

Run # 536	Date: 12/1	Start time: 2:01 PM	Stop time:
Beam: $^{112}\text{Sn}$ 50 MeV/A			
Target: $^{112}\text{Sn}$			
Trigger: MB+FA		Miniball Multiplicity: 8+5 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Alisher	
Live Time (%): 50		Master Trigger Rate: 540	
Notes: NORMAL RUN CLOSED BECAUSE OF BEAM LOST			

Run # 537	Date:	Start time:	Stop time:
Beam: $^{112}\text{Sn}$ 50 MeV			
Target: $^{112}\text{Sn}$			
Trigger: MB+FA		Miniball Multiplicity: 8+5 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Alisher	
Live Time (%): 46		Master Trigger Rate: 600	
Notes: Data run			

Run # 538	Date: 12/1	Start time: 13:09	Stop time: 3:51
Beam: $^{112}\text{Sn}$ 50 MeV			
Target: $^{112}\text{Sn}$			
Trigger: MB+FA		Miniball Multiplicity: 8+5 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Alisher	
Live Time (%): 490		Master Trigger Rate: 570	
Notes: Data run			

Run # 539	Date:	Start time:	Stop time:
Beam: 112Sn 50 MeV			
Target: 112Sn			
Trigger: MB+FA		Miniball Multiplicity: 8+5 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Jack	
Live Time (%): 45		Master Trigger Rate: 600	
Notes: Data Run			

Run # 540	Date: 12/1	Start time: 4:34 PM	Stop time:
Beam: 112Sn 50 MeV			
Target: 112Sn			
Trigger: MB+FA		Miniball Multiplicity: 8+5 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: P. Row	
Live Time (%): 45		Master Trigger Rate: 580	
Notes: DATA RUN CLOSED AT ~ 300 NS FOR ENERGY BEAM CHANGE			

Run # 541	Date: 12/1	Start time: 5:21 PM	Stop time: 5:24 PM
Beam: 112Sn @ 10 MeV			
Target: Blank			
Trigger: MB+FA		Miniball Multiplicity: 5	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Mike	
Live Time (%): 100		Master Trigger Rate: 2	
Notes: Just switched beam <del>at</del> energy. Set downscaler on MB to 1. Put in blank			

Run # 542	Date: 12-1	Start time: 5:35	Stop time: 6:50
Beam: 112Sn 120 MeV			
Target: 112Sn			
Trigger: MB+FA		Miniball Multiplicity: 5	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Jack	
Live Time (%): 70%		Master Trigger Rate: 250	
Notes: Data Run. (lower beam intensity)			

Run # 543	Date: 12-1	Start time: 6:50	Stop time:
Beam: 112Sn 120 MeV			
Target: 112Sn			
Trigger: MB+FA		Miniball Multiplicity: 5	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Jack	
Live Time (%): 70%		Master Trigger Rate: 250	
Notes: Data Run - (lower beam intensity)			

Run # 544	Date: 12-1	Start time: 8:08	Stop time:
Beam: 112Sn 120 MeV			
Target: 112Sn			
Trigger: MB+FA		Miniball Multiplicity: 10x 7 downH	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Jack	
Live Time (%): 25		Master Trigger Rate: 470	
Notes: Increased beam intensity + changed MB multiplicity			

LASSA Si	0	1	2	3	4	5
bias voltage	66.1	65	85	50	59.9	55.1
leakage current	1.87	3.27	1.62	0.99	3.41	0.96

Run # 545	Date: 11/1	Start time: 8:51 PM	Stop time: 9:20 PM
Beam: 112 Sn 120 ANLV			
Target: 112 Sn			
Trigger: MB+PA		Miniball Multiplicity: 10+2 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: PAOLU	
Live Time (%): 34		Master Trigger Rate: 460	
Notes: DATA RUN			

Run # 546	Date: 12/1	Start time: 9:20 PM	Stop time: 9:47 PM
Beam: 112 Sn @ 120 MV			
Target: 112 Sn			
Trigger: MB+PA		Miniball Multiplicity: 10+7 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Mike	
Live Time (%): 30		Master Trigger Rate: 465	
Notes: normal data run			

Run # 547	Date: 12/1	Start time: 9:47PM	Stop time: 10:14PM
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 7	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		M. Ze	
Live Time (%): 25		Master Trigger Rate: 470	
Notes: more data... yay			

Run # 548	Date: 12/1	Start time: 10:14PM	Stop time:
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 7	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		M. Ze	
Live Time (%): 25		Master Trigger Rate: 475	
Notes: normal data run			

Run # 549	Date: 12/1	Start time: 10:40PM	Stop time:
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 7	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		PAOLO	
Live Time (%): 23		Master Trigger Rate: 470	
Notes: NORMAL DATA RUN			

Run # 550	Date: 12/1	Start time: 11:08 PM	Stop time: 11:15 PM
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: M. Le	
Live Time (%): 20		Master Trigger Rate: 480	
Notes: <del>normal run</del> ✓ Having been issues			

Run # 551	Date: 12/1	Start time: 11:36 PM	Stop time: 12:03 AM
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: M. Le	
Live Time (%): 25		Master Trigger Rate: 470	
Notes: They fixed it. We think. Normal run			

Run # 552	Date: 12/1	Start time: 12:03 AM	Stop time:
Beam: 112 Sn @ 120 MeV			
Target: 112 Sn			
Trigger: MB+FA		Miniball Multiplicity: 10+7 down 4	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: M. Le	
Live Time (%): 22		Master Trigger Rate: 495	
Notes: Normal run			

Run # 553	Date: 12/2	Start time: 0:34	Stop time:
Beam: 112 $\mu$ m @ 120 AMeV			
Target: 112 $\mu$ m			
Trigger: MB + FA		Miniball Multiplicity: 10 + 7 down 4	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Zbigniew
Live Time (%): 21		Master Trigger Rate: 470	
Notes: NDR			

Run # 554	Date: 12/2	Start time: 1:11	Stop time:
Beam: 112 $\mu$ m @ 120 AMeV			
Target: 112 $\mu$ m			
Trigger: MB + FA		Miniball Multiplicity: 10 + 7 down 4	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Zbigniew
Live Time (%): 20		Master Trigger Rate: 480	
Notes: NDR			

Run # 555	Date: 12/2	Start time: 2:11	Stop time:
Beam: 112 $\mu$ m @ 120 AMeV			
Target: 112 $\mu$ m			
Trigger: MB + FA		Miniball Multiplicity: 10 + 7 down 4	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name:
Live Time (%): 26		Master Trigger Rate: 470	
Notes: NDR			

Run # 556	Date: 12/2	Start time: 2:50	Stop time:
Beam: 112 Sn @ 120 AMeV			
Target: 112 Sn			
Trigger: MB + FA		Miniball Multiplicity: 10 + 7 down 4	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: Zbigniew
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): 24		Master Trigger Rate: 470	
Notes: NDR			

LASSA Si	0	1	2	3	4	5
bias voltage	-65	-65	-85	-50	-60	-55
leakage current	1.84	3.26	1.61	0.99	3.35	0.94

3:05 pm DONE w/ <sup>112</sup>Sn @ 120 AMeV BEAM

PREPARING FOR PULSE RUNS FOR Si & CsI

PULSE RUNS for SILICON

# 559 - Pulbing BACKS only # of steps  
0.06 - 1.06 V, #321, 20s / step

# 560 - Pulbing FRONTS only  
0.06 - 1.06 V, #321, 20s / step

# 561 - BACKS only  
0.06 - 9.06 V, #319, 20s / step

# 562 - FRONTS only  
0.06 - 9.06 V, #319, 20s / step



# 563 - BACKS only

0.035 - 1.035 V, #~~19~~<sup>21</sup>, 20s

# 564 - FRONTS only

0.035 - 1.035 V, #~~19~~<sup>21</sup>, 20s

# 565 - BACKS only

0.035 - 9.035 V, #19, 20s

# 566 - FRONTS only

0.035 - 9.035 V, #19, 20s

PULSER RUNS for C81

# 567 - 0.06 - 1.06 V, # of Steps = 21, 20s / Step

# 568 - 0.035 - 1.035 V, #s: 21, 20s / Step

# 569 - 0.05 - 1.05 V, #s: 21, 20s / Step

# 570 - 0.06 - 9.06 V, #s: 19, 20s

# 571 - 0.035 - 9.035 V, #s: 19, 20s

# 572 - 0.05 - 9.05 V, #s: 19, 20s

12/3/09. Before beam tuned to vault.  
 Turned on CsI & CsI pulser system, as  
 run during the last beam data runs. See a  
 shift that I can't explain. First thought is that  
 the pulser shape has changed, but that doesn't  
 explain how the shift depends on channel. The  
 pulser voltages are the same, but I have no record  
 of the previous pulse shape settings. Current  
 settings are:

CsI pulser voltage:  $-9V$

EF " " :  $+7V$

EB " " :  $-7V$

all pulser shape:  $\uparrow/\downarrow$

all pulser width:  $100ns$

all pulser rise time:  $0.05 \mu s$

all pulser fall time:  $1 ms$

Pulse rate is  $2 Hz$ . Pulse is split between all  
 preamp test inputs.

This seems to suggest a gain change somewhere.

Trying to run on Si trigger. Had some problems.  
 Fixed by triggering the computer off of the  
 Si complete instead of delayed off the Si OR.  
 Also lengthened the clear sent to the XLM  
 by the computer to signal an end of  
 event, since for some reason the XLM wasn't  
 reacting to what it saw.

Original problem we saw was that no PID  
 spectra were coming out.

Note that there are more XLM completes than  
 masters, because the complete is coming out  
 multiple times per event. Unknown why that is,  
 but I suspect it's related to the new XLM  
 logic from WW.

Loaded Zibi's original "final setup" file  
 for the thresholds (as opposed to FinalFinal setup  
 which was used earlier in the experiment). Still  
 see some triggering on noise, but at an  
 acceptable rate.

Run # 590	Date: 12/3	Start time: 3:54 p	Stop time: 4:11
Beam: 1100 ~16.5 AMeV			
Target: viewer			
Trigger: Si		Miniball Multiplicity: 1	
Shadow bar locations	B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Brenna
Live Time (%): ~90		Master Trigger Rate: ~850	
Notes: only ASIC ECSI readout running			

Run # 591	Date: 12/3	Start time: 4:28 p	Stop time: 4:44
Beam: 1100 15 AMeV			
Target: plastic			
Trigger: Si		Miniball Multiplicity: 1	
Shadow bar locations	B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Brenna
Live Time (%): ~80-85		Master Trigger Rate: ~750	
Notes:			

Run # 592	Date: 12/3	Start time: 4:49 p	Stop time: 5:10
Beam: 1100 15 AMeV			
Target: plastic			
Trigger: Si		Miniball Multiplicity: 1	
Shadow bar locations	B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Brenna
Live Time (%): ~85		Master Trigger Rate: ~900?	
Notes: beam back after Jorge made a measurement - no beam @ first bc he left the Faraday cup in *changed CsI thresholds to zero			

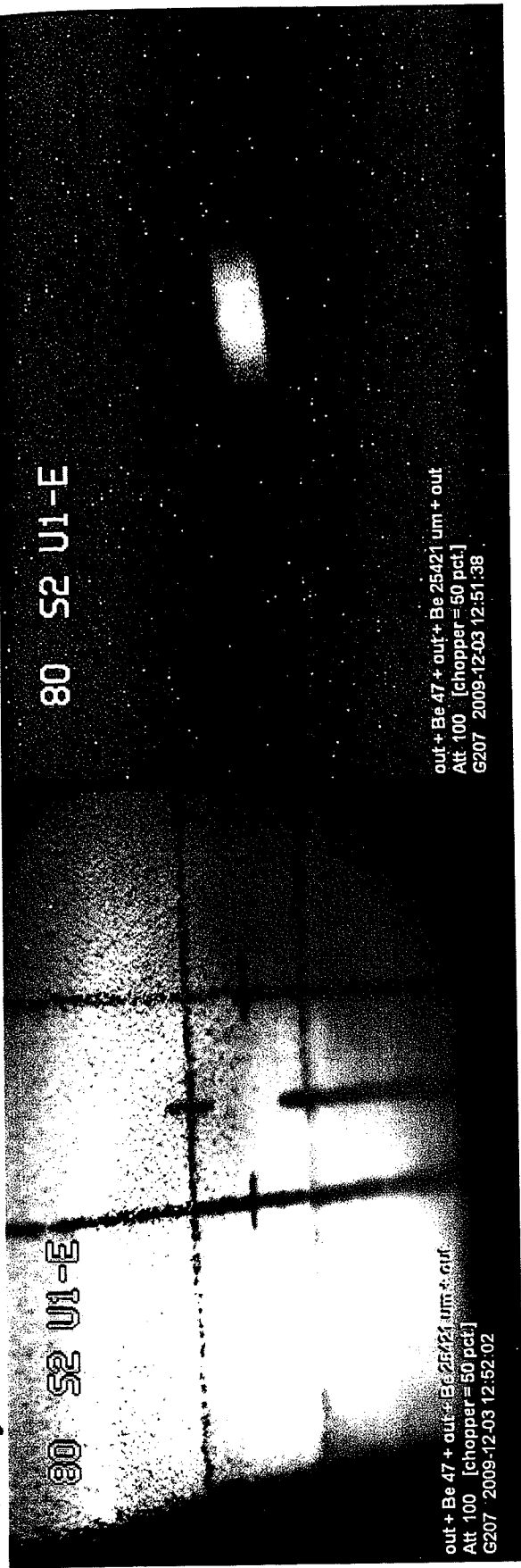
Run # 595	Date: 12/3	Start time: 6:49 <sub>p</sub>	Stop time: 7:12
Beam: 16 0 15A MeV			
Target: plastic			
Trigger: $\text{Si} + \overline{\text{MB}}$		Miniball Multiplicity: 1	
Shadow bar B locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Your name: Brenna	
Live Time (%): ~80		Master Trigger Rate: ~630	
Notes: another 20 mins for Betty			

Run # 596	Date: 12/3	Start time: 7:16	Stop time: 7:36
Beam: 16 0 15A MeV			
Target: plastic			
Trigger: $\text{Si} + \overline{\text{MB}}$		Miniball Multiplicity: 1	
Shadow bar B locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Your name: Brenna	
Live Time (%): ~78		Master Trigger Rate: ~700	
Notes: operator trying to tune beam while running			

Run # 597	Date: 12/3	Start time: 7:37 <sub>p</sub>	Stop time: 8:32
Beam: 16 0 15A MeV			
Target: plastic			
Trigger: $\text{Si} + \overline{\text{MB}}$		Miniball Multiplicity: 1	
Shadow bar B locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Your name: Brenna	
Live Time (%): <sup>and downstream</sup>		Master Trigger Rate:	
Notes: current dropped to 8 pA at one point, but after much tuning by the operator is up to ~50-60 pA w/ ~1200 counts - thinking that maybe the target was overheating bc it looked like thermal variations etc			

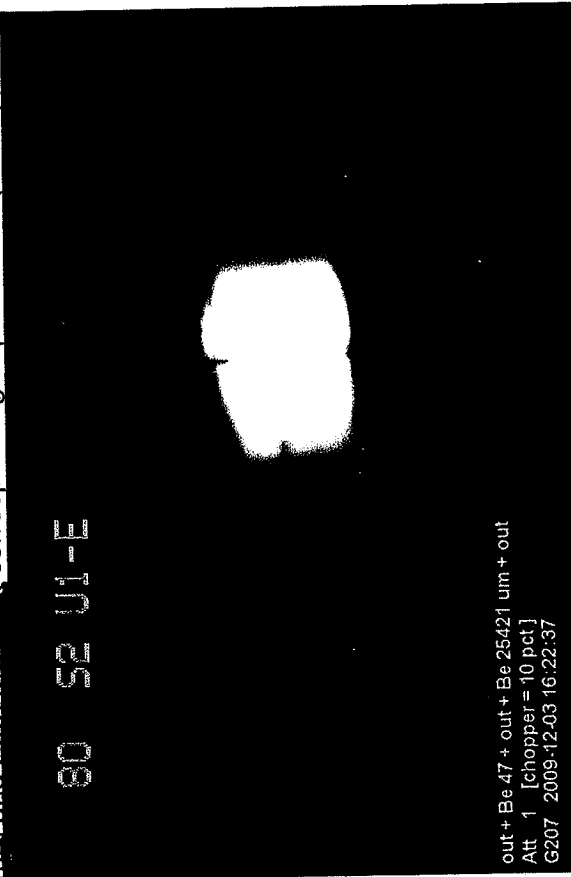
G183YG = 2mm  
ZP57MS OUT

Camera Photos for Exp 09042C



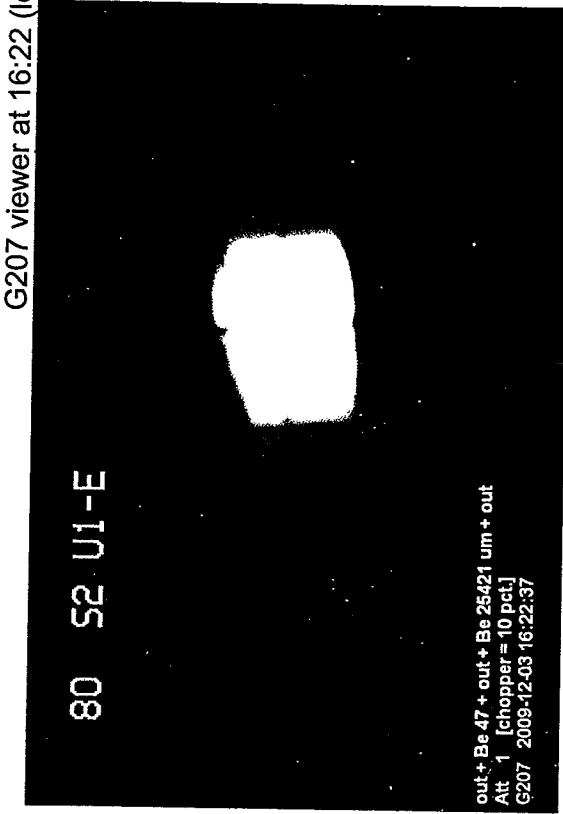
Before E/A = 15 MeV <sup>150</sup>

Picture taken with G183YG=5mm and Z057MS=1%, corresponding to production (Barney Saveset: Print03Dec09\_17h06.txt)

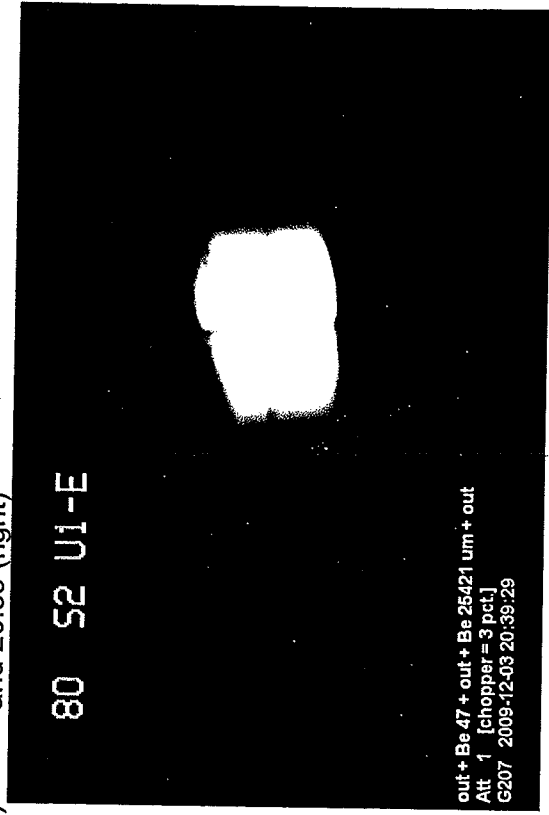


Camera Photos for Exp 09042C

G207 viewer at 16:22 (left)

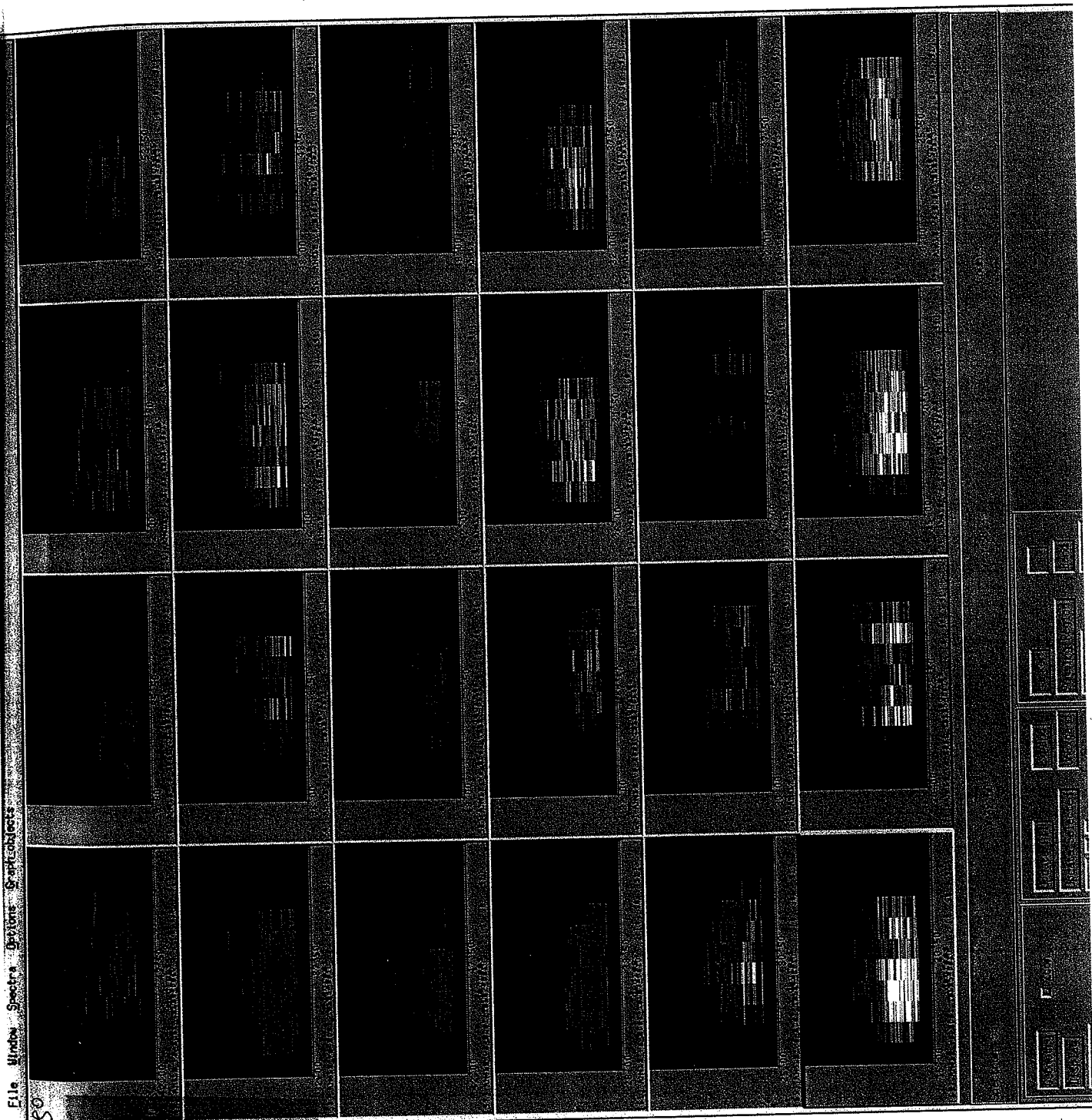


and 20:39 (right)



beam

beam.

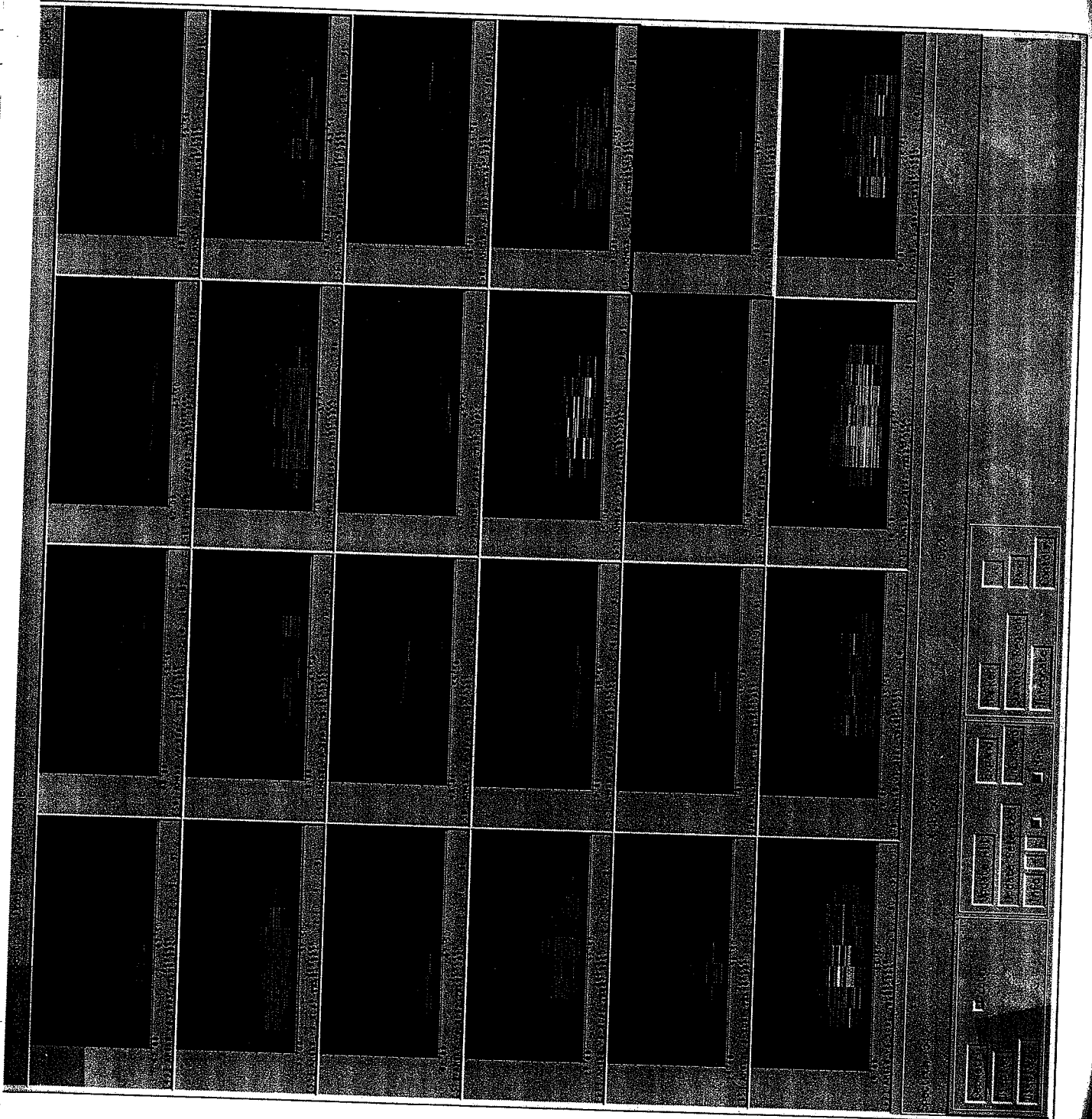


File Under Specter - Devine - Spectroscopy

50



9:00pm 12/3/09  
Ball puts tel 4 Eb into the trigger  
tel 3 Eb into trigger



Run # 598	Date: 12/4	Start time: 0:23	Stop time:
Beam: 160 @ 25 AMeV			
Target: pWA			
Trigger: Si OR + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Zsigmond	
Live Time (%):		Master Trigger Rate:	
Notes: XCM ADC MISMATCH. Target layer added $2 \times 4.6 \text{ mg/cm}^2 = 9.2 \text{ mg/cm}^2$ plastic.			

Run # 599	Date: 12/4	Start time: 1:12	Stop time:
Beam: 160 @ 25 AMeV			
Target: plastic			
Trigger: Si OR + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Zsigmond	
Live Time (%):		Master Trigger Rate: ~ 2900	
Notes:			

Run # 606	Date: 12/4	Start time: 1:31	Stop time:
Beam: 160 @ 25 AMeV			
Target: plastic			
Trigger: (CS111S) + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Zsigmond	
Live Time (%): 78		Master Trigger Rate: 850	
Notes: Si "OR" OFF			

Run # 601	Date: 12/4	Start time: 1:41	Stop time:
Beam: 160 @ 25 AMON			
Target: plastic			
Trigger: EN + MB		Miniball Multiplicity: 1	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Wignier
Live Time (%):	78	Master Trigger Rate:	830
Notes: Si OR's OFF			

Run # 602	Date: 12/04	Start time: 1:52	Stop time:
Beam: 160 25 AMON			
Target: Plastic			
Trigger:		Miniball Multiplicity:	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: G. VERDE
Live Time (%):	44	Master Trigger Rate:	2400
Notes: All Si OR's ON			

Run # 603	Date: 12/4	Start time: 2:28	Stop time:
Beam: 160 @ 25 AMON			
Target: plastic			
Trigger: EN + MB		Miniball Multiplicity: 3501	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Wignier
Live Time (%):	45	Master Trigger Rate:	2350
Notes: normal run			

Run # 604	Date: 12/4	Start time: 3:04	Stop time:
Beam: 160 @ 25 AMeV			
Target: plastic			
Trigger: CM + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Zbigniew	
Live Time (%): 45		Master Trigger Rate: 2350	
Notes: NORMAL RUN			

Run # 605	Date: 12/4	Start time: 3:43	Stop time:
Beam: 160 @ 25 AMeV			
Target: plastic			
Trigger: CS + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Zbigniew	
Live Time (%): 45		Master Trigger Rate: 2350	
Notes: Normal data run			

Run # 606	Date: 12/4	Start time: 4:13	Stop time:
Beam: 160 @ 25 MeV			
Target: plastic			
Trigger: CS + MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>		Your name:	
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Rachel	
Live Time (%): 46		Master Trigger Rate: 2300	
Notes: Normal Data Run			

Run # 607	Date: 12/4	Start time: 4:43	Stop time:
Beam: 16 O 25 MeV			
Target: plastic			
Trigger: CSI+MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Rachel	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 50		Master Trigger Rate: 2100	
Notes:			

Run # 608	Date: 12/4	Start time: 5:15	Stop time:
Beam: 16 O 25 MeV			
Target: plastic			
Trigger: CSI+MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Rachel	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 58		Master Trigger Rate: 1800	
Notes: <del>Normal</del> Normal Data Run.			

Run # 609	Date: 12/4	Start time: 5:45	Stop time:
Beam: 16 O 25 MeV			
Target: plastic			
Trigger: CSI+MB		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Rachel	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 66		Master Trigger Rate: 1400	
Notes: Normal Data Run			

Run # <i>610</i>	Date: <i>12/4</i>	Start time: <i>6:16</i>	Stop time:
Beam: <i>160 25 MeV</i>			
Target: <i>plastic</i>			
Trigger: <i>CsI+MB</i>		Miniball Multiplicity: <i>1</i>	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <i>Rachel</i>	
locations <input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): <i>74</i>		Master Trigger Rate: <i>1100</i>	
Notes: <i>Normal data run Operator trying to tune beam while running</i>			

Run # <i>611</i>	Date: <i>12/4</i>	Start time: <i>6:46</i>	Stop time:
Beam: <i>160 25 MeV</i>			
Target: <i>plastic</i>			
Trigger: <i>CsI+MB</i>		Miniball Multiplicity: <i>1</i>	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <i>Rachel</i>	
locations <input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): <i>40</i>		Master Trigger Rate: <i>2500</i>	
Notes: <i>Beam back to a high rate, after tuning. Loads steady</i>			

Run # <i>612</i>	Date: <i>12/4</i>	Start time: <i>7:16</i>	Stop time:
Beam: <i>160 25 MeV</i>			
Target: <i>plastic</i>			
Trigger: <i>CsI+MB</i>		Miniball Multiplicity: <i>1</i>	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <i>Rachel</i>	
locations <input type="checkbox"/>	<input type="checkbox"/>		
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): <i>43</i>		Master Trigger Rate: <i>2400</i>	
Notes: <i>Normal Data Run</i>			

Run # 613	Date: 12/4	Start time: 7:47	Stop time:
Beam: $^{21}\text{Ne}$ 25 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: CSI + MB + S; OR Miniball Multiplicity: 1			
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>	Your name:		
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Rachel		
Live Time (%): 43		Master Trigger Rate: 2400	
Notes: Normal data run.			

Run # 614	Date: 12/4	Start time: 8:15	Stop time:
Beam: 160 25 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: CSI + MB + S; OR Miniball Multiplicity: 1			
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>	Your name:		
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Alisher		
Live Time (%): 49		Master Trigger Rate: 2160	
Notes: Data run			

Run # 615	Date: 12/4	Start time: 8:54	Stop time:
Beam: 160 25 MeV/A			
Target: plastic			
Trigger: CSI + MB + S; OR Miniball Multiplicity: 1			
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/>	Your name:		
locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Tilak		
Live Time (%): 52		Master Trigger Rate: 2037	
Notes: Normal data run started after Dan came back from vault. NO change from previous run. * Barney print out shows beam energy may be 29.4 MeV/A instead of 25 MeV/A. Turning start for 15 MeV/A.			

# Energy Change!

Run # 616	Date: 12/4	Start time: 10:18	Stop time:
Beam: $^{16}O$ 16.5 MeV			
Target: Plastic 9.2 mg/cm <sup>2</sup>			
Trigger: CSJ+MB+S;OR		Miniball Multiplicity: 1	
Shadow bar locations	B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name: Alisher
Live Time (%): 60		Master Trigger Rate: 1700	
Notes: Data run. Switched to 16.5 MeV beam			

Run # 618	Date: 12/4	Start time:	Stop time:
Beam: $^{16}O$ 16.5 MeV			
Target: Plastic 9.2 mg/cm <sup>2</sup>			
Trigger: CSJ+MB+S;OR		Miniball Multiplicity: 1	
Shadow bar locations	B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	Your name:
Live Time (%): 56		Master Trigger Rate: 1800	
Notes: Data run			

LASSA Si	0	1	2	3	4	5
bias voltage	66.1	65.0	85.0	50.0	60.0	55.0
leakage current	1.77	3.23	1.53	0.95	3.32	0.89



Run # 619	Date: 12/4	Start time:	Stop time:
Beam: $^{16}O$ 16.5 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: C <sub>1</sub> J + MB + S; OR		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Alisher	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 55		Master Trigger Rate: 1850	
Notes: Data run			

Run # 620	Date: 12/4	Start time: 12:41	Stop time:
Beam: $^{16}O$ 16.5 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: C <sub>1</sub> J + MB + S; OR		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Alisher	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 55		Master Trigger Rate: 1870	
Notes: Data run			

Run # 621	Date: 12/4	Start time: 12:34	Stop time:
Beam: $^{16}O$ 16.5 MeV			
Target:			
Trigger:		Miniball Multiplicity:	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:	
locations <input type="checkbox"/>	<input type="checkbox"/>	Alisher	
<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>		
Live Time (%): 55		Master Trigger Rate: 1900	
Notes: Data run.			

Run # 622	Date: 12/4	Start time:	Stop time:
Beam: $^{16}\text{O}$ @ 16.5 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: CsI + MB + S.O?		Miniball Multiplicity:	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:
	<input type="checkbox"/>	<input type="checkbox"/>	
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): <del>60</del>		Master Trigger Rate:	
Notes: Data Run			

Run # 623	Date: 12/4	Start time: 3:58 PM	Stop time:
Beam: $^{16}\text{O}$ @ 16.5 MeV			
Target: plastic 9.2 mg/cm <sup>2</sup>			
Trigger: MB + S.O + CsI		Miniball Multiplicity:	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name:
	<input type="checkbox"/>	<input type="checkbox"/>	M. Le
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): 50		Master Trigger Rate: 2000	
Notes: Data Run			

LASSA Si	0	1	2	3	4	5
bias voltage	60.1	65.0	85.0	50.0	60.0	55.0
leakage current	1.80	3.24	1.55	0.95	3.35	0.89

Run # 024	Date: 12/4	Start time: 17:03	Stop time:
Beam: $^{16}O$ @ 116.8 MeV			
Target: plastic -9.2			
Trigger: $CS1 + SiOR + MB$		Miniball Multiplicity: 1	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Brennan	
Live Time (%): ~50		Master Trigger Rate: ~2000	
Notes: data run			

Run # 025	Date: 12/4	Start time: 20:20	Stop time:
Beam: $^{16}O$ @ 150 MeV			
Target: natural Sn			
Trigger: $CS1 + SiOR + MB$		Miniball Multiplicity: <del>turned off</del>	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Brennan	
Live Time (%): ~30		Master Trigger Rate: ~3200	
Notes: Switched to undegraded beam VERY low current not seeing PID despite high trigger rate → bill also charged one of the silicon power supplies			

Run # 026	Date: 12/4	Start time: 21:00	Stop time:
Beam: $^{16}O$ 150 MeV			
Target: nat. Sn			
Trigger: $CS1 + SiOR + MB$		Miniball Multiplicity:	
Shadow bar B <input type="checkbox"/> <input type="checkbox"/> A <input type="checkbox"/> <input type="checkbox"/> locations <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		Your name: Brennan	
Live Time (%):		Master Trigger Rate: #	
Notes: still trying to figure out what is going on → told by operator that one of the magnets switched off ~8:50pm. ended run while they tried to fix it			

Run # <u>0270</u>	Date: <u>12/4</u>	Start time: <u>21:40</u>	Stop time:
Beam: <u>160 150 MeV</u>			
Target: <u>nat. Sn</u>			
Trigger: <u>OSI + SiDR + MB</u>		Miniball Multiplicity:	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <u>Brenna</u>
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): <u>~13</u>		Master Trigger Rate: <u>~4200</u>	
Notes: <u>got beam back ... seeing how it looks</u> <u>PID coming in, but slowly</u>			

Run # <u>028</u>	Date: <u>12/4</u>	Start time: <u>21:57</u>	Stop time:
Beam: <u>160@150 MeV</u>			
Target: <u>nat. Sn</u>			
Trigger: <u>MB</u>		Miniball Multiplicity: <u>1</u>	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <u>Brenna</u>
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%):		Master Trigger Rate: <u>~450</u>	
Notes: <u>changed trigger back to normal running cond.</u>			

Run # <u>029</u>	Date: <u>12/4</u>	Start time: <u>22:05</u>	Stop time:
Beam: <u>160@150 MeV</u>			
Target: <u>nat. Sn</u>			
Trigger: <u>MB</u>		Miniball Multiplicity: <u>1</u>	
Shadow bar B locations	<input type="checkbox"/> <input type="checkbox"/>	A <input type="checkbox"/> <input type="checkbox"/>	Your name: <u>Brenna</u>
	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>	
Live Time (%):		Master Trigger Rate: <u>~450</u>	
Notes: <u>changed disc. to final final</u> <u>20 min run so Betty can analyze offline</u>			

Run # 1030	Date: 12/4	Start time: 22:25	Stop time:
Beam: 100 @ 150 MeV			
Target: nat. Sn			
Trigger: MB		Miniball Multiplicity: 1	
Shadow bar B locations		A	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Your name: Brenna	
Live Time (%): 40		Master Trigger Rate: ~475	
Notes: data run stopped to raise mult. (to 4) emagnet shut off again			

Run # 1031	Date: 12/4	Start time:	Stop time:
Beam: 100 @ 150 MeV			
Target: blank			
Trigger: MB		Miniball Multiplicity: 4	
Shadow bar B locations		A	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
		Your name: Brenna	
Live Time (%):		Master Trigger Rate: ~45	
Notes: ~155 pA testing			

Run # 632	Date: 12/4	Start time: 23:30	Stop time:
Beam: 160 @ 150 MW			
Target: nat Sn			
Trigger: MB		Miniball Multiplicity: 4	
Shadow bar B locations		A locations	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): 30		Master Trigger Rate: 1600	
Notes: data run		~1600pts	
Your name: Brenna			

Run # 633	Date: 12/4-5	Start time: 23:53	Stop time: 00:15
Beam: 160 @ 150 MW			
Target: nat. Sn			
Trigger: MB		Miniball Multiplicity: 74	
Shadow bar B locations		A locations	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): ~27		Master Trigger Rate: ~1600	
Notes: data run		Your name: Brenna	

Run # 634	Date: 12/5	Start time: 00:15	Stop time: 01:15
Beam: 160 @ 150 AMW			
Target: nat Sn			
Trigger: MB		Miniball Multiplicity: 74	
Shadow bar B locations		A locations	
<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Live Time (%): ~27%		Master Trigger Rate:	
Notes: data run		Your name: Betty	

Run # 635	Date: 12/5	Start time: 01:15	Stop time:
Beam: <sup>40</sup> @ 150 A MW			
Target: <sup>act</sup> Sn			
Trigger: MB		Miniball Multiplicity: 24	
Shadow bar locations		Your name:	
B <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>		A <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	
Live Time (%):		Master Trigger Rate:	
Notes: Data			