure under preparation

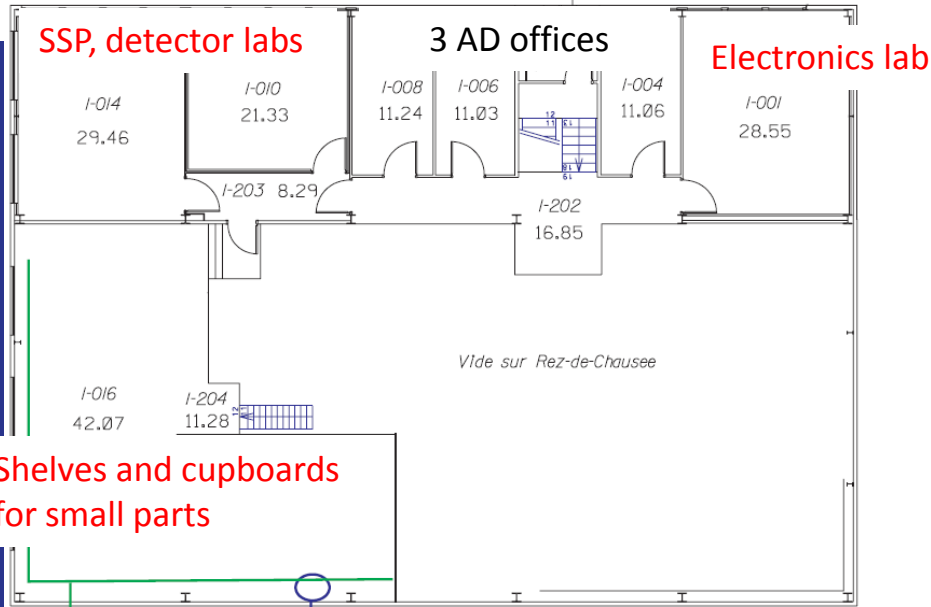
B275 – ground floor



Entrance key changed – can request it via Jenny
Part of bldg freed for AD experiments (Mar-Jun)



B275 – first floor



B508

Done

- Signal cables
- Visitor room: Fixed projector and window blinds
- CERN locks for all doors
- Machine placement and conformity in mechanical workshop

Ongoing

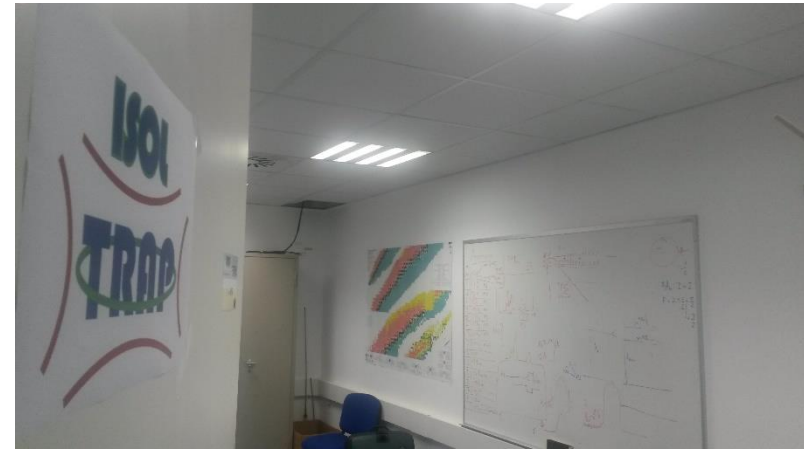
- Sorting tools in mechanical workshop – Ermanno: **written authorization required from your supervisor and Ermanno to use the machines**
-
- Emptying cupboards from detector lab – already in use by COLLAPS and IDS

Issues

- Ventilation was turned on only 2 weeks ago!
- External doors – difficult to open (low-quality crash bars inside) - ongoing
- Water dripping from some aircon connections - ongoing
- Kitchen wall with cracks – repaired

B508 – first floor

Kitchen furniture: coming soon



B508 – ground floor

