NOME	TETA	N.DET.
R1 I	1.40	
R1 E	2.20	16
R2 I	3.10	
R2 E	4.10	24
R3 I	5.20	
R3 E	6.40	32
R4 I	7.75	
R4 E	9.25	40
R5 I	10.75	
R5 E	12.25	40
R6 I	13.75	
R6 E	15.25	48
R7 I	17.00	
R7 E	19.00	48
R8 I	21.00	
R8 E	23.00	48
R9 I	25.50	
R9 E	28.50	48

NOME	TETA	N.DET
R10	34.00	32
R11	42.00	32
R12	50.00	32
R13	58.00	32
R14	68.00	32
R15	74.00	32
R16	82.00	32
R17	90.00	32
R18	98.00	32
R19	106.00	32
R20	114.00	32
R21	122.00	32
R22	130.00	32
R23	138.00	32
R24	146.00	32
R25	156.50	16
R26	169.50	8

35 Mev/n ^{112}Sn

06/07/04

6:00 Am

Noise CsI.

R1	05	E
R2	06	I
R2	23	I
R2	01	E
R2	02	E
R2	07	E
R2	01	I
R2	0	

bad Pedestal broken at high gain

Change threshold ~~to~~ to 4σ fast CsI

Run 3359 ~~threshold~~ pedestal Fast R2-R3.dat.

R3	12	E	noise
R2	23	E	noise
R2	22	E	noise

~~Fast R3-R4.dat~~

Run 3360 pedestal Fast R3-R4.dat (pedestal 460)

R4-32	I	in this file pulse in.
R4-33	I	
R4-34	I	
R4-35	I	

Run 3361 pedestal Fast R3-R4.dat (300)

Fast pedestal below 500 channel.

Run 3362 Pedestal Fast R4-R5.dat.

Min 200 channel, Max 400 channel.

Run 3363 Fast R5-R6.dat.

Min 172 channel, Max 588 Channel

R5-17 E a little noise

Run 3364 Fast R6_R6.dat.

R6 15 - E
R6 16 E
} big noise. looks some problem happen to preamp

R6 14 E . a little noise

Run 3365 Fast R6_R7.dat. pedestal (280) → 200 → 280

pedestal can't be adjusted

Run 3366 Fast R7_R8.dat.. (200)

R7 15 E not compensate. even change pedestal
R7 3 E noise

Run 3367 Fast R7_R8 new pedestal (200)

Run 3368 Fast R8_R8 (peds 360)

R8 34 I noise
R8 10 E noise
R8 46 I noise

Run 3369 Fast R8_R8. new pedestal (300) new pedestal

Run 3370 Fast R8_R9

R8 33 E noise

Run 3371 Fast R9_R9

R9 00 E noise not working (200) old pedestal

Run 3372 Fast R9_R9 new pedestal (100)

Run 3373 Fast R10_R11 (150) pedestal

R11 02 noise

Run 3374 Fast R10_R11 new pedestal (100)

~~Run 3375 Fast R12_R13~~ Fast R12_R13.

no signal in Fast R12 and R13.

Run 33705 Fast R14_R15

R15 20 noise

Run 3376 Fast R16_R17 (3a0)

R16 15 big noise
R16 25 big noise

Run 3377 Fast R16_R17 new pedestal (2a0)

Run 3378 Fast R18_R19 (200)

R18 16 big noise
R19 13 big noise

Run 3379 Fast R18_R19 new pedestal (150)

Run 3380 Fast R20_R21 (~~200~~ 250)

R21 13 big noise
R21 26 big noise
R21 10 noise

Run 3381 Fast R20_R21 new pedestal (1a0)

Run 3382 Fast R22_R23 (250)

R22 3 big noise
R22 17 big noise
R22 18 noise

pedestal

Run 3383 Fast R22_R23 new pedestal (200)

@ R23 19 big noise
R23 20 big noise
R23 17 noise

Run 3384 Fast R24_R25_R26 (350)

R24 20 noise
R24 21 noise

Run 3385 Fast R24 - R25_R26 new pedestal (240)

Slow CsI

Run 3386 Slow R1_R2 (changing threshold)
set threshold 3
~~pedestal 190~~

Run 3387 Slow R2_R3

Run 3388 Slow R3_R4

Run 3389 Slow R4_R5

Run 3390 Slow R5_R6

Run 3391 Slow R6_R6 pedestal (690) ↓ 490

@ R6 15 E noise
R6 16 E noise

Run 3392 Slow R6_R7

Run 3393 slow R7 _ R8

R7 03 E noise
R7 01 E noise

Run 3394 slow R8 _ R8

Run 3395 slow R8 _ R9

R8 34 E noise
R8 10 E noise
R8 34 E noise

Run 3396 slow R9 _ R9

R9 01 E noise

Run 3397 slow R10 _ R11

R10 07
R11 15
R11 20
R11 24
} no signal

Run 3398 slow R12 _ R13 (450) pedest → 350

Run 3399 slow R12 _ R13 * new pedestal (350)
Threshold 4

Run 3400 slow R14 _ R15 -
threshold 3

Run 3401	slowR16_R17		
Run3402	slowR18_R19		
Run 3403	slowR20_R21		
Run 3404	slowR22_R23		
Run 3405	slowR24_R25_R26		

Silicon

Run 3406	silR1_R2		Pedestal from (260)
Run 3407	silR1_R2	new pedestal	(200)
Run 3408	silR2_R3	"	(200)
Run 3409	silR3_R4		
Run 3410	silR4_R5		
Run 3411	silR5_R6		(200)
Run 3412	silR5_R6	new pedestal	(260)

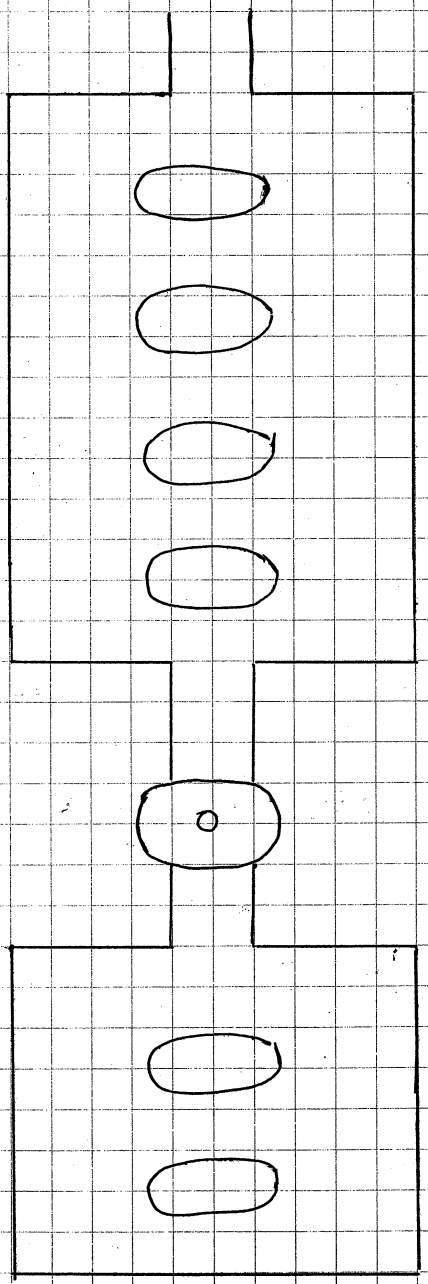
Run number		
Run 3413	Sil R6 _ R6	
Run 3414	Sil R6 _ R7	(330)
3415	Sil R6 _ R7	new pedestal (200)
3416	Sil R7 _ R8	(200)
3417	Sil R7 _ R8	new pedestal (200)
3418	Sil R8 _ R8	(200)
3419	Sil R8 _ R8	new pedestal (270)
3420	Sil R8 _ R9	(300)
3421	Sil R8 _ R9	New pedestal (200)
3422	Sil R9 _ R9	
3423	Sil R10 _ R11	(200)
3424	Sil R10 _ R11	(290)
	new pedestal	

Run number			
R3425	Si(R12 _ R13		
R3426	Si(R14 – R15		(200)
R3427	Si(R14 – R15	new pedestal	(180)
R3428	Si(R16 _ R17		(200)
R3429	Si(R16 __ R17	new pedestal	(220)
R3430	Si(R18 __ R19		(200)
Run3431	Si(R18 __ R19	new pedestal	(180)
Run3432	Si(R20 _ R21		(250)
Run3433	~~Si(R20 __ R23~~ Si(R22 _ R23	~~new pedestal~~	
Run3434	Si(R24 _ R25 _ R26		

Test Beam Intensity

① 350 pA ~~before~~ at quad before chamber 2 & 4

② 500 pA after target in Faraday cup
in ^{124}Sn target



		Position
Al	ϕ=2mm	0
^{124}Sn	614 mg/cm^2 + 4 mg/cm^2	-15.7
^{112}Sn	716 mg/cm^2 + 4 mg/cm^2	-30.8
Au	298 mg/cm^2	-46.4
d		-104.1
^{124}Sn	689 mg/cm^2	-232.3
^{112}Sn	627 mg/cm^2	-262.5

Multiplicity 2 = trigger
~~False beta multiplicity 1 downscaled by 50~~
Reference Detector = ring 2 i - 12
Single multiplicity downscaled by ~~100~~ 50
Ring 1 covered.

~ 1:30 pm - live time = ~~1963~~ 1963 / 2319

change gain: change gain (1st day page 16)

	Date	Time	Run	Tape	Beam	Tgt.	E	Trigger
1 i e								
2 i e	4/6/04	1:30 pm	3436	170	^{112}Sn	^{112}Sn	35 MeV/A	M1/50 M=2
3 i e	Decide to let the Chimera group to keep the run logs.							

Position
0
-15.7
-30.8
-46.4
-104.1
-232.3
-262.5

Game Plan

(I) Run ^{112}Sn tgt until ~ 11 pm.
change to ^{124}Sn tgt and run till morning.
Change to ^{112}Sn tgt ~8 am
call Operator to improve beam if intensity drops ~~beta~~ below 400 pA

(II) Sort high resolution spectra for δE v.s. fast. to look at Li isotope separation
δE y bin = 512 y max 2047
Csi fast bin = 256 x max 1023

10

Gain Change record

		Udo	Tang
Date:			7/6/04
Time			01:45 pm
1	i	1	1
	e	1	1
2	i	1	2
	e	1	2
3	i	1	2
	e	1	2
4	i	2	4
	e	2	4
5	i	2	4
	e	2	4
6	i	2	4
	e	2	4
7	i	2	4
	e	2	4
8	i	2	2
	e	2	2
9	i	2	2
	e	2	2
10		2	2
11		2	2
12		4	2
13		4	2
14		4	2
15		4	2
16		4	2
17		4	2
18		4	2
19		4	2
20		4	2
21		4	2
22		4	2
23		4	2
24		4	2
25		4	2
26		4	2

If the computer crashed
Symptom

① Make sure it can close the file on tape.
If not do emergency close file

Go to CPU window, ^C, kill slave process
up ↑ master_cpu_readout
try start, if successful, check RF etc.

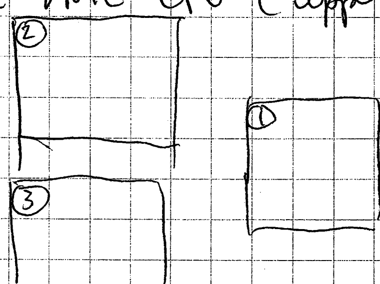
If not successful, reset VME inside vault.

② If both the ALARM & BUSY buttons are red, immediately stop and start run.

16 F_ERROR Node 3FDL Stat 800 - ...

console → due to QDC failure.
CLOSE file
~~Console~~ → initialization (wait ...)
→ START
Hopefully it will run again

Reset the VME CPU (upper button) inside vault.



Terminal ① telnet 172.16.37.80 user: super pass: USGE
>chd /h0/chim_2509
>PROCS (make sure slave & master subprocess are killed)
>run VP7
Terminal ② (CPU master) telnet 172.16.37.135 user: administrator pas ~~ROMACOGI~~ romacogi
terminal? A
>cd e:\
Terminal ③ telnet 172.16.10.48 pass: romacogi user: administrator
terminal? A >cd c:\newcrate
newcrate_beam.
~~So~~ Go to terminal ② & type master_cpu_readout MULTICAST

Go to XConsole. If data acquisition does not work, may have to repeat a few times or call Enrico & Giuseppe.

compression of spectra is by a factor of 4 ⇒ we have 4× as many channels in total

Telescope Inventory — From UDO's data

Ring	Telescope	Udo gain	Der gain	Resolution
	~~R1~~ R2001	1	2	low stats, can see element resolution only
3	R3001	1	2	low stats, can see element resolution only
4	R4001	2	4	" stats but seems to be only element res.
5	R			
6	R6001	2	4	no isotope resolution — gain too low
7	R7001	2	4	no isotope resolution — gain too low
8	R8001	2	2	has isotope resolution — 30–40% wide
9	R9001	2	2	has isotope resolution
10	R10005	2	2	has isotope resolution — ~30% telescopes
11	R11055	2	2	" " " — 25–30% "
12				
13				
14	R14015	4	4	Can resolve ^{3}He at ^{4}He others are off scale
15	R15075	4	4	probable isotopic resolution plot at ymax ≈ 4000 to see
16	R16015	4	4	can resolve ^{3}He at ^{4}He
17	R17265	4	4	Can resolve ^{3}He at ^{4}He ~~about 25~~
18	R18015	4	4	" " " "
19	R19035	4	4	" " " "
20	R20001	4	4	^{3}He, ^{4}He well ~~resolved~~ resolved
21	R21075	4	4	" " "
22	R22025	4	4	^{3}He, ^{4}He well resolved
23	R23085	4	4	^{3}He, ^{4}He well ~~resolved~~ resolved
24	R24015	4	4	" " "
25	R25015	4	4	" " "
26	R26015	4	4	" " probably resolved

have mo…
about …
in Ring 10
" " "

about 25…
most
about 50…
not HF's
more tha…
about
more th…
less …
less …
about …
about
about

have mass resolution

about 25% have isotopic resolution

in Ring 10 have isotopic resolution

" " " " " "

about 25% have isotopic resolution See telescope 12 for good example.

most of telescopes have Lithium off scale

about 50% resolve ^3He at ^4He.

not HF's about 20% of 6 ok.

more than 50% are good for ^3He / ^4He separation.

about 30% resolve ^3He at ^4He.

more than 50% resolve ^3He at ^4He

less than 50% " " " "

less than 50% " " " "

about 30% resolve ^3He at ^4He

about 50% " " "

about 30% " " " low statistics here — makes resolution look worse

Sort new data

Ring	det	Resolution		
7	R7 181	marginal Lithium and Beryllium *	10% of 7Li and 20% of 7Be	are ok

Thing to consider

1. Increase gain ring B_i by factor 2

2

Faraday up – beam rate ramp for X-section determination

tgt	Run#	i (meter) (collect)	i (Ortec) (scaler rate)	$N_{faraday}$	$i_{operator}$ (before)	$i_{operator}$ (after)	N_{event}	Δt	23 counts ↓ CW
112 Sn	3548	0.3	0	0	0	0	52452	300(s)	65
	→ some beam related events written on file → no good								
112 Sn	3550 ~~3549~~ ← (Header! Beam Full intensity calibration)	0.8 nA	0.9 nA	2992	0.550–0.6 nA	0.68–0.73 nA	306917	303(s)	19813
112 Sn	3551	.18 nA ↑ fluctuates	0.05 nA ↑ rough value	267	0.050–0.060 nA	0.065–0.070 nA	66188	299(s)	1732
112 Sn	3552	?	.02 nA ↑ rough value	44	.0010 nA		0.008–0.012 nA 41864	300(s)	339
				Change to 124Sn tgt					
no Beam	3553	?	0.0 nA	0	0	0	39380	300(s)	63
124 Sn	3554 ~~3553~~	?	~ 0.02 nA	44	.008–.012 nA ← may have lost a magnet during the last seconds of this run		43116	300(s)	344
124 Sn	3555	?	~ 0.02 nA	65	.015 nA	0.014–0.020 nA	48215	300(s)	528
124 Sn	3556	0.25 nA	0.13 nA	470	0.095 nA – 0.100 nA	~ 0.10 nA	86560	✓305–310(s) 300(s) ↑ run somewhat longer	2986
124 Sn	3557 ~~3556~~	1.2 nA	0.9–1.0 nA	2774	0.65 nA – 0.62 nA	0.62 nA	282375	Check pulser counts 300(s)	17556

We are recording on disk as well as to tape for 3556 and 3557

^{112}Sn beam for Run # ≤ 3567

11/1/07

Run 3550
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00306905	000000	ok
01:	00306917	000000	gate
02:	00019013	000000	CW
03:	01012636	000000	PCW
04:	00020234	000000	ADC Busy
05:	00413514	000000	Pulser
06:	00306915	000000	FDL trigger =0.12 gate
07:	00002992	000000	Faraday Cup

# of triggers in R2-121 ~~Con~~ # of ~~requests~~ events

Dead time fix = Tell R2-121 single ID9492 Cen line spectrum

Total # in Spectra R2-121 / # of triggers.

ADC Busy → multiplicity 1/50

Run 3551
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00066192	000000	ok
01:	00066188	000000	gate
02:	00001732	000000	CW
03:	00521965	000000	PCW
04:	00010439	000000	ADC Busy
05:	00325687	000000	Pulser
06:	00066188	000000	FDL trigger
07:	00000267	000000	Faraday Cup

Run3552
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00041866	000000	ok
01:	00041864	000000	gate
02:	00000339	000000	CW
03:	00509498	000000	PCW
04:	00010163	000000	ADC Busy
05:	00339381	000000	Pulser
06:	00041863	000000	FDL trigger
07:	00000044	000000	Faraday Cup

Run3553
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00039382	000000	ok
01:	00039380	000000	gate
02:	00000063	000000	CW
03:	00539773	000000	PCW
04:	00010747	000000	ADC Busy
05:	00353133	000000	Pulser
06:	00039366	000000	FDL trigger
07:	00000000	000000	Faraday Cup

Run3554
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00043117	000000	ok
01:	00043116	000000	gate
02:	00000344	000000	CW
03:	00505621	000000	PCW
04:	00010087	000000	ADC Busy
05:	00331168	000000	Pulser
06:	00043115	000000	FDL trigger
07:	00000044	000000	Faraday Cup

Run3555
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00048222	000000	ok
01:	00048215	000000	gate
02:	00000528	000000	CW
03:	00628938	000000	PCW
04:	00012554	000000	ADC Busy
05:	00447892	000000	Pulser
06:	00048215	000000	FDL trigger
07:	00000065	000000	Faraday Cup

Run3556
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00086562	000000	ok
01:	00086560	000000	gate
02:	00002986	000000	CW
03:	00658028	000000	PCW
04:	00013136	000000	ADC Busy
05:	00402410	000000	Pulser
06:	00086560	000000	FDL trigger
07:	00000470	000000	Faraday Cup

Run3557
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00282378	000000	ok
01:	00282375	000000	gate
02:	00017556	000000	CW
03:	01124539	000000	PCW
04:	00022454	000000	ADC Busy
05:	00495269	000000	Pulser
06:	00282373	000000	FDL trigger
07:	00002774	000000	Faraday Cup

Run3558

Run 3563

3564

3567

35

Check Deadtime

Beam:- 7/sec.

Run	Nevents	CW	Faraday cup.	8889/9115	Rate
3563	144181	9115	1437	8250/9115 = 90.5%	
	151689	9608	1482	8285/9608 = 86.2%	
3564	162887	9779	1501	8253/9779 = 84.4%	

3567 pulser into detectors (problems code VME 3) run stopped

Pulser values

#17 GAIN
0.01 0.02 0.04 0.06 0.08 0.1 0.2 0.4 0.6 0.8 1.0 1.5 2.0 3.0 4.0 5.0 6.0
#17 TIME
3 3 3 3 3 10 3 3 3 3 10 3 3 3 3 3 3 Seconds per setting

3568 New run pulser as before.

Laboratori Nazionali del Sud
Istituto Nazionale di Fisica Nucleare
Target Laboratory

Catania, li 25 giugno 2004

Experiment ISO-EOS

Leader Lynch / Pagano

Laboratory LNS

targets used in experiment

List		
	1	Sn 627 µg/cm + Sn 689 µg/cm on frame CH10
	2	Sn 699 µg/cm frame 0024
	3	Sn 715 µg/cm frame 0033
	4	
	5	
	6	
	7	
	8	
	9	
	10	
	11	
	12	
	13	
	14	
	15	

Enstrusted: **Pirrone**

The Rensponsable
Carmelo Marchetta

Fax 0957141815 - telex 971432 - Telefoni Centralino +39 095542111 - Direzione 095516140 - **Bersagli 095542248**
www.lns.infn.it

<737

^{124}Sn Beam on target at 9:30 pm.

Friday, July 9, 04

Faraday cup ~~10^{-10}~~ C

1 Count in scaler = 10^{-11} C

Run #
^{112}Sn	3665
^{116}Sn	3666
^{120}Sn	3667
^{124}Sn	3668
^{124}Sn	3669
^{124}Sn	3670
^{120}Sn Beam	3671
Switch to	

List of things to do:

Try the procedure of matching low and high gains.
Try to extract pulser information from different runs.
Get a list of detector thicknesses.
Make sure all the files are transferred to MSU or hard disks or DVD's.

1. Cross-section measurements.
2. Calibration with cocktail beams
3. Alpha source calibrations
4. TDC calibrations, if done, get the parameters.
5. Make copies of the Italian log book
6. Update Run_summary.xls

Change ~~Sn~~ targets every 10-12 hr.

CI setting 10^{-10} C/pulse.

tib 2-127 counts fo

Tgt	Run #	I (Ortec) from scaler	$N_{faraday}$	i (before) operator	i (after) operator	N_{events}	Δt(s)	Cu
^{112}Sn	3665	0.6 nA - 0.7 nA	1947	0.50 nA ±.05	0.49 nA	210846	300	10755
^{112}Sn	3666	~.059 nA	187	0.045 nA ±.005	0.045 nA	66833	300	1090 accept (1034)
^{112}Sn	3667	~.0095 nA	23	0.008 nA ±.0005	0.008 nA	49464	300	236 accept (225)
^{124}Sn	3668	.0010 nA	30	0.003 nA	.008 ±.004	75084	300	200 (188)
^{124}Sn	3669	.058 nA	162	0.045 ±.005	.045	72388	300	888 (836)
^{124}Sn	3670	0.6 nA	2002	0.48 ±.02 nA	0.48	218128	300	10548 (8820) ↑ perhaps 5% more.
no beam	3671	0	0	0	0	48313	300	57 (53)
							300	

10^{-10} C

Switch back to ^{112}Sn target and ^{124}Sn beam

Run 3665
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00210851	000000	ok
01:	00210846	000000	gate
02:	00010755	000000	CW
03:	01659668	000000	PCW
04:	00033145	000000	ADC Busy
05:	01135595	000000	Pulser
06:	00210844	000000	FDL trigger
07:	00001947	000000	Faraday Cup

Run 3666
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00066836	000000	ok
01:	00066833	000000	gate
02:	00001090	000000	CW
03:	01401021	000000	PCW
04:	00028015	000000	ADC Busy
05:	01149688	000000	Pulser
06:	00066831	000000	FDL trigger
07:	00000187	000000	Faraday Cup

Run 3667
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00049467	000000	ok
01:	00049464	000000	gate
02:	00000236	000000	CW
03:	01269084	000000	PCW
04:	00025381	000000	ADC Busy
05:	01079463	000000	Pulser
06:	00049464	000000	FDL trigger
07:	00000023	000000	Faraday Cup

Run 3668
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00075090	000000	ok
01:	00075084	000000	gate
02:	00000200	000000	CW
03:	02274567	000000	PCW
04:	00045491	000000	ADC Busy
05:	01668476	000000	Pulser
06:	00075083	000000	FDL trigger
07:	00000030	000000	Faraday Cup

Run 3669
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00072394	000000	ok
01:	00072388	000000	gate
02:	00000888	000000	CW
03:	01935778	000000	PCW
04:	00038671	000000	ADC Busy
05:	01343604	000000	Pulser
06:	00072388	000000	FDL trigger
07:	00000162	000000	Faraday Cup

Run 3670
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00218138	000000	ok
01:	00218128	000000	gate
02:	00010548	000000	CW
03:	02127661	000000	PCW
04:	00042510	000000	ADC Busy
05:	01229261	000000	Pulser
06:	00218120	000000	FDL trigger
07:	00002002	000000	Faraday Cup

Run 3671
CAMAC CAEN SCALER 1

Ch	Value	Rate	
00:	00048314	000000	ok
01:	00048313	000000	gate
02:	00000057	000000	CW
03:	01308623	000000	PCW
04:	00026153	000000	ADC Busy
05:	01111289	000000	Pulser
06:	00048313	000000	FDL trigger
07:	00000000	000000	Faraday Cup

see page 37

1. 2. 3. 4. 5. will ledi 6. 7. Bill 8. 9. Anita 10. 11. 12.

Things to do

1. transfer all files to MSU
2. Copy the log-book
3. ~~get the Detector~~ update. Run Summary
4. make copies of Chimera drawings (LANZALONE) Gaetano
5. get thickness files (LANZALONE)
6. will be done get calibration files (LANZALONE) ← Run Number or Disk Pinzone
   List of detectors that are changed
7. get time calibration files (LANZALONE) 2003 files ← copy
8. Beam energies
9. get copies of calibration programs (ENRICO DIFILIPPO) 11.00
   - pulser calibration program
   - time calibration ?
   ← found but we need to copy
10. [for calibration information (Enrico)] ←
11. ~~N~~ > 2 experiment N > 0 calibration
12. List of participants ←

^{112}Sn : 35.06 MeV

^{124}Sn : 35.06 MeV

^{16}O : 35.06

^{20}Ne : 35.01

ISO-EOS

DE FILIPPO ENRICO
AMORINI FRANCESCA
LAGUIDARA ELENA
LANZALONE GAETANO
CARDELLA GIUSEPPE
PAPA MASSIMO
POLITI GIUSEPPE
~~LANZALONE GAETANO~~
PIRRONE SARA
GALICHET EMMANUELLE
RUSSOTTO PAOLO
MAIOLINO CETTINA
RIZZO FRANCESCA
CHATTERJE MIHIR mbc_sinfa@yahoo.co.in
SANTONOCITO DOMENICO
PAGANO ANGELO
PORTO FRANCESCO

Giuseppe Verde
NUI ~~HELA~~ HULA
Betty TSANG
Bill Lynch
Pham Dinh
(79)

http//www.ct.infn.it/~cardella/html/Lista_runs2004_raw3.html

username : chimera "
password : calibrazioni

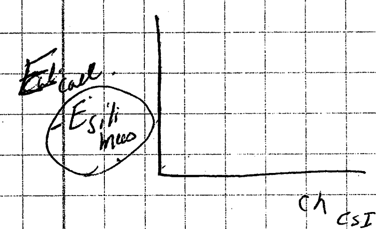
run #s for α calibration

~~200~~ 1275, 1276, 1277, 1278 , but nearby pulser was done with a different gain

↑

do again for Bef with gain 8 + pulser also at gain 8

will do after the



the data ~~at~~ are

mnt/nas/CAMP2004/calib_feb2004

~~titles all are isospin~~ isospin 1234.data

↑ run#

better use home/farmcc/chimera_world/nas/CAMP2004/calib_feb2004

Username	chimera_world
password	reverse2004

CC01.CT.INFN.IT

programs: ~~chimera_world @ CC01~~

~~ch~~ chimera_world/ANALISI/ISOSPIN

eg! "isospin_pulser" makes HBook files w/ spectra

30

time calibration runs are also listed on the web site.

... /nas/calib/finale/TOF/time-calibrator

time calib coeff

$time = a_0 + a_1 ch + a_2 ch^2$

time calibrator coeff_20031023.txt

ENE_SIL has results of energies

Using the Chimera pulser analysis program
documentation on web : www.ct.infn.it/~cardella/html/isospin_news.html/

~~cy insh~~ or the list at ~cardella/~~Html~~ Chimera

Files to copy

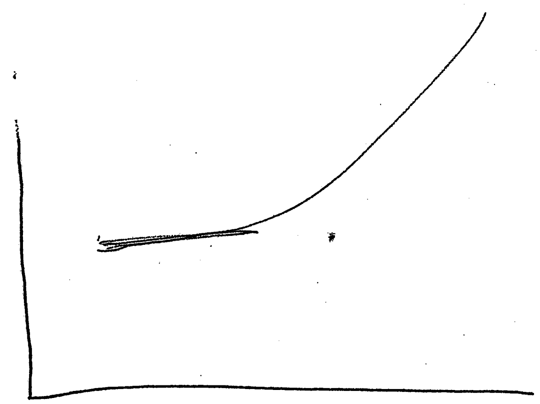
→ Pulser fitting isospin_pulser - to Book fill

/chimera/calib/pulser/giuseppe pulser spectra HBook

picpul : program to get the peaks

creat_db1 do creates and/or database

N_{events} $\left(\frac{300}{\# sec}\right)$



$N_{faraday} \left(\frac{300}{\# sec}\right)$

$2\times10^{-4} \times 1000$
$\sim 10\%$ $N_{faraday} \sim I \Delta t$

$\dot{N}_{events} \propto \left[N_{tgt} \sigma + \dot{N}_{Background}\right]\left[1 - \dot{N}_{event} \Delta t\right]$

300,000
300 sec
1000 words/sec

$N_{event} \propto \left[I N_{tgt} \Delta\sigma \Delta t_{age} + N_{Background}\right]\left[1 - \dot{N}_{event} \Delta t_{resolution}\right]$

$\propto \left[\boxed{I N_{tgt} \Delta\sigma} \Delta t + N_{Background}\right]\left[1 - \frac{N_{event}}{\Delta t_{gat}} \Delta t_{rest}\right]$

$N_{events} = \left[Const\, N_{Faraday} + N_{Background}\right]\left[1 - N_{events}\, Const_2\right]$

$=$

1/4 Back.

$\frac{1}{.85} \frac{2.4\times10^5}{300} = 952/s = R_{Beam} \cdot N \cdot \sigma$

$R_{Beam} = \frac{2774}{300} \cdot \frac{\times 1\times10^{-10} C}{48 \times 1.6\times10^{-19} C} = 1.16\times10^8 /s \cdot \frac{.50}{.465} = 1.25\times10^8$

$N_{tgt} = \frac{.689\ mg/cm^2}{124 \cdot 1.67\times10^{-21} mg} = 3.3\times10^{18} /cm^2$

$\sigma = \frac{952}{1.25\times10^8} \frac{1}{3.3\times10^{18}} = 2.3b = 230\ fm^2$

$b_0 = 8.5\ fm$