

7/19/05

11:30 pm

Si bias test after replacing Tow 2 card 3 chip board

Tow 2 card 12 reached $4 \mu A$ while being biased

(at 246 V) and voltage on reg was

4.7 V, Reg. Temperature was never above $40^{\circ}C$

S800RIV page 03 : remote control for outlets by
chbr (camera, light)

CsI Check

Not Present

DATE	BRANCH	SCOT node	Channel	Tower	SI	Now present?
2	2	211	13	1	51	

All channels present but bad pole zeros

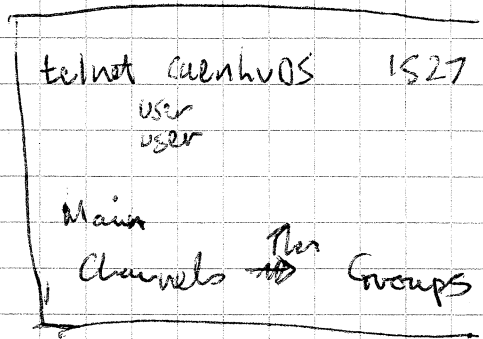
2 9.30 pm

Preprogramming Preparing for calibrations using
plastic target - HIRA is off

02023

CAEN BIAS CONTROL

GROUP 1 - CSI
GROUP 2 - POWER 0,1,2,3



10:11 PM FIRST CALIBRATION RUN

MASK CRDC1 78KR BLOCK BA ~~2.5984~~
2.5984

RUN04 Mask Calibration of
CRDC1

Beam Energy 67.1085 MeV/A

10:21 PM RUN05 Mask Calibration of
CRDC2

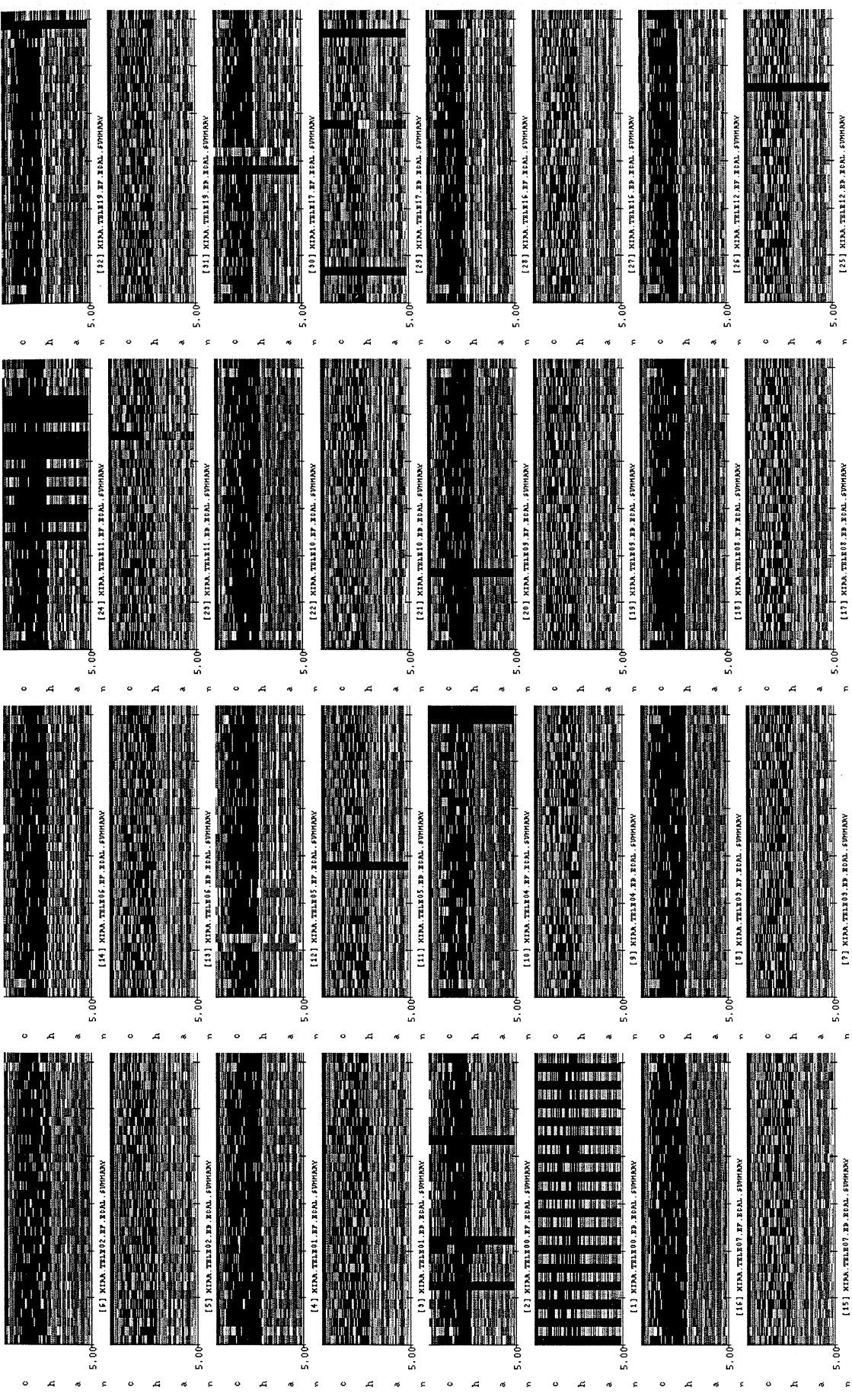
10:30 PM RUN STOP

Run 758

X:\mim101\14\Current\spec\bin\files\summary_aveal_2_min [plotified]

File Window Spectra Options Graph_objects

Help



Spectrum 19

X 24.70

Y 6.86

Counts 4

- Geometry
- Display
- Display +
- Zoom
- Update All
- Update Selected
- Info + - Log
- Expand
- UnExpand
- Map
- Marker
- Summing Region
- Integrate
- Cut
- Band
- Contour



Room X - Calibration

Tele0 - CsI 3 may be CsI 0. Tele1 - CsI 0

→ CsI 3. Tele1 - CsI 1

→ CsI 0. Tele 1 - CsI 2

→ CsI 1. Tele1 - CsI 3

→ ~~CsI 2~~ Tele CsI 2. Tele2 - CsI 3

↔ CsI 1. Tele3 - CsI 1 is not working

11:00 - 11:15 pm

Biases up on all towers -

chip power on

Power / current / Temp - stable

Upon restarting VME Tower 3 voltage sagged.

Turned off Sparky

Turned on Sparky - corrects O.K.

Group 00	Channel Name	V0Set	I0Set	VMon	n	Pw	Status	6
					IMb	1.0 s	290 V	
	BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.00 uA	Off		
	Tow0Card15	210.00 V	3.00 uA	210.00 V	0.40 uA	On	Ext-Dis	
	Tow0Card12	250.00 V	4.00 uA	250.25 V	0.66 uA	On		
	Tow0Card9	190.00 V	3.00 uA	190.00 V	0.22 uA	On		
	Tow0Card6	240.00 V	3.50 uA	239.75 V	1.08 uA	On		
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
	Tow1Card15	290.00 V	4.00 uA	290.00 V	0.78 uA	On		
	Tow1Card12	240.00 V	4.00 uA	239.75 V	0.86 uA	On		
	Tow1Card9	200.00 V	3.00 uA	200.00 V	0.74 uA	On		
	Tow1Card6	295.00 V	3.00 uA	294.75 V	0.62 uA	On		
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
	NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off		
	Tow2Card12	250.00 V	4.00 uA	250.25 V	0.60 uA	On		
	Tow2Card9	110.00 V	4.00 uA	109.75 V	1.72 uA	On		
	Tow2Card6	250.00 V	4.00 uA	249.75 V	0.76 uA	On		
	Tow2Card3	280.00 V	5.00 uA	279.75 V	0.60 uA	On		
	Tow3Card15	210.00 V	3.00 uA	209.75 V	0.64 uA	On		
	Tow3Card12	200.00 V	5.00 uA	200.00 V	1.84 uA	On		
	Tow3Card9	120.00 V	3.00 uA	120.00 V	0.48 uA	On		
	Tow3Card6	310.00 V	3.00 uA	309.50 V	0.68 uA	On		

n / Current / images /

11:20 pm

spday 20

crash

11:25 pm

Fixing Shaper offsets (Energy)

7/21/05

UN 6 α calibration after "Energy offsets" - SET

start: 12:12 am

UN 7 start: ~~12:30 am~~ 12:30 am

α - source calibration, run

Group 00

Channel Name	V0Set	I0Set	VMon	n	Pw	Status	6
BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.00 uA	1.0 s	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.40 uA		On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.68 uA		On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.22 uA		On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.12 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.78 uA		On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.86 uA		On	
Tow1Card9	200.00 V	3.00 uA	200.00 V	0.76 uA		On	
Tow1Card6	295.00 V	3.00 uA	294.75 V	0.64 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA		Off	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.58 uA		On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.56 uA		On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.78 uA		On	
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.60 uA		On	
Tow3Card15	210.00 V	3.00 uA	210.00 V	0.64 uA		On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.74 uA		On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.50 uA		On	
Tow3Card6	310.00 V	3.00 uA	309.50 V	0.68 uA		On	

12:37 am

NO BEAM

Run? start! 1.35 a.m.
α - source calibration

Group 00	n	Pw	Status	6						
Channel Name	V0Set	I0Set	VMon	IMo	1.0 s	290 V				
	0.00	V	2.0	uA	0.15	V	0.00	uA	Off	
BANK0_UNUSE	0.00	V	2.0	uA	0.15	V	0.00	uA	Off	Ext-Dis
Tow0Card15	210.00	V	3.00	uA	209.75	V	0.42	uA	On	
Tow0Card12	250.00	V	4.00	uA	250.25	V	0.68	uA	On	
Tow0Card9	190.00	V	3.00	uA	189.75	V	0.24	uA	On	
Tow0Card6	240.00	V	3.50	uA	239.75	V	1.32	uA	On	
NOT_USED	0.00	V	0.10	uA	0.00	V	0.00	uA	Off	
Tow1Card15	290.00	V	4.00	uA	290.00	V	0.82	uA	On	
Tow1Card12	240.00	V	4.00	uA	239.75	V	0.90	uA	On	
Tow1Card9	200.00	V	3.00	uA	200.00	V	0.80	uA	On	
Tow1Card6	295.00	V	3.00	uA	294.50	V	0.66	uA	On	
NOT_USED	0.00	V	0.10	uA	0.00	V	0.00	uA	Off	
NOT_USED	0.00	V	0.10	uA	0.50	V	0.00	uA	Off	
Tow2Card12	250.00	V	4.00	uA	250.25	V	0.60	uA	On	
Tow2Card9	110.00	V	4.00	uA	109.75	V	1.66	uA	On	
Tow2Card6	250.00	V	4.00	uA	249.75	V	0.80	uA	On	
Tow2Card3	280.00	V	5.00	uA	279.75	V	0.64	uA	On	
Tow3Card15	210.00	V	3.00	uA	209.75	V	0.64	uA	On	
Tow3Card12	200.00	V	5.00	uA	200.00	V	1.80	uA	On	
Tow3Card9	120.00	V	3.00	uA	120.00	V	0.52	uA	On	
Tow3Card6	310.00	V	3.00	uA	309.50	V	0.72	uA	On	

Run 9 start: 2:44 a.m.
 78Kv HPLA + S200 Coll.

Group 00	n	Pw	Status
Channel Name	VOSet	IOSet	VMbn
	IMo	1.0 s	290 V
BANK0_UNUSE	0.00 V	2.0 uA	0.15 V
Tow0Card15	210.00 V	3.00 uA	209.75 V
Tow0Card12	250.00 V	4.00 uA	250.25 V
Tow0Card9	190.00 V	3.00 uA	190.00 V
Tow0Card6	240.00 V	3.50 uA	239.75 V
NOT_USED	0.00 V	0.10 uA	0.00 V
Tow1Card15	290.00 V	4.00 uA	290.00 V
Tow1Card12	240.00 V	4.00 uA	239.75 V
Tow1Card9	200.00 V	3.00 uA	200.00 V
Tow1Card6	295.00 V	3.00 uA	294.50 V
NOT_USED	0.00 V	0.10 uA	0.00 V
NOT_USED	0.00 V	0.10 uA	0.25 V
Tow2Card12	250.00 V	4.00 uA	250.25 V
Tow2Card9	110.00 V	4.00 uA	109.75 V
Tow2Card6	250.00 V	4.00 uA	249.75 V
Tow2Card3	280.00 V	5.00 uA	279.75 V
Tow3Card15	210.00 V	3.00 uA	210.00 V
Tow3Card12	200.00 V	5.00 uA	200.00 V
Tow3Card9	120.00 V	3.00 uA	120.00 V
Tow3Card6	310.00 V	3.00 uA	309.50 V

Date:

Time:

	Vbias (V)	I (uA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.74
Cs10		

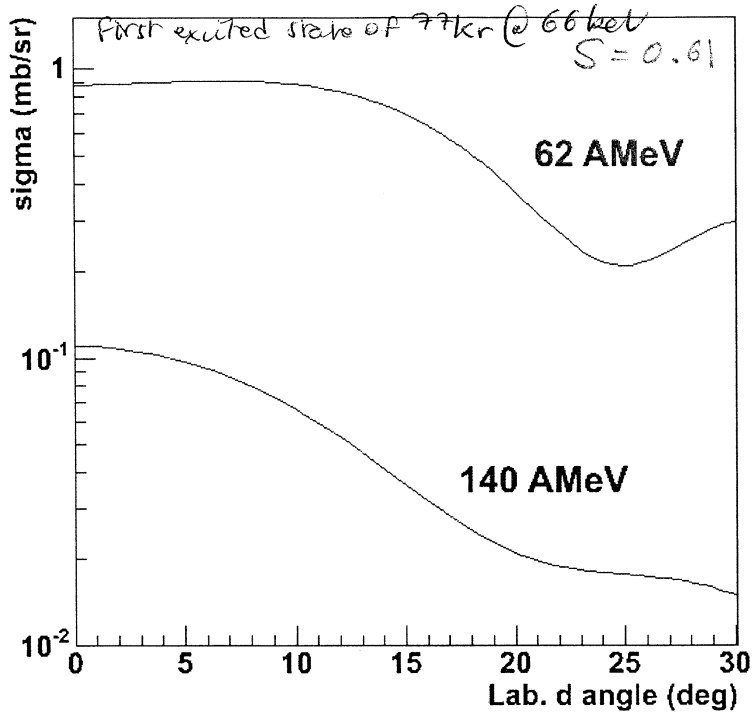
	Vbias (V)	I (uA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	3.94
Cs12		

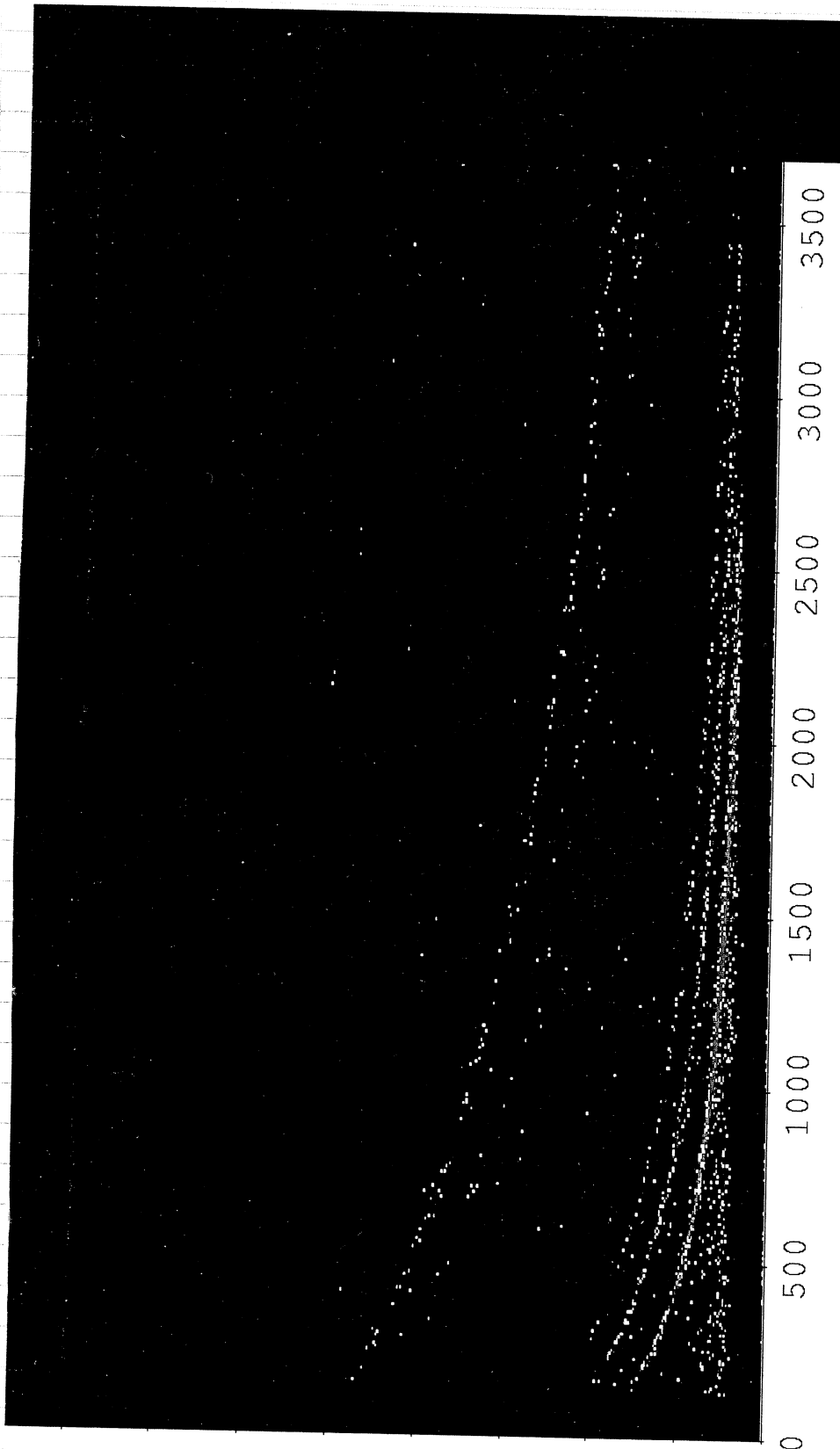
	Vbias (V)	I (uA)
MCP0		
MCP1		

	Vbias (V)	I (uA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.32
Cs11		

	Vbias (V)	I (uA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	3.90
Cs13		

78Kr(p,d) - ADW - CH89 - 3/2 - - 66 keV





80
70
60
50
40
30
20
10
0

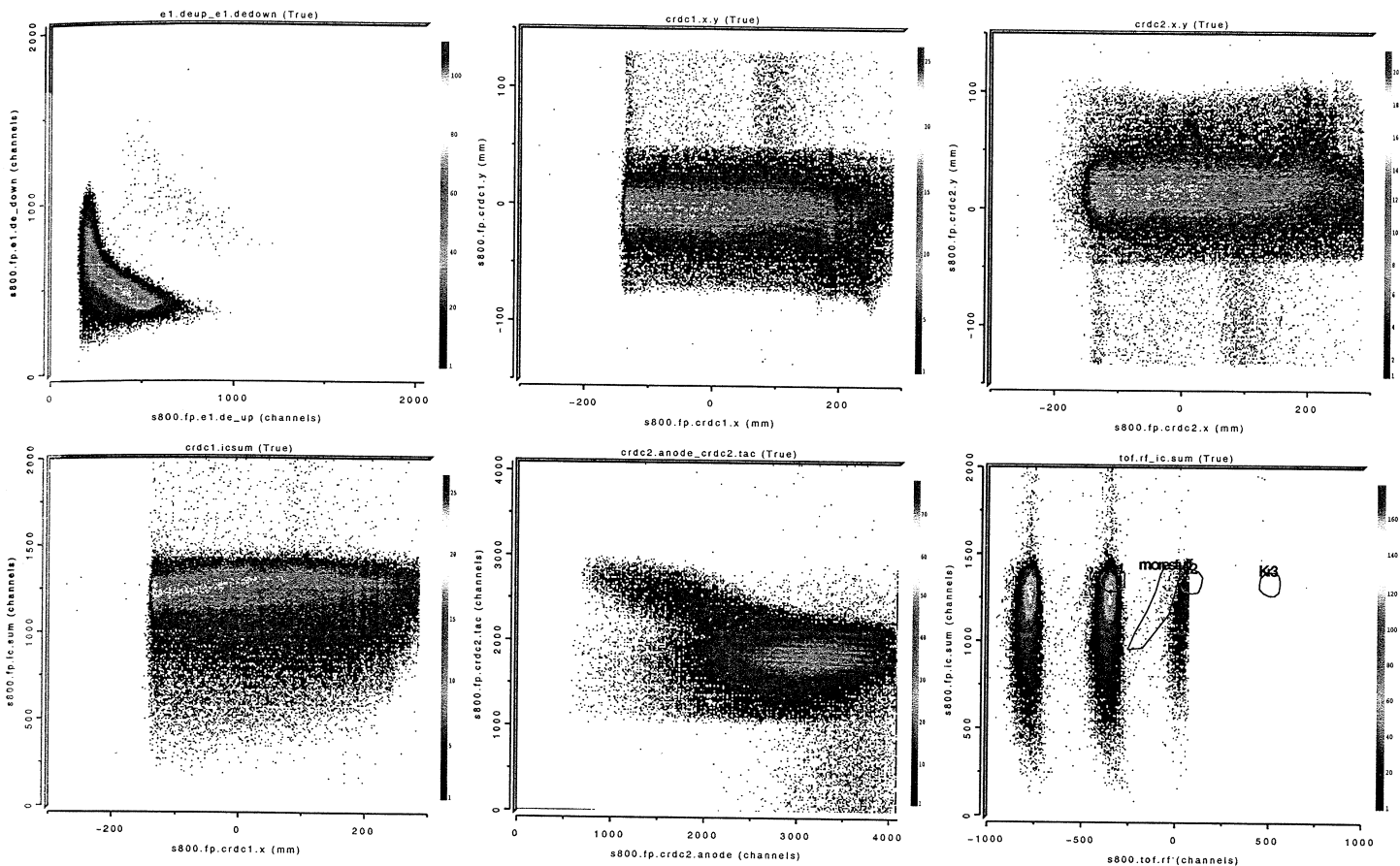
0 500 1000 1500 2000 2500 3000 3500

channels
[57] TELE07.EB.CSI0

X 2524.00

Y 26.27

Counts 0



3:45 ^K RUN 10 ended on vac excursion which tripped
 Biases. Changed set pt on vac trip to $5 \cdot 10^{-5}$ t
 Turned off sparky (screen 5)
 Brought Biases back on
 Turned sparky on
 Seems to have recovered.

4:15 RUN 11 Restarted after recovering from vac. excursion,
 continuing with 67.1 MeV/A Bp = 2.5984 TM

4:20 END Short run with T's still increasing.

4:20 RUN 12 Continue after T stabilized.

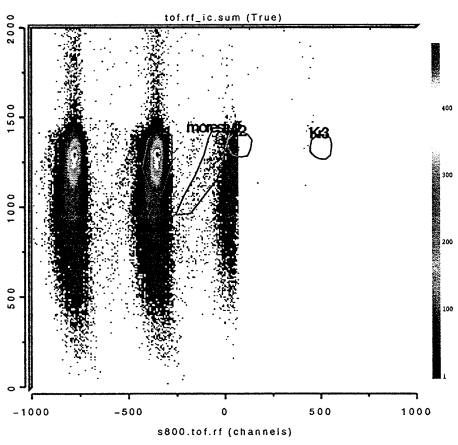
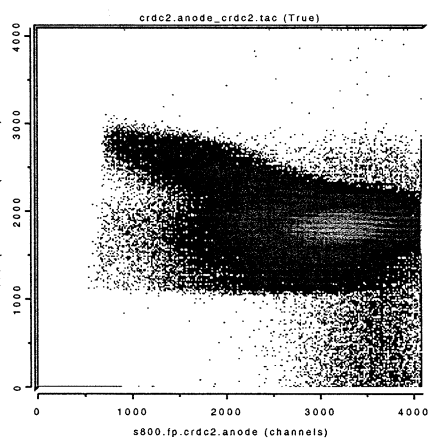
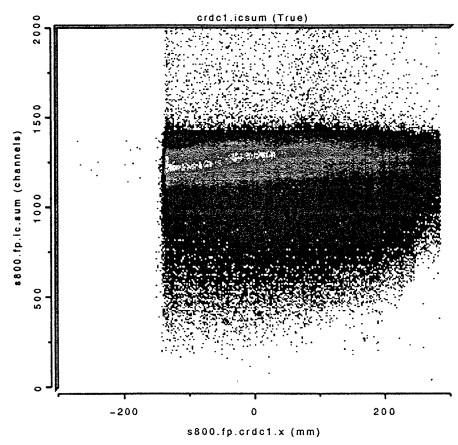
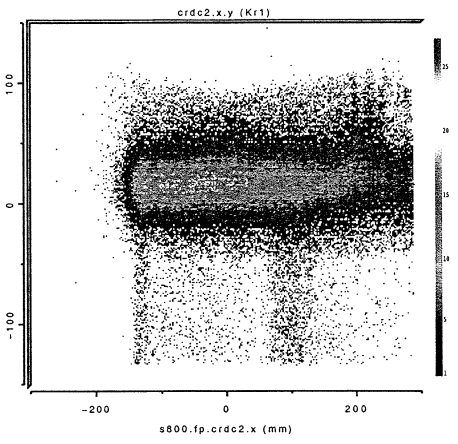
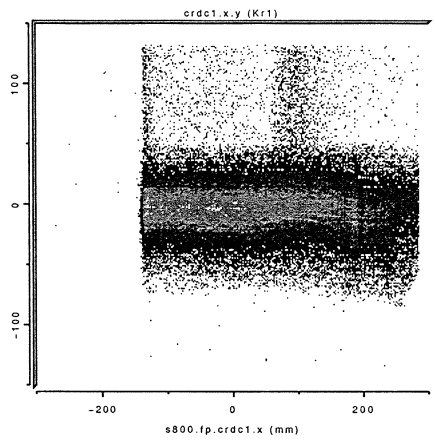
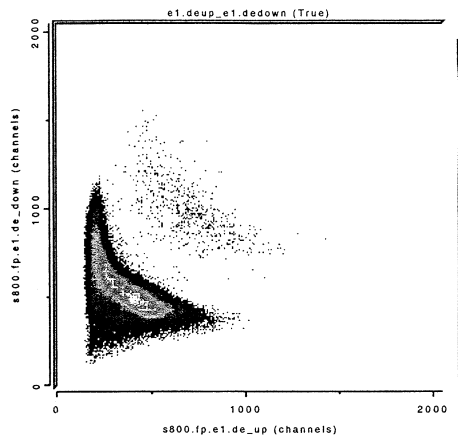
Run 11

Group 00	Channel Name	V0Set	I0Set	VMon	IMb	n	Pw	Status
		V0Set	I0Set	VMon	IMb	1.0 s	Pw	290 V
		V0Set	I0Set	VMon	IMb		Pw	Status
	BANK0_UNUSE	0.00	V 2.0	uA 0.15	V 0.0	uA	Off	Ext-Dis
	Tow0Card15	210.00	V 3.00	uA 209.75	V 0.40	uA	On	
	Tow0Card12	250.00	V 4.00	uA 250.00	V 0.68	uA	On	
	Tow0Card9	190.00	V 3.00	uA 189.75	V 0.22	uA	On	
	Tow0Card6	240.00	V 3.50	uA 239.50	V 1.16	uA	On	
	NOT_USED	0.00	V 0.10	uA 0.00	V 0.00	uA	Off	
	Tow1Card15	290.00	V 4.00	uA 290.00	V 0.80	uA	On	
	Tow1Card12	240.00	V 4.00	uA 239.75	V 0.88	uA	On	
	Tow1Card9	200.00	V 3.00	uA 199.50	V 0.76	uA	On	
	Tow1Card6	295.00	V 3.00	uA 294.50	V 0.64	uA	On	
	NOT_USED	0.00	V 0.10	uA 0.00	V 0.00	uA	Off	
	NOT_USED	0.00	V 0.10	uA 0.25	V 0.00	uA	Off	
	Tow2Card12	250.00	V 4.00	uA 249.75	V 0.60	uA	On	
	Tow2Card9	110.00	V 4.00	uA 109.75	V 1.70	uA	On	
	Tow2Card6	250.00	V 4.00	uA 249.50	V 0.78	uA	On	
	Tow2Card3	280.00	V 5.00	uA 280.00	V 0.62	uA	On	
	Tow3Card15	210.00	V 3.00	uA 209.50	V 0.66	uA	On	
	Tow3Card12	200.00	V 5.00	uA 200.00	V 2.24	uA	On	
	Tow3Card9	120.00	V 3.00	uA 119.50	V 0.52	uA	On	
	Tow3Card6	310.00	V 3.00	uA 309.50	V 0.70	uA	On	

Run 12

Group 00	Channel Name	V0Set	I0Set	VMon	IMb	n	Pw	Status
		V0Set	I0Set	VMon	IMb	1.0 s	Pw	290 V
		V0Set	I0Set	VMon	IMb		Pw	Status
	BANK0_UNUSE	0.00	V 2.0	uA 0.15	V 0.0	uA	Off	Ext-Dis
	Tow0Card15	210.00	V 3.00	uA 209.75	V 0.40	uA	On	
	Tow0Card12	250.00	V 4.00	uA 250.00	V 0.68	uA	On	
	Tow0Card9	190.00	V 3.00	uA 189.75	V 0.22	uA	On	
	Tow0Card6	240.00	V 3.50	uA 239.50	V 1.18	uA	On	
	NOT_USED	0.00	V 0.10	uA 0.00	V 0.00	uA	Off	
	Tow1Card15	290.00	V 4.00	uA 290.00	V 0.80	uA	On	
	Tow1Card12	240.00	V 4.00	uA 239.75	V 0.88	uA	On	
	Tow1Card9	200.00	V 3.00	uA 199.50	V 0.76	uA	On	
	Tow1Card6	295.00	V 3.00	uA 294.50	V 0.64	uA	On	
	NOT_USED	0.00	V 0.10	uA 0.00	V 0.00	uA	Off	
	NOT_USED	0.00	V 0.10	uA 0.25	V 0.00	uA	Off	
	Tow2Card12	250.00	V 4.00	uA 250.00	V 0.60	uA	On	
	Tow2Card9	110.00	V 4.00	uA 109.75	V 1.68	uA	On	
	Tow2Card6	250.00	V 4.00	uA 249.50	V 0.78	uA	On	
	Tow2Card3	280.00	V 5.00	uA 279.75	V 0.62	uA	On	
	Tow3Card15	210.00	V 3.00	uA 209.50	V 0.64	uA	On	
	Tow3Card12	200.00	V 5.00	uA 200.00	V 2.20	uA	On	
	Tow3Card9	120.00	V 3.00	uA 119.75	V 0.50	uA	On	
	Tow3Card6	310.00	V 3.00	uA 309.50	V 0.68	uA	On	

Run 12



Run 13 start: 5:04 AM.
Cont. ^{78}Kr 62 MeV/A

Run 13

Group 00	Channel Name	V0Set	I0Set	VMbn	IMbn	n	Pw	Status	6
		V0Set	I0Set	VMbn	IMbn	1.0 s	Pw	Status	
								290 V	
								Ext-Dis	
	BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.0 uA	Off			
	Tow0Card15	210.00 V	3.00 uA	209.75 V	0.40 uA	On			
	Tow0Card12	250.00 V	4.00 uA	250.00 V	0.68 uA	On			
	Tow0Card9	190.00 V	3.00 uA	189.75 V	0.22 uA	On			
	Tow0Card6	240.00 V	3.50 uA	239.50 V	1.36 uA	On			
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off			
	Tow1Card15	290.00 V	4.00 uA	290.00 V	0.78 uA	On			
	Tow1Card12	240.00 V	4.00 uA	239.75 V	0.86 uA	On			
	Tow1Card9	200.00 V	3.00 uA	199.50 V	0.76 uA	On			
	Tow1Card6	295.00 V	3.00 uA	294.50 V	0.64 uA	On			
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off			
	NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA	Off			
	Tow2Card12	250.00 V	4.00 uA	250.00 V	0.60 uA	On			
	Tow2Card9	110.00 V	4.00 uA	109.75 V	1.58 uA	On			
	Tow2Card6	250.00 V	4.00 uA	249.50 V	0.78 uA	On			
	Tow2Card3	280.00 V	5.00 uA	279.75 V	0.60 uA	On			
	Tow3Card15	210.00 V	3.00 uA	209.50 V	0.66 uA	On			
	Tow3Card12	200.00 V	5.00 uA	200.00 V	2.32 uA	On			
	Tow3Card9	120.00 V	3.00 uA	119.75 V	0.52 uA	On			
	Tow3Card6	310.00 V	3.00 uA	309.50 V	0.68 uA	On			

T

Date:

Time:

	Vbias (V)	I (uA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.75
Csl0		

	Vbias (V)	I (uA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	3.67
Csl2		

	Vbias (V)	I (uA)
MCP0		
MCP1		

	Vbias (V)	I (uA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.16
Csl1		

	Vbias (V)	I (uA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	4.00
Csl3		

Group 00	Channel Name	V0Set	I0Set	VMbn	IMbn	n	Pw	Status
		V0Set	I0Set	VMbn	IMbn		1.0 s	290 V
							Pw	Status
	BANK0_UNUSE	0.00	2.0	0.15	0.0		Off	Ext-Dis
	Tow0Card15	210.00	3.00	209.75	0.40		On	
	Tow0Card12	250.00	4.00	250.25	0.68		On	
	Tow0Card9	190.00	3.00	190.00	0.22		On	
	Tow0Card6	240.00	3.50	239.50	1.42		On	
	NOT_USED	0.00	0.10	0.00	0.00		Off	
	Tow1Card15	290.00	4.00	290.00	0.80		On	
	Tow1Card12	240.00	4.00	239.75	0.88		On	
	Tow1Card9	200.00	3.00	199.75	0.78		On	
	Tow1Card6	295.00	3.00	294.50	0.64		On	
	NOT_USED	0.00	0.10	0.00	0.00		Off	
	NOT_USED	0.00	0.10	0.25	0.00		Off	
	Tow2Card12	250.00	4.00	250.00	0.60		On	
	Tow2Card9	110.00	4.00	109.75	1.60		On	
	Tow2Card6	250.00	4.00	249.50	0.80		On	
	Tow2Card3	280.00	5.00	279.75	0.60		On	
	Tow3Card15	210.00	3.00	209.75	0.66		On	
	Tow3Card12	200.00	5.00	200.00	2.44		On	
	Tow3Card9	120.00	3.00	119.75	0.52		On	
	Tow3Card6	310.00	3.00	309.50	0.70		On	

T

Checked through CSI - TWO (2) are missing.

Tower 1 CSI #1 Tel 3 bottom.

Tower 3 CSI #1 Tel 17 3rd from bottom.

END RUN 13 6:36 am

Turned off Bias on Tow 3, card, 12 Tel 17
 bc was up to 2.62 ua.

With only bias (100 v) on back → 1.44 ua

UN 14 6:40 New run without Tel 17

The vacuum in chamber is fluctuating by a factor of 3
 from $3.5 \cdot 10^{-6}$ → $1.2 \cdot 10^{-5}$. IS this is real - the CP's
 will not function.

Date:

Time:

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0		2.86
Csl0		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2		3.77
Csl2		

	Vbias (V)	I (μA)
MCP0		
MCP1		

T1C15		
T1C12		
T1C9		
T1C6		
Back1		3.23
Csl1		

T3C15		
T3C12		
T3C9		
T3C6		
Back3		3.37
Csl3		

Run 14

Group 00

Run 14

Channel Name	V0Set	I0Set	VMbn	IMbn	n	Pw	Status	6
	V0Set	I0Set	VMbn	IMbn		1.0 s	290 V	
						Pw	Status	
BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.0 uA	Off		Ext-Dis	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On			
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA	On			
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.24 uA	On			
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.52 uA	On			
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off			
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.82 uA	On			
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA	On			
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.80 uA	On			
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.66 uA	On			
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off			
NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA	Off			
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.62 uA	On			
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.68 uA	On			
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.82 uA	On			
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.64 uA	On			
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.68 uA	On			
Tow3Card12	200.00 V	5.00 uA	0.00 V	1.48 uA	Off			
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.54 uA	On			
Tow3Card6	310.00 V	3.00 uA	309.50 V	0.72 uA	On			

T

Run 15 start 6:20 am
Cont. Run 14

Date:

Time:

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.13
Csl0		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NOBIAS	
Back2	100	3.86
Csl2		

	Vbias (V)	I (μA)
MCP0		
MCP1		

T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.28
Csl1		

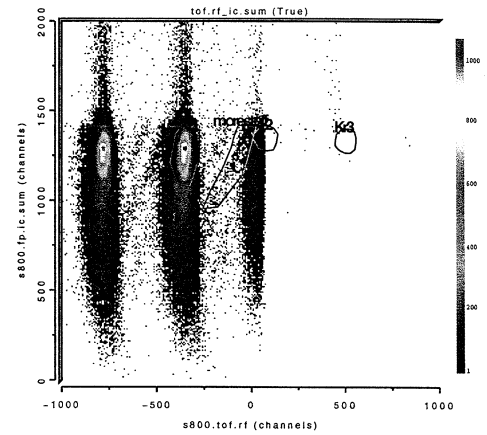
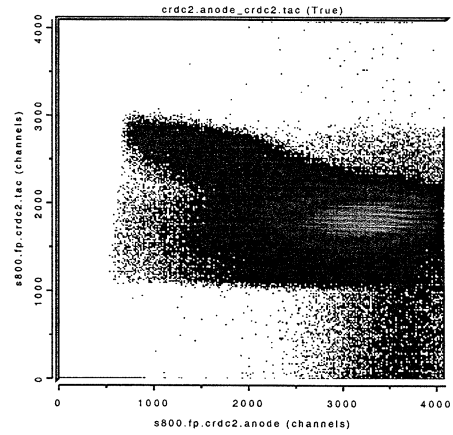
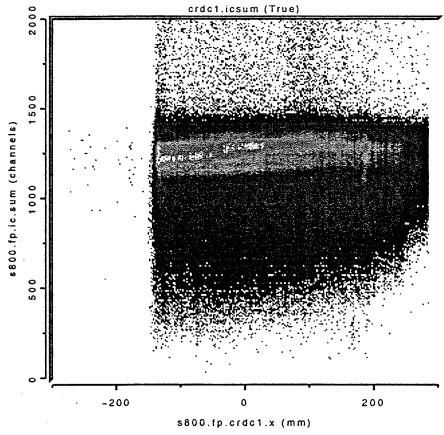
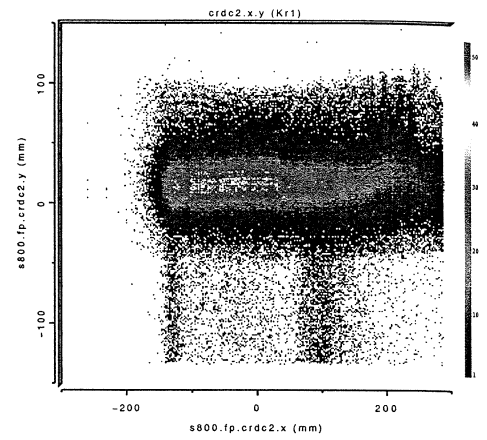
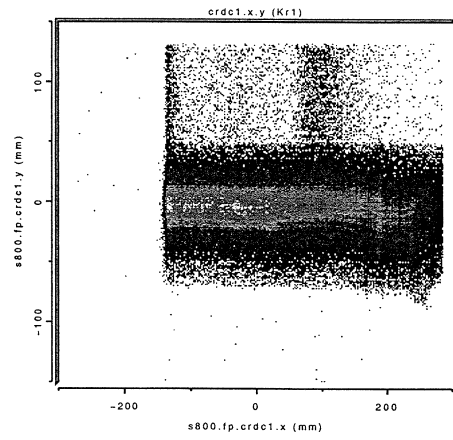
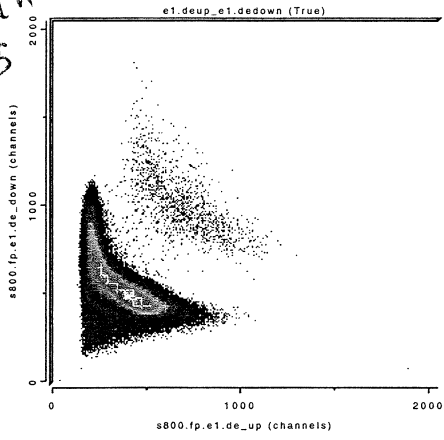
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	3.46
Csl3		

Group 00

Channel Name	V0Set	I0Set	VMon	IMb	n	Pw	Status
	V0Set	I0Set	VMon	IMon	1.0 s	Pw	Status
BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.0 uA	Off		Ext-Dis
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On		
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA	On		
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.24 uA	On		
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.56 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.84 uA	On		
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA	On		
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.82 uA	On		
Tow1Card6	295.00 V	3.00 uA	294.75 V	0.66 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA	Off		
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.62 uA	On		
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.70 uA	On		
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.82 uA	On		
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.64 uA	On		
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.68 uA	On		
Tow3Card12	200.00 V	5.00 uA	0.00 V	1.48 uA	Off		
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.54 uA	On		
Tow3Card6	310.00 V	3.00 uA	309.50 V	0.72 uA	On		

Run 15

Run
15



Run 16 Start: 7:01 a.m.
Cont. Run 15

Run 16

Group 00	Channel Name	V0Set	I0Set	VMon	IMon	n	Pw	Status
		V0Set	I0Set	VMon	IMon		1.0 s	290 V
							Pw	Status
	BANK0_UNUSE	0.00 V	2.0 uA	0.15 V	0.0 uA		Off	Ext-Dis
	Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA		On	
	Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA		On	
	Tow0Card9	190.00 V	3.00 uA	189.75 V	0.24 uA		On	
	Tow0Card6	240.00 V	3.50 uA	239.50 V	1.58 uA		On	
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
	Tow1Card15	290.00 V	4.00 uA	290.00 V	0.84 uA		On	
	Tow1Card12	240.00 V	4.00 uA	239.75 V	0.94 uA		On	
	Tow1Card9	200.00 V	3.00 uA	199.50 V	0.82 uA		On	
	Tow1Card6	295.00 V	3.00 uA	294.50 V	0.68 uA		On	
	NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
	NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA		Off	
	Tow2Card12	250.00 V	4.00 uA	250.00 V	0.62 uA		On	
	Tow2Card9	110.00 V	4.00 uA	109.75 V	1.74 uA		On	
	Tow2Card6	250.00 V	4.00 uA	249.50 V	0.82 uA		On	
	Tow2Card3	280.00 V	5.00 uA	279.75 V	0.66 uA		On	
	Tow3Card15	210.00 V	3.00 uA	209.50 V	0.70 uA		On	
	Tow3Card12	200.00 V	5.00 uA	0.00 V	1.52 uA		Off	
	Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA		On	
	Tow3Card6	310.00 V	3.00 uA	309.50 V	0.72 uA		On	

Date:

Time:

	Vbias (V)	I (uA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.98
Csl0		

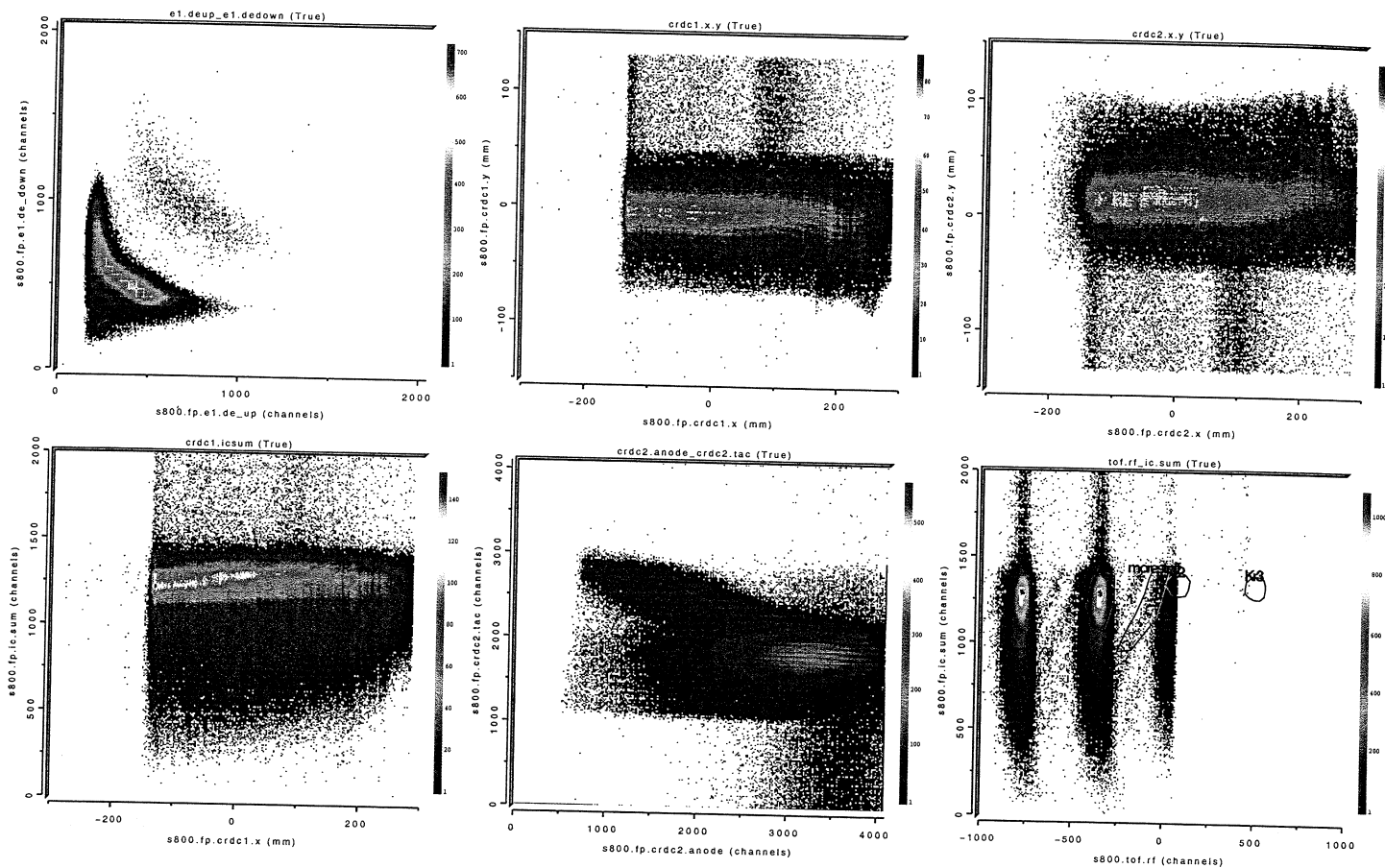
	Vbias (V)	I (uA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	3.43
Csl2		

	Vbias (V)	I (uA)
MCP0		
MCP1		

	Vbias (V)	I (uA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.33
Csl1		

	Vbias (V)	I (uA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	3.51
Csl3		

Run 16



Group 00

Channel Name	V0Set	I0Set	VMbn	IMb	n	Pw	Status
	V0Set	I0Set	VMbn	IMbn	1.0 s	Pw	Status
BANK0_UNUSE	0.00	2.0	0.15	0.0	0.0	Off	Ext-Dis
Tow0Card15	210.00	3.00	209.75	0.42	0.42	On	
Tow0Card12	250.00	4.00	250.00	0.70	0.70	On	
Tow0Card9	190.00	3.00	190.00	0.24	0.24	On	
Tow0Card6	240.00	3.50	239.50	1.62	1.62	On	
NOT_USED	0.00	0.10	0.00	0.00	0.00	Off	
Tow1Card15	290.00	4.00	290.00	0.84	0.84	On	
Tow1Card12	240.00	4.00	239.75	0.94	0.94	On	
Tow1Card9	200.00	3.00	199.50	0.82	0.82	On	
Tow1Card6	295.00	3.00	294.75	0.68	0.68	On	
NOT_USED	0.00	0.10	0.00	0.00	0.00	Off	
NOT_USED	0.00	0.10	0.25	0.00	0.00	Off	
Tow2Card12	250.00	4.00	249.75	0.62	0.62	On	
Tow2Card9	110.00	4.00	109.75	1.78	1.78	On	
Tow2Card6	250.00	4.00	249.50	0.84	0.84	On	
Tow2Card3	280.00	5.00	279.75	0.66	0.66	On	
Tow3Card15	210.00	3.00	209.50	0.70	0.70	On	
Tow3Card12	200.00	5.00	0.00	1.54	1.54	Off	
Tow3Card9	120.00	3.00	119.75	0.56	0.56	On	
Tow3Card6	310.00	3.00	309.50	0.74	0.74	On	

Date: 7/21/05

Time: 7:45 am

	Vbias (V)	I (μ A)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	3.02
Csl0	80	0.0

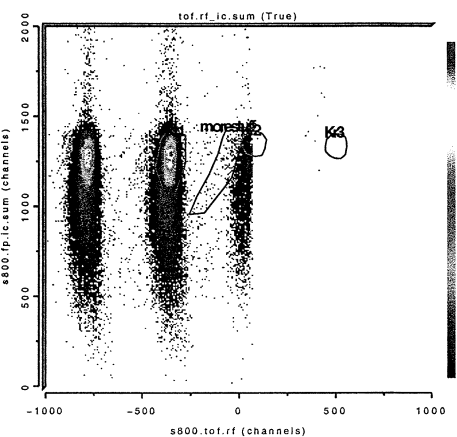
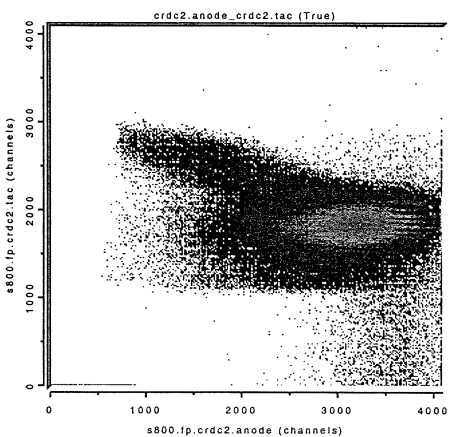
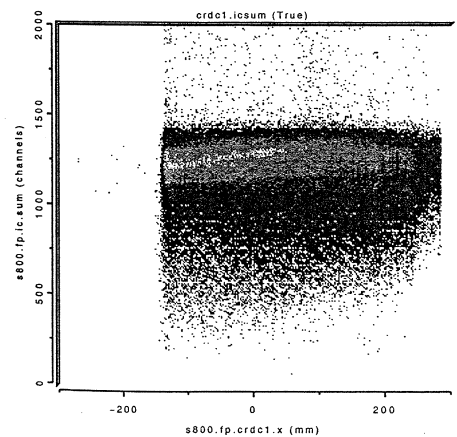
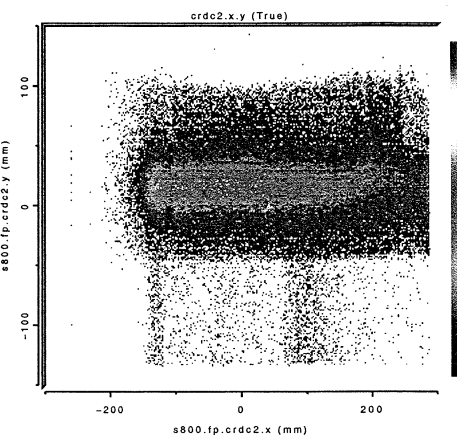
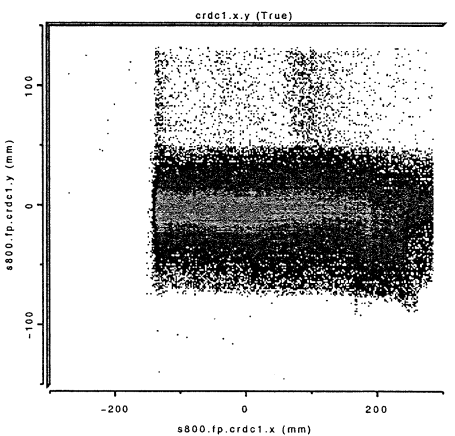
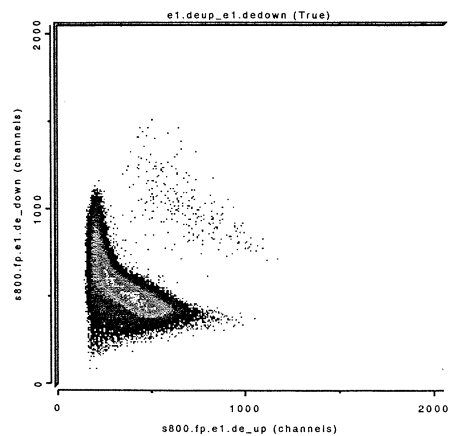
	Vbias (V)	I (μ A)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	3.99
Csl2	80	0.4

	Vbias (V)	I (μ A)
MCP0		
MCP1		

T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.36
Csl1	80	0.1

T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	3.56
Csl3	80	0.1

Run #17 ended because of vac. excursion on accelerator.



Run 18: start 8:03 am cont of run 17

1 minute long (beam given to operators for retuning)

① - 1 min

② - und gate 78°C (140 min)

③ - alignment

• BACK slot corresponding to tower 3 card 12 is slot 11

→ Pin 19 on the motherboard power connector

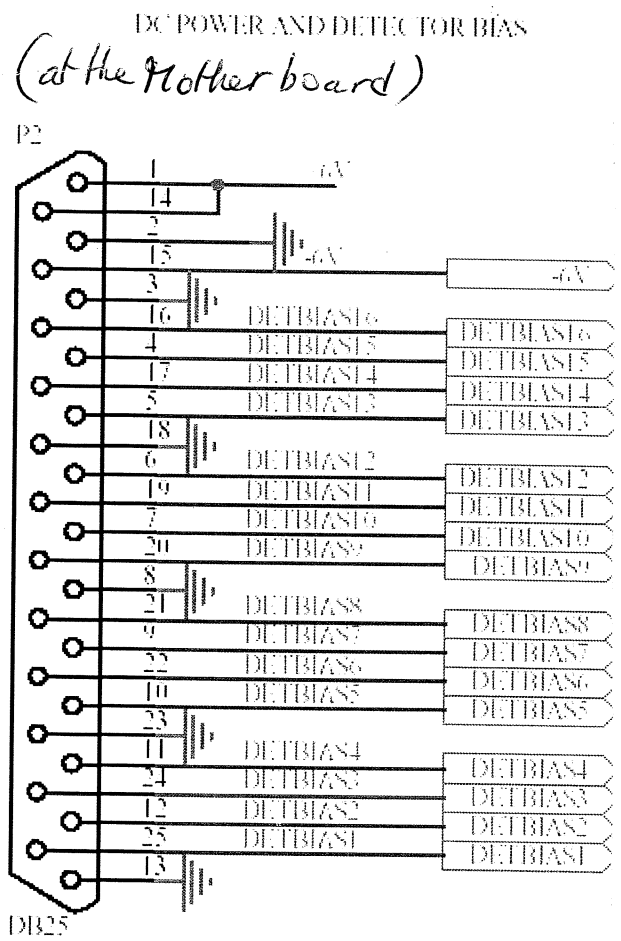
(or flange connector which is equivalent)

This is pin 22 on dist^o board output

HIRA
Distr. box

Power Cable Mapping
Flange (French) / motherboard

1	1
2	2
3	3
12	4
11	5
10	6
9	7
8	8
7	9
6	10
5	11
4	12
13	13
14	14
15	15
25	16
24	17
18	18
22	19
21	20
20	21
19	22
23	23
17	24
16	25



7/21/05

TDC inputs

Common stop

- 0 MCP0
- 1 MCP1
- 2 Coincidence MCP0 & MCP1
- 3 MCP0 OR Delayed MCP1

Scalers

- 0 MCP0
- 1 MCP1
- 2 MCP0 & MCP1 coincidence

7/21/05

Pulser Ramp on CsT

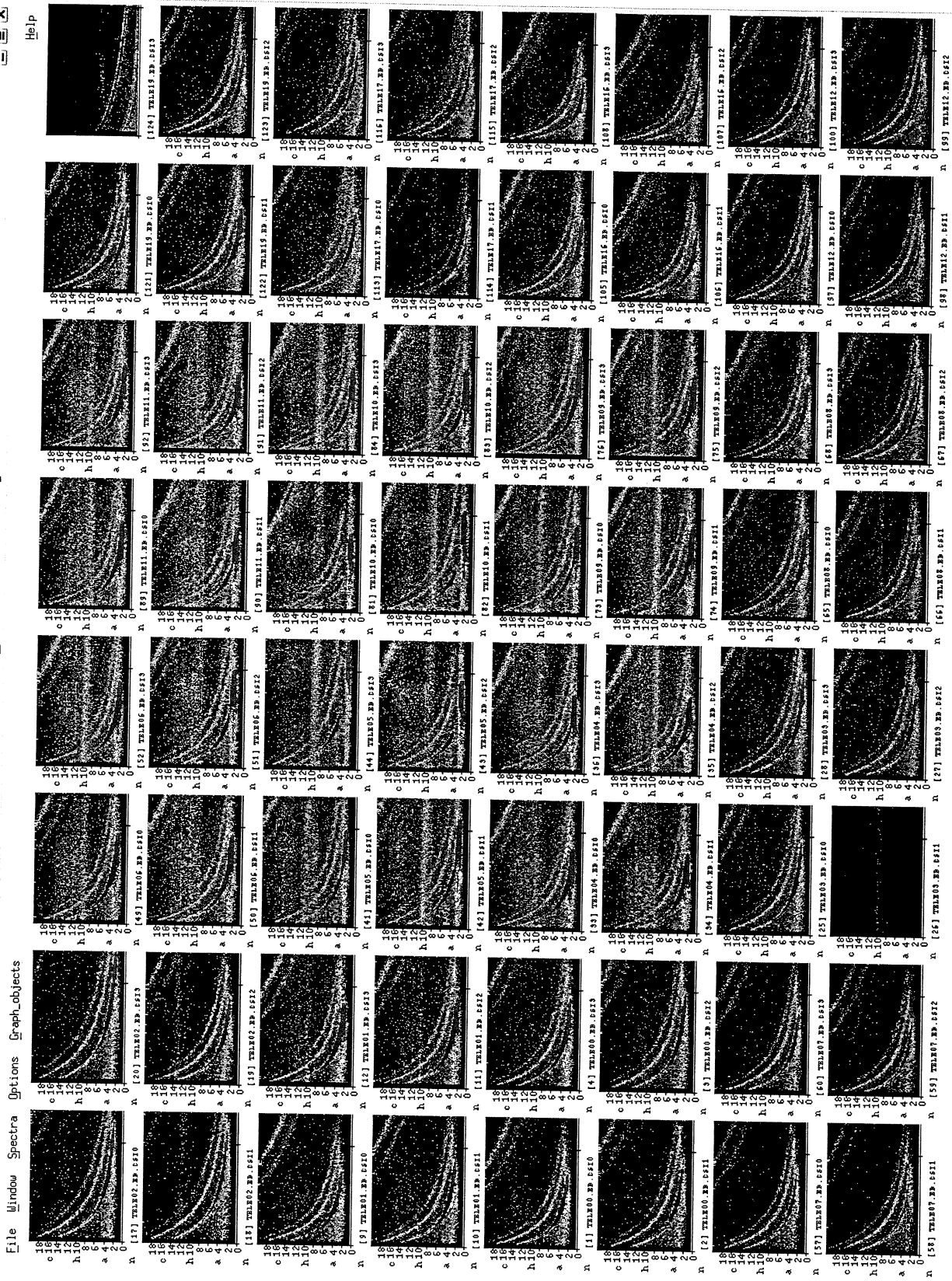
Program	Lead
---------	------

0.05	0.054
0.10	0.104
0.15	0.154
0.20	0.204
0.25	0.255
0.30	0.304
0.35	0.355
0.40	0.405
0.45	0.455
0.50	0.505
0.55	0.556
0.60	0.656 0.606
0.65	0.656
0.70	0.706
0.75	0.756

★ Longer one!

RM 9-17 EB

Running -- /usr/local/ctdb/current/ultra_spectra/ultra-tilde/Cat_EB/ultra [modified]



File Window Spectra Options Graph Objects Help

Counts 0

Spectrum 106 X12.00 Y 18.46

Geometry Zoom Update All Expand Marker Contour

Display Display + Info + - Log Map Integrate Band

Run 21 22:53

78Kr 140 McV/A
Beam is offcenter in SP00 focus

Run 22 23:07

CRDC1 Mask run

Run 23

CRDC2 Mask run

RUN STOP 23:14

BEAM STOPPED

DA OFF, BIASING DETECTORS

- Main Utility Setup Groups View n Pw Status 6
Group 00 1.0 s 290 V

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
				0.0 uA	Off	Ext-Dis
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.24 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.20 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.88 uA	On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.94 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.82 uA	On	
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.68 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off	
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.90 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.25 V	0.84 uA	On	
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.66 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.70 uA	On	
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.82 uA	On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA	On	
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.74 uA	On	

Toggle Parameters Configuration

T

23:49

BEAM ON

SEEKING DATA

Noisy Channel → Tower Slot 2 channel dup 0 channel

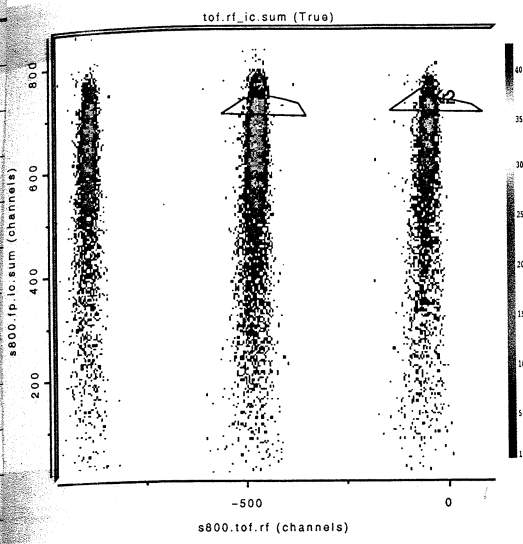
Disc. Raised from 24-30

- Main Utility Setup Groups View

Group 00	Channel Name	V0Set	I0Set	VMbn	IMbn	n	Pw	Status	6
							1.0 s	290 V	
						0.0 uA	Off	Ext-Dis	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.40 uA	On				
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA	On				
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.22 uA	On				
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.14 uA	On				
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off				
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.82 uA	On				
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.90 uA	On				
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.78 uA	On				
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.64 uA	On				
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off				
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off				
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.62 uA	On				
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.72 uA	On				
Tow2Card6	250.00 V	4.00 uA	249.25 V	0.78 uA	On				
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.62 uA	On				
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.68 uA	On				
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.46 uA	On				
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.54 uA	On				
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.72 uA	On				

Toggle Parameters Configuration

T



f

Run 24

00:35

Date:

Time:

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.56
Csl0		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	3.88
Csl2		

	Vbias (V)	I (μA)
MCP0		
MCP1		

	Vbias (V)	I (μA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.26
Csl1		

	Vbias (V)	I (μA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	1.98
Csl3		

- Main Utility Setup Groups View

Group 00					n	Pw	Status
Channel Name	V0Set	I0Set	VMon	IMon	1.0 s	Pw	Status
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	0.0	Off	Ext-Dis
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA		On	
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.24 uA		On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.16 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.84 uA		On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA		On	
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.80 uA		On	
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.66 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA		Off	
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.62 uA		On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.72 uA		On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.82 uA		On	
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.64 uA		On	
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.68 uA		On	
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.50 uA		On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA		On	
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.74 uA		On	

Toggle Parameters Configuration

RUN 26 12:54

- Main Utility Setup Groups View

Group 00					n	Pw	Status
Channel Name	V0Set	I0Set	VMon	IMon	1.0 s	Pw	Status
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	0.0 uA	Off	Ext-Dis
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA		On	
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.24 uA		On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.20 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.86 uA		On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA		On	
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.82 uA		On	
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.68 uA		On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA		Off	
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.64 uA		On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.74 uA		On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.82 uA		On	
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.66 uA		On	
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.70 uA		On	
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.58 uA		On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA		On	
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.74 uA		On	

Toggle Parameters Configuration

T

~ 11:10 AM

PUTTING IN FARADAY CUP TRIPPED CSI SCNER

We noticed that with the beam blocked the rate in all silicon detectors was around 900/sec. This rate is due to the alpha source present in the chamber. The rate with beam is similar because of the large dead time (~50%)

RUN 27

Date:

Time:

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	2.87
Csl0		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	4.10
Csl2		

	Vbias (V)	I (μA)
MCP0		
MCP1		

	Vbias (V)	I (μA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.44
Csl1		

	Vbias (V)	I (μA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	2.06
Csl3		

02:16 AM

- Main Utility Setup Groups View

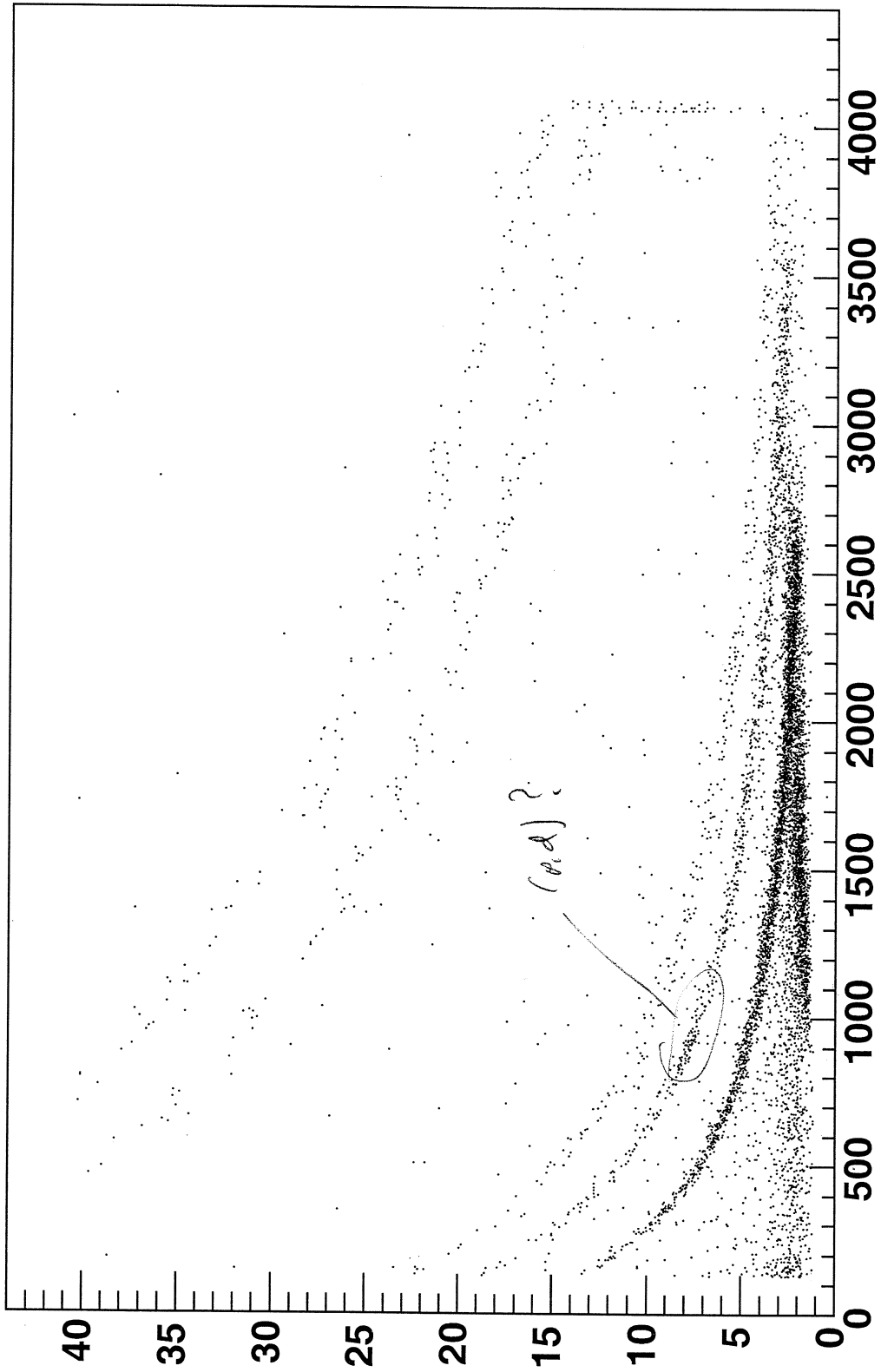
Group 00				n	Pw	Status
Channel Name	V0Set	I0Set	VMbn	IMbn	Pw	Status
				0.0 uA	Off	Ext-Dis
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.24 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.54 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.90 uA	On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.96 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.86 uA	On	
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.70 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off	
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.86 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On	
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.70 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.70 uA	On	
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.80 uA	On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.58 uA	On	
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.78 uA	On	

Toggle Parameters Configuration

T

Run 25

F.Emax[12]:Csi.E[12][

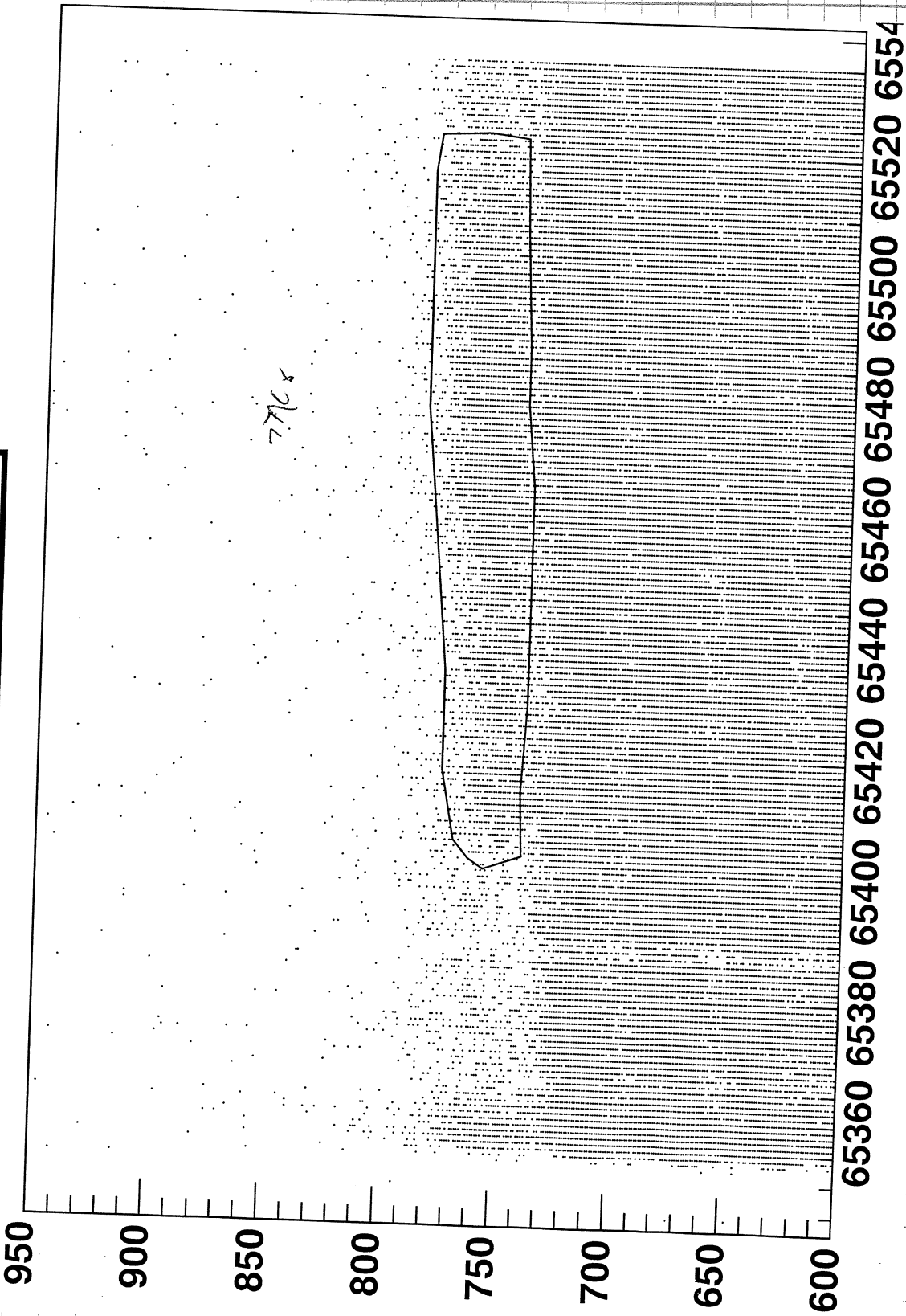


Telescope 12

→ PID Spectrum

F_{csI}

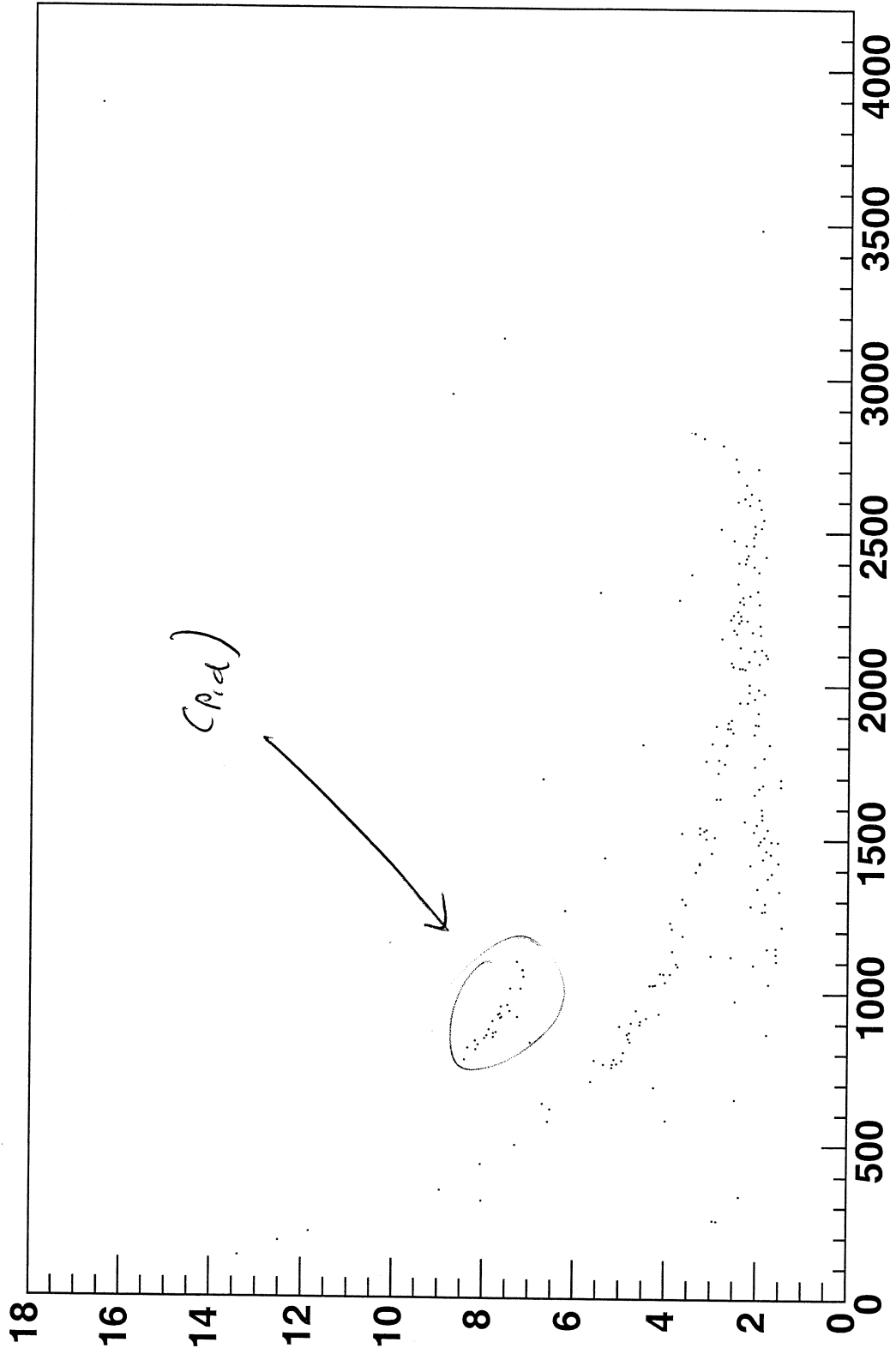
fp.ic.sum:fp.crdc1.x {fp.crdc1.x>65000}



IC sum
"Kc gate

crdc x

EF.Emax[12]:Csi.E[12][] {deut&Csi.mult[12]==1}



Pi0 gated on $^{27}K_{\tau}$

- Main Utility Setup Groups View

Group 00

Channel Name	V0Set	I0Set	WMon	IMon	n	Pw	Status
					1.0 s	290 V	
					0.0 uA	Off	Ext-Dis
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On		
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On		
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.26 uA	On		
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.56 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.90 uA	On		
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.96 uA	On		
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On		
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.70 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off		
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On		
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.88 uA	On		
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On		
Tow2Card3	280.00 V	5.00 uA	279.50 V	0.70 uA	On		
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.72 uA	On		
Tow3Card12	300.00 V	5.00 uA	299.75 V	2.84 uA	On		
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.58 uA	On		
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.78 uA	On		

Toggle Parameters Configuration

T

02:44
RUN 2⁹

Changed bias on Tow3 Card 12 300 → 200.
 → Current still high ~2.48 μA

- Main Utility Setup Groups View

Group 00				n	Pw	Status
Channel Name	V0Set	I0Set	W0n	IMon	1.0 s Pw	290 V Status
Tow0Card12	250.00 V	4.00 μA	250.00 V	0.72 μA	Off	Ext-Dis
Tow0Card9	190.00 V	3.00 μA	190.00 V	0.26 μA	On	
Tow0Card6	240.00 V	3.50 μA	239.50 V	1.58 μA	On	
NOT_USED	0.00 V	0.10 μA	0.00 V	0.00 μA	Off	
Tow1Card15	290.00 V	4.00 μA	290.00 V	0.90 μA	On	
Tow1Card12	240.00 V	4.00 μA	239.75 V	0.98 μA	On	
Tow1Card9	200.00 V	3.00 μA	199.75 V	0.88 μA	On	
Tow1Card6	295.00 V	3.00 μA	294.50 V	0.70 μA	On	
NOT_USED	0.00 V	0.10 μA	0.00 V	0.00 μA	Off	
NOT_USED	0.00 V	0.10 μA	0.50 V	0.00 μA	Off	
Tow2Card12	250.00 V	4.00 μA	249.75 V	0.66 μA	On	
Tow2Card9	110.00 V	4.00 μA	109.75 V	1.88 μA	On	
Tow2Card6	250.00 V	4.00 μA	249.50 V	0.86 μA	On	
Tow2Card3	280.00 V	5.00 μA	279.75 V	0.70 μA	On	
Tow3Card15	210.00 V	3.00 μA	209.50 V	0.70 μA	On	
Tow3Card12	200.00 V	5.00 μA	200.00 V	2.48 μA	On	
Tow3Card9	120.00 V	3.00 μA	119.75 V	0.58 μA	On	
Tow3Card6	310.00 V	3.00 μA	309.25 V	0.78 μA	On	
Tow3Card3	0.00 V	0.10 μA	1.00 V	0.00 μA	Off	

Configure View

T

Date:

Time:

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0	100	3.02
Cs10		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2	100	4.19
Cs12		

	Vbias (V)	I (μA)
MCP0		
MCP1		

	Vbias (V)	I (μA)
T1C15		
T1C12		
T1C9		
T1C6		
Back1	100	3.50
Cs11		

	Vbias (V)	I (μA)
T3C15		
T3C12		
T3C9		
T3C6		
Back3	100	2.08
Cs13		

Vae.

Interlock event at 3:15 tripped Arcset.
RUN 29 ended.

Vae Interlock **DISABLED** / Disconnected:

Biaset turned back on.

*Si downscale added to trigger DS=50.

RUN 30 4:00 everything back on T rising run.
4:30 end

RUN 31 4:30 begin again with T stabilizee.

- Main Utility Setup Groups View Run 31

Group 00	Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
----------	--------------	-------	-------	------	------	----	--------

Tow0Card15	210.00 V	3.00 uA	209.75 V	0.40 uA	On		
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.68 uA	On		
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.22 uA	On		
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.26 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.80 uA	On		
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.88 uA	On		
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.76 uA	On		
Tow1Card6	295.00 V	3.00 uA	294.75 V	0.64 uA	On		
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off		
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.60 uA	On		
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.60 uA	On		
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.78 uA	On		
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.60 uA	On		
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.66 uA	On		
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.96 uA	On		
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.52 uA	On		
Tow3Card6	310.00 V	3.00 uA	309.50 V	0.70 uA	On		

Channels Display/Edit Screen

LocEn V0 10

T

RUN 32 Begms 05:28 Cont. Run 31

Date:

Time: 05:30

	Vbias (V)	I (μA)
T0C15		
T0C12		
T0C9		
T0C6		
Back0		2.99
Csl0		

T1C15		
T1C12		
T1C9		
T1C6		
Back1		3.35
Csl1		

	Vbias (V)	I (μA)
T2C12		
T2C9		
T2C6		
T2C3	NO BIAS	
Back2		3.88
Csl2		

T3C15		
T3C12		
T3C9		
T3C6		
Back3		2.00
Csl3		

	Vbias (V)	I (μA)
MCP0		
MCP1		

- Main Utility Setup Groups View

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.40 uA		On
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.70 uA		On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.22 uA		On
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.20 uA		On
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.84 uA		On
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA		On
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.76 uA		On
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.66 uA		On
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA		Off
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA		Off
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.62 uA		On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.74 uA		On
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.80 uA		On
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.62 uA		On
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.68 uA		On
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.14 uA		On
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.54 uA		On
Tow3Card6	310.00 V	3.00 uA	309.50 V	0.72 uA		On

Channels Display/Edit Screen

LocEn V0 10

T

6:00 am Mauricio Porfillo took the beam to develop a ⁷¹Br secondary beam. He expects it will take him a couple of hours to do it.

run 32 - 6:00 am

- Main Utility Setup Groups View

Group 00

Channel Name V0Set IOSet VMbn IMbn Pw Status

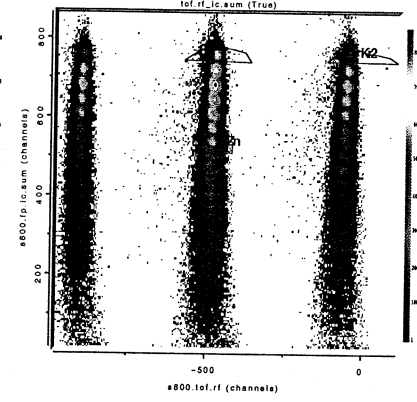
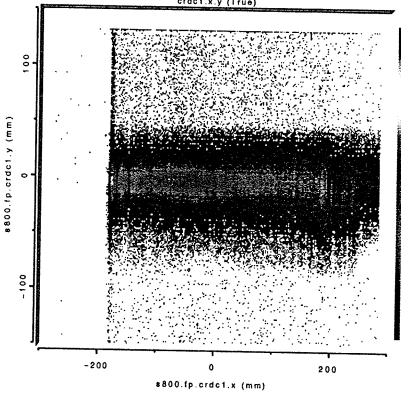
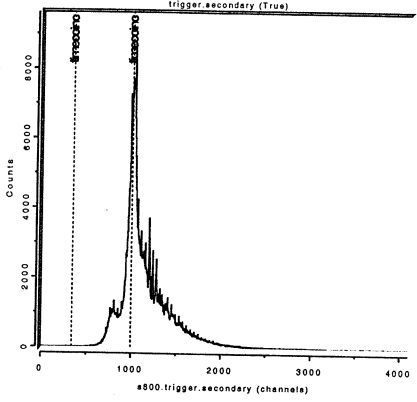
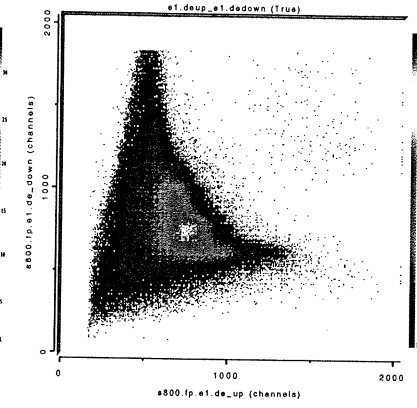
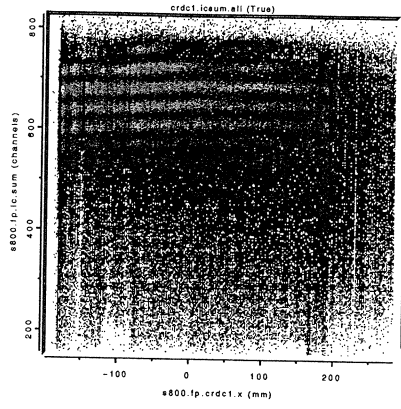
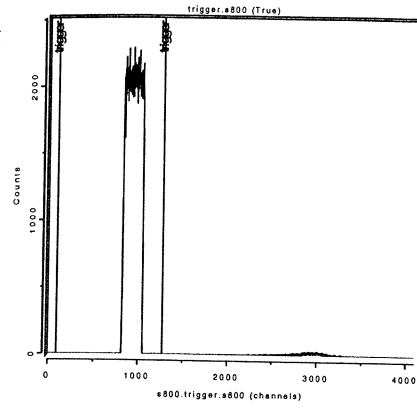
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On
Tow0Card9	190.00 V	3.00 uA	189.75 V	0.24 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.66 uA	On
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off
Tow1Card15	290.00 V	4.00 uA	290.00 V	0.88 uA	On
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.96 uA	On
Tow1Card9	200.00 V	3.00 uA	199.50 V	0.84 uA	On
Tow1Card6	295.00 V	3.00 uA	294.50 V	0.70 uA	On
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off
Tow2Card12	250.00 V	4.00 uA	249.75 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.74 uA	On
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.84 uA	On
Tow2Card3	280.00 V	5.00 uA	279.75 V	0.68 uA	On
Tow3Card15	210.00 V	3.00 uA	209.50 V	0.70 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.32 uA	On
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA	On
Tow3Card6	310.00 V	3.00 uA	309.25 V	0.76 uA	On

Channels Display/Edit Screen

LocEn V0 I0

T | CAE

run 32

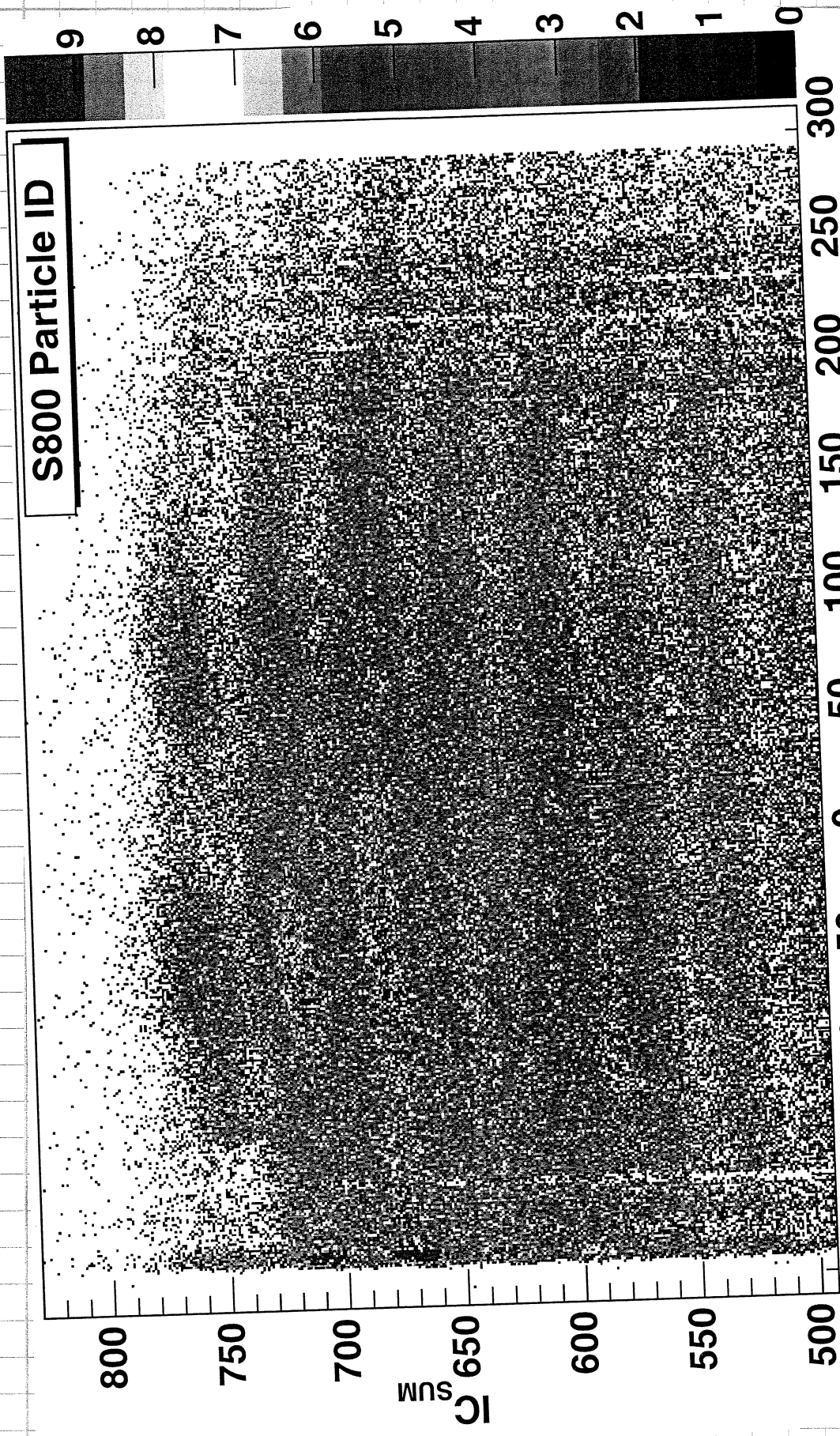


FILE: 24_00:08:33_EDT_2005_KUMI: 0 TITLE: UTK

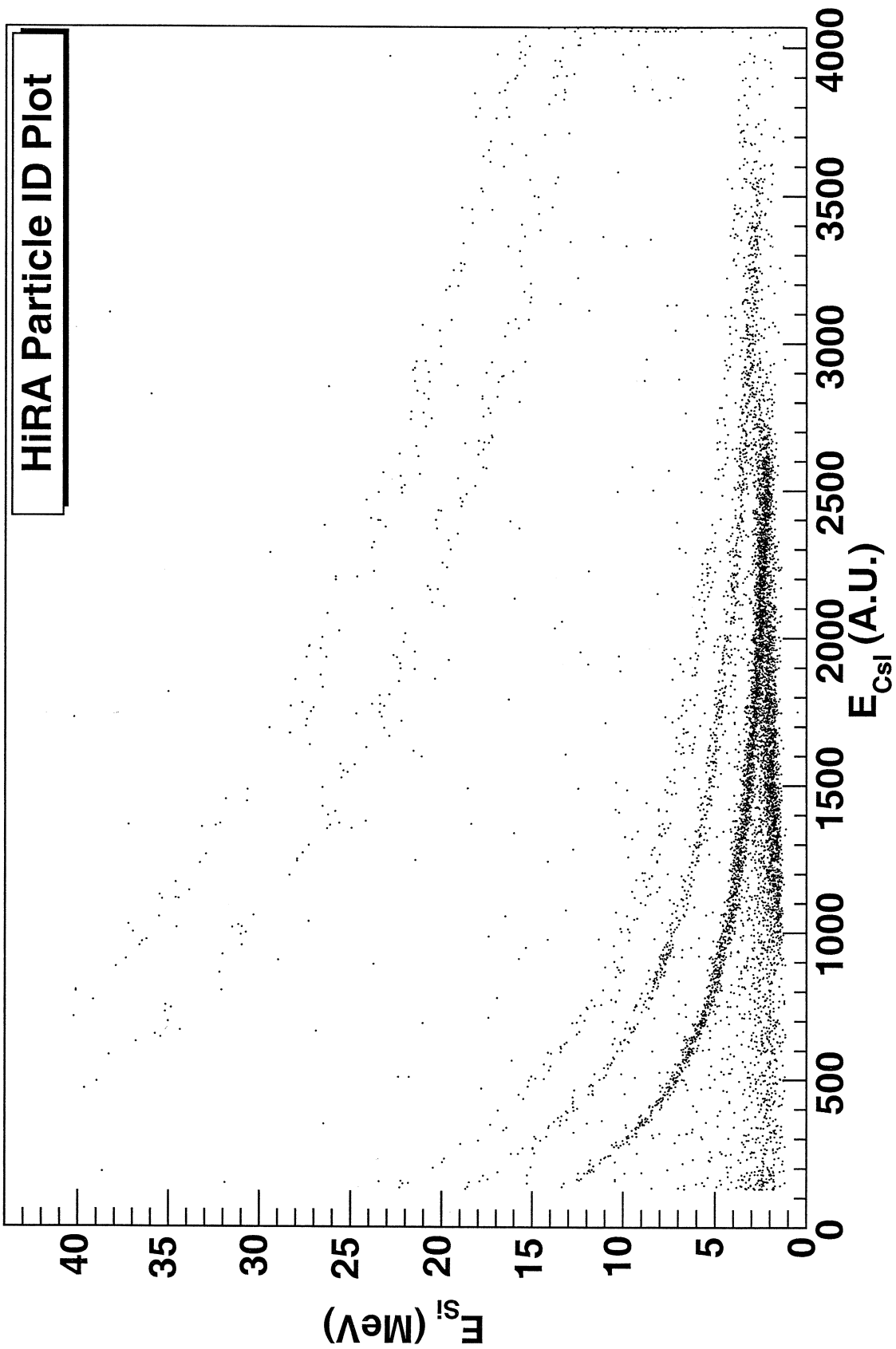
Date: 7-22-05
Time: 06:17

	Vbias (V)	I (μ A)
Csl0	80	0.0
Csl1	80	0.0
Csl2	80	0.3
Csl3	80	0.6
Back0	100	3.11
Back1	100	3.95
Back2	100	4.82
Back3	100	2.03
MCP0		
MCP1		
Foil0		
Foil1		

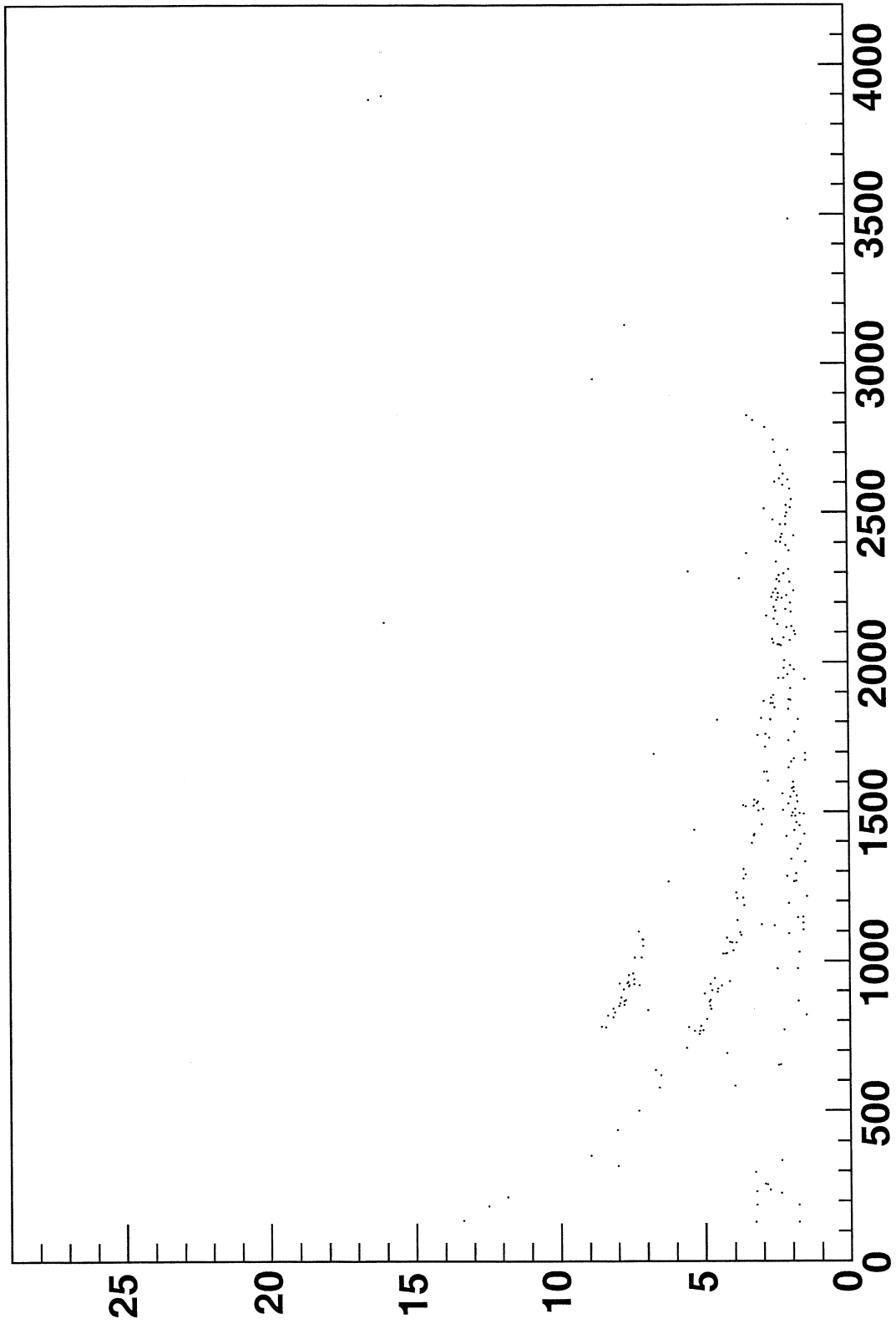
S800 Particle ID



HiRA Particle ID Plot

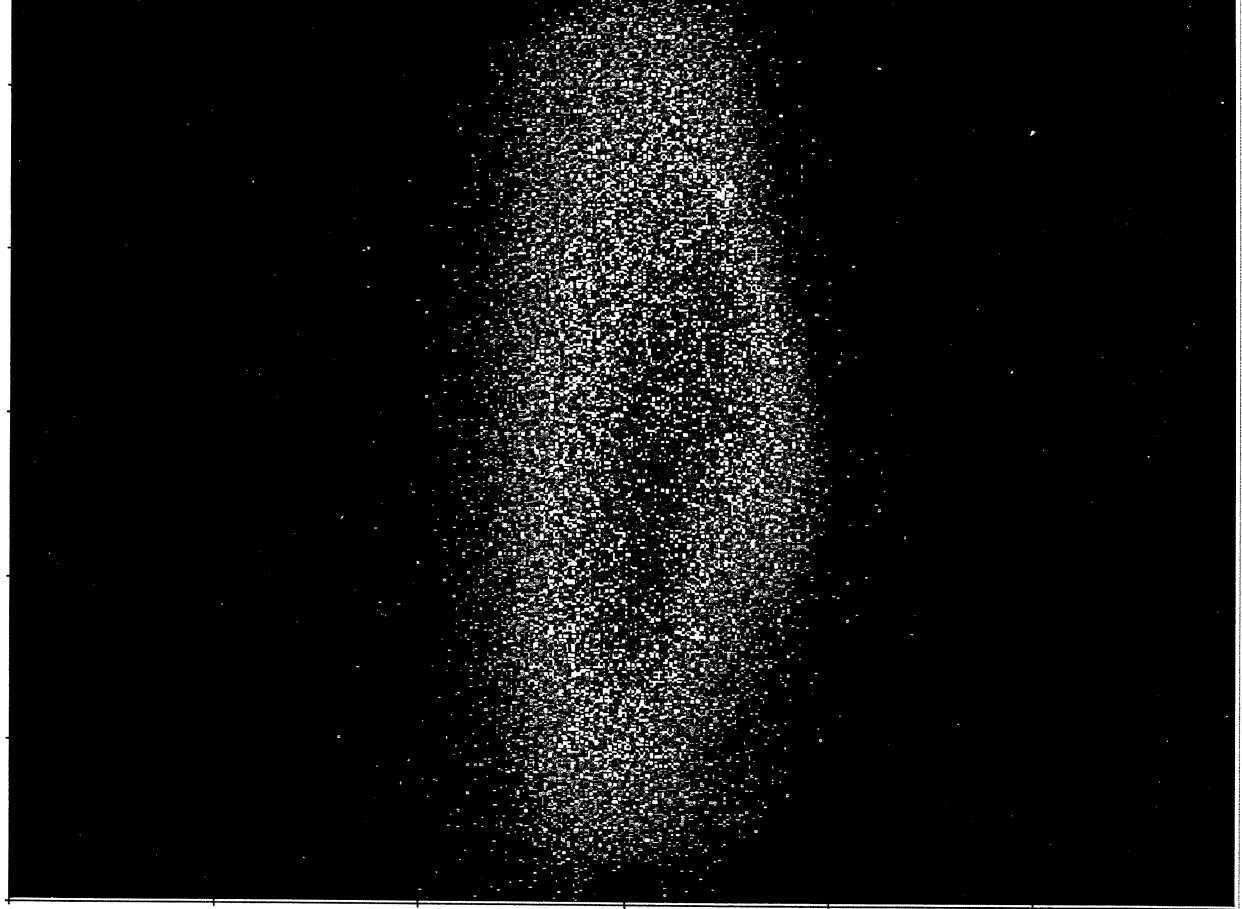


EF.Emax[12]:Csi.E[12][] {deuteron}



m
m

20
10
0
-10
-20
-30

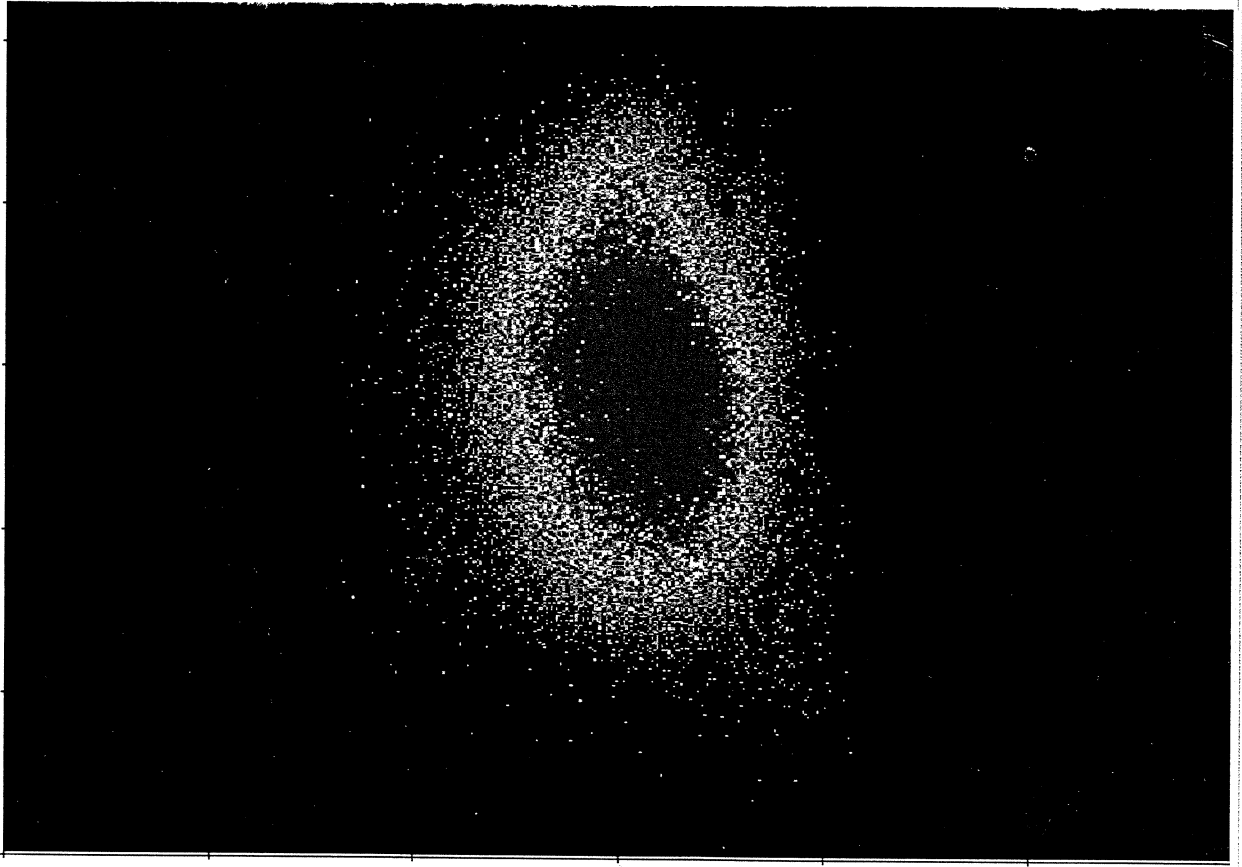


-30 -20 -10 0 10 20
mm

[75] MCP1.XREAL.VS.Y

m
m

20
10
0
-10
-20
-30

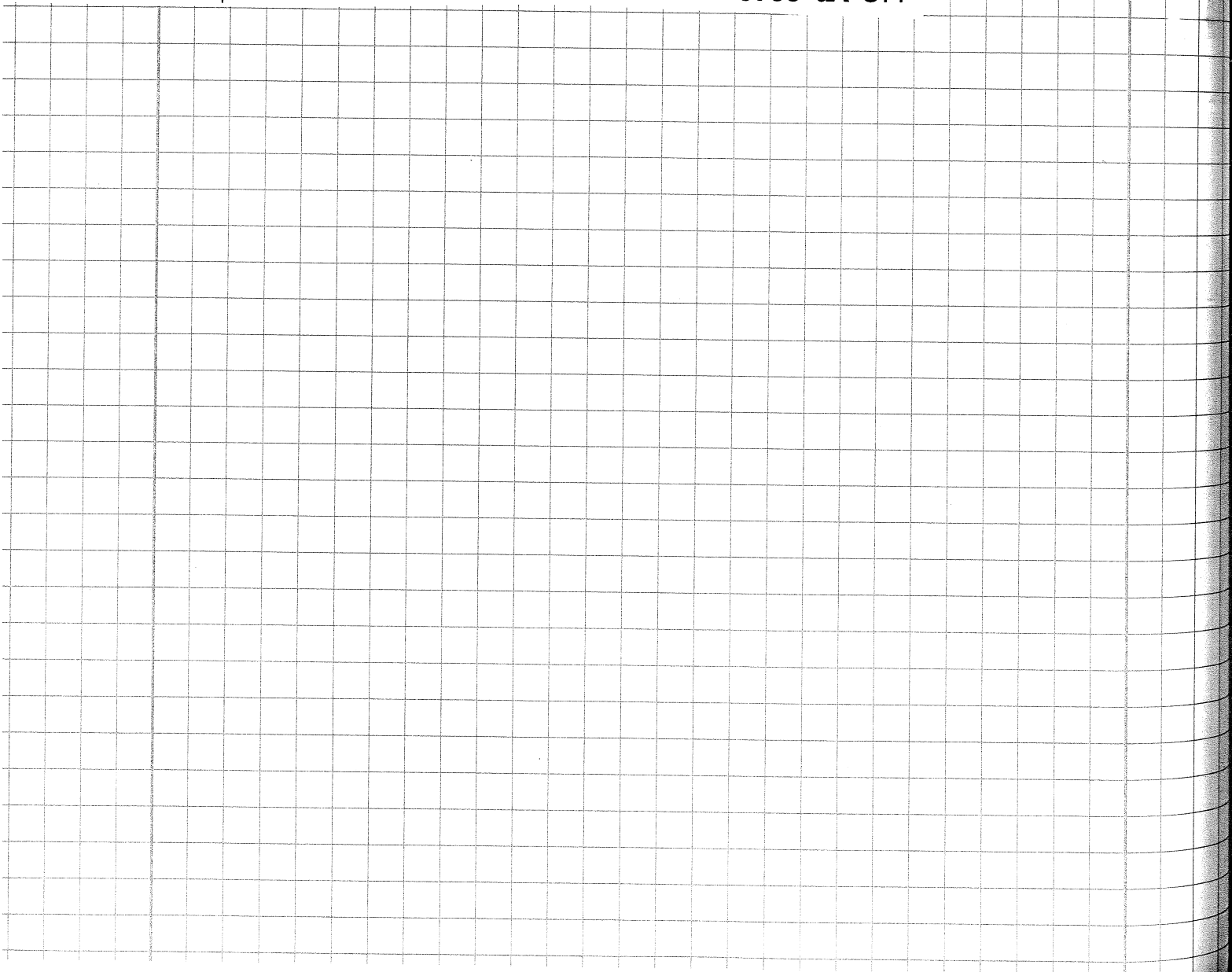


-30 -20 -10 0 10 20
mm

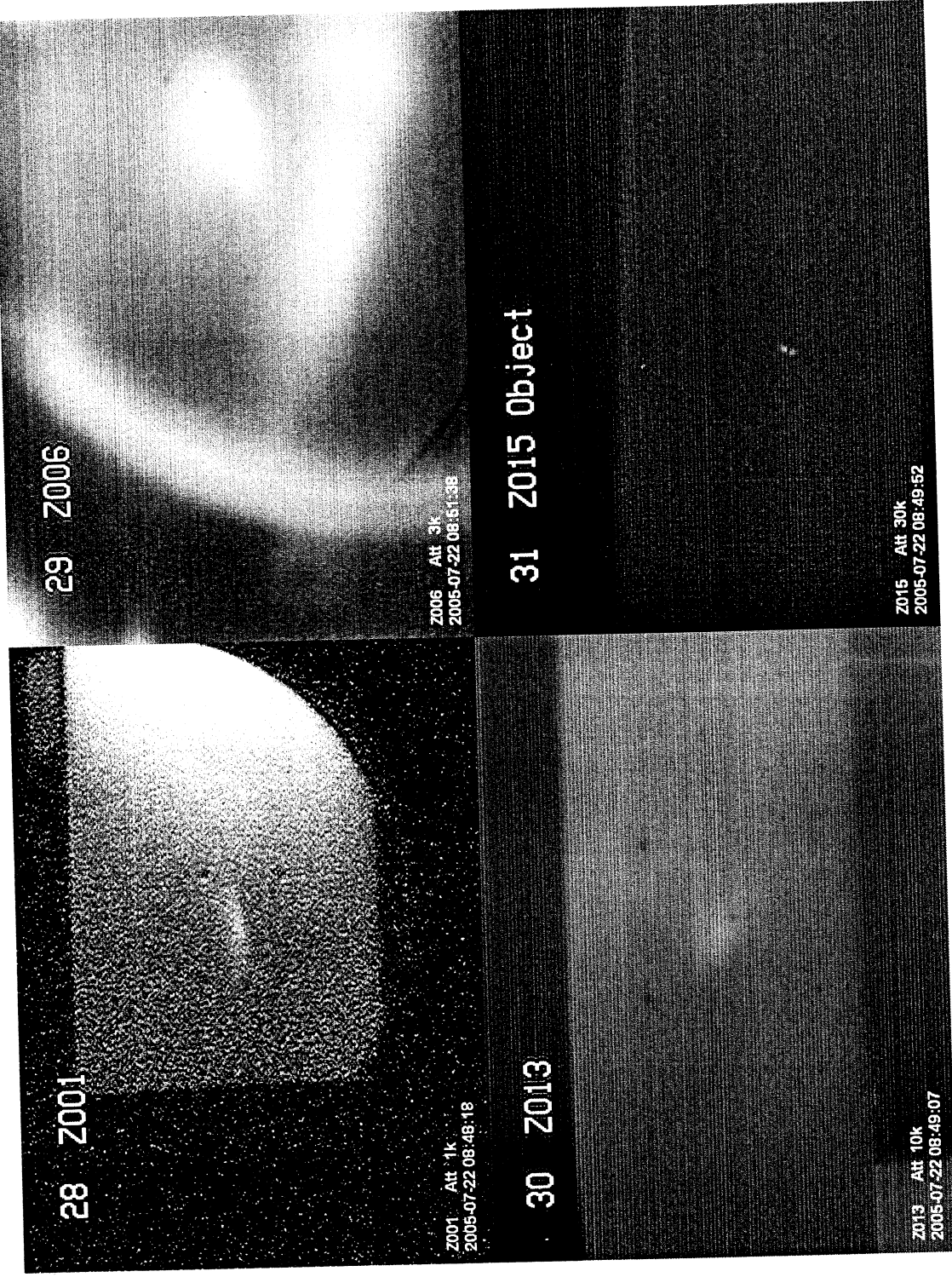
Channel Name	V0Set	I0Set	WMon	IMon	Pw	St
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.82 uA	On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	0.92 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.78 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.66 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.62 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.78 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.78 uA	On	
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.64 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.16 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.74 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.68 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.24 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.18 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

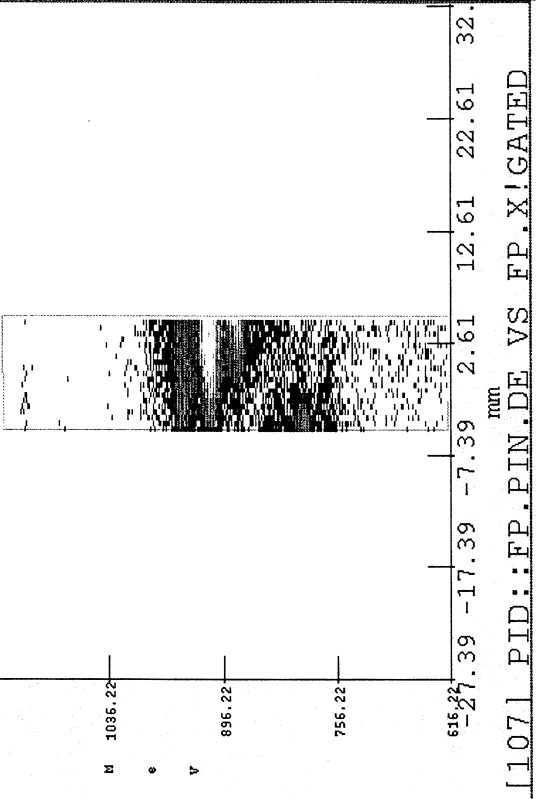
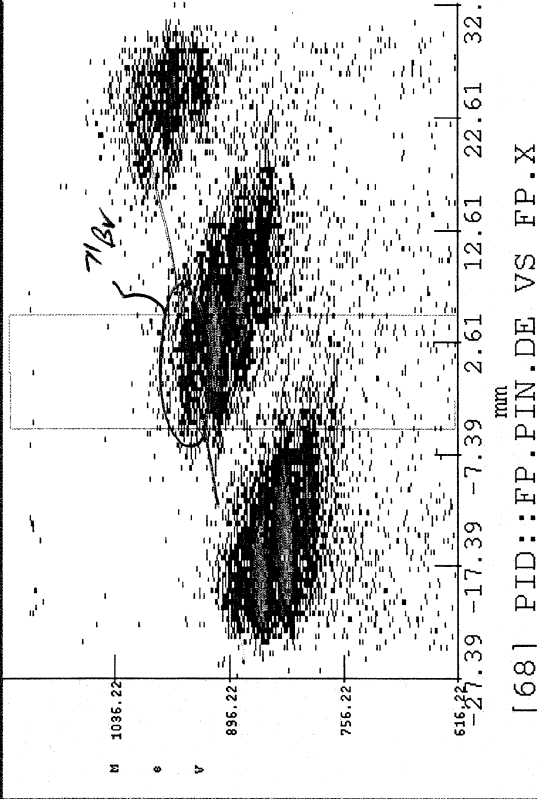
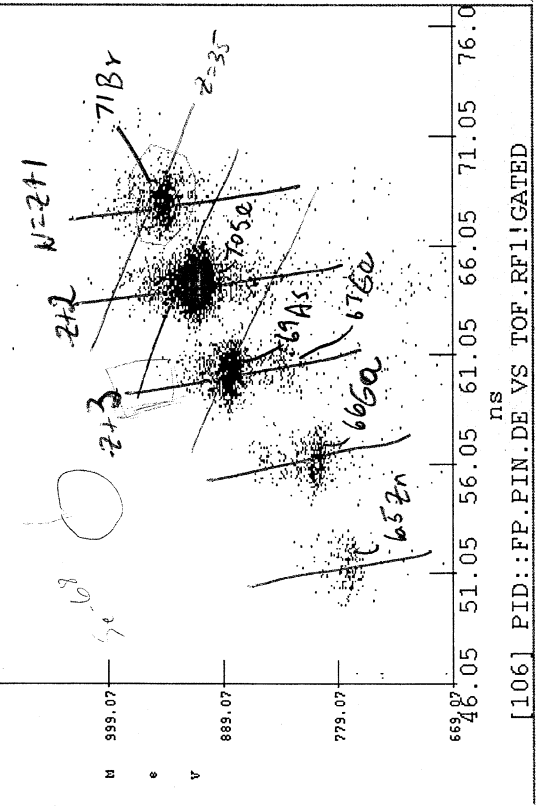
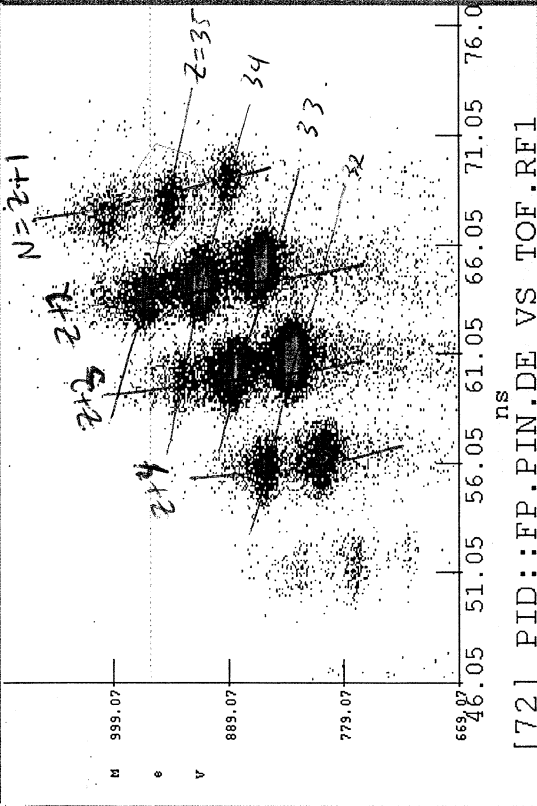
Date: 7/22/05 Time: 11:24

	Vbias (V)	I (uA)
Csl0	79.2	0.0
Csl1	79.8	0.0
Csl2	80.2	0.3
Csl3	79.7	0.0
Back0	100	2.56
Back1	100	3.29
Back2	100	3.88
Back3	100	1.95
MCP0	1790	55
MCP1	1900	62
Foil0	800	0.0
Foil1	800	0.0



Camera Photos for Exp 02023





Spectrum 106

X 47.70

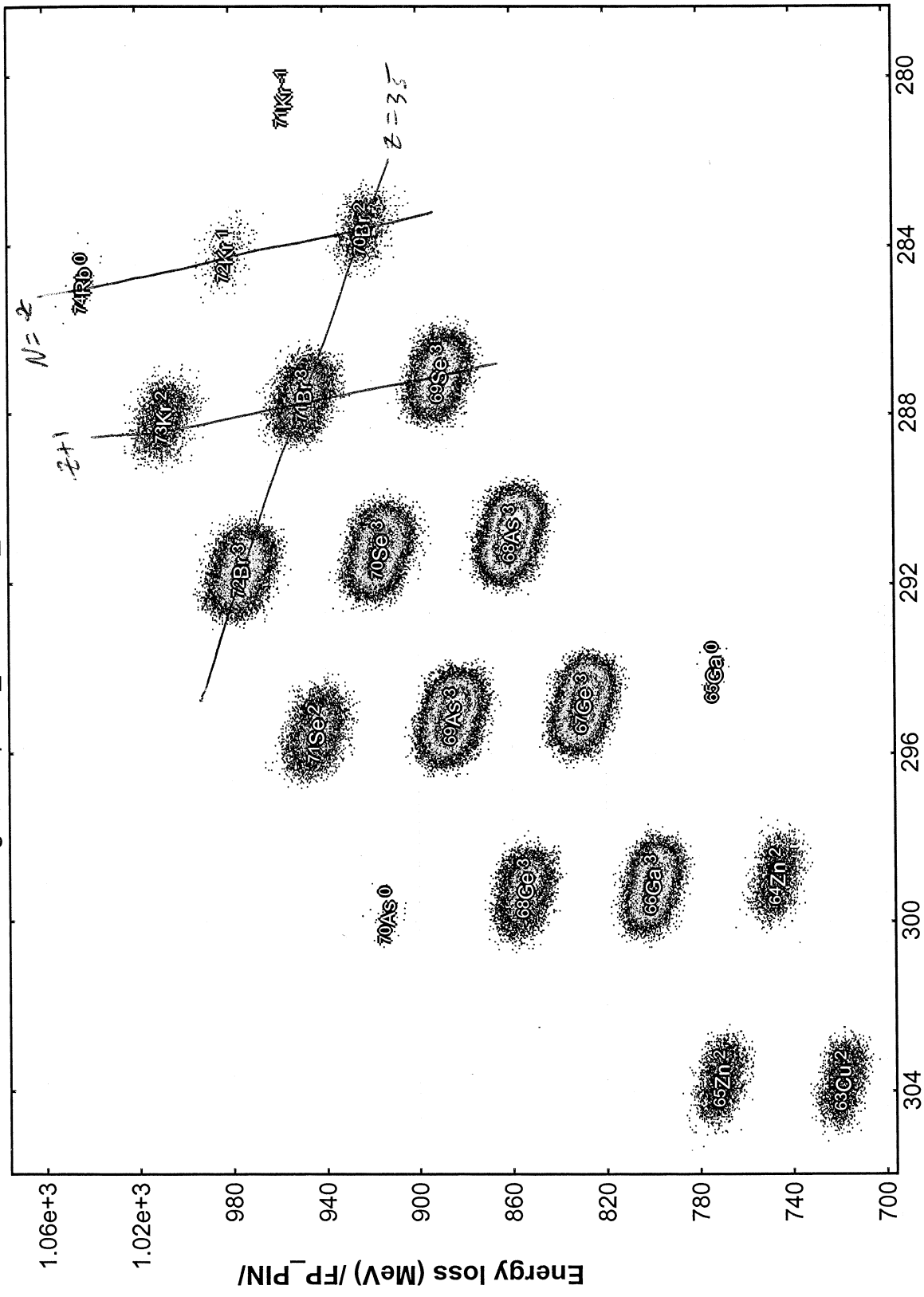
Y 669.67

Counts 0

Geometry	Zoom	Update All	Expand	Marker	Cube
Display		Update Selected	UnExpand	Summing Region	Band
Display +		Info + -	F Log F Map	Integrate	Contour

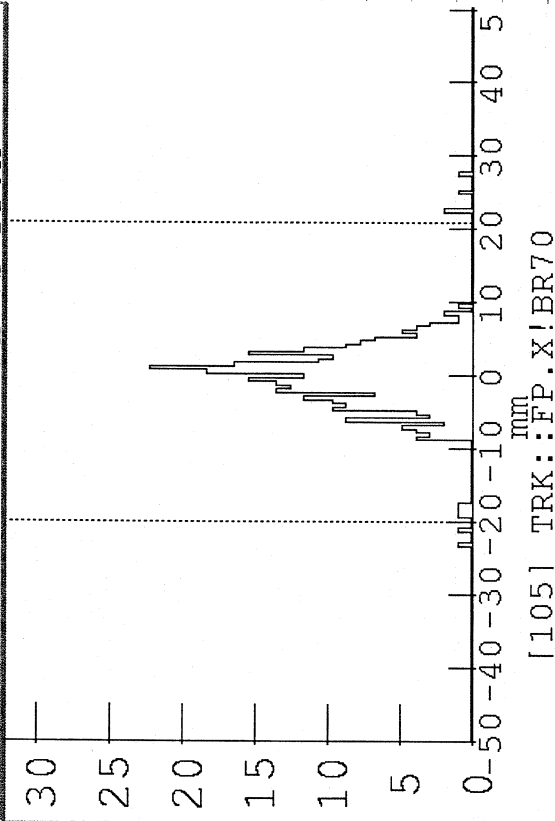
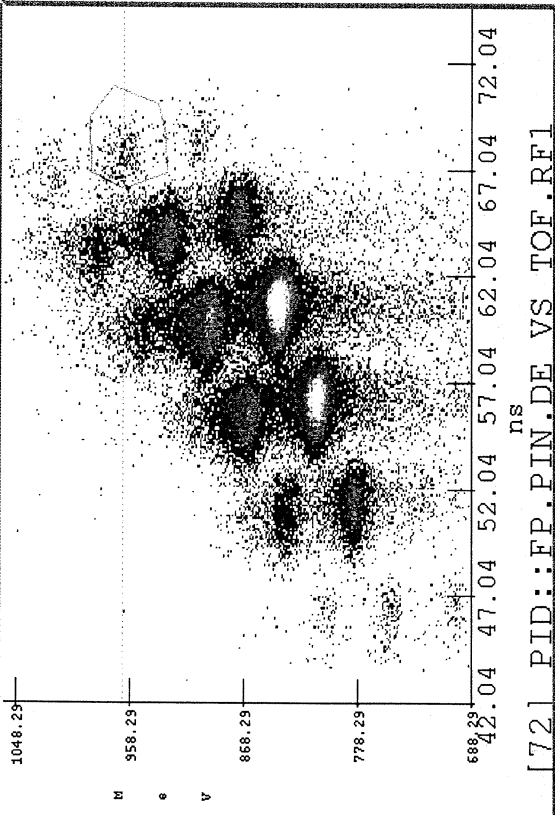
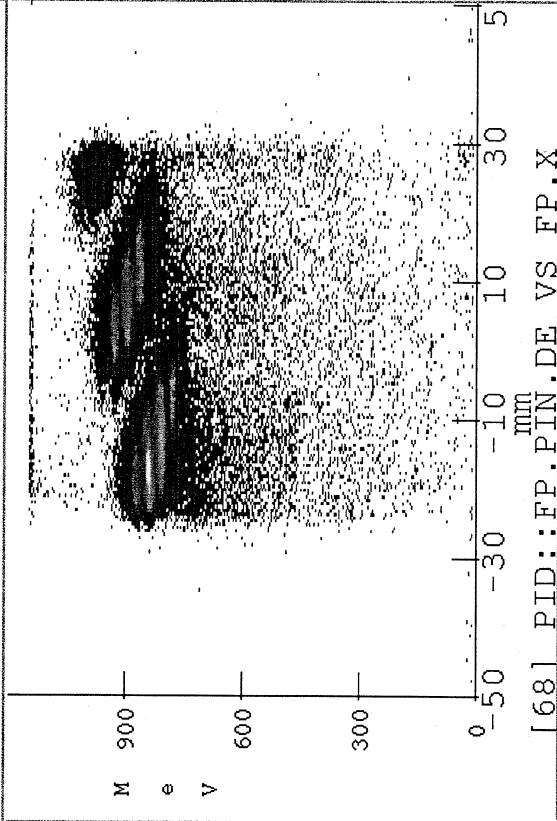
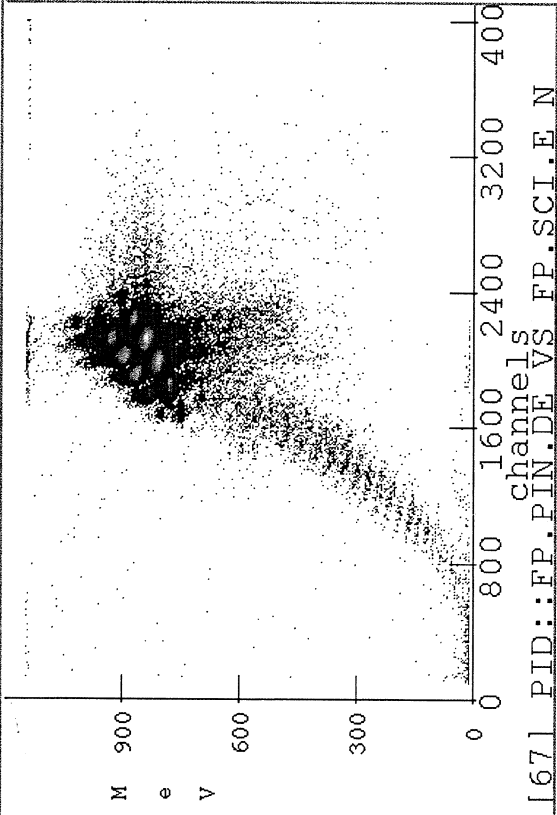
71Br 11% 67Ge 2%
 70Se 54% 66Ga 5%
 69As 15% 65Zn 2%

^{78}Kr (141.1 MeV/u) + Be (385.1 mg/cm²); σ_{beam} ...
 dp/p=0.50% ; Wedges: Al (249.2 mg/cm²); Brho(Tm): 3.0671, 3.0671, 3.0671, 2.6527, 2.6527, 2.6527
 Start: Target; Stop: FP_SCI; ACQ_start: Detector ** dE: FP_PIN - Si (470 μm)
 without charge states



2.565

SUM
 2.900e+05
 Speed
 0 pps



Channel Name	V0Set	I0Set	VMon	IMon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.90 uA	On
Tow1Card12	240.00 V	4.00 uA	239.75 V	1.00 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.86 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.90 uA	On
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.50 uA	On
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.78 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.78 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date: 7/22/05 Time: 2:00pm

	Vbias (V)	I (uA)
Csl0	79.2	0.0
Csl1	79.8	0.0
Csl2	80.2	0.3
Csl3	79.7	0.0
Back0	100	3.22
Back1	100	3.56
Back2	100	4.23
Back3	100	2.09
MCP0	1790	55
MCP1	1900	62
Foil0	800	0.0
Foil1	800	0.0

3:46 pm

71 br cocktail beam AL target

run #39

0.5% monitor beam

2% now is putting

run #40 stopped at 3:55

between runs #40 and 41

back increases HV for 30V higher

1850V on MCP0

1950V on MCP1

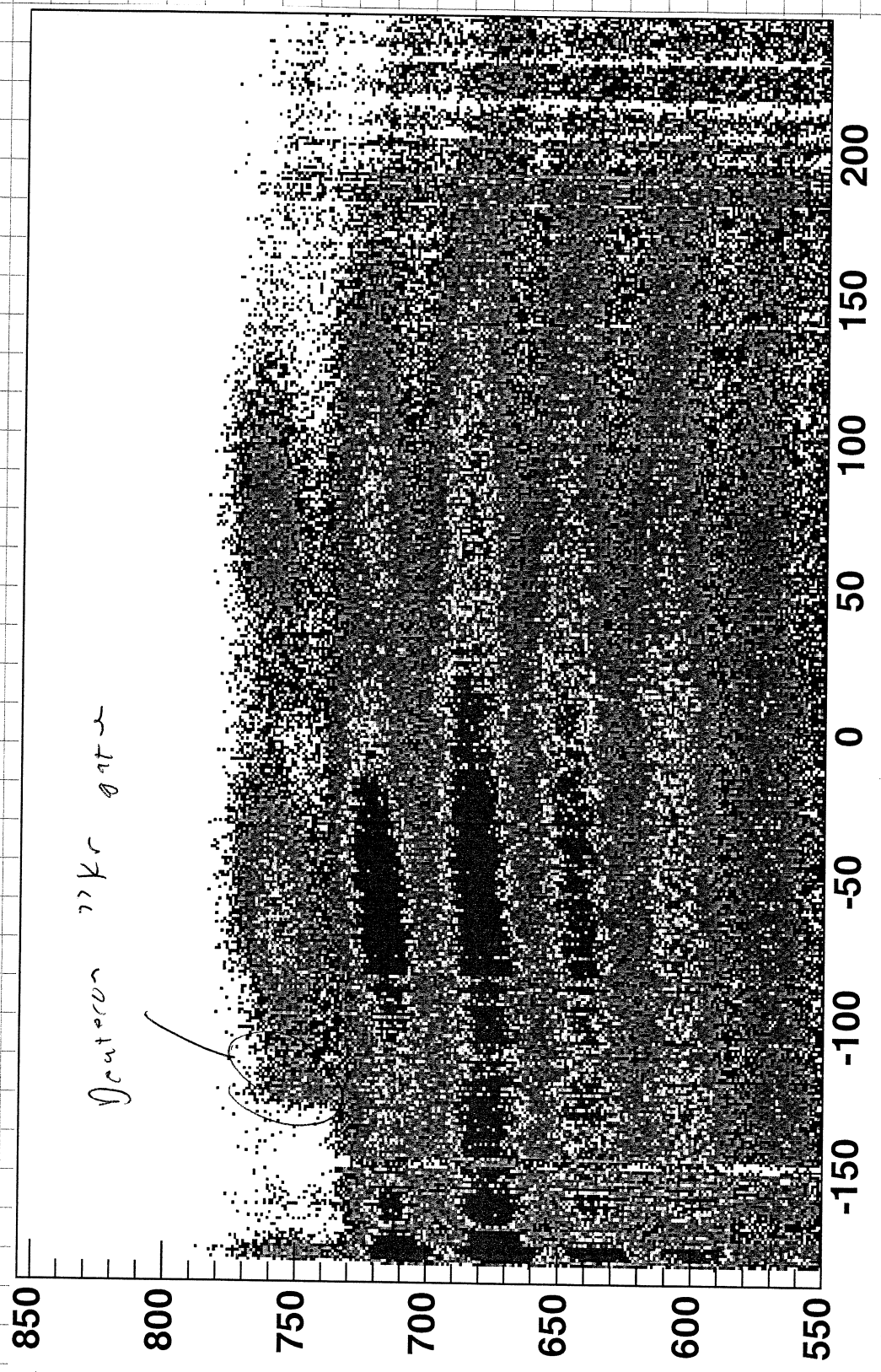
4:01 run #41 for 3 min unreacted beam on one side

the same 71 br beam

run 42 reacted beam, trigger is HIRK + SPOD

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Date: 7/22/05	Time: 16:25	
ow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	Vbias (V)	I (uA)	
ow1Card12	240.00 V	4.00 uA	239.75 V	1.02 uA	On	Csl0	80	0.0
ow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	Csl1	80	0.0
ow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On	Csl2	80	0.3
ow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	Csl3	80	0.0
ow2Card9	110.00 V	4.00 uA	109.75 V	2.00 uA	On	Back0	100	3.34
ow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On	Back1	100	3.64
ow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On	Back2	100	4.37
ow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On	Back3	100	2.12
ow3Card12	200.00 V	5.00 uA	200.00 V	2.48 uA	On	MCP0	1860	57
ow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	MCP1	1950	67
ow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On	Foil0	800	0.0
ow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	Foil1	800	0.0
ow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On			
ow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On			
ow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On			
ow0Card6	240.00 V	3.50 uA	239.50 V	1.88 uA	On			

rate 1 Hz, DAC Voltage = 0.7V, reading 0.69

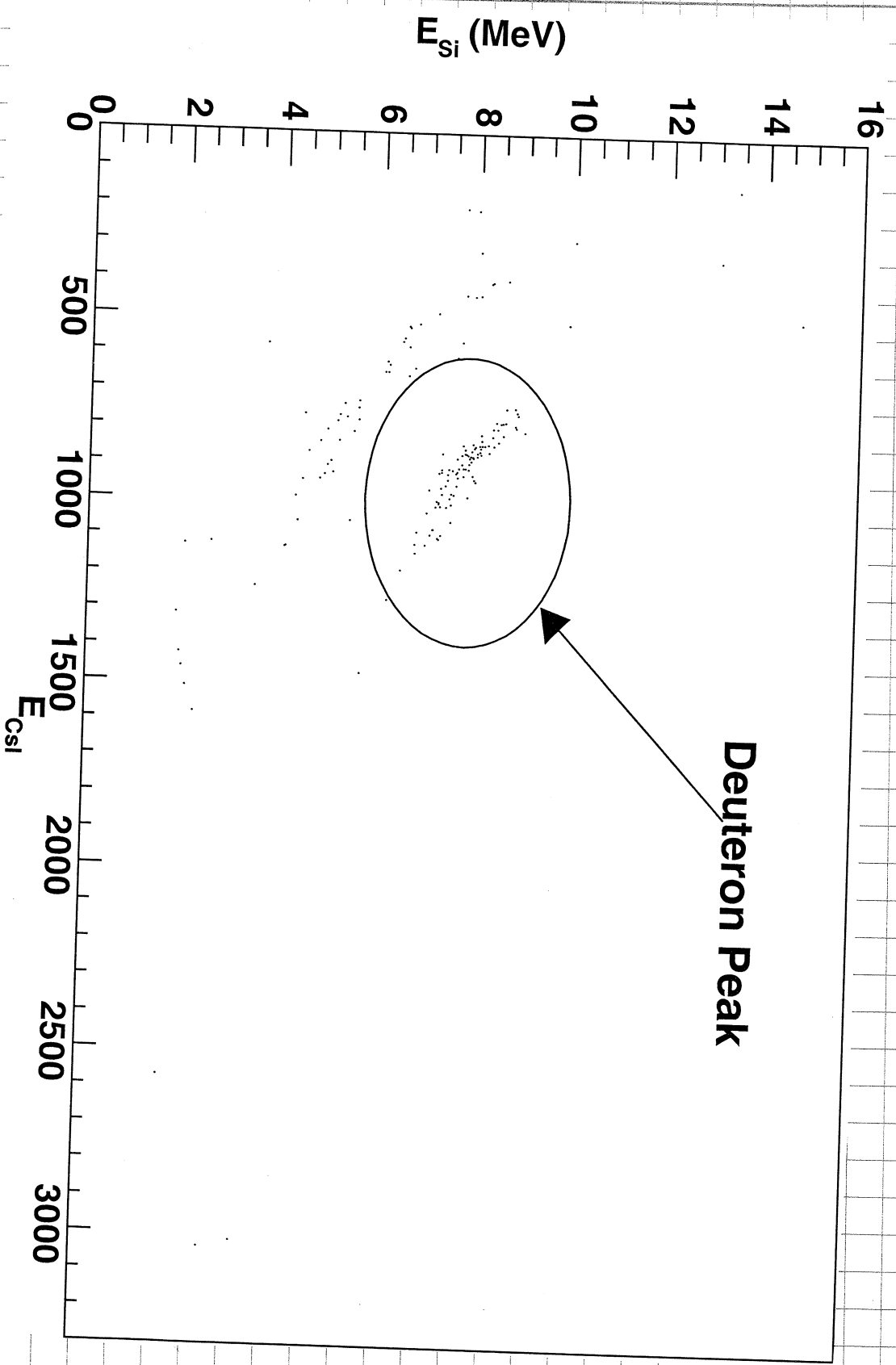


Deuteron 77Kr gate

CROCY

IC sum

Card on ^{71}Kr from $^{74}\text{Kr}(p,d)$



1805

AN

ROW STOPPED

~~BEAM STOPPED~~ THE BEAM WAS GIVEN TO THE OPERATOR FOR A TUNE UP

- Main Utility Setup Groups View
Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Statu
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	1.04 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	2.04 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.20 uA	On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.58 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.94 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f	

/Edit Group 02

Date:

Time:

	Vbias (V)	I (uA)
Csl0	79.2	0.0
Csl1	79.8	0.0
Csl2	80.15	0.3
Csl3	79.70	0.0
Back0	100	3.44
Back1	100	3.68
Back2	100	4.44
Back3	100	2.12
MCP0	1856	57
MCP1	1946	63
Foil0	800	6.0
Foil1	800	0.0

18:24

Beam now 550 μ A

New Run

18:24

RUN 44

320000 ~~counts~~ Counts/sec on object
scintillator

RATES

XPS 45000

OBT 30000

MCP0 23000

MCP1 18000

WE ARE TUNED TO TRANSMIT 6° Br

THE PPACS HAVE LOW EFFICIENCY

RATE	PPAC1	10000	CPS
	PPAC2	2000	CPS

18:50 RUN STOP

Leakage current trip on TowerCard12. Tower 0 Voltage
dropped, tripping alarm
Temperature on Tower 0 regulator got to

46°C

Rebiasing detector

~~test run - Tow0-4~~

serial / test run - tow0-4

RUN45 STARTED 7:02 1902

RUNNING TO GET STATS TO SEE IF CHANNELS

HAVE DIED W TOWER0 CHIP 12

1907 RUN STOPPED ; NO BEAM DUE TO

VACUUM PROBLEM

SEE VOLTAGES & CURRENTS AFTER REBIASING (PREVIOUS PAGE)

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	S
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.68 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.06 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.88 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	2.12 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.58 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.44 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.52 uA	On	
.04.001d9	190.00 V	3.00 uA	190.00 V	0.24 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.46 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

1910 BEAM BACK

STARTING RUN, 46

RUN 46 STOPPED TO VIEW FILE (W) SPECTCL, THEN

STARTING RUN 47

CHANNELS BEAM IN TOWER 0 CHIP 12

0-6, 8, 10, 12, 16, 20, 21, 23, 24

~~20.58~~

20.58 SINGLES RUN 48 Only running HIRA singles

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.90 uA	On
Tow1Card12	240.00 V	4.00 uA	239.75 V	1.04 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.98 uA	On
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.96 uA	On
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.42 uA	On
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.52 uA	On
.04.001d9	190.00 V	3.00 uA	190.00 V	0.22 uA	On
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.28 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f

RUN ENDED 9.08

RUN 49 STARTED 9.09

BACK TO NORMAL COINCIDENCE TRIGGER

RUN STOPPED 9.46

RAISING VOLTAGE ON MCP1 ~~2050~~ 2070
AS SIGNAL FAR TOO LOW

RUN START 9.47 Run 50

Saved a picture of the MCP data in

RUN STOPPED 10.32

TURNED TAGS FOR MCPs TO BE COMMON START

START RUN 51 11:05

5800 CALIBRATION RUN

FOR PLASTIC TARGET

START RUN 52 11:18 P

RUN 53 11:20? PM

Run 54 11:40 PM

2% momentum w/ beam blocker

Run 55 11:45 PM

$\frac{1}{2}$ % momentum w/ beam blocker

Run 56

Run 57

Obj. sight. was off.
Centered Beam 0.5%

- Main Utility Setup Groups View
Group 02

Channel Name	V0Set	I0Set	WMon	IMon	Pw	Statu
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.04 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.50 V	0.88 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.94 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.46 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.00 V	0.72 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	1.40 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f	

/Edit Group 02

LocEn V0 I0

Run 58 Obj. Scti. ON
Centered 1%

Run 59 00:26
off center, 1%

Run #60 Beam is blocked, 1%
coin trig.

run beam is off

Run #61 Alpha source (no beam)
end 1:30

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Statu
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA		On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA		On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA		On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA		On
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA		On
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.04 uA		On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.88 uA		On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA		On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA		On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.94 uA		On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA		On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA		On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA		Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.46 uA		On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.72 uA		On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA		On
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.50 uA		On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA		Off

/Edit Group 02

LocEn V0 I0

Beam intensity
 Stop.
 500 ena at
 Stop ϕ .

Date: 7/23/05 Time: 1:10 pm

	Vbias (V)	I (μ A)
Csl0	79.30	0.0
Csl1	79.85	0.1
Csl2	79.70	0.1
Csl3	80.15	0.4
Back0	100	3.02
Back1	100	3.70
Back2	100	4.43
Back3	100	2.06
MCP0	2000	66
MCP4	1800	57
Foil0		
Foil1		

MCP1 →
 MCP0 →

Run #62 Data run. Begin 1:30 71 Br, coin
 End 1:55

- Main Utility Setup Groups View
 Group 02

Channel Name	V0Set	I0Set	WMon	IMon	Pw	Sta
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.94 μ A	On	
Tow1Card12	240.00 V	4.00 μ A	240.00 V	1.06 μ A	On	
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.88 μ A	On	
Tow1Card6	295.00 V	3.50 μ A	295.00 V	0.74 μ A	On	
Tow2Card12	250.00 V	4.00 μ A	250.00 V	0.66 μ A	On	
Tow2Card9	110.00 V	4.00 μ A	110.00 V	2.04 μ A	On	
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.88 μ A	On	
Tow2Card3	280.00 V	3.50 μ A	280.00 V	0.74 μ A	On	
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.68 μ A	On	
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.94 μ A	On	
Tow3Card9	120.00 V	3.00 μ A	119.75 V	0.56 μ A	On	
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.82 μ A	On	
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	Off	
Tow0Card15	210.00 V	3.00 μ A	210.00 V	0.46 μ A	On	
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.72 μ A	On	
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	On	
Tow0Card6	240.00 V	3.50 μ A	239.75 V	1.66 μ A	On	
Tow0Card1	0.00 V	0.10 μ A	0.00 V	0.00 μ A	Off	

/Edit Group 02

LocEn V0 I0

RUN 63 Data RUN started 2:00 : Stopped 2:54

Date: 7/23/05
Time: 02:00

	Vbias (V)	I (µA)
Csl0	79.30	0.0
Csl1	79.85	0.1
Csl2	79.70	0.1
Csl3	80.15	0.4
Back0	100	3.25
Back1	100	3.69
Back2	100	4.43
Back3	100	2.07
MCP0	1860	57
MCP1	2000	66
Foil0		
Foil1		

TIME: 02:05

- Main Utility Setup Groups View 75 V 0.88 µA On
Group 02 .74 µA On

Channel Name	V0Set	I0Set	W0n	IM0n	Pw	St
Tow1Card15	290.00 V	4.00 µA	289.75 V	0.94 µA	On	
Tow1Card12	240.00 V	4.00 µA	240.00 V	1.06 µA	On	
Tow1Card9	200.00 V	3.00 µA	199.75 V	0.88 µA	On	
Tow1Card6	295.00 V	3.50 µA	294.75 V	0.74 µA	On	
Tow2Card12	250.00 V	4.00 µA	250.00 V	0.66 µA	On	
Tow2Card9	110.00 V	4.00 µA	110.00 V	2.04 µA	On	
Tow2Card6	250.00 V	4.00 µA	249.75 V	0.88 µA	On	
Tow2Card3	280.00 V	3.50 µA	280.00 V	0.74 µA	On	
Tow3Card15	210.00 V	3.00 µA	209.75 V	0.68 µA	On	
Tow3Card12	200.00 V	5.00 µA	200.25 V	1.94 µA	On	
Tow3Card9	120.00 V	3.00 µA	120.00 V	0.56 µA	On	
Tow3Card6	310.00 V	3.50 µA	309.50 V	0.82 µA	On	
Tow3Card3	0.00 V	0.10 µA	1.00 V	0.00 µA	Off	
Tow0Card15	210.00 V	3.00 µA	210.00 V	0.44 µA	On	
Tow0Card12	250.00 V	4.00 µA	250.25 V	0.72 µA	On	
Tow0Card9	190.00 V	3.00 µA	190.00 V	0.26 µA	On	
Tow0Card6	240.00 V	3.50 µA	239.75 V	1.76 µA	On	
Tow0Card1	0.00 V	0.10 µA	0.00 V	0.00 µA	Off	

Date: 7/23/05
Time: 02:55

	Vbias (V)	I (µA)
Csl0	79.35	0.0
Csl1	79.85	0.1
Csl2	79.70	0.1
Csl3	80.15	0.4
Back0	100	3.36
Back1	100	3.68
Back2	100	4.42
Back3	100	2.07
MCP0	1860	57
MCP1	2000	66
Foil0		
Foil1		

TIME: 02:55

- Main Utility Setup Groups View 75 V 0.88 µA On
Group 02 .74 µA On

Channel Name	V0Set	I0Set	W0n	IM0n	Pw	St
Tow1Card15	290.00 V	4.00 µA	289.75 V	0.92 µA	On	
Tow1Card12	240.00 V	4.00 µA	240.00 V	1.06 µA	On	
Tow1Card9	200.00 V	3.00 µA	199.75 V	0.88 µA	On	
Tow1Card6	295.00 V	3.50 µA	294.75 V	0.74 µA	On	
Tow2Card12	250.00 V	4.00 µA	250.00 V	0.66 µA	On	
Tow2Card9	110.00 V	4.00 µA	110.00 V	2.04 µA	On	
Tow2Card6	250.00 V	4.00 µA	249.75 V	0.88 µA	On	
Tow2Card3	280.00 V	3.50 µA	280.00 V	0.74 µA	On	
Tow3Card15	210.00 V	3.00 µA	209.75 V	0.68 µA	On	
Tow3Card12	200.00 V	5.00 µA	200.00 V	1.92 µA	On	
Tow3Card9	120.00 V	3.00 µA	119.75 V	0.56 µA	On	
Tow3Card6	310.00 V	3.50 µA	309.50 V	0.80 µA	On	
Tow3Card3	0.00 V	0.10 µA	1.00 V	0.00 µA	Off	
Tow0Card15	210.00 V	3.00 µA	210.00 V	0.44 µA	On	
Tow0Card12	250.00 V	4.00 µA	250.25 V	0.72 µA	On	
Tow0Card9	190.00 V	3.00 µA	190.00 V	0.26 µA	On	
Tow0Card6	240.00 V	3.50 µA	239.50 V	1.88 µA	On	
Tow0Card1	0.00 V	0.10 µA	0.00 V	0.00 µA	Off	

run 64 learn off (ECR source turning)

2 - source

Date: 7/23/05
Time: 03:40

	Vbias (V)	I (μA)
Csl0	79.35	0.0
Csl1	79.85	0.1
Csl2	79.70	0.1
Csl3	80.15	0.4
Back0	100	3.41
Back1	100	3.67
Back2	100	4.41
Back3	100	2.07
MCP0	1860	57
MCP1	2000	66
Foil0		
Foil1		

- Main Utility Setup Groups View 75 V 0.88 μA On
.74 μA On

Group 02	V0Set	I0Set	WMon	IMon	Pw	S
Tow1Card15	290.00 V	4.00 μA	289.75 V	0.92 μA	On	
Tow1Card12	240.00 V	4.00 μA	240.00 V	1.06 μA	On	
Tow1Card9	200.00 V	3.00 μA	199.75 V	0.88 μA	On	
Tow1Card6	295.00 V	3.50 μA	294.75 V	0.74 μA	On	
Tow2Card12	250.00 V	4.00 μA	250.00 V	0.66 μA	On	
Tow2Card9	110.00 V	4.00 μA	110.00 V	2.04 μA	On	
Tow2Card6	250.00 V	4.00 μA	249.75 V	0.88 μA	On	
Tow2Card3	280.00 V	3.50 μA	280.00 V	0.74 μA	On	
Tow3Card15	210.00 V	3.00 μA	209.75 V	0.68 μA	On	
Tow3Card12	200.00 V	5.00 μA	200.25 V	1.90 μA	On	
Tow3Card9	120.00 V	3.00 μA	119.75 V	0.56 μA	On	
Tow3Card6	310.00 V	3.50 μA	309.50 V	0.80 μA	On	
Tow3Card3	0.00 V	0.10 μA	1.00 V	0.00 μA	Off	
Tow0Card15	210.00 V	3.00 μA	210.00 V	0.44 μA	On	
Tow0Card12	250.00 V	4.00 μA	250.25 V	0.72 μA	On	
Tow0Card9	190.00 V	3.00 μA	190.00 V	0.26 μA	On	
Tow0Card6	240.00 V	3.50 μA	239.75 V	1.92 μA	On	
Tow0Card1	0.00 V	0.10 μA	0.00 V	0.00 μA	Off	

RUN 65 03:40
Beam Resumes ~715 enA

* MCP eff. ~ 43%

Date: 7/23/05
Time: 04:29

	Vbias (V)	I (μA)
Csl0	79.35	0.0
Csl1	79.85	0.1
Csl2	79.75	0.1
Csl3	80.15	0.4
Back0	100	3.43
Back1	100	3.66
Back2	100	4.40
Back3	100	2.06
MCP0	1860	57
MCP1	2000	66
Foil0		
Foil1		

Rum66

³¹Bt plastic target x1 Atten.

MCP 1 signals have become poor. It appears that this MCP has failed.

Date: 7/23/05
Time: 04:49

	Vbias (V)	I (µA)
Csl0	79.35	0.0
Csl1	79.85	0.1
Csl2	79.75	0.1
Csl3	80.15	0.4
Back0	100	3.46
Back1	100	3.66
Back2	100	4.39
Back3	100	2.06
MCP0	1860	57
MCP1	2000	66
Foil0		
Foil1		

- Main Utility Setup Groups View 75 V 0.88 µA On

Group 02 .74 µA On

Channel Name	V0Set	I0Set	Wbn	IMbn	Pw	Sta
Tow1Card15	290.00 V	4.00 µA	289.75 V	0.92 µA	On	
Tow1Card12	240.00 V	4.00 µA	240.00 V	1.06 µA	On	
Tow1Card9	200.00 V	3.00 µA	199.75 V	0.88 µA	On	
Tow1Card6	295.00 V	3.50 µA	294.75 V	0.74 µA	On	
Tow2Card12	250.00 V	4.00 µA	250.25 V	0.66 µA	On	
Tow2Card9	110.00 V	4.00 µA	110.00 V	2.04 µA	On	
Tow2Card6	250.00 V	4.00 µA	249.75 V	0.88 µA	On	
Tow2Card3	280.00 V	3.50 µA	280.00 V	0.74 µA	On	
Tow3Card15	210.00 V	3.00 µA	209.75 V	0.68 µA	On	
Tow3Card12	200.00 V	5.00 µA	200.25 V	1.90 µA	On	
Tow3Card9	120.00 V	3.00 µA	119.75 V	0.56 µA	On	
Tow3Card6	310.00 V	3.50 µA	309.50 V	0.80 µA	On	
Tow3Card3	0.00 V	0.10 µA	1.00 V	0.00 µA	Off	
Tow0Card15	210.00 V	3.00 µA	210.00 V	0.44 µA	On	
Tow0Card12	250.00 V	4.00 µA	250.25 V	0.70 µA	On	
Tow0Card9	190.00 V	3.00 µA	190.00 V	0.26 µA	On	
Tow0Card6	240.00 V	3.50 µA	239.75 V	1.96 µA	On	
Tow0Card1	0.00 V	0.10 µA	0.00 V	0.00 µA	Off	

run 69 - 5:20 am

- Main Utility Setup Groups View 75 V 0.88 µA On

Group 02 .74 µA On

Channel Name	V0Set	I0Set	Wbn	IMbn	Pw	Status
Tow1Card15	290.00 V	4.00 µA	289.75 V	0.92 µA	On	
Tow1Card12	240.00 V	4.00 µA	240.00 V	1.06 µA	On	
Tow1Card9	200.00 V	3.00 µA	199.75 V	0.88 µA	On	
Tow1Card6	295.00 V	3.50 µA	294.75 V	0.74 µA	On	
Tow2Card12	250.00 V	4.00 µA	250.00 V	0.66 µA	On	
Tow2Card9	110.00 V	4.00 µA	110.00 V	2.04 µA	On	
Tow2Card6	250.00 V	4.00 µA	249.75 V	0.88 µA	On	
Tow2Card3	280.00 V	3.50 µA	280.00 V	0.74 µA	On	
Tow3Card15	210.00 V	3.00 µA	209.75 V	0.68 µA	On	
Tow3Card12	200.00 V	5.00 µA	200.25 V	1.90 µA	On	
Tow3Card9	120.00 V	3.00 µA	120.00 V	0.56 µA	On	
Tow3Card6	310.00 V	3.50 µA	309.50 V	0.80 µA	On	
Tow3Card3	0.00 V	0.10 µA	1.00 V	0.00 µA	Off	
Tow0Card15	210.00 V	3.00 µA	209.75 V	0.44 µA	On	
Tow0Card12	250.00 V	4.00 µA	250.00 V	0.70 µA	On	
Tow0Card9	190.00 V	3.00 µA	190.00 V	0.26 µA	On	
Tow0Card6	240.00 V	3.50 µA	239.50 V	1.98 µA	On	
Tow0Card1	0.00 V	0.10 µA	0.00 V	0.00 µA	Off	

Run 67 Junk
68

no beam again
Reflector Problems

Run 69 x - source

Run 70 06:20
x - source

- Main Utility Setup Groups View 75 V 0.88 uA On
Group 02 .74 uA On

Channel Name	V0Set	I0Set	VMbn	IMbn	Pw	Statu
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.02 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.88 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.88 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.44 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.70 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.50 V	2.04 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Run 71
x - source

- Main Utility Setup Groups View 75 V 0.88 uA On
Group 02 .74 uA On

Channel Name	V0Set	I0Set	VMbn	IMbn	Pw	Status
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.02 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.88 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.25 V	1.88 uA	On	
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.44 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.70 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.04 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

(Run 73)

10:23 am

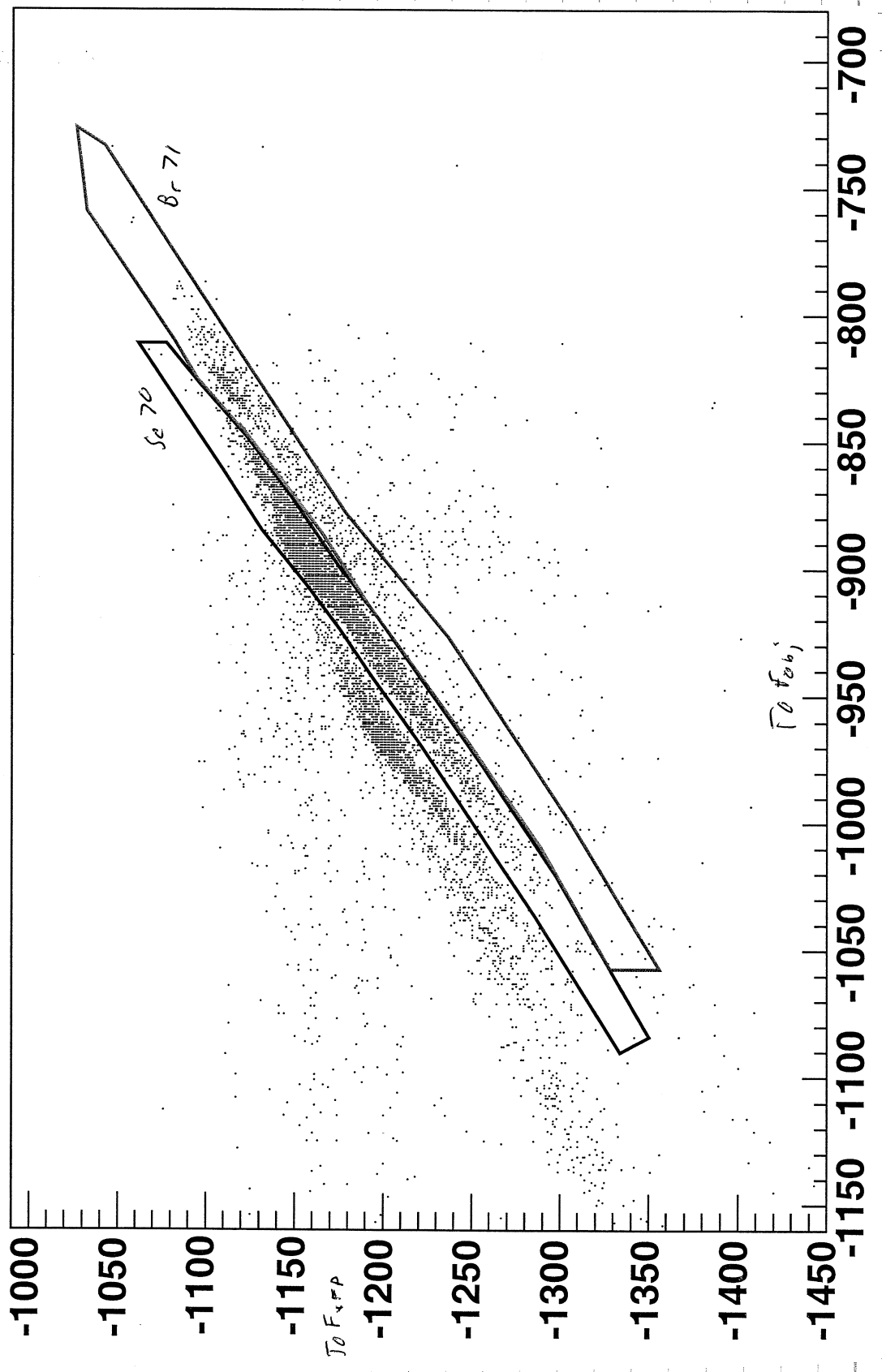
Date: 7/23/05
Time: 10:23 am

Channel Name	V0Set	I0Set	Vbn	Ibn	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	2.00 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.68 uA	On
Tow3Card12	200.00 V	5.00 uA	200.25 V	1.84 uA	On
Tow3Card9	120.00 V	3.00 uA	119.75 V	0.54 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.44 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.70 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.50 V	2.12 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

	Vbias (V)	I (μ A)
Csl0	80	0.0
Csl1	80	0.1
Csl2	80	0.4
Csl3	80	0.1
Back0	100	3.54
Back1	100	3.62
Back2	100	4.32
Back3	100	2.09
MCP0	1860	57
MCP1	2000	65
Foil0		
Foil1		

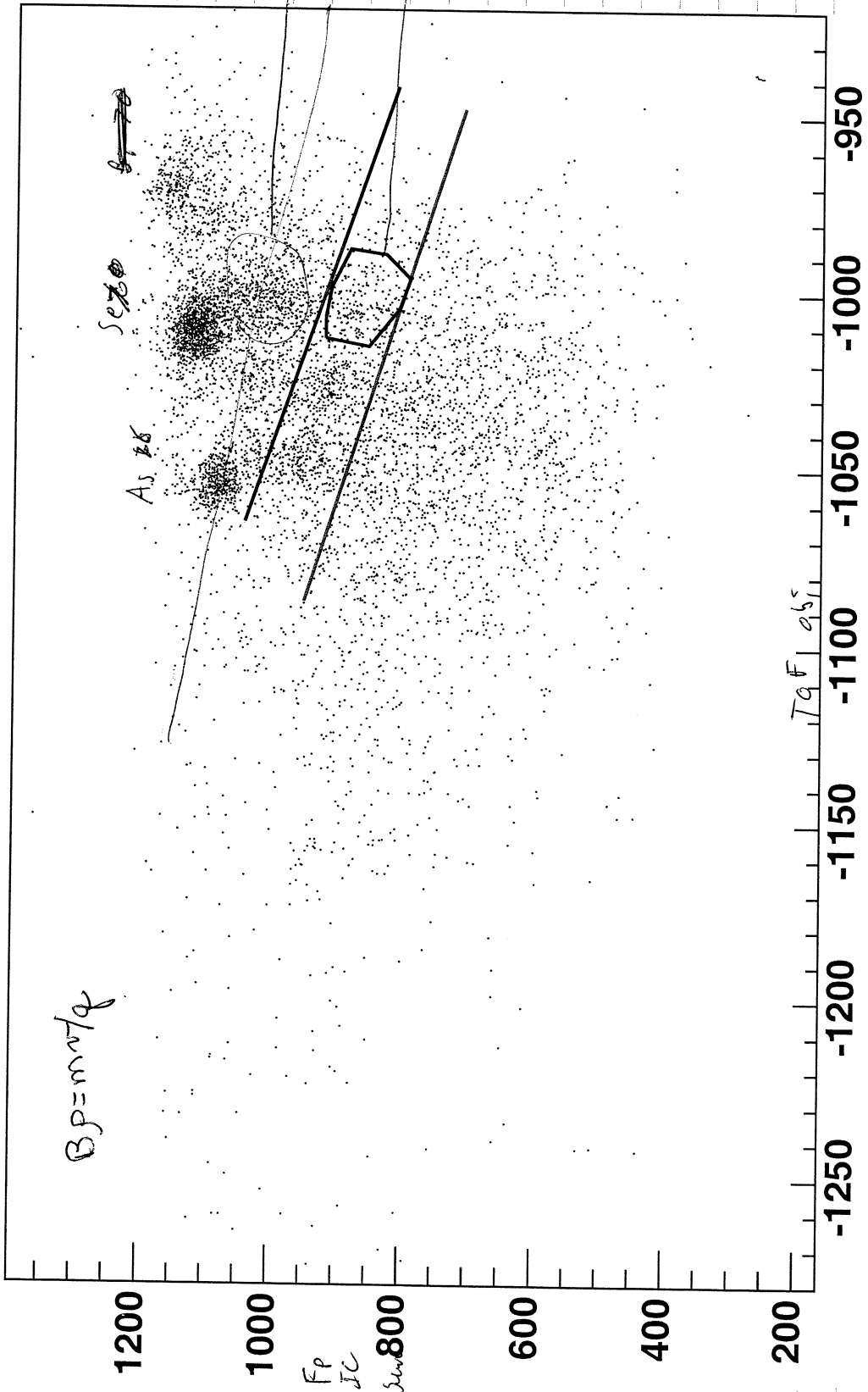
Sample initial Analysis

tof.obj:tof.xfp



fp.ic.sum:tof.obje1

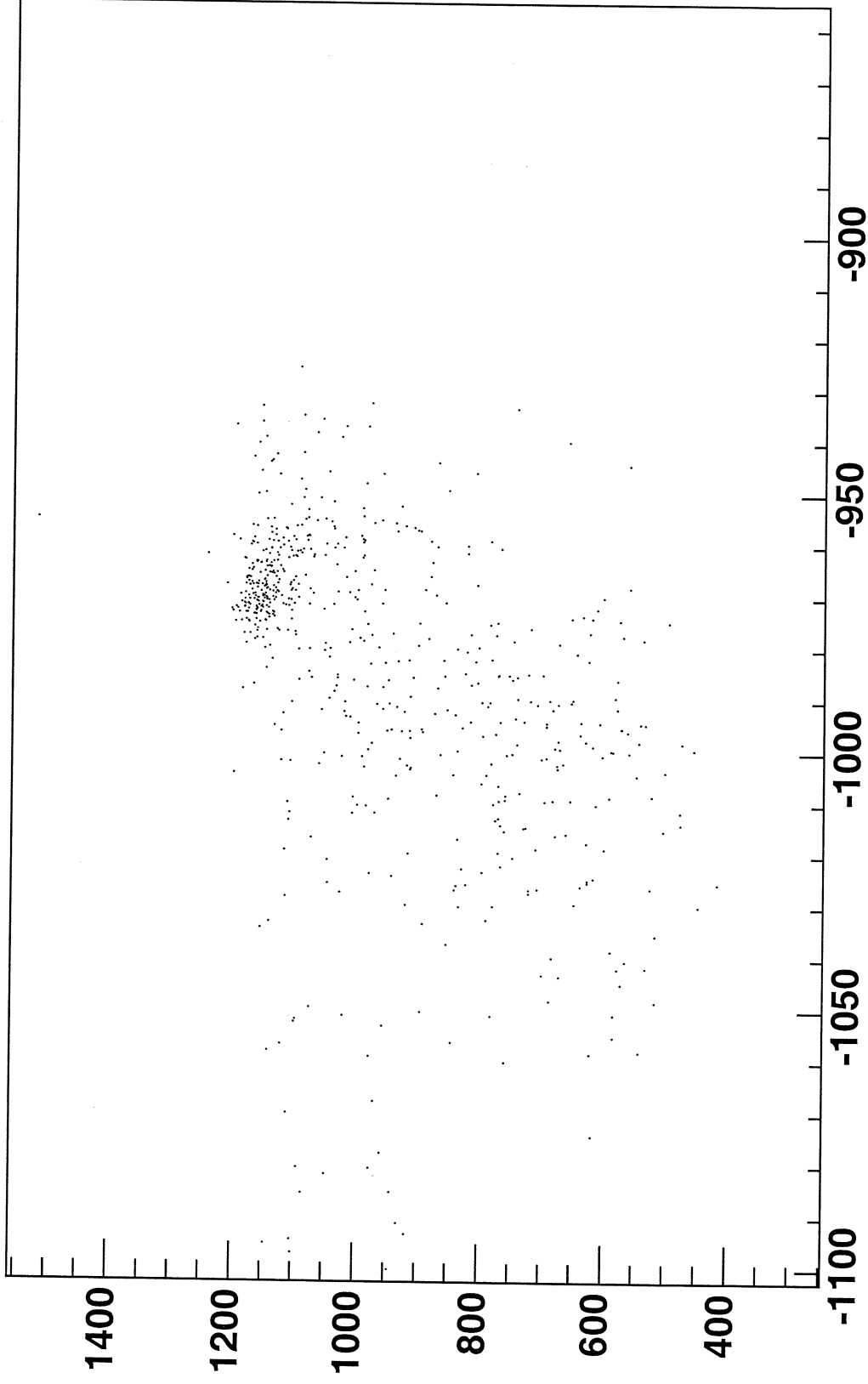
~~AS~~ →
~~AS~~ →
AS →



← slower →
~~AS~~
Se 20

~~Se 20~~
~~Se 20~~

fp.ic.sum:tof.obje1 {br71}



of source after chip replace
 run #79 TOW3 has a current problem

run #80 again at same condition

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow1Card15	<input type="checkbox"/> 290.00 V	4.00 uA	289.75 V	0.98 uA	On		<input type="checkbox"/> 0.04.005
Tow1Card12	<input type="checkbox"/> 240.00 V	4.00 uA	240.00 V	1.32 uA	On		<input type="checkbox"/> 0.04.006
Tow1Card9	<input type="checkbox"/> 200.00 V	3.00 uA	199.75 V	1.04 uA	On		<input type="checkbox"/> 0.04.007
Tow1Card6	<input type="checkbox"/> 295.00 V	3.50 uA	294.75 V	0.92 uA	On		<input type="checkbox"/> 0.04.008
Tow2Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.82 uA	On		<input type="checkbox"/> 0.04.011
Tow2Card9	<input type="checkbox"/> 110.00 V	4.00 uA	110.00 V	1.00 uA	On		<input type="checkbox"/> 0.04.012
Tow2Card6	<input type="checkbox"/> 250.00 V	4.00 uA	249.75 V	1.06 uA	On		<input type="checkbox"/> 0.04.013
Tow2Card3	<input type="checkbox"/> 280.00 V	3.50 uA	280.00 V	0.74 uA	On		<input type="checkbox"/> 0.04.014
Tow3Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.44 uA	On		<input type="checkbox"/> 0.04.015
Tow3Card12	<input type="checkbox"/> 200.00 V	5.00 uA	200.00 V	1.22 uA	On		<input type="checkbox"/> 0.04.016
Tow3Card9	<input type="checkbox"/> 120.00 V	3.00 uA	120.00 V	0.62 uA	On		<input type="checkbox"/> 0.04.017
Tow3Card6	<input type="checkbox"/> 310.00 V	3.50 uA	309.50 V	0.88 uA	On		<input type="checkbox"/> 0.04.018
Tow3Card3	<input type="checkbox"/> 0.00 V	0.10 uA	1.00 V	0.00 uA	Off		<input type="checkbox"/> 0.04.019
Tow0Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.64 uA	On		<input type="checkbox"/> 0.04.000
Tow0Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.96 uA	On		<input type="checkbox"/> 0.04.001
Tow0Card9	<input type="checkbox"/> 190.00 V	3.00 uA	190.00 V	0.40 uA	On		<input type="checkbox"/> 0.04.002
Tow0Card6	<input type="checkbox"/> 240.00 V	3.50 uA	239.75 V	1.56 uA	On		<input type="checkbox"/> 0.04.003
Tow0Card1	<input type="checkbox"/> 0.00 V	0.10 uA	0.00 V	0.00 uA	Off		<input type="checkbox"/> 0.04.025

Add/Edit/View Groups

LocEn V0 I0

T CAEN SY2527

up to run 84

TOW3 bias was stripped at last time

Run #85 everything is fixed (~ 1h)

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow1Card15	<input type="checkbox"/> 290.00 V	4.00 uA	289.75 V	0.96 uA	On		<input type="checkbox"/> 0.04.005
Tow1Card12	<input type="checkbox"/> 240.00 V	4.00 uA	240.00 V	1.18 uA	On		<input type="checkbox"/> 0.04.006
Tow1Card9	<input type="checkbox"/> 200.00 V	3.00 uA	199.75 V	1.00 uA	On		<input type="checkbox"/> 0.04.007
Tow1Card6	<input type="checkbox"/> 295.00 V	3.50 uA	295.00 V	0.82 uA	On		<input type="checkbox"/> 0.04.008
Tow2Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.72 uA	On		<input type="checkbox"/> 0.04.011
Tow2Card9	<input type="checkbox"/> 110.00 V	4.00 uA	110.00 V	1.14 uA	On		<input type="checkbox"/> 0.04.012
Tow2Card6	<input type="checkbox"/> 250.00 V	4.00 uA	249.75 V	0.94 uA	On		<input type="checkbox"/> 0.04.013
Tow2Card3	<input type="checkbox"/> 280.00 V	3.50 uA	280.00 V	0.72 uA	On		<input type="checkbox"/> 0.04.014
Tow3Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.52 uA	On		<input type="checkbox"/> 0.04.015
Tow3Card12	<input type="checkbox"/> 200.00 V	5.00 uA	200.00 V	1.28 uA	<input checked="" type="checkbox"/> On		<input type="checkbox"/> 0.04.016
Tow3Card9	<input type="checkbox"/> 120.00 V	3.00 uA	120.00 V	0.58 uA	On		<input type="checkbox"/> 0.04.017
Tow3Card6	<input type="checkbox"/> 310.00 V	3.50 uA	309.50 V	0.84 uA	On		<input type="checkbox"/> 0.04.018
Tow3Card3	<input type="checkbox"/> 0.00 V	0.10 uA	1.00 V	0.00 uA	Off		<input type="checkbox"/> 0.04.019
Tow0Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.60 uA	On		<input type="checkbox"/> 0.04.000
Tow0Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.86 uA	On		<input type="checkbox"/> 0.04.001
Tow0Card9	<input type="checkbox"/> 190.00 V	3.00 uA	190.00 V	0.34 uA	On		<input type="checkbox"/> 0.04.002
Tow0Card6	<input type="checkbox"/> 240.00 V	3.50 uA	239.75 V	1.44 uA	On		<input type="checkbox"/> 0.04.003
Tow0Card1	<input type="checkbox"/> 0.00 V	0.10 uA	0.00 V	0.00 uA	Off		<input type="checkbox"/> 0.04.025

Add/Edit/View Groups

LocEn V0 I0

T CAEN SY2527

Run #86 ~ 1h

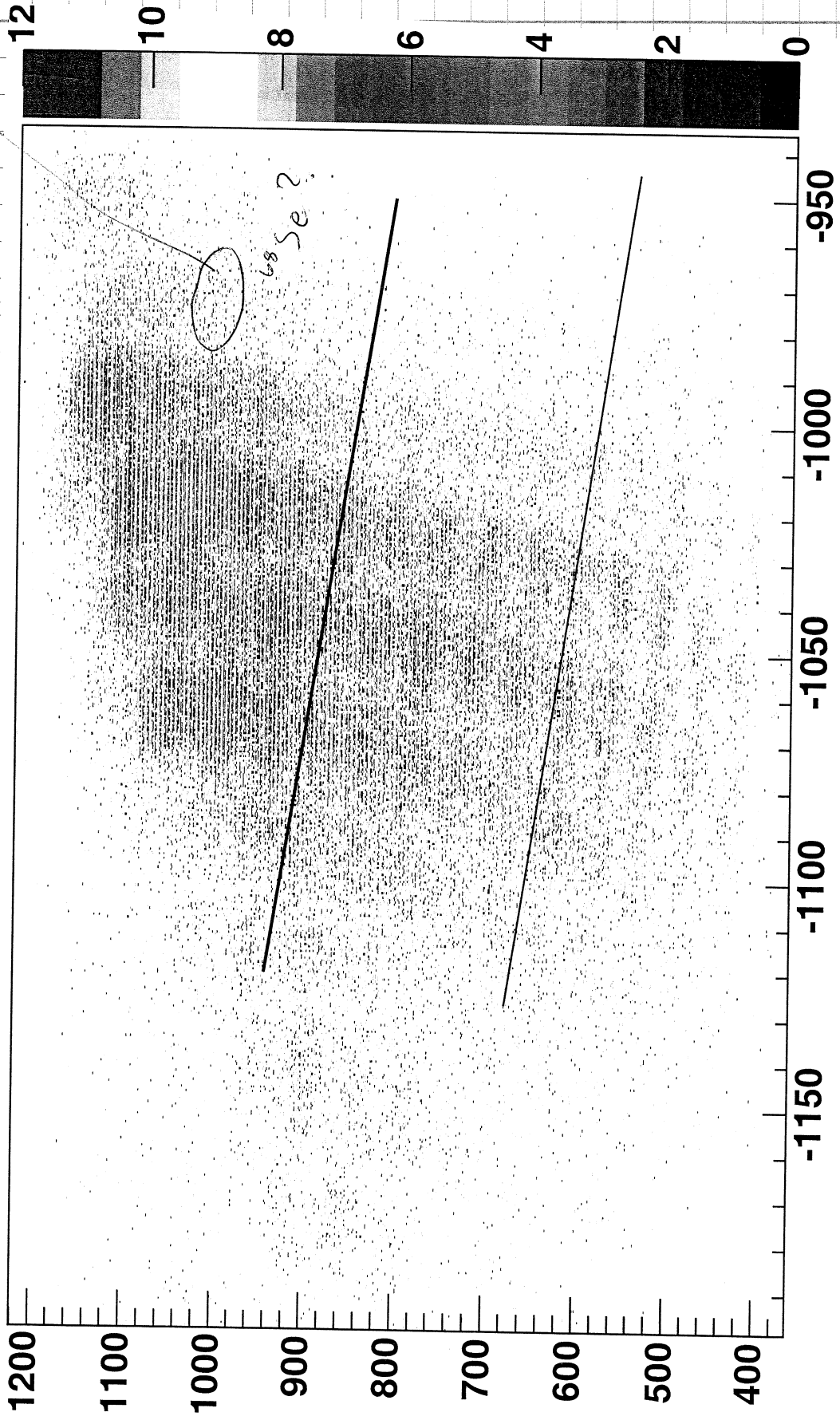
alpha

File Window Spectra Options Graph_objects

Help

I.C. sum vs TOF objeZ w/ $\bar{\rho}$ cut on CRDL

NOT THAT



25 July
Beam is coming

run 87 beam cocktail, 5800, 71BC

thick plastic target 60 μ ^{Centers} !

runs 88/89 ⁷¹ to side w/o blocker

$WV_{KCP\phi} = 1860$

$WV_{KCP1} = 1750$

$WV_{Target} = 800 V$

Group 00		Groups <input type="checkbox"/>					
Channel	Name	V0Set	I0Set	VMon	IMon	Pw	St
<input type="checkbox"/>	BANK0_UNUSE	0.00	V	<input type="checkbox"/>	V		0.
<input type="checkbox"/>	CS10	3.0	μA	79.30	V	0.0	μA On
<input type="checkbox"/>	CS11	3.0	μA	79.80	V	0.1	μA On
<input type="checkbox"/>	CS13	2.0	μA	79.70	V	0.1	μA On
<input type="checkbox"/>	CS12	3.0	μA	80.10	V	0.4	μA <input checked="" type="checkbox"/> On

Main Utility Setup Groups View

User *

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
<input type="checkbox"/> 01Card15	290.00 V	4.00 μA	289.75 V	0.68 μA	<input checked="" type="checkbox"/>	On	0.04.005
<input type="checkbox"/> 01Card12	240.00 V	4.00 μA	239.75 V	0.82 μA	<input type="checkbox"/>	On	0.04.006
<input type="checkbox"/> 01Card9	200.00 V	3.00 μA	199.75 V	0.68 μA	<input type="checkbox"/>	On	0.04.007
<input type="checkbox"/> 01Card6	295.00 V	3.50 μA	294.75 V	0.64 μA	<input type="checkbox"/>	On	0.04.008
<input type="checkbox"/> 02Card12	250.00 V	4.00 μA	250.25 V	0.54 μA	<input type="checkbox"/>	On	0.04.011
<input type="checkbox"/> 02Card9	110.00 V	4.00 μA	110.00 V	1.10 μA	<input type="checkbox"/>	On	0.04.012
<input type="checkbox"/> 02Card6	250.00 V	4.00 μA	249.75 V	0.70 μA	<input type="checkbox"/>	On	0.04.013
<input type="checkbox"/> 02Card3	280.00 V	3.50 μA	280.00 V	0.54 μA	<input type="checkbox"/>	On	0.04.014
<input type="checkbox"/> 03Card15	210.00 V	3.00 μA	209.75 V	0.64 μA	<input type="checkbox"/>	On	0.04.015
<input type="checkbox"/> 03Card12	200.00 V	5.00 μA	200.00 V	1.00 μA	<input type="checkbox"/>	On	0.04.016
<input type="checkbox"/> 03Card9	120.00 V	3.00 μA	120.00 V	0.46 μA	<input type="checkbox"/>	On	0.04.017
<input type="checkbox"/> 03Card6	310.00 V	3.50 μA	309.50 V	0.66 μA	<input type="checkbox"/>	On	0.04.018
<input type="checkbox"/> 03Card3	0.00 V	0.10 μA	1.00 V	0.00 μA	<input type="checkbox"/>	Off	0.04.019
<input type="checkbox"/> 04Card15	210.00 V	3.00 μA	209.75 V	0.44 μA	<input type="checkbox"/>	On	0.04.000
<input type="checkbox"/> 04Card12	250.00 V	4.00 μA	250.25 V	0.70 μA	<input type="checkbox"/>	On	0.04.001
<input type="checkbox"/> 04Card9	190.00 V	3.00 μA	190.00 V	0.24 μA	<input type="checkbox"/>	On	0.04.002
<input type="checkbox"/> 04Card6	240.00 V	3.50 μA	239.75 V	1.04 μA	<input type="checkbox"/>	On	0.04.003
<input type="checkbox"/> 04Card1	0.00 V	0.10 μA	0.00 V	0.00 μA	<input type="checkbox"/>	Off	0.04.025

Alt/Edit/View Groups

LocEn V0 10 T CAEN SY2527

Leora ia 02

Run=92 5800 trigger, single

MCPD = 1860 57 μ A
 MCP 1 1800 59 μ A

Group 00

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Sta
BANKO_UNUSE	<input type="checkbox"/> 0.00	V				0.0
CSI0	<input type="checkbox"/> 3.0	μ A	79.30 V	0.0 μ A	On	
CSI1	<input type="checkbox"/> 3.0	μ A	79.80 V	0.1 μ A	On	
CSI3	<input type="checkbox"/> 2.0	μ A	79.70 V	0.1 μ A	On	
CSI2	<input type="checkbox"/> 3.0	μ A	80.10 V	0.4 μ A	<input checked="" type="checkbox"/> On	

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
Tow1Card15	<input type="checkbox"/> 290.00	V 4.00 μ A	289.75 V	0.76 μ A	On	
Tow1Card12	<input type="checkbox"/> 240.00	V 4.00 μ A	240.00 V	0.90 μ A	On	
Tow1Card9	<input type="checkbox"/> 200.00	V 3.00 μ A	199.75 V	0.78 μ A	On	
Tow1Card6	<input type="checkbox"/> 295.00	V 3.50 μ A	294.75 V	0.68 μ A	On	
Tow2Card12	<input type="checkbox"/> 250.00	V 4.00 μ A	250.25 V	0.58 μ A	On	
Tow2Card9	<input type="checkbox"/> 110.00	V 4.00 μ A	109.75 V	1.30 μ A	On	
Tow2Card6	<input type="checkbox"/> 250.00	V 4.00 μ A	249.75 V	0.78 μ A	On	
Tow2Card3	<input type="checkbox"/> 280.00	V 3.50 μ A	280.00 V	0.62 μ A	On	
Tow3Card15	<input type="checkbox"/> 210.00	V 3.00 μ A	209.75 V	0.68 μ A	On	
Tow3Card12	<input type="checkbox"/> 200.00	V 5.00 μ A	200.00 V	1.16 μ A	On	
Tow3Card9	<input type="checkbox"/> 120.00	V 3.00 μ A	120.00 V	0.50 μ A	On	
Tow3Card6	<input type="checkbox"/> 310.00	V 3.50 μ A	309.50 V	0.70 μ A	On	
Tow3Card3	<input type="checkbox"/> 0.00	V 0.10 μ A	1.00 V	0.00 μ A	Off	
Tow0Card15	<input type="checkbox"/> 210.00	V 3.00 μ A	209.75 V	0.48 μ A	On	
Tow0Card12	<input type="checkbox"/> 250.00	V 4.00 μ A	250.25 V	0.74 μ A	On	
Tow0Card9	<input type="checkbox"/> 190.00	V 3.00 μ A	190.00 V	0.26 μ A	On	
Tow0Card6	<input type="checkbox"/> 240.00	V 3.50 μ A	239.75 V	1.26 μ A	<input checked="" type="checkbox"/> On	
Tow0Card1	<input type="checkbox"/> 0.00	V 0.10 μ A	0.00 V	0.00 μ A	Off	

Add/Edit/View Groups

LocEn V0 I0

T

run 93 HiRA + ~~CS~~ (S800)

021

HiRA E back currents

Tower 0	Tower 1	Tower 2	Tower 3
100 V	100 V	100 V	100 V
2.95 μ A	3.30 μ A	3.58 μ A	1.96 μ A

RUN 94 HiRA + SSU coincidences, Plastic target

Channel Name	V0Set	I0Set	VMon	I1Mon	Pw
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.82 μ A	On
Tow1Card12	240.00 V	4.00 μ A	240.00 V	0.96 μ A	On
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.84 μ A	On
Tow1Card6	295.00 V	3.50 μ A	294.75 V	0.72 μ A	On
Tow2Card12	250.00 V	4.00 μ A	250.00 V	0.64 μ A	On
Tow2Card9	110.00 V	4.00 μ A	110.00 V	1.64 μ A	On
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.84 μ A	On
Tow2Card3	280.00 V	3.50 μ A	279.75 V	0.68 μ A	On
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.72 μ A	On
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.30 μ A	On
Tow3Card9	120.00 V	3.00 μ A	120.00 V	0.52 μ A	On
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.74 μ A	On
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	Off
Tow0Card15	210.00 V	3.00 μ A	209.75 V	0.50 μ A	On
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.76 μ A	On
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	On
Tow0Card6	240.00 V	3.50 μ A	239.75 V	1.60 μ A	On
Tow0Card1	0.00 V	0.10 μ A	0.00 V	0.00 μ A	Off

Date: 7/25/05
Time: 6:14 am

	Vbias (V)	I (μ A)
CsI0	50	6.6
CsI1	50	6.1
CsI2	50	6.2
CsI3	50	6.1
Back0	100	3.15
Back1	100	3.95
Back2	100	3.91
Back3	100	2.02
MCP0	1800	57
MCP1	1800	59
Foil0	800	0
Foil1	800	0

650

beam off, stripping foil will be changed

95 2-Source

0215

96 beam is coming again

ver 3
9.5 uA

et

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St
Tow1Card15	<input type="checkbox"/> 290.00 V	4.00 uA	289.75 V	0.86 uA	<input checked="" type="checkbox"/>	On
Tow1Card12	<input type="checkbox"/> 240.00 V	4.00 uA	240.00 V	1.00 uA	<input type="checkbox"/>	On
Tow1Card9	<input type="checkbox"/> 200.00 V	3.00 uA	199.75 V	0.86 uA	<input type="checkbox"/>	On
Tow1Card6	<input type="checkbox"/> 295.00 V	3.50 uA	294.75 V	0.72 uA	<input type="checkbox"/>	On
Tow2Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.00 V	0.64 uA	<input type="checkbox"/>	On
Tow2Card9	<input type="checkbox"/> 110.00 V	4.00 uA	109.75 V	1.76 uA	<input type="checkbox"/>	On
Tow2Card6	<input type="checkbox"/> 250.00 V	4.00 uA	249.75 V	0.86 uA	<input type="checkbox"/>	On
Tow2Card3	<input type="checkbox"/> 280.00 V	3.50 uA	280.00 V	0.70 uA	<input type="checkbox"/>	On
Tow3Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.74 uA	<input type="checkbox"/>	On
Tow3Card12	<input type="checkbox"/> 200.00 V	5.00 uA	200.00 V	1.34 uA	<input type="checkbox"/>	On
Tow3Card9	<input type="checkbox"/> 120.00 V	3.00 uA	120.00 V	0.54 uA	<input type="checkbox"/>	On
Tow3Card6	<input type="checkbox"/> 310.00 V	3.50 uA	309.50 V	0.76 uA	<input type="checkbox"/>	On
Tow3Card3	<input type="checkbox"/> 0.00 V	0.10 uA	1.00 V	0.00 uA	<input type="checkbox"/>	Off
Tow0Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.50 uA	<input type="checkbox"/>	On
Tow0Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.76 uA	<input type="checkbox"/>	On
Tow0Card9	<input type="checkbox"/> 190.00 V	3.00 uA	190.00 V	0.26 uA	<input type="checkbox"/>	On
Tow0Card6	<input type="checkbox"/> 240.00 V	3.50 uA	239.75 V	1.68 uA	<input type="checkbox"/>	On
Tow0Card1	<input type="checkbox"/> 0.00 V	0.10 uA	0.00 V	0.00 uA	<input type="checkbox"/>	Off

Add/Edit/View Groups

LocEn V0 10

Group 00

Groups

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Sta
BANK0_UNUSE	<input type="checkbox"/> 0.00 V					0.0
CS10	<input type="checkbox"/> 3.0 uA		79.30 V	0.0 uA	<input type="checkbox"/>	On
CS11	<input type="checkbox"/> 3.0 uA		79.80 V	0.1 uA	<input type="checkbox"/>	On
CS13	<input type="checkbox"/> 2.0 uA		79.70 V	0.1 uA	<input type="checkbox"/>	On
CS12	<input type="checkbox"/> 3.0 uA		80.10 V	0.4 uA	<input checked="" type="checkbox"/>	On

Run 98

- Main Utility Setup Groups View							User
Group 02	Channel Name	V0Set	I0Set	VMbn	IMbn	Pw Status	Ch#
	Tow1Card15	290.00 V	4.00 uA	289.75 V	0.86 uA	On	0.04.005
	Tow1Card12	240.00 V	4.00 uA	240.00 V	1.02 uA	On	0.04.006
	Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	0.04.007
	Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On	0.04.008
	Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On	0.04.011
	Tow2Card9	110.00 V	4.00 uA	110.00 V	1.86 uA	On	0.04.012
	Tow2Card6	250.00 V	4.00 uA	249.75 V	0.88 uA	On	0.04.013
	Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	0.04.014
	Tow3Card15	210.00 V	3.00 uA	209.75 V	0.74 uA	On	0.04.015
	Tow3Card12	200.00 V	5.00 uA	200.00 V	1.38 uA	On	0.04.016
	Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On	0.04.017
	Tow3Card6	310.00 V	3.50 uA	309.50 V	0.76 uA	On	0.04.018
	Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	0.04.019
	Tow0Card15	210.00 V	3.00 uA	209.75 V	0.52 uA	On	0.04.000
	Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	0.04.001
	Tow0Card9	190.00 V	3.00 uA	190.00 V	0.28 uA	On	0.04.002
	Tow0Card6	240.00 V	3.50 uA	239.75 V	1.76 uA	On	0.04.003
	Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	0.04.025

Add/Edit/View Groups

LocEn VC 10 T CABN SY2527

* wall phy is stuck

- Main Utility Setup Groups View
Group 02

Run 102

User

Channel Name	V0Set	I0Set	Wbn	IMbn	Pw	Status	Ch#
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.88 uA	On		0.04.005
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.04 uA	On		0.04.006
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On		0.04.007
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On		0.04.008
Tow2Card12	250.00 V	4.00 uA	250.00 V	0.66 uA	On		0.04.011
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On		0.04.012
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.90 uA	On		0.04.013
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.74 uA	On		0.04.014
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.74 uA	On		0.04.015
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.40 uA	On		0.04.016
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On		0.04.017
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.76 uA	On		0.04.018
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off		0.04.019
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.52 uA	On		0.04.000
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On		0.04.001
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.28 uA	On		0.04.002
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.88 uA	On		0.04.003
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		0.04.025

Add/Edit/View Groups

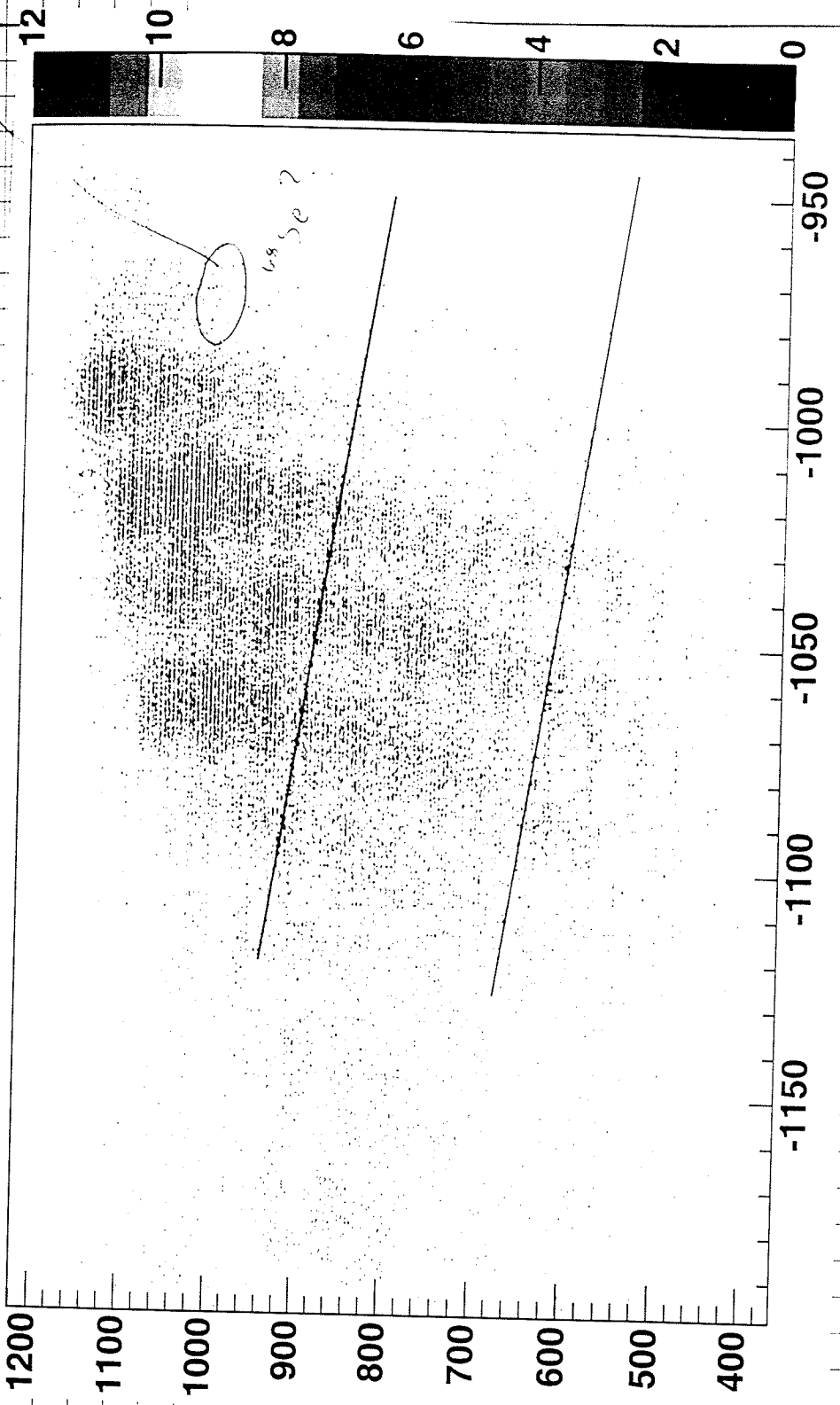
LocEn V0 10

T

CABN SY2527

I.C. sum vs TOF obj:Z w/ point on CAD

shot
10



1200
1100
1000
900
800
700
600
500
400

-1150 -1100 -1050 -1000 -950

12
10
8
6
4
2
0

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Out
Tow1Card18	290.00 V	4.00 uA	289.75 V	0.74 uA	On	
Tow1Card17	240.00 V	4.00 uA	240.00 V	1.00 uA	On	
Tow1Card16	200.00 V	3.00 uA	199.75 V	0.72 uA	On	
Tow1Card15	285.00 V	3.50 uA	284.75 V	0.38 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA	On	
Tow2Card11	210.00 V	4.00 uA	209.75 V	0.38 uA	On	
Tow2Card10	250.00 V	4.00 uA	249.75 V	0.50 uA	On	
Tow2Card9	210.00 V	3.50 uA	209.00 V	0.58 uA	On	
Tow3Card13	210.00 V	3.00 uA	209.75 V	0.55 uA	On	
Tow3Card12	200.00 V	3.00 uA	200.00 V	1.04 uA	On	
Tow3Card11	120.00 V	3.00 uA	120.00 V	0.73 uA	On	
Tow3Card10	310.00 V	3.50 uA	309.50 V	0.74 uA	On	
Tow3Card9	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow3Card12	250.00 V	4.00 uA	250.25 V	0.58 uA	On	
Tow3Card11	210.00 V	3.00 uA	190.00 V	0.20 uA	On	
Tow3Card10	240.00 V	3.50 uA	239.75 V	1.14 uA	On	
Tow3Card8	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Admin: b14 / View Groups Logout: V2 18

Group 00 Groups

Channel Name	V0Set	I	VMon	IMon	Pw	S
BANK0_UNUSE	<input type="checkbox"/> 0.00 V	<input type="checkbox"/>	<input type="checkbox"/> V	<input type="checkbox"/>	0.0 uA	Off
CS10	<input checked="" type="checkbox"/> 30.00 V	3.0 uA	79.30 V	0.0 uA	On	
CS11	<input type="checkbox"/> 80.00 V	3.0 uA	79.80 V	0.1 uA	On	
CS13	<input type="checkbox"/> 80.00 V	2.0 uA	79.70 V	0.1 uA	On	
CS12	<input type="checkbox"/> 80.00 V	3.0 uA	80.10 V	0.4 uA	On	
	<input type="checkbox"/>					

Date:

Time:

	Vbias (V)	I (μ A)
CsI0		
CsI1		
CsI2		
CsI3		
Back0	100	2.78
Back1	100	2.37
Back2	10	2.09
Back3	100	3.12
MCP0		
MCP1		
Foil0	200	
Foil1	800	

run 106

Alpha source calibration

run # 107

108 stop

21st Foil 1 has problem
Card 15

run 109, 110, 111,

- Main Utility Setup Groups View

Group 02 Channel Name	V0Set	I0Set	Wbn	Ibn	Pw	Status	Ch#
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.82 uA	On	0.04.005	
Tow1Card12	240.00 V	4.00 uA	240.00 V	0.96 uA	On	0.04.006	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.82 uA	On	0.04.007	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.72 uA	On	0.04.008	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.60 uA	On	0.04.011	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.26 uA	On	0.04.012	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.80 uA	On	0.04.013	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.64 uA	On	0.04.014	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.70 uA	On	0.04.015	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.20 uA	On	0.04.016	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On	0.04.017	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.76 uA	On	0.04.018	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	0.04.019	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.48 uA	On	0.04.000	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	0.04.001	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	0.04.002	
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.50 uA	On	0.04.003	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	0.04.025	

User

Add/Edit/View Groups

LocEn V0 10 T CAEN SY2527

*MCP1 is 'on' & source
largest - plastic run #113*

#6 July 23, 15

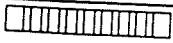
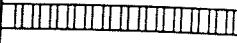
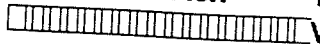
Date:
Time:

	V bias (V)	I (uA)
Csl0		
Csl1		
Csl2		
Csl3		
Back0	4.9	1000
Back1	2.16	1000
Back2	1.81	1000
Back3	1.95	1000
MCP0	1200	0.55
MCP1	1560	0.56
Foil0		
Foil1		

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St
Tow1Card15	<input type="checkbox"/> 290.00 V	4.00 uA	289.75 V	0.46 uA	On	
Tow1Card12	<input type="checkbox"/> 240.00 V	4.00 uA	240.00 V	0.60 uA	On	
Tow1Card9	<input type="checkbox"/> 200.00 V	3.00 uA	199.75 V	0.48 uA	On	
Tow1Card6	<input type="checkbox"/> 295.00 V	3.50 uA	294.75 V	0.52 uA	On	
Tow2Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.40 uA	On	
Tow2Card9	<input type="checkbox"/> 110.00 V	4.00 uA	110.00 V	0.48 uA	On	
Tow2Card6	<input type="checkbox"/> 250.00 V	4.00 uA	249.75 V	0.50 uA	On	
Tow2Card3	<input type="checkbox"/> 280.00 V	3.50 uA	280.00 V	0.34 uA	On	
Tow3Card15	<input type="checkbox"/> 210.00 V	3.00 uA	209.75 V	0.54 uA	On	
Tow3Card12	<input type="checkbox"/> 200.00 V	5.00 uA	200.00 V	0.64 uA	On	
Tow3Card9	<input type="checkbox"/> 120.00 V	3.00 uA	120.00 V	0.38 uA	On	
Tow3Card6	<input type="checkbox"/> 310.00 V	3.50 uA	309.50 V	0.52 uA	On	
Tow3Card3	<input type="checkbox"/> 0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	<input type="checkbox"/> 210.00 V	3.00 uA	210.00 V	0.34 uA	On	
Tow0Card12	<input type="checkbox"/> 250.00 V	4.00 uA	250.25 V	0.58 uA	On	
Tow0Card9	<input type="checkbox"/> 190.00 V	3.00 uA	190.00 V	0.18 uA	On	
Tow0Card6	<input type="checkbox"/> 240.00 V	3.50 uA	239.75 V	0.76 uA	On	
Tow0Card1	<input type="checkbox"/> 0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

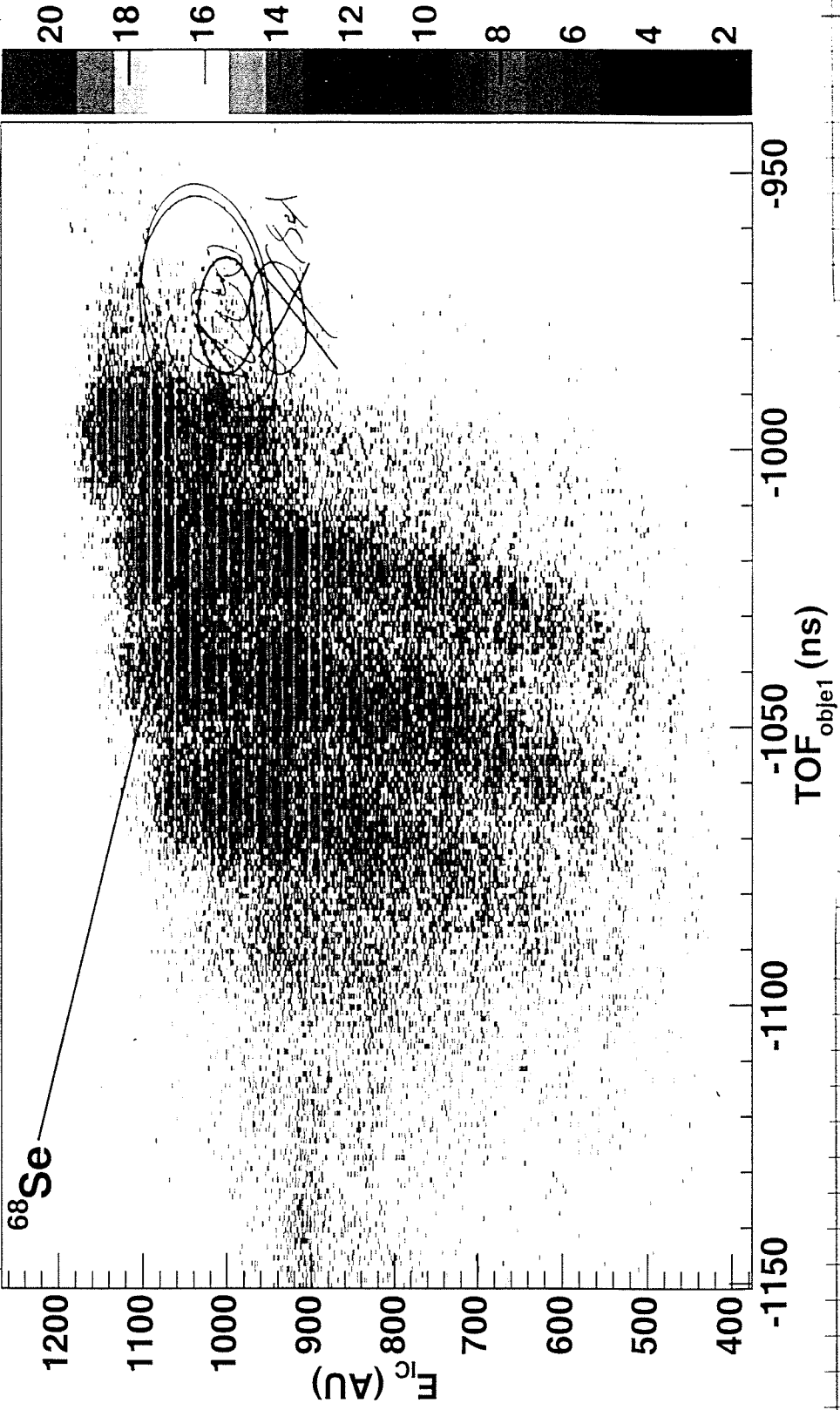
Add/Edit/View Groups

LocEn V0 10

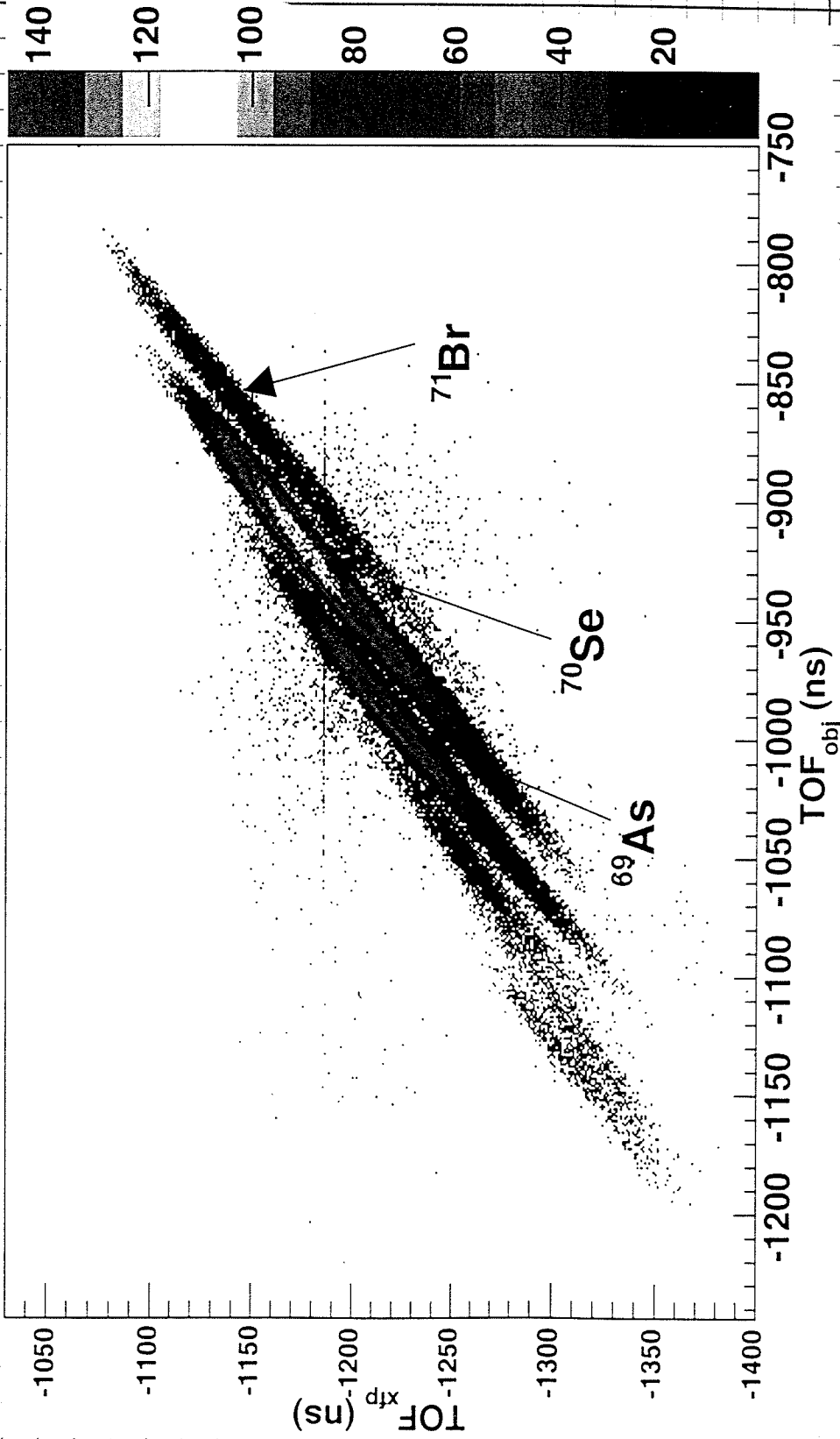
Group 00		Groups 			
Channel Name	V0Set	I	VMon	IMon	Pw Status
	V0Set	I0Set	VMon	IMon	Pw Status
BANK0_UNUSE	<input type="checkbox"/> 0.00	V 			
CS10	<input type="checkbox"/> 80.00 V	3.0 uA	79.35 V	0.0 uA	Off Ext-Dis
CS11	<input type="checkbox"/> 80.00 V	3.0 uA	79.80 V	0.1 uA	On
CS13	<input type="checkbox"/> 80.00 V	2.0 uA	79.70 V	0.1 uA	On
CS12	<input type="checkbox"/> 80.00 V	3.0 uA	80.10 V	0.4 uA	<input checked="" type="checkbox"/> On
	<input type="checkbox"/>				
	<input type="checkbox"/>				

Biased 7/26/05 11:20 pm -

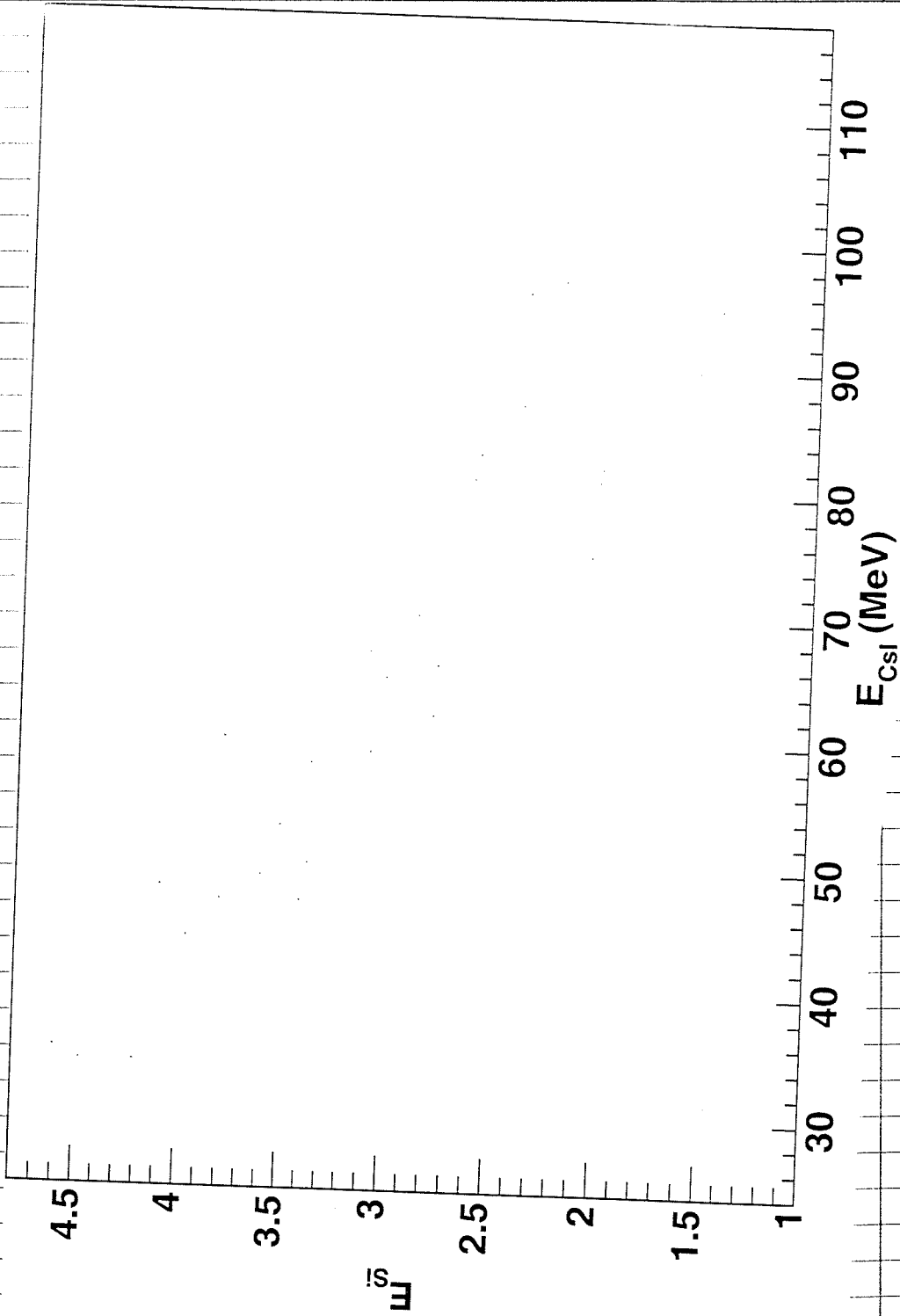
S800 RID



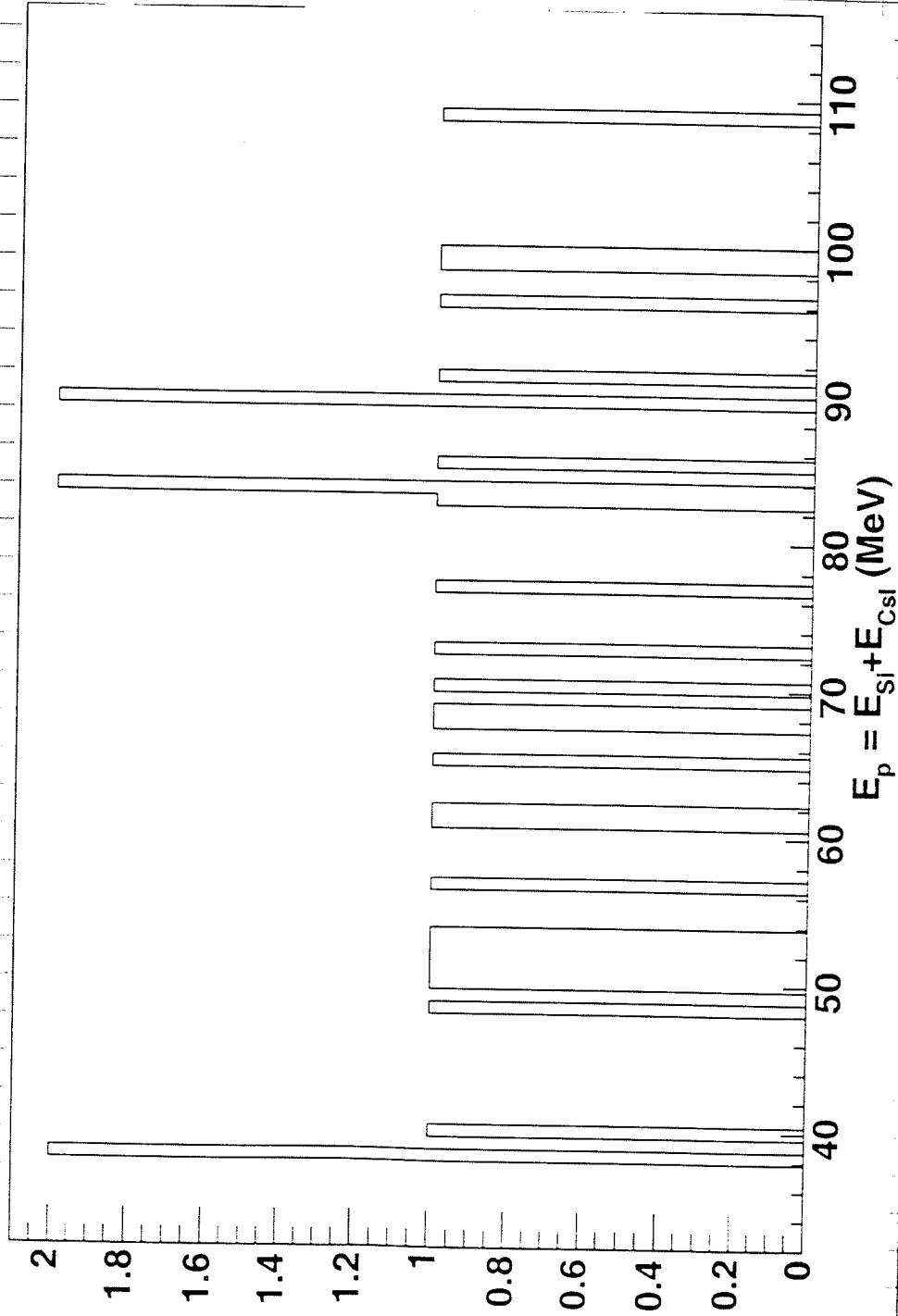
S 800 Benz PID



Protons in H₁ gated only at 6750 in J880



Proton Energy Spectra over Entire Array for ^{68}Se in FP



Bias voltages on Si detectors 07/27/2005

Run 115

Main Utility Setup Groups View							User
Group 02							
Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.78 uA	On		0.04.005
Tow1Card12	240.00 V	4.00 uA	240.00 V	0.94 uA	On		0.04.006
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.82 uA	On		0.04.007
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.70 uA	On		0.04.008
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.58 uA	On		0.04.011
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.40 uA	On		0.04.012
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.76 uA	On		0.04.013
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.60 uA	On		0.04.014
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.72 uA	On		0.04.015
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.22 uA	On		0.04.016
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.52 uA	On		0.04.017
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.74 uA	On		0.04.018
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off		0.04.019
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.46 uA	On		0.04.000
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.72 uA	On		0.04.001
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On		0.04.002
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.58 uA	On		0.04.003
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		0.04.025

Add/Edit/View Groups LocEn V0 I0 T CABN SY2527

at 4:15 Am

Run 116

Production run plastic target, SFOU + HIRA coincidence

Run 119

SFOU + HIRA, plastic target

Main Utility Setup Groups View							User
Group 02							
Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status	Ch#
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.84 uA	On		0.04.005
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.04 uA	On		0.04.006
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On		0.04.007
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On		0.04.008
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.60 uA	On		0.04.011
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.72 uA	On		0.04.012
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.82 uA	On		0.04.013
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.66 uA	On		0.04.014
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.76 uA	On		0.04.015
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.34 uA	On		0.04.016
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On		0.04.017
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.76 uA	On		0.04.018
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off		0.04.019
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.48 uA	On		0.04.000
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On		0.04.001
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On		0.04.002
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.80 uA	On		0.04.003
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off		0.04.025

Add/Edit/View Groups LocEn V0 I0 T CABN SY2527

Run 120 08:47 Same as Run 119

- Main Utility Setup Groups View

Group 02

Channel Name	V0Set	I0Set	WMon	IMon	Pw	St
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.86 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.04 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.88 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.72 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.60 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.76 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.82 uA	On	
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.66 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.76 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.36 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.76 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.48 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.82 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Date: 7/27/05
Time: 8:50

	Vbias (V)	I (uA)
Csl0	77.20	0.0
Csl1	77.20	0.0
Csl2	77.20	0.0
Csl3	77.20	0.0
Back0		3.51
Back1		3.28
Back2		3.14
Back3		3.0
MCP0		3.5
MCP1		3.57
Foil0		
Foil1		

- Main Utility Setup Groups View

Group 02

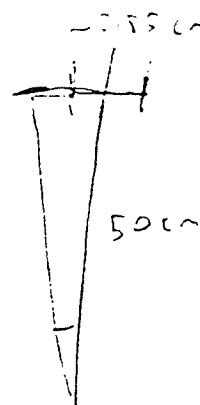
Channel Name	V0Set	I0Set	WMon	IMon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.88 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.82 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.82 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.68 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.78 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.38 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.78 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.48 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.90 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date: 7/27/05
Time: 8:50

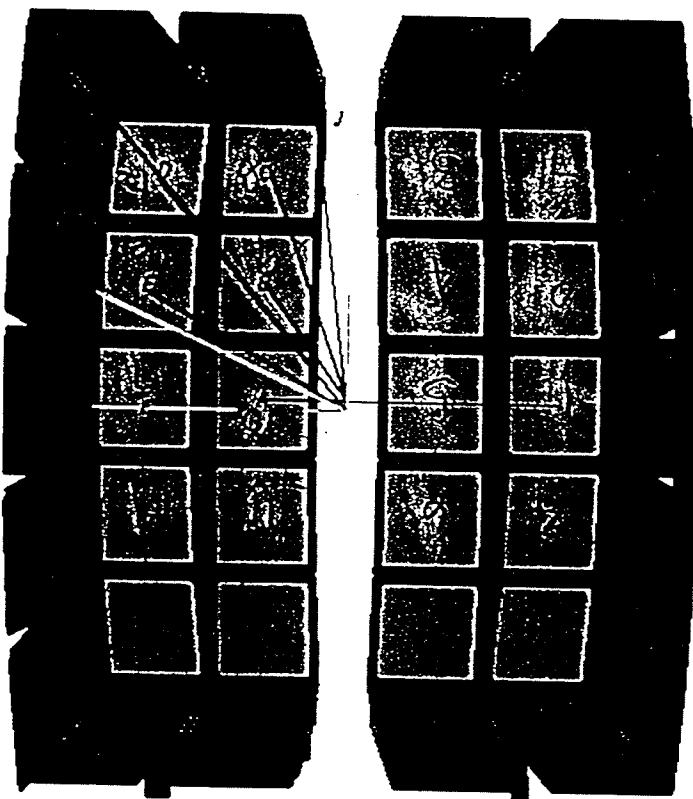
	Vbias (V)	I (uA)
Csl0	77.20	0.0
Csl1	77.20	0.0
Csl2	77.20	0.0
Csl3	77.20	0.0
Back0		3.75
Back1		3.63
Back2		3.51
Back3		3.4
MCP0		3.5
MCP1		3.7
Foil0		
Foil1		

HIRA DETECTOR LOCATIONS

LOOKING IN THE DIRECTION OF THE BEAM



00.67- b1
 52.91 L1
 00.61 91
 75.72 21
 97.11- 11
 700 10
 097.11 9
 057.61 8



97.11- 9
 700 5
 97.11 4
 57.61 3
 00.61- 2
 52.91 1
 00.67 0
 75.72 7

POSITION

ANGLE (DEGREES)

A	7.00] CENTER OF DETECTORS
B	11.46	
C	15.45	
D	24.54	
E	19.00] CENTER OF DETECTOR EDGE
F	16.75	
G	21.20] UPPER CORNER LEFT
H	23.03	
I	30.04] UPPER CORNER RIGHT
J	23.00	

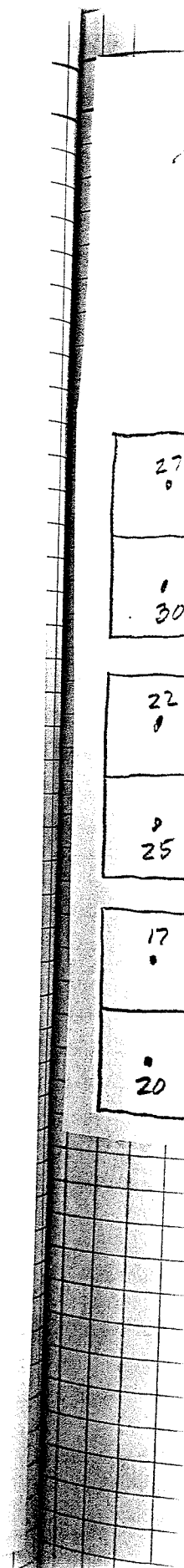
27
 30

22
 8

25

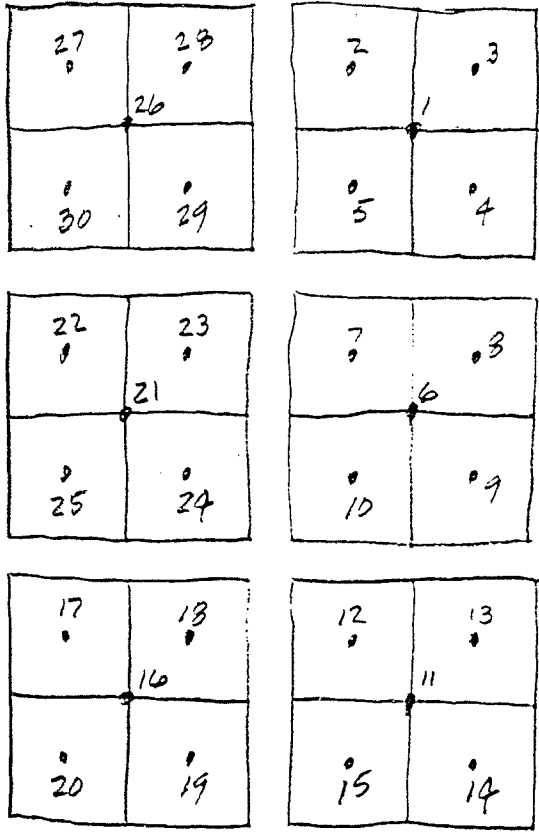
17

20



7-25-05
L. MORRIS

HIRA LOWER LEFT QUAD



+ BEAM
(LOOKING
DOWNSTREAM)

HIRA LOWER LEFT QUADRANT ANGLES

POINT	POLAR ANGLE (DEGREES)
1	7.000
2	9.220
3	5.383
4	5.383
5	9.220
6	11.463
7	11.454
8	8.662
9	12.141
10	14.275
11	19.457
12	18.503
13	16.899
14	20.744
15	22.080
16	24.541
17	24.641
18	21.711
19	24.745
20	27.371
21	19.000
22	20.017
23	16.318
24	18.352
25	21.718
26	16.750
27	18.855
28	14.880
29	14.980
30	18.355

28.759 27.351
23.512 27.355

31.545
31.623

33.534
33.628

37.553

SORT DETECTORS.**Detector Details**

Detector ID	Detector Part No	Owned by	Class	Micron Thickness (in μ m)	Actual Thickness (in μ m)	Working (yes = Y)	Micron Depletion	Current Location
2085-08	ds024	HIRA Collaboration	HIRA	1496	0	Y	230.000	Michigan State U
2085-12	ds025	HIRA Collaboration	HIRA	1475	0	N	275.000	Micron
2085-06	ds026	HIRA Collaboration	HIRA	1490	0	Y	280.000	Michigan State U
2085-03	ds027	HIRA Collaboration	HIRA	1493	0	N	300.000	Micron
2113-05	ds028	HIRA Collaboration	HIRA	1460	0	Y	380.000	Michigan State U
2113-07	ds029	HIRA Collaboration	HIRA	1452	0	Y	410.000	Michigan State U
2113-02	ds030	HIRA Collaboration	HIRA	1479	0	N	380.000	Micron
2085-05	ds031	HIRA Collaboration	HIRA	1495	0	Y	195.000	Washington U
2113-06	ds032	HIRA Collaboration	HIRA	1473	0	Y	270.000	Indiana Univ. BL
2085-7a	ds033	HIRA Collaboration	HIRA	1483	0	N	260.000	Micron
2085-7b	ds034	HIRA Collaboration	HIRA	1488	0	Y	365.000	Michigan State U
2085-17	ds035	HIRA Collaboration	HIRA	1482	0	N	270.000	Micron
2085-02	ds054	HIRA Collaboration	HIRA	1489	0	Y	270.000	Michigan State U
2085-14	ds055	HIRA Collaboration	HIRA	1474	0	Y	280.000	Michigan State U
2085-04	ds056	HIRA Collaboration	HIRA	1499	0	Y	280.000	Michigan State U
2113-03	ds057	HIRA Collaboration	HIRA	1471	0	Y	380.000	Michigan State U
2113-25	ds058	HIRA Collaboration	HIRA	1463	0	N	445.000	Micron
2085-11	ds059	HIRA Collaboration	HIRA	1496	0	Y	300.000	Michigan State U
2344-10	ds060	HIRA Collaboration	HIRA	1501	0	N	350.000	Micron
2344-01	ds061	HIRA Collaboration	HIRA	1496	0	N	380.000	Micron
2344-05	ds062	HIRA Collaboration	HIRA	1491	0	Y	350.000	Michigan State U

2344-11	ds063	HIRA Collaboration	HIRA	1503	0	Y	350.000	Michigan State U
2344-03	ds064	HIRA Collaboration	HIRA	1491	0	Y	350.000	Michigan State U
2393-14	ds065	HIRA Collaboration	HIRA	1511	0	Y	180.000	Michigan State U
2393-06	ds066	HIRA Collaboration	HIRA	1516	0	N	270.000	Micron
2393-10	ds067	HIRA Collaboration	HIRA	1518	0	N	260.000	Micron
2403-02	ds068	HIRA Collaboration	HIRA	1533	0	Y	280.000	Michigan State U
2403-04	ds069	HIRA Collaboration	HIRA	1524	0	Y	300.000	Michigan State U
2403-07	ds070	HIRA Collaboration	HIRA	1541	0	Y	280.000	Michigan State U
2393-05	ds072	HIRA Collaboration	HIRA	1532	0	N	270.000	Micron
2399-14	ds073	HIRA Collaboration	HIRA	1513	0	Y	180.000	Michigan State U

[<< Back to Reports Menu](#)

Run 123 Alpha Run

Beam was taken for tweaking.

- Main Utility Setup Groups View

10:50

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St:
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.88 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.06 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.84 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.68 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.80 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.38 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.78 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.48 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.92 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Date: 7/27/05
Time: 10:50

	Vbias (V)	I (uA)
Csl0	293.00	0.8
Csl1	240.00	1.1
Csl2	200.00	0.9
Csl3	295.00	0.7
Back0		3.44
Back1		3.67
Back2		4.07
Back3		2.15
MCP0	1790	55
MCP1	1740	56
Foil0		
Foil1		

Run 123 Back to coincidences with plastic target

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St:
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.88 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.08 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.74 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.86 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.68 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.80 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.40 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.78 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.48 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.94 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Date: 7/27/05
Time: 11:10

	Vbias (V)	I (uA)
Csl0	293.35	0.8
Csl1	240.00	1.1
Csl2	200.00	0.9
Csl3	295.00	0.7
Back0		3.44
Back1		3.68
Back2		4.09
Back3		2.15
MCP0	1790	55
MCP1	1740	57
Foil0		
Foil1		

Charged MCP1 voltage to 1672 V

Run
125
12:07

Group 02 Channel Name	V0Set	I0Set	VMbn	IMbn	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.88 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.08 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.90 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.74 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.88 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.68 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.80 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.42 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.78 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.48 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	1.98 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date:
Time:

	Vbias (V)	I (uA)
Csl0	79.20	0.0
Csl1	79.80	0.1
Csl2	80.10	0.0
Csl3	79.65	0.1
Back0		3.53
Back1		3.64
Back2		4.13
Back3		2.15
MCP0	1790	55
MCP1	1670	55
Foil0		
Foil1		

Run 127 14:03

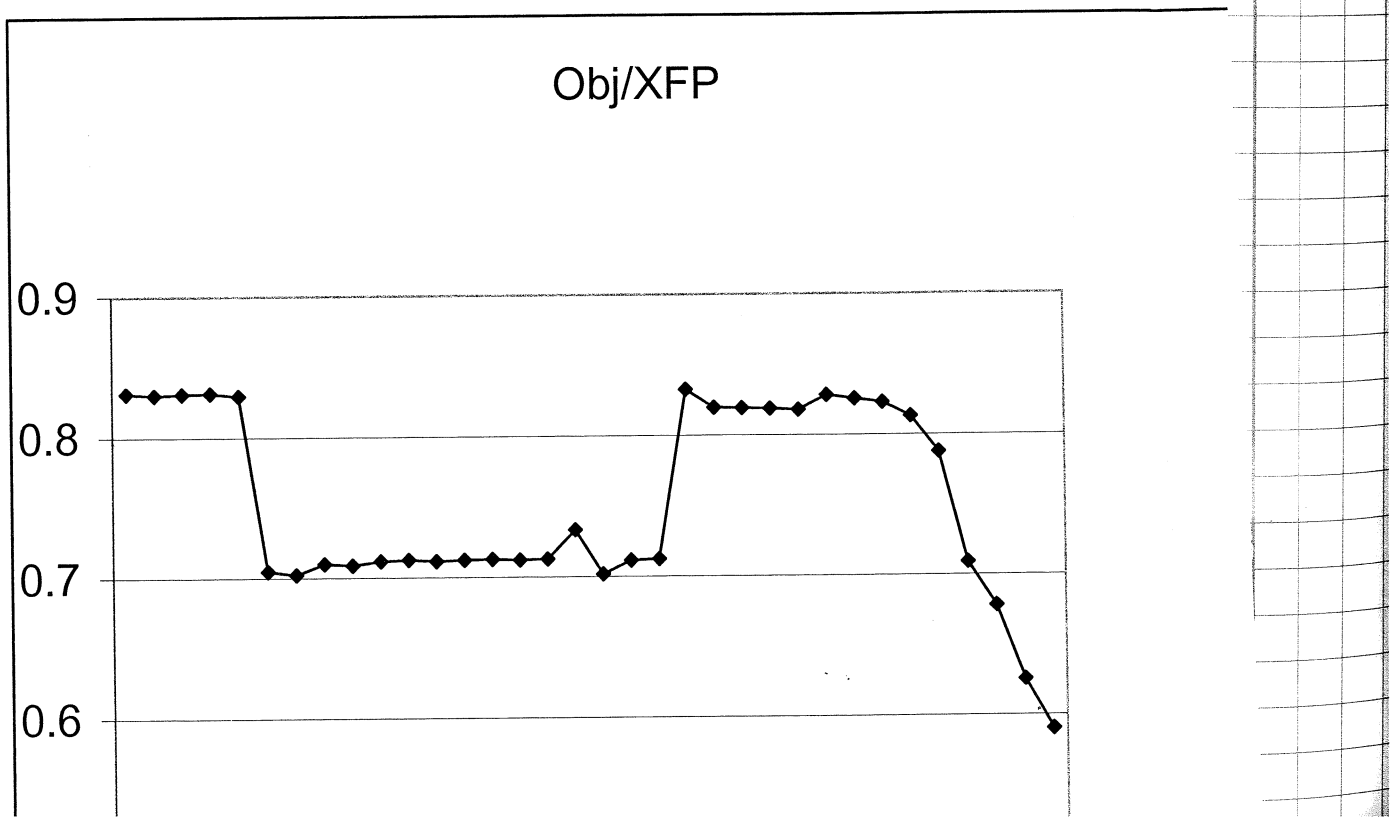
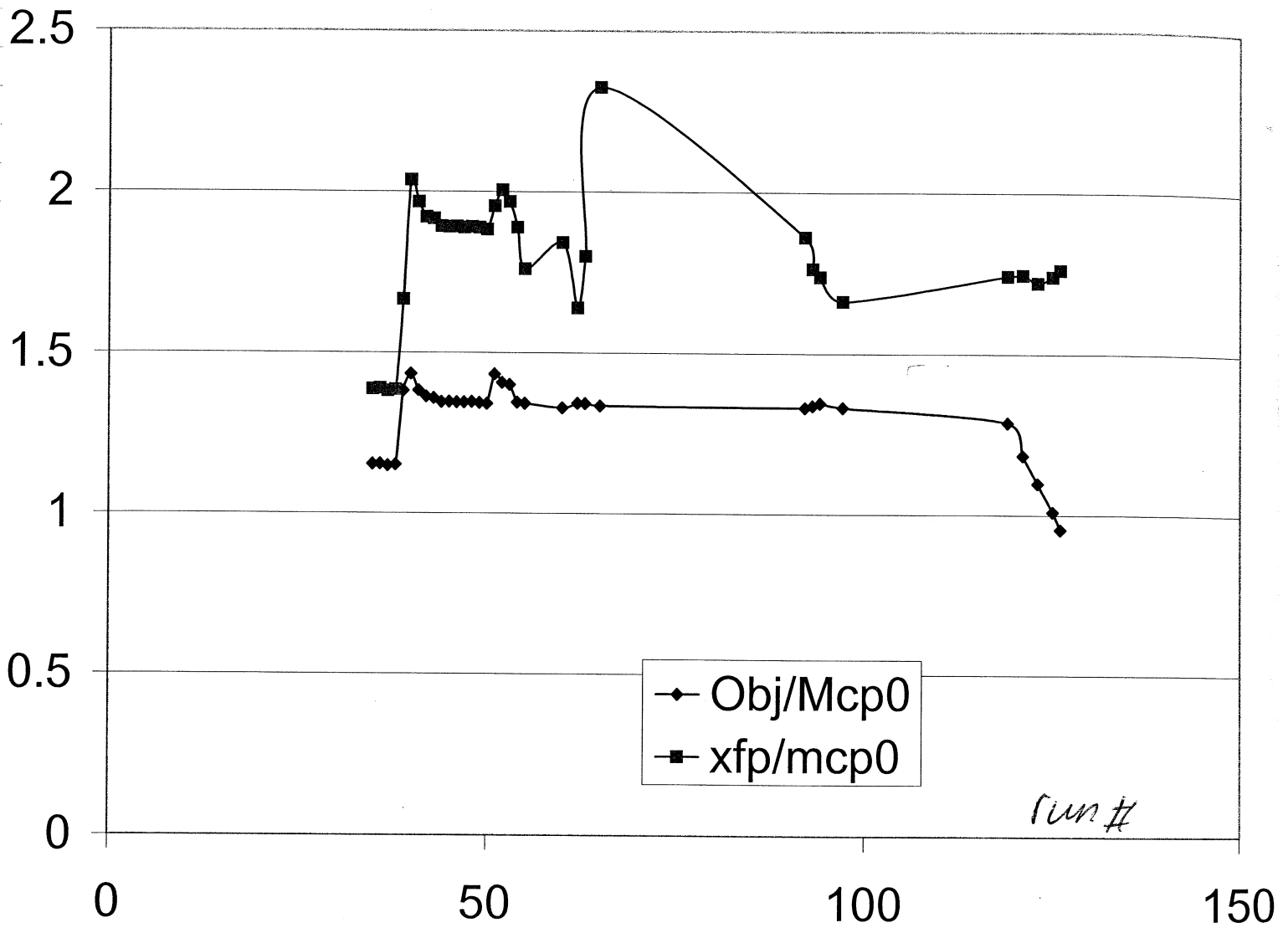
Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.90 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.08 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.76 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.92 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.70 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.80 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.44 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.80 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.48 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.04 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f

Date: 7/27/05

Time: 14:03

	Vbias (V)	I (uA)
Csl0	79.35	0.0
Csl1	79.80	0.1
Csl2	80.10	0.4
Csl3	79.70	0.1
Back0		3.60
Back1		3.74
Back2		4.19
Back3		2.18
MCP0	1792	54.9
MCP1	1672	54.3
Foil0		
Foil1		



Group 02 15:05

Channel Name	V0Set	I0Set	VMon	IMon	Pw
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.90 μ A	On
Tow1Card12	240.00 V	4.00 μ A	239.75 V	1.10 μ A	On
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.90 μ A	On
Tow1Card6	295.00 V	3.50 μ A	294.75 V	0.76 μ A	On
Tow2Card12	250.00 V	4.00 μ A	250.00 V	0.64 μ A	On
Tow2Card9	110.00 V	4.00 μ A	109.75 V	1.94 μ A	On
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.84 μ A	On
Tow2Card3	280.00 V	3.50 μ A	279.75 V	0.70 μ A	On
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.80 μ A	On
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.44 μ A	On
Tow3Card9	120.00 V	3.00 μ A	120.00 V	0.56 μ A	On
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.80 μ A	On
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	Off
Tow0Card15	210.00 V	3.00 μ A	209.75 V	0.48 μ A	On
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.74 μ A	On
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	On
Tow0Card6	240.00 V	3.50 μ A	239.75 V	2.08 μ A	On
Tow0Card1	0.00 V	0.10 μ A	0.00 V	0.00 μ A	Off

Date: 7/27/05
Time: 15:05

	Vbias (V)	I (μ A)
Csl0	79.20	0.0
Csl1	79.80	0.1
Csl2	80.10	0.4
Csl3	79.65	0.1
Back0		3.60
Back1		3.74
Back2		4.21
Back3		2.18
MCP0	1792	54.8
MCP1	1672	54.2
Foil0		
Foil1		

Run 128

~~15:35~~ 15:37

5800 singles - fragmented beam in focal plane
No Masks - Beam centered

Run 129

Added mask to MCP0 (upstream)

Run 130

Raised voltage on MCP0 from 1800 to 1900 V

Run 131

Remove MCP0 mask; Insert MCP1 mask

Raised voltage on MCP1 to 1800 V

~~Run 132~~~~Same as run 131 with 10 times less beam.~~

Run 132

Singles MCP1, Target voltage = 400 V
Mod. ...

Run 133

Same as run 132, with MCP1
voltage reduced to 1700 V to have
an amplitude closer to the α 's.

we checked the bigger and ~~the~~ α 's envelope.

its tests of MCP0 operating ~~parameters~~ parameters

Run 136

MCP1 at $V_{MCP} = 1700 V$ $V_{target} = -800 V$

5800 singles

Targets voltages change: 1200 V on MCP0 target
800 V on MCP1 target

NB: Current on MCP1 target is 50 nA @ 800 V
(that's why we didn't put a higher voltage)

Run 137

MCP0 mark calib^o, 1900 V,
target $V = 1200 V$, 5800 singles trigger

Slight saturation of MCP0.

Run 138

MCP voltage lowered from 1900V to

1829V

target V = 1200 V.

Run 139

MCP target voltage raised from

1200V to 1600V.

Run 140

MCP target voltage = 1000V

Run 141

MCP1 mark calibration with beam

 $V_{MCP1} = 1700V$ $V_{target1} = 800V$

5800 singles

MCP0 fort in

triple 1243 TB is turned off to blow beam
on MCP1 (it was $i = 4.9A$)

Run 142

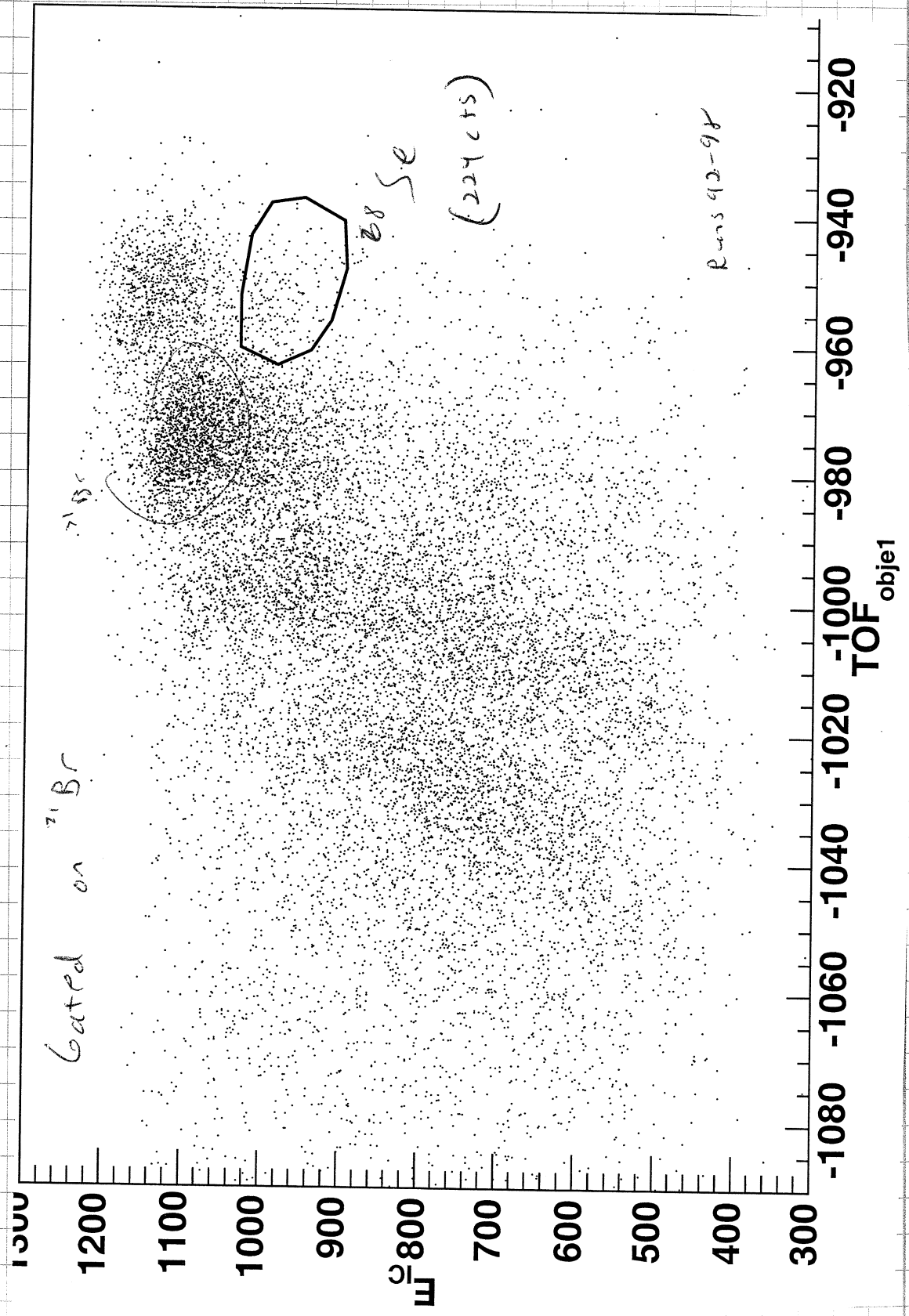
Same conditions as for run 141

(except 1243TB)

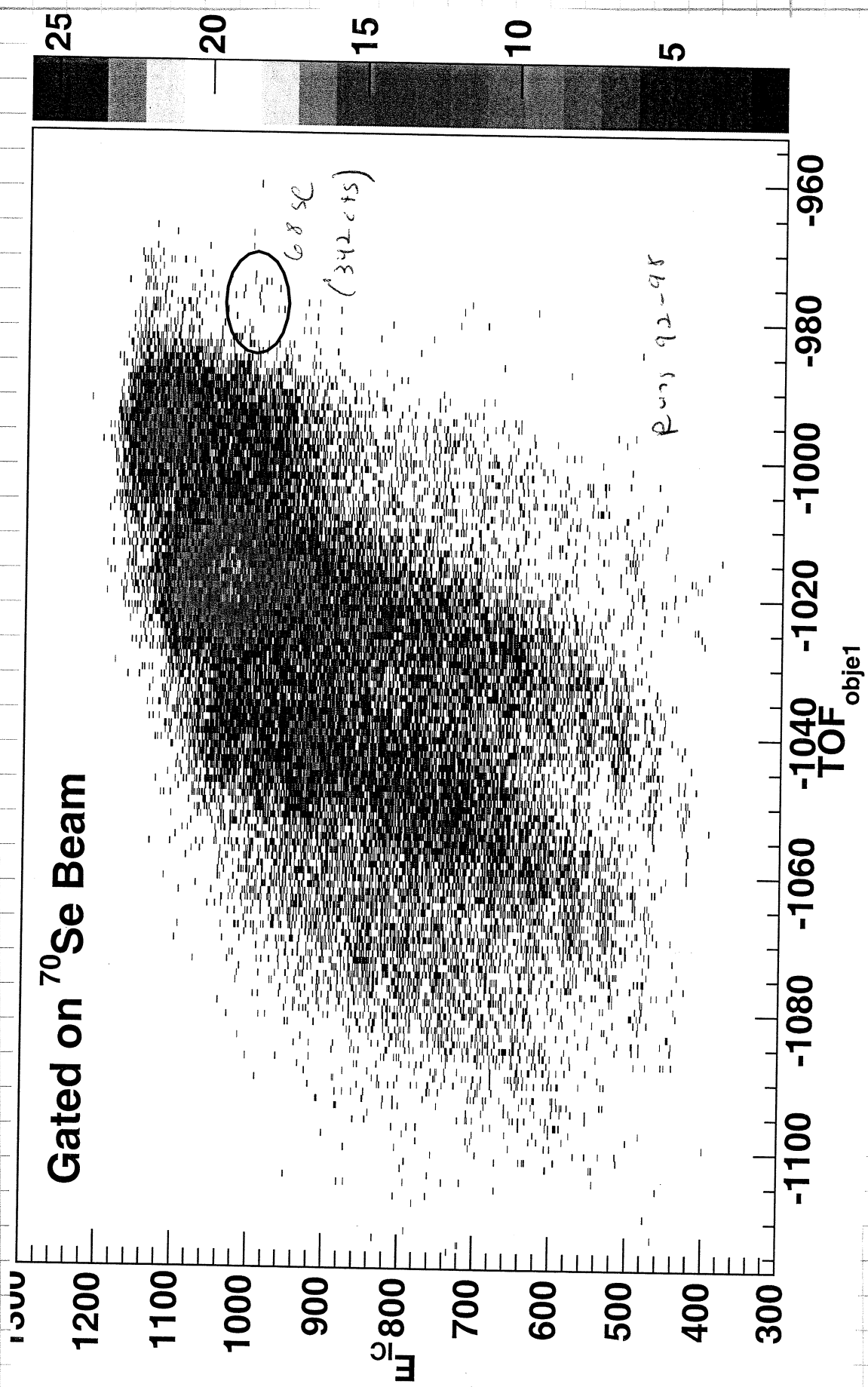
Run 143

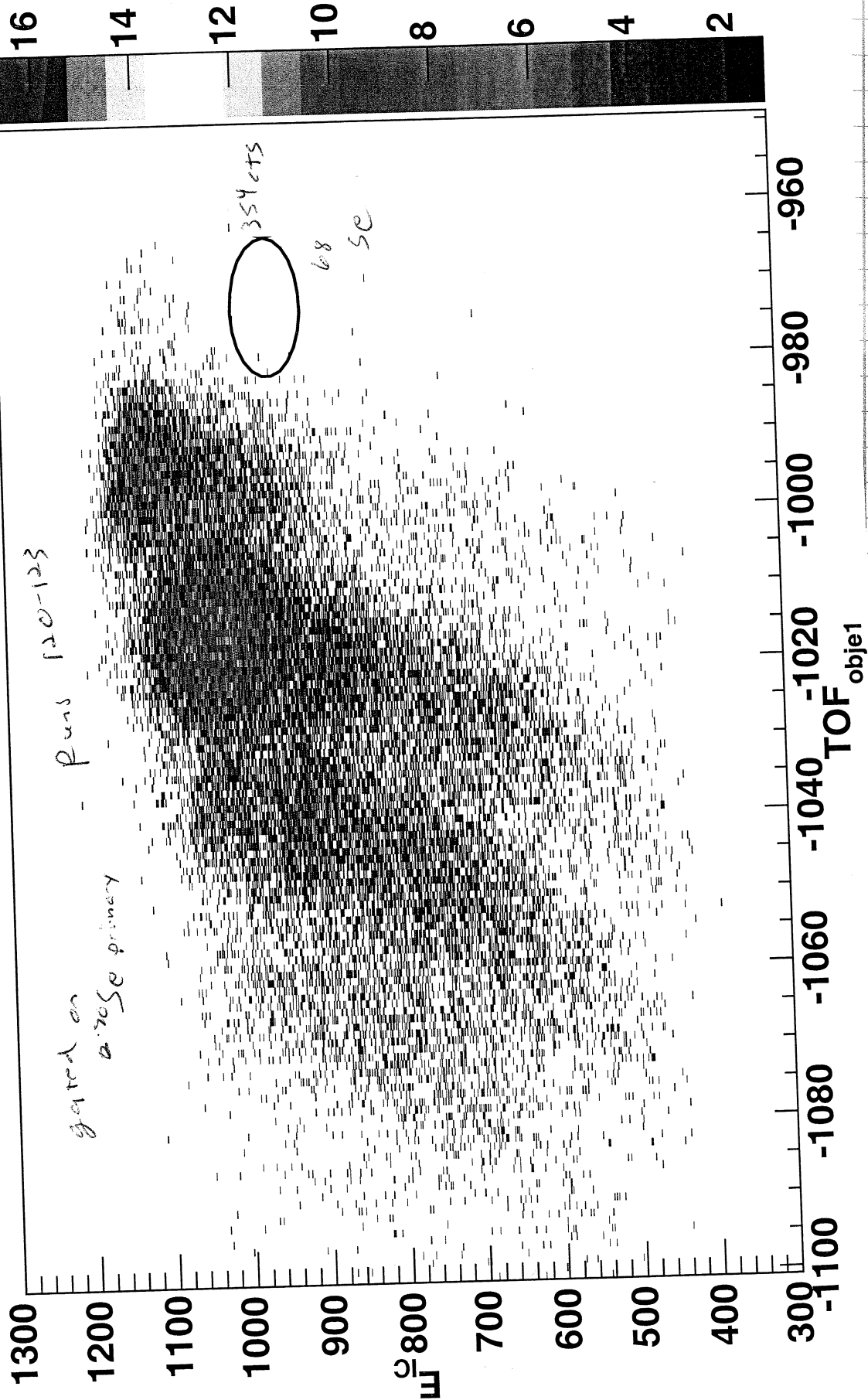
Same as run 142, $V_{MCP1} = 1750V$

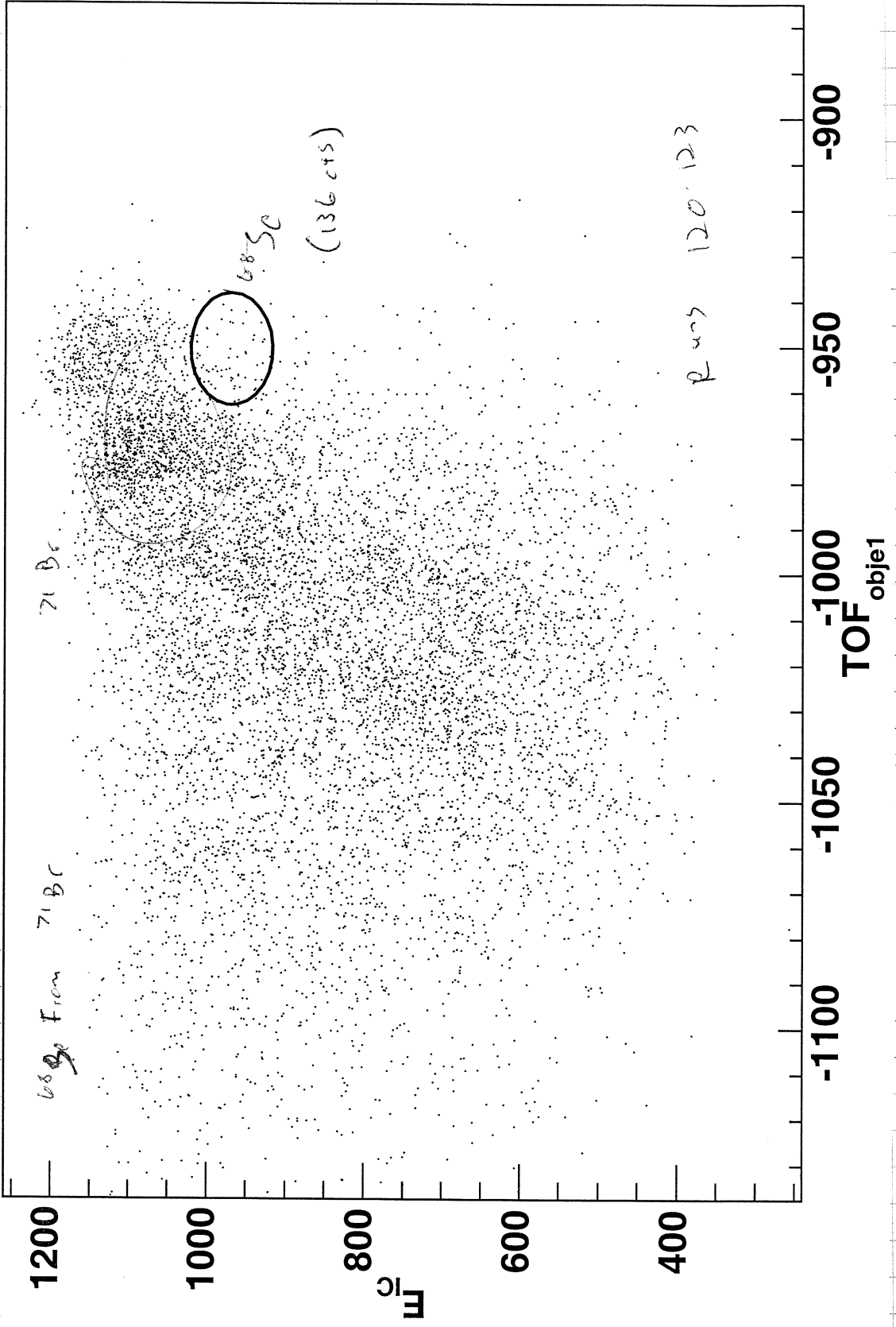
⁶⁸Se Particles From the ⁷¹Br beam



68 Se from 80 Se Atom







Run 144

MCP0 mask calibration with beam
(I243TB turned off)

$V_{MCP0} = 1830 V$

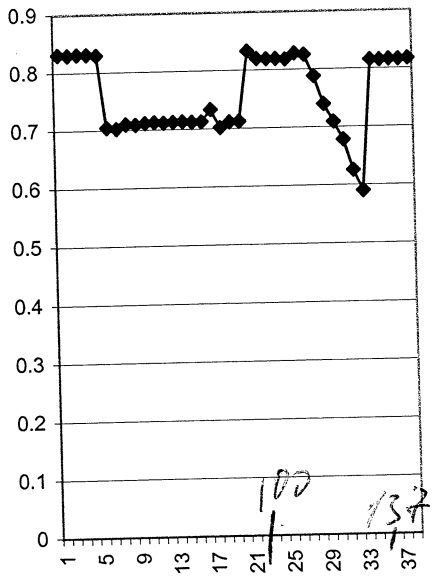
$V_{Foil} = 1000 V$

Run 145

Upstream CRDC mask in

Trigger S800 & MCP

Obj./XFP SCALER RATIO



$V_{MCP0} = 1830 V$

$V_{MCP1} = 1700 V$

Run 146

Downstream CRDC mask in

Run 147

S800 singles

Unreacted beam centered on S800 FP

Quad I243TB back on, to

$-4.9 A.$

Date: 7/27/05
Time: 10:50 pm

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA On
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.62 uA On
Tow2Card9	110.00 V	4.00 uA	140.00 V	1.92 uA On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.82 uA On
Tow2Card3	280.00 V	3.50 uA	284.75 V	0.72 uA On
Tow3Card15	210.00 V	3.00 uA	209.25 V	0.84 uA On
Tow3Card12	200.00 V	5.00 uA	210.00 V	1.46 uA On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA On
Tow3Card6	310.00 V	3.50 uA	380.00 V	0.82 uA On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.02 uA Off
Tow0Card15	210.00 V	3.00 uA	210.25 V	0.50 uA On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.22 uA On
Tow0Card1	0.00 V	0.10 uA	09.75 V	0.00 uA Off

	Vbias (V)	I (uA)
CsI0	80	0.0
CsI1	80	0.1
CsI2	80	0.4
CsI3	80	0.1
Back0	100	3.82
Back1	100	3.79
Back2	100	4.25
Back3	100	2.22
MCP0	1830	56
MCP1	1700	55
Foil0	1000	no
Foil1	800	no

Run 148

Same as run 147

Unreacted beam on side on S800 FP

No beam blocker

Run 149

Same as run 148

Beam Blocker in

Run 150

Unreacted beam on side of S800

S800 singles. No beam blocker.

Bp changed to 2.4632 Tm

Run 151

No beam blocker. S800 Singles.

Run 152

S800 + HIRA coincidence.

Target: thick plastic

Live trigger $\sim 50 - 60$ /sRun 153

Same as 152

Beam intensity is dropping. At the end of the run the

live trigger is $\sim 27 - 35$ event/s.

7/28/05, 2:00 am. Because of a intensity of 400 μ A, we give
the beam to the operator.

Run 152 started 12:05p

Si and CsI Bias V and I

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	V0Set	I0Set	VMon	IMon	Pw
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.96 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.82 uA	On
Tow3Card12	200.00 V	5.00 uA	200.25 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.28 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date: 7/28/05
Time: 2:10 am.

	Vbias (V)	I (uA)
CsI0	79.20	0.0
CsI1	79.80	0.1
CsI2	79.65	0.1
CsI3	80.10	0.4
Back0	+100	3.85
Back1	+100	3.8579
Back2	+100	4.24
Back3	+100	2.23
MCP0	1829	560
MCP1	1699	53.1
Foil0	1000	0
Foil1	800	~50 uA

- Main Utility Setup Groups View V 0.1 uA On
Group 01 1 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
CS10	80.00 V	3.0 uA	79.35 V	0.0 uA	On	
CS11	80.00 V	3.0 uA	79.80 V	0.1 uA	On	
CS13	80.00 V	2.0 uA	79.70 V	0.1 uA	On	
CS12	80.00 V	3.0 uA	80.10 V	0.4 uA	On	

pins to 154...

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	V0Set	I0Set	VMon	IMon	Pw
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.76 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.96 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.82 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.82 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.30 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

- Main Utility Setup Groups View V 0.1 uA On
Group 01 1 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw
CS10	80.00 V	3.0 uA	79.20 V	0.0 uA	On
CS11	80.00 V	3.0 uA	79.80 V	0.0 uA	On
CS13	80.00 V	2.0 uA	79.65 V	0.1 uA	On
CS12	80.00 V	3.0 uA	80.10 V	0.4 uA	On

Run 154

α calibration run

α run was done while re-tuning.
Prior to re-tuning, getting < 30
coincidences/sec

Following tuning, ~~~40~~ coincidences/sec
(40+ and fluctuating).

Run 155

HIRA + 5800

beam ~ 700 emt.

beam blocker in - Same as #153

Run 156

HIRA + 5800

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	V0Set	I0Set	WMon	IMon	Pw
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.76 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.96 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.84 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.38 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

- Main Utility Setup Groups View V 0.1 uA On
Group 01 1 uA On

Channel Name	V0Set	I0Set	WMon	IMon	Pw
CS10	80.00 V	3.0 uA	79.35 V	0.0 uA	On
CS11	80.00 V	3.0 uA	79.80 V	0.1 uA	On
CS13	80.00 V	2.0 uA	79.70 V	0.1 uA	On
CS12	80.00 V	3.0 uA	80.10 V	0.4 uA	On

↓
→ 4:00 am

4:30 →

Date:
Time:

	Vbias (V)	I (μ A)
CS10		
CS11		
CS12		
CS13		
Back0	+100	3.91
Back1	+100	3.82
Back2	+100	4.26
Back3	+100	2.25
MCP0	+1829	56.2
MCP1	+1699	55.3
Foil0	+1000	0
Foil1	+800	~50nA

(Run 157)

At start of run, beam current is
470 ~~pA~~ nA ($\sim 30-35$ co-incidences/sec)

We will ask for retune of beam
after this run.

At end of run, we still get 30-35
coincidences/sec. No re-tune of beam.
Will re-tune later if number
of coincidences drops.

At end of run (5:40):

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	V0Set	I0Set	VMon	IMon	Pw
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.96 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.84 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.54 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.84 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.36 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date:

Time:

	Vbias (V)	I (μ A)
CsI0		
CsI1		
CsI2		
CsI3		
Back0	+100	3.90
Back1	+100	3.81
Back2	+100	4.25
Back3	+100	2.24
MCP0	1829	56.2
MCP1	1700	55.3
Foil0	1000	0
Foil1	800	~ 50 nA

Channel Name	V0Set	I0Set	VMon	IMon	Pw
CS10	80.00 V	3.0 uA	79.25 V	0.0 uA	On
CS11	80.00 V	3.0 uA	79.80 V	0.1 uA	On
CS13	80.00 V	2.0 uA	79.65 V	0.1 uA	On
CS12	80.00 V	3.0 uA	80.10 V	0.4 uA	On

Run 158 Same as 157.

Number of coincidences/sec was fluctuating more in this run, and dropped to below 30/sec. Re-tune now. In 400 eMA.

Run 159 α Source run

Problem to start the run. The readout stopped at the XLM initialization. We closed ^(crashed?) the readout program and successfully started the run after restarting the readout.

We have been monitoring which channels of the silicon detectors are not working. We began at run 152. Until run 158 the following channels were dead:

{ chip 0-6-0 ch 10
 { chip 0-9-0 ch 0, 4, 12; chip 0-9-1 ch 10
 { chip 1-11-1 ch 7:
 { chip 2-6-0 ch 11
 { chip 3-12-0 ch 8, 9, 10, 14, 15 } \rightarrow "sick but not
 { chip 3-12-1 ch 0, 1, 9, 10, 13, 14 } "dead"

Now, we observe for chip 3-5-0 and chip 3-5-1 that there are very few counts in ch 11-15.

Checking back to Run 154 (α run) we observe the same problem. Since these channels do not have low counts for HIRA+S800 runs, it seems likely that something is blocking these strips from the α source and that there is no problem in the detector itself.

Run 160 HIRA + S800

started 6:55

After retune, we get ~ 30 co-incidences/sec.

Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.12 uA	On
Tow1Card9	V0Set	I0Set	VMon	IMon	Pw
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.78 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.96 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.84 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.38 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

Date:

Time:

	Vbias (V)	I (μ A)
CsI0		
CsI1		
CsI2		
CsI3		
Back0	+100	3.93
Back1	+100	3.63
Back2	+100	4.26
Back3	+100	2.26
MCP0	1829	56.2
MCP1	1700	55.3
Foil0	1000	0
Foil1	800	~ 50 nA

- Main Utility Setup Groups View V 0.1 uA On
1 uA On

Group 01	Channel Name	V0Set	I0Set	VMon	IMon	Pw
	CS10	80.00 V	3.0 uA	79.30 V	0.0 uA	On
	CS11	80.00 V	3.0 uA	79.80 V	0.1 uA	On
	CS13	80.00 V	2.0 uA	79.70 V	0.1 uA	On
	CS12	80.00 V	3.0 uA	80.10 V	0.4 uA	On

↖ ↑
← at 7:10

The current drawn by Tow0Card6 has been creeping up steadily since being biased. Keep an eye on it, OK for now.

Run 161 Alpha source 08:06

Operators have taken the beam for source change,
foil change, return, etc.

Channel Name	V0Set	I0Set	WMon	IMon	Pw	Stat
- Main Utility Setup Groups	View 75 V			0.92 uA	On	
Group 02				.12 uA	On	
				.76 uA	On	
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.96 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.84 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.40 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Date:

Time: 08:18

	Vbias (V)	I (μ A)
Csl0	80	0.3
Csl1	80	0.1
Csl2	80	0.1
Csl3	80	0.3
Back0	100	3.94
Back1	100	3.82
Back2	100	4.26
Back3	100	2.26
MCP0		
MCP1		
Foil0	1000	0
Foil1	800	~ 50 nA

Run 162 Alpha run

- Main Utility Setup Groups View 75 V 0.92 uA On
 Group 02 .12 uA On

Channel Name	V0Set	I0Set	W0n	IM0n	Pw	S
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.96 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.38 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Run 163 Alpha run

- Main Utility Setup Groups View 75 V 0.92 uA On
 Group 02 .12 uA On

Channel Name	V0Set	I0Set	W0n	IM0n	Pw	St
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.44 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Date:

Time: 10:05

	Vbias (V)	I (μA)
Csl0	80	0.0
Csl1	80	0.1
Csl2	80	0.1
Csl3	80	0.4
Back0	100	3.96
Back1	150	3.84
Back2	100	4.27
Back3	100	2.28
MCP0		
MCP1		
Foil0	1000	0
Foil1	800	~50 nA

Run 164

5800 + H.R.A

Beam was returned,

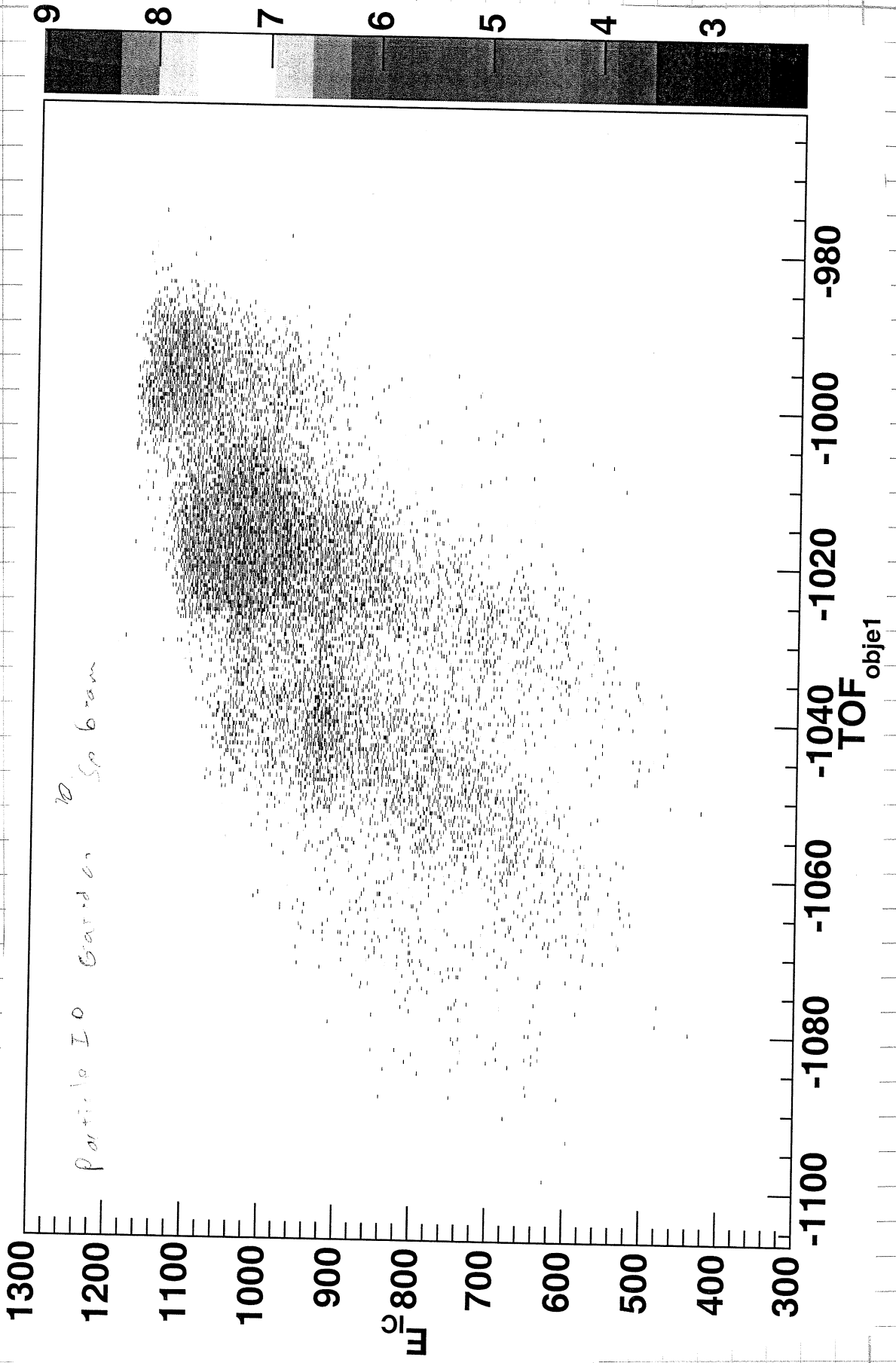
~ 1.0 - 1.2 enA

- Main Utility Setup Groups View 75 V 0.92 uA On

Group 02	Channel Name	V0Set	I0Set	VMon	IMon	Pw	St:
					.12 uA	On	
					.76 uA	On	
	Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
	Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
	Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
	Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
	Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
	Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
	Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
	Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
	Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
	Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
	Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
	Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
	Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
	Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On	
	Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	
	Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
	Tow0Card6	240.00 V	3.50 uA	239.75 V	2.42 uA	On	
	Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Same Principle with $^{78}\text{Se} \rightarrow ^{67}\text{As} + p$



Run 165 11:40 S800 + HiRA Normal running

- Main Utility Setup Groups View 75 V 0.92 uA On

Group 02 .12 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Stat
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.44 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Date:
Time: 11:57

	Vbias (V)	I (uA)
Csl0	80	0.0
Csl1	80	0.1
Csl2	80	0.1
Csl3	80	0.7
Back0	100	3.95
Back1	100	3.85
Back2	100	4.28
Back3	100	2.28
MCP0	1730	56.3
MCP1	1700	55.4
Foil0	1000	0
Foil1	800	~50uA

- Main Utility Setup Groups View 75 V 0.92 uA On
Group 02 .12 uA On
Channel Name V0Set I0Set VMbn IMbn Pw s

Channel Name	V0Set	I0Set	VMbn	IMbn	Pw	s
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.84 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.42 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

General System Information

Yun AGG

S800 + MIRA

data run

Date: 7/28/05
 Time: 1:51 PM

	Vbias (V)	I (μA)
Csl0	80	0.0
Csl1	80	0.1
Csl2	80	0.4
Csl3	80	0.1
Back0	100	4.00
Back1	100	3.83
Back2	100	4.27
Back3	100	2.28
MCP0	1830	56
MCP1	1700	55
Foil0	1000	~0
Foil1	800	~50 nA

- Run 167 5700 + HIRA
- Run 168 5800 + HIRA
- Run 169 5800 + HIRA

- Main Utility Setup Groups View 75 V 0.92 uA On

Group 02 .12 uA On

Channel Name	V0Set	I0Set	WMon	IMon	Pw	St
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.86 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.46 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f	

General System Information

Date: 7/28/05
 Time: 3:50 pm

	Vbias (V)	I (μ A)
Csl0	80	0.0
Csl1	80	0.1
Csl2	80	0.4
Csl3	80	0.2
Back0	100	4.00
Back1	100	3.85
Back2	100	4.28
Back3	100	2.30
MCP0	1830	55 56
MCP1	1700	55
Foil0	1000	0
Foil1	800	\sim 50nA

4:09 new Mem 110

Group 02

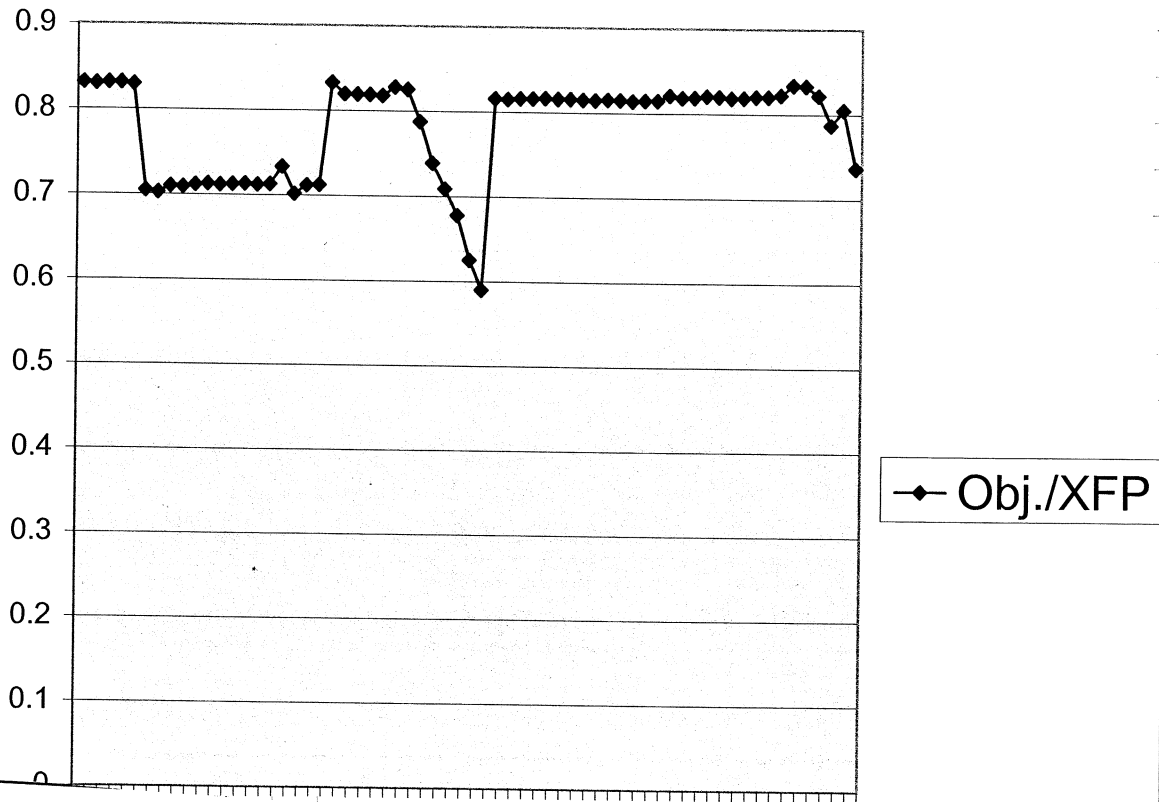
Channel Name	V0Set	I0Set	W0n	I0n	.12 μ A
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.92 μ A	.76 μ A
Tow1Card12	240.00 V	4.00 μ A	240.00 V	1.14 μ A	
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.92 μ A	
Tow1Card6	295.00 V	3.50 μ A	294.75 V	0.78 μ A	
Tow2Card12	250.00 V	4.00 μ A	250.25 V	0.64 μ A	
Tow2Card9	110.00 V	4.00 μ A	110.00 V	1.98 μ A	
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.86 μ A	
Tow2Card3	280.00 V	3.50 μ A	280.00 V	0.72 μ A	
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.86 μ A	
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.46 μ A	
Tow3Card9	120.00 V	3.00 μ A	120.00 V	0.56 μ A	
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.86 μ A	
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	
Tow0Card15	210.00 V	3.00 μ A	210.00 V	0.50 μ A	
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.76 μ A	
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	
Tow0Card6	240.00 V	3.50 μ A	239.75 V	2.48 μ A	
Tow0Card1	0.00 V	0.10 μ A	0.00 V	0.00 μ A	

Date:
 Time:

	Vbias (V)	I (μ A)
Csl0	79.35	0.0
Csl1	79.80	0.1
Csl2	80.10	0.4
Csl3	79.70	0.1
Back0	100	4.01
Back1	"	3.85
Back2	"	4.28
Back3	"	2.30
MCP0	1829	56.3
MCP1	1700	55.4
Foil0	1000	
Foil1	800	

Readings taken at 4:15 \rightarrow

Obj./XFP



5:00 pm

Run 171

Obj. Sci. was fixed

5:40 PM

Run 172

173

174

MICRO CALIBRATION WITH BEAR

Run 144

$\theta_{rot} = 127^\circ$

ped 0 = 63

ped 1 = 58

ped 2 = 64

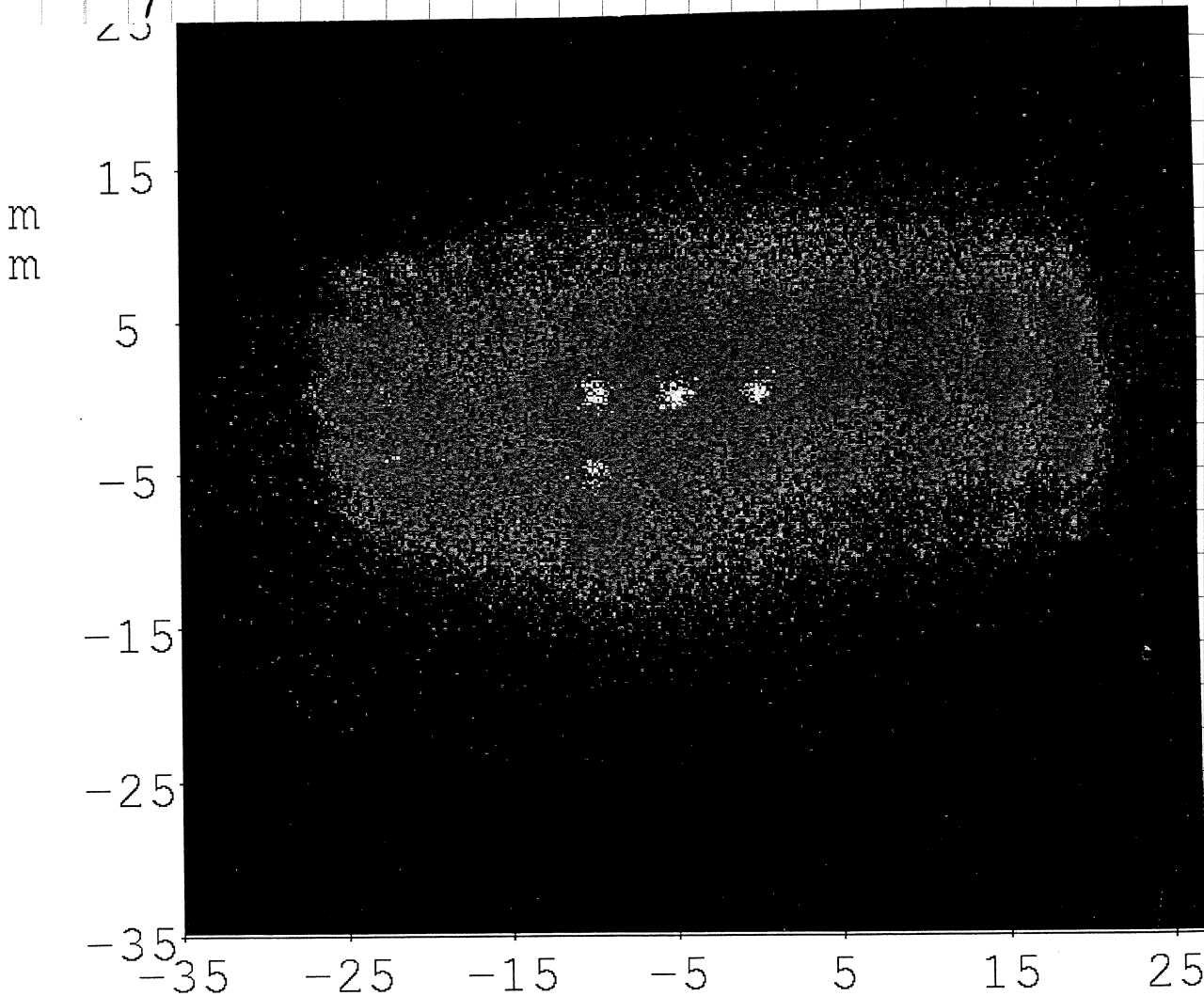
ped 3 = 51

x Slope
34.93 mm

x Offset
0.422 mm

y Slope
35.21 mm

y Offset
0.127 mm



printed off

1/9/00

- Main Utility Setup Groups View 75 V 0.92 uA On
 .12 uA On

Group 02

Channel Name	V0Set	I0Set	W0n	IM0n	Pw
				76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.88 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.48 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Of f

General System Information

Date:

Time:

	Vbias (V)	I (uA)
Csl0	79.3	0.0
Csl1	79.8	0.1
Csl2	79.7	0.1
Csl3	80.1	0.4
Back0		4.05
Back1	100	3.86
Back2	100	4.28
Back3	100	2.31
MCP0	1829	
MCP1	1700	
Foil0		
Foil1		

19:40

- Main Utility Setup Groups View 75 V 0.92 uA On

Group 02 .12 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.88 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off
Tow0Card15	210.00 V	3.00 uA	210.00 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.54 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off

General System Information

Date:

Time:

	Vbias (V)	I (uA)
Csl0		
Csl1		
Csl2		
Csl3		
Back0		4.06
Back1		3.86
Back2		4.18
Back3		2.32
MCP0		
MCP1		
Foil0		
Foil1		

Run 175 started at 19:55h

20-55 run 176 beam current measurement

We asked turned the primary beam
470

alpha measurement

21⁴⁵ beam is returned

run 177 Date by Coincidence

Channel Name	V0Set	I0Set	VMon	I0Mon	Pw
- Main Utility Setup Groups View 75 V 0.92 uA On					
Group 02 .12 uA On					
Channel Name V0Set I0Set VMon I0Mon Pw					
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On
Tow1Card12	240.00 V	4.00 uA	239.75 V	1.14 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.92 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.98 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.88 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	On
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.50 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	On
General System Information					

Date:
Time:

	Vbias (V)	I (uA)
Csl0	79.25	0.0
Csl1	79.20	0.1
Csl2	79.70	0.1
Csl3	80.1	0.4
Back0		4.05
Back1		3.86
Back2		4.28
Back3		2.32
MCP0	1829	56.2
MCP1	1700	55.4
Foil0		
Foil1		

Intensity of primary beam is about 1 uA

Num 179

CsJ pulser

(no beam, no J)

	CRDC1				
	-40, -30	-25, -15	-10, 10	5, 15	20, 30
	1	2	3	4	5
Br	385.2	387.9	393.2	399.2	406.9
Se	373.6	376.6	381.2	387.3	393.5
As	361.7	364.9	368.9	374.7	380.5
Ge	348.7	345.5	356.4	362.2	367.6

	CRDC2				
	-20, -10	5, 5	10, 20	25, 35	30, 40
	1	2	3	4	5
Br	384.6	389.7 392.9	395.5	400.9	402.3
Se	372.9	377.9	383.7	388.4	389.5
As	361.2	365.9	371.3	375.7	376.7
Ge	348.7	352.8	358.7	362.8	363.6

MCP1 Calibration with beam. run 142

$$\Theta_{\text{rotation}} = 31^\circ$$

$$\text{pedestal } 0 = 66$$

$$\text{" } 1 = 58$$

$$\text{" } 2 = 52$$

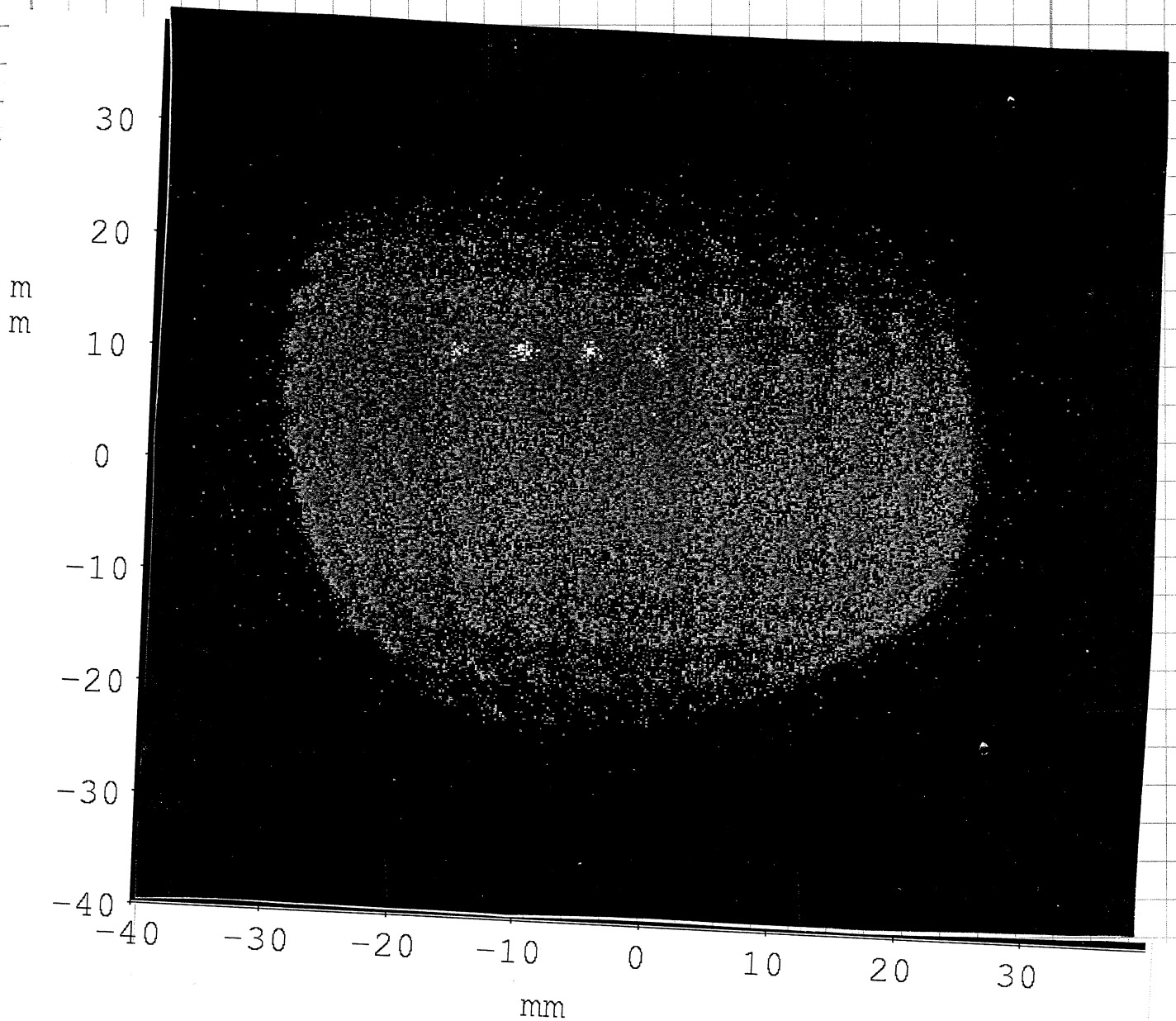
$$\text{" } 3 = 71$$

$$x \text{ slope} = 35.758$$

$$x \text{ offset} = -2.588$$

$$y \text{ slope} = 33.948$$

$$y \text{ offset} = 3.853$$



[62] MCP1.XVSY

CSI pulse run 180

Pulse V set

Pulse DVM read
(Run 180) ^{avg pulse}

Peak 184)

0.70

.707

.707

0.65

0.657

.657

.60

0.607

.607

.55

.5565

.5565

.50

.506

.506

.45

.456

.456

.40

.406

.406

.35

.356

after time here .356

.30

.306

.306

.25

.2555

.2555

.20

.205

.205

.15

.155

.155

0.10

.105

.105

0.05

.055

.055

pebble lab run 182

new thresholds of in run 183

pulse
ramp

after gain reduction \leftrightarrow run 184

Run 185

Started: 11:55 PM

continuing with the production
runs HIRA + S800 coincidences

- Main Utility Setup Groups View 75 V 0.92 μ A On
Group 02 .12 μ A On

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.94 μ A	On	
Tow1Card12	240.00 V	4.00 μ A	240.00 V	1.16 μ A	On	
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.94 μ A	On	
Tow1Card6	295.00 V	3.50 μ A	294.75 V	0.78 μ A	On	
Tow2Card12	250.00 V	4.00 μ A	250.25 V	0.64 μ A	On	
Tow2Card9	110.00 V	4.00 μ A	110.00 V	1.98 μ A	On	
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.86 μ A	On	
Tow2Card3	280.00 V	3.50 μ A	280.00 V	0.72 μ A	On	
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.86 μ A	On	
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.46 μ A	On	
Tow3Card9	120.00 V	3.00 μ A	120.00 V	0.56 μ A	On	
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.88 μ A	On	
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	Off	
Tow0Card15	210.00 V	3.00 μ A	209.75 V	0.50 μ A	On	
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.74 μ A	On	
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	On	
Tow0Card6	240.00 V	3.50 μ A	239.75 V	2.54 μ A	On	
Tow0Card1	0.00 V	0.10 μ A	0.00 V	0.00 μ A	Off	

General System Information

Run 186

Started: 0:55 AM

production runs continued

Run 186 → HNSIC

- Main Utility Setup Groups View 75 V 0.92 uA On
Group 02 .12 uA On

Channel Name	V0Set	I0Set	VMbn	IMbn	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.16 uA	On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On
Tow3Card12	200.00 V	5.00 uA	200.25 V	1.46 uA	On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.88 uA	On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.56 uA	On

Date: 07/29/05
Time: 00:50

	Vbias (V)	I (uA)
Csl0	79.3	0.
Csl1	79.8	0.1
Csl2	79.7	0.1
Csl3	80.1	0.4
Back0	100	4.0
Back1	100.1	3.8
Back2	100	4.2
Back3	100	2.3
MCP0	1829	8.5
MCP1	1700	5.5
Foil0		
Foil1		

Run 187

- Main Utility Setup Groups View 75 V 0.92 uA On
Group 02 .12 uA On

Channel Name	V0Set	I0Set	VMbn	IMbn	Pw	Stat
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.16 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.86 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.88 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.54 uA	On	

RUN 187

Date: 07/29/05

Time: 01:56

	Vbias (V)	I (μ A)
Csl0	79.25	0.0
Csl1	79.8	0.1
Csl2	79.65	0.1
Csl3	80.1	0.4
Back0	100	4.08
Back1	100	3.87
Back2	100	4.27
Back3	100	2.33
MCP0	18.29	1700
MCP1	56.2	55.3
Foil0		
Foil1		

RUN 188

- Main Utility Setup Groups View 75 V						
Group 02						
Channel Name	V0Set	I0Set	W0n	IMon	Pw	Stat
				0.92 μ A	On	
				.12 μ A	On	
				.76 μ A	On	
Tow1Card15	290.00 V	4.00 μ A	289.75 V	0.92 μ A	On	
Tow1Card12	240.00 V	4.00 μ A	240.00 V	1.16 μ A	On	
Tow1Card9	200.00 V	3.00 μ A	199.75 V	0.94 μ A	On	
Tow1Card6	295.00 V	3.50 μ A	295.00 V	0.78 μ A	On	
Tow2Card12	250.00 V	4.00 μ A	250.25 V	0.64 μ A	On	
Tow2Card9	110.00 V	4.00 μ A	109.75 V	1.98 μ A	On	
Tow2Card6	250.00 V	4.00 μ A	249.75 V	0.86 μ A	On	
Tow2Card3	280.00 V	3.50 μ A	280.00 V	0.72 μ A	On	
Tow3Card15	210.00 V	3.00 μ A	209.75 V	0.88 μ A	On	
Tow3Card12	200.00 V	5.00 μ A	200.00 V	1.46 μ A	On	
Tow3Card9	120.00 V	3.00 μ A	120.00 V	0.56 μ A	On	
Tow3Card6	310.00 V	3.50 μ A	309.50 V	0.90 μ A	On	
Tow3Card3	0.00 V	0.10 μ A	1.00 V	0.00 μ A	Of f	
Tow0Card15	210.00 V	3.00 μ A	209.75 V	0.50 μ A	On	
Tow0Card12	250.00 V	4.00 μ A	250.25 V	0.74 μ A	On	
Tow0Card9	190.00 V	3.00 μ A	190.00 V	0.26 μ A	On	
Tow0Card6	240.00 V	3.50 μ A	239.75 V	2.54 μ A	On	

Run 188

Date: 07/29/05
Time: 03:30

	Vbias (V)	I (μA)
Csl0	79.25	0.0
Csl1	79.75	0.1
Csl2	79.65	0.1
Csl3	80.1	0.4
Back0	100	4.08
Back1	100	4.08 3.87
Back2	100	4.28
Back3	100	2.35
MCP0	1829	56.3
MCP1	1700	55.3
Foil0		
Foil1		

Run 189

- Main Utility Setup Groups View 75 V 0.92 uA On
Group 02 .12 uA On
Channel Name V0Set I0Set W0n IM0n Pw Status

Channel Name	V0Set	I0Set	W0n	IM0n	Pw	Status
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	0.76 uA	On
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.16 uA		On
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA		On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA		On
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA		On
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA		On
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA		On
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA		On
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.88 uA		On
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA		On
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA		On
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.90 uA		On
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA		Off
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA		On
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA		On
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA		On
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.58 uA		On

Date: 07/29/05
Time: 05:36

	Vbias (V)	I (μA)
Csl0	79.25	0.0
Csl1	79.8	0.1
Csl2	79.65	0.1
Csl3	80.1	0.4
Back0	100	4.11
Back1	100	3.88
Back2	100	4.28
Back3	100	2.36
MCP0	1830	56.3
MCP1	1700	55.4
Foil0		
Foil1		

RUN 192

- Main Utility Setup Groups View 75 V 0.92 uA On

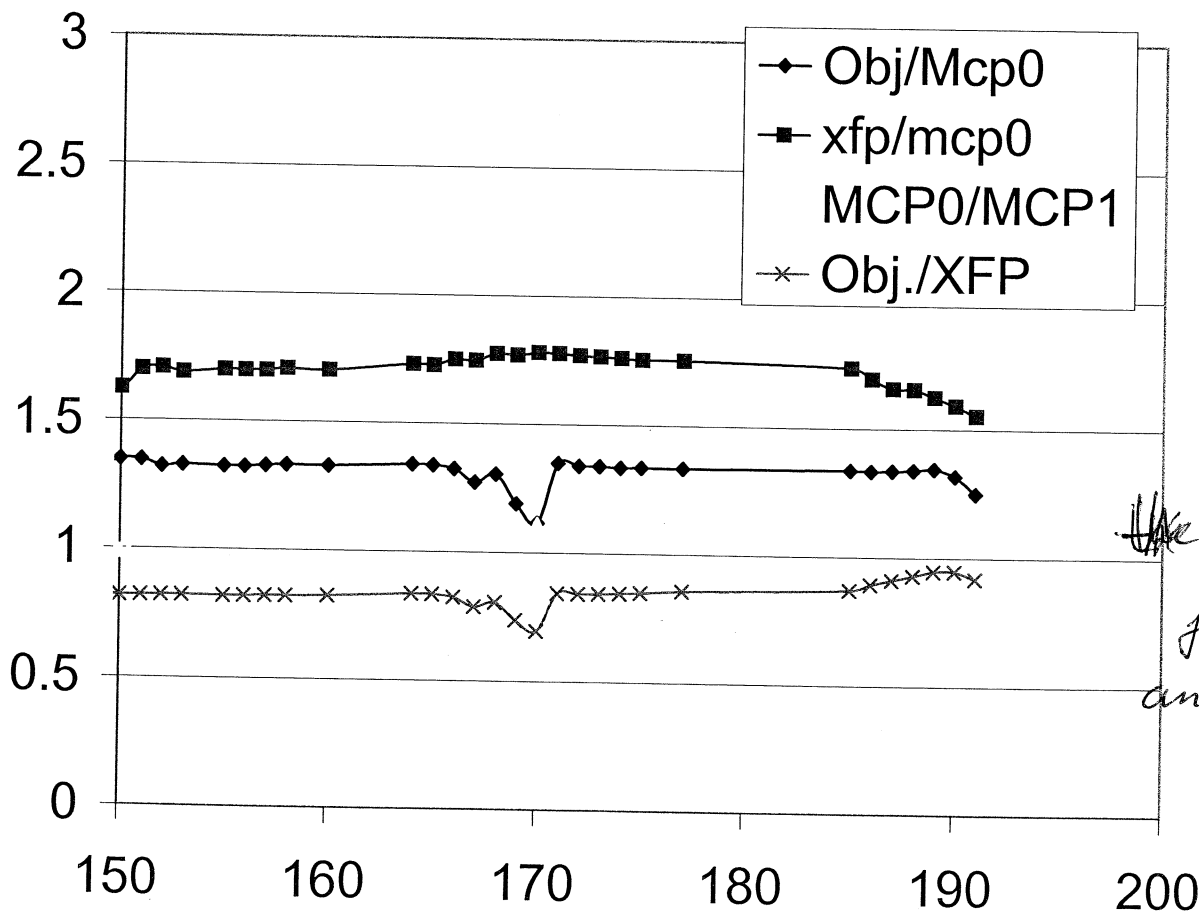
Group 02 .12 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Status
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On	
Tow1Card12	240.00 V	4.00 uA	239.75 V	1.16 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.88 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.90 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.58 uA	On	

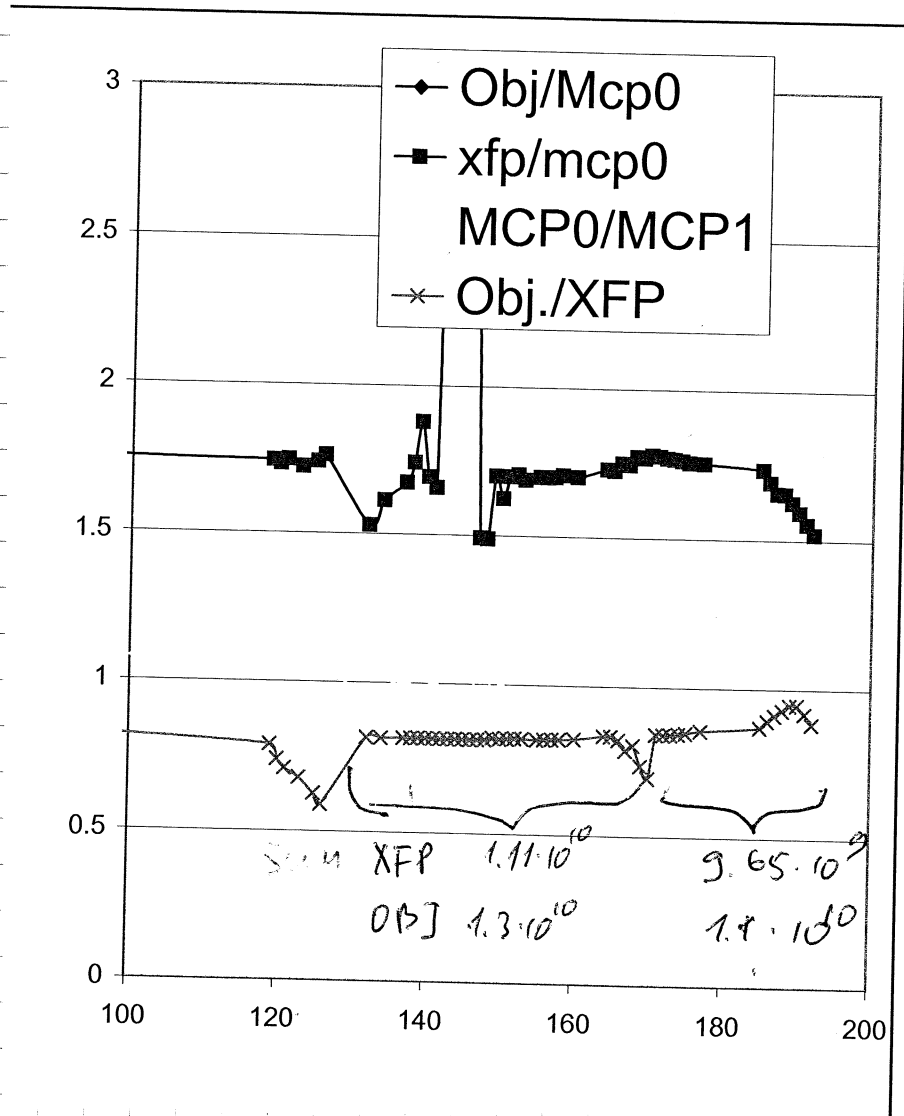
Date: 07/29/05
Time: 06:38

	Vbias (V)	I (uA)
Csl0	79.25	0.0
Csl1	79.75	0.1
Csl2	79.70	0.1
Csl3	80.1	0.4
Back0	100	4.11
Back1	100	3.89
Back2	100	4.28
Back3	100	2.37
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		

1/29 July



like problems for XFP and Obj



OBJ or XFP scint. become dead after
 $\text{flux} \sim 10 \times 10^9 \text{ particles}$

8 ⁰² beam is off, tuning

- Main Utility Setup Groups View 75 V 0.92 uA On
 .12 uA On

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St
					.76 uA	On
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.92 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.16 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.78 uA	On	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.64 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	279.75 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.88 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.46 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.56 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.90 uA	On	
Tow3Card3	0.00 V	0.10 uA	1.00 V	0.00 uA	Of f	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.74 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.56 uA	On	

Date:
Time:

	Vbias (V)	I (uA)
Csl0	79.2	0.0
Csl1	79.8	0.1
Csl2	79.65	0.1
Csl3	80.1	0.1
Back0		4.11
Back1		3.88
Back2		4.28
Back3		2.38
MCP0	1830	56.1
MCP1	1700	55.3
Foil0	Same as previous	
Foil1		

HV OBJ = 167 kV HV XFP = 1970 V

Run 193 HIRA + S800, data
OBJ and XFP sci-tors were fixed
by mising HV for 100V OBJ
70V XFP

#194 the same as run 193, data taking
run was stopped due to
a DAB problem.

7/29/05 10:00 am

We reboot spdaq20, ubpc2 and ubpc3.

10:30 am

After rebooting spdaq20 everything is working again

→ The file to be load for Si-check spectra is in

the directory: ~/Current/spectel/telescope-files.tcl

The window-definition file to be load is under

~/user/02023/Current/spectel/win-files/AllSum.win

~~run~~ run #195 good run, setting as
for previous, HIRA + S800

11:18 run #196 same conditions

DAB crashed again?

T10 P12	80.00 V	2.0 uA	79.00 V	0.1 uA	Off	E
NOT_USED			0 V	0.2 uA	Off	E
NOT_USED	V0Set	I0Set	VMon	IMon	Pw	St
CSI0	80.00 V	3.0 uA	79.30 V	0.0 uA	On	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.60 uA	On	
NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA	Off	
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.18 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.78 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.90 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.48 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.58 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.92 uA	On	

Date:

Time:

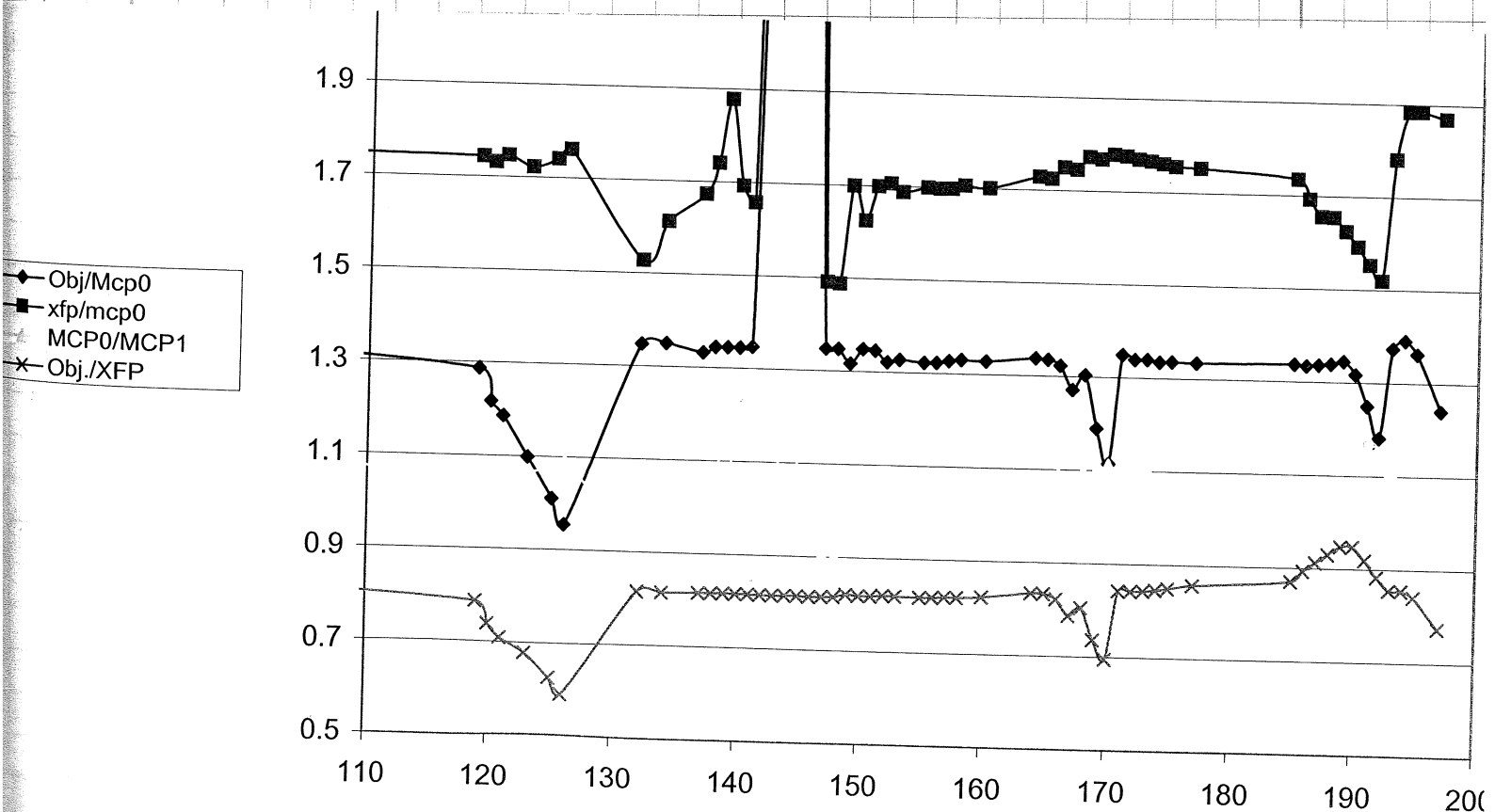
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	Vbias (V)	I (uA)
Csl0	79.3	0.0
Csl1	79.35	0.1
Csl2	79.8	0.2
Csl3	79.7	0.4
Back0	100	4.16
Back1	100	3.9
Back2	100	4.3
Back3	100	2.41
MCP0	1830	56.4
MCP1	1700	55.4
Foil0	same	
Foil1	as last	

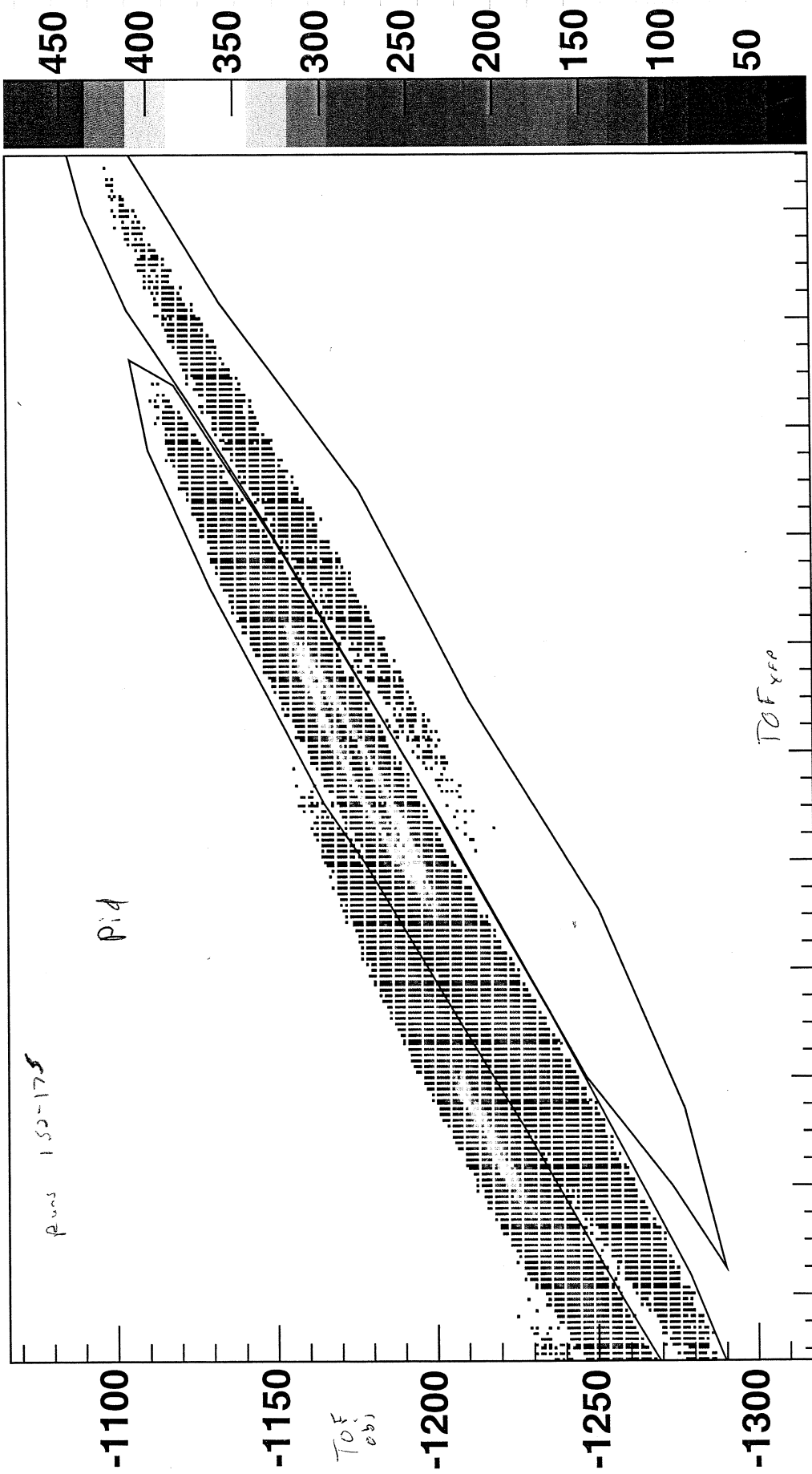
12:17 new run 197

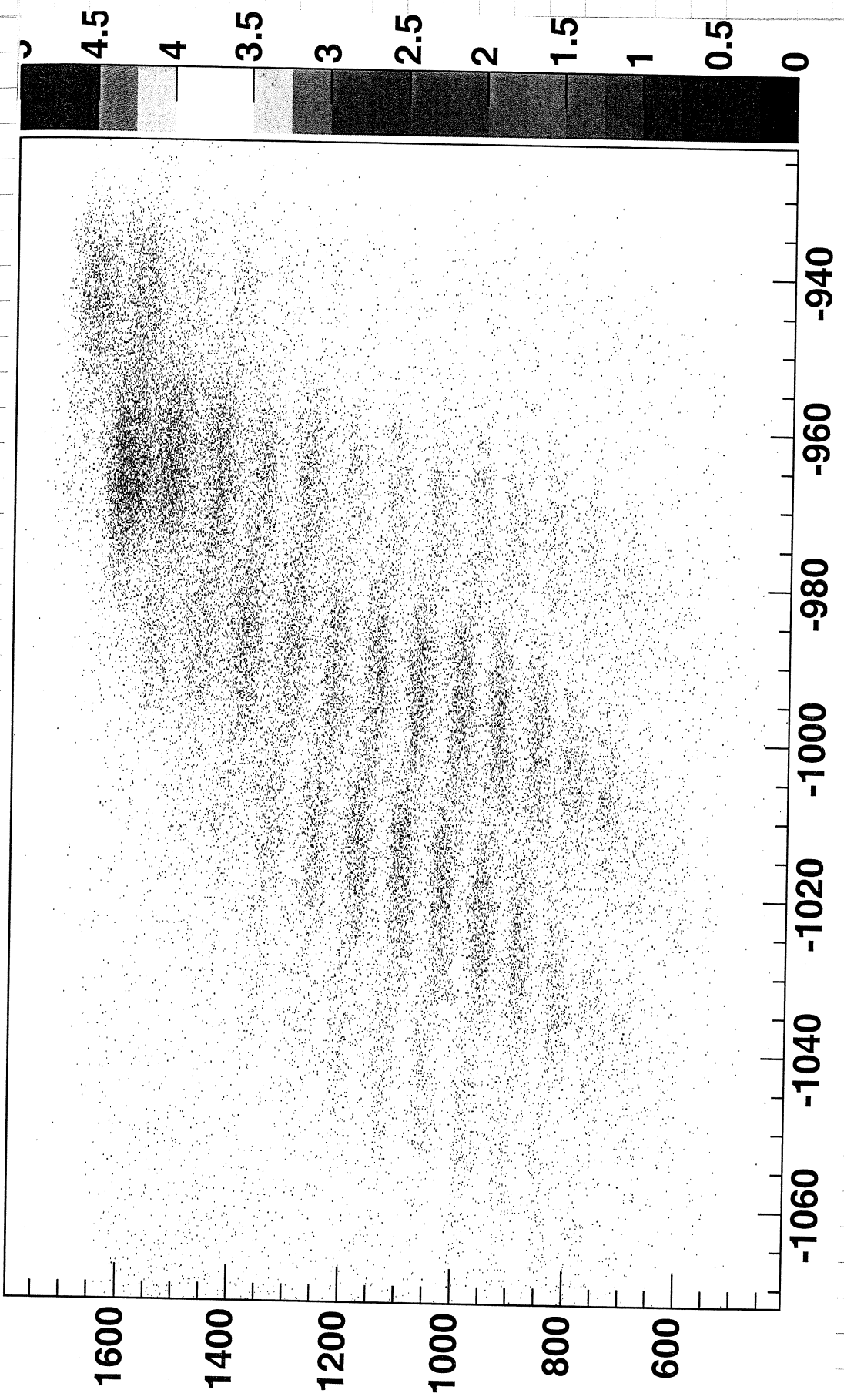
13:17 run 198

14:00 run 199; 200 - last run



Runs 172-175

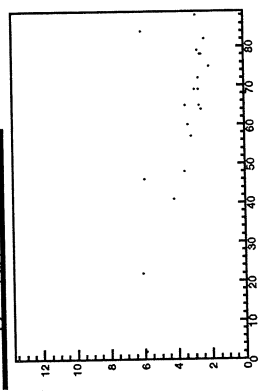




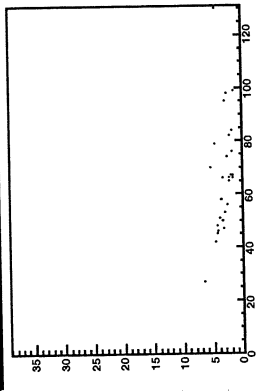
5800 P10 For Br-71 beam

High protons for Bi beam and for 68 Se in 580

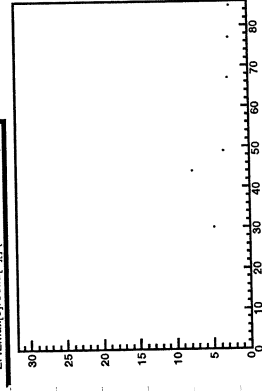
EF_Emax[2][Ca][E[2]] [bromine&br_b]



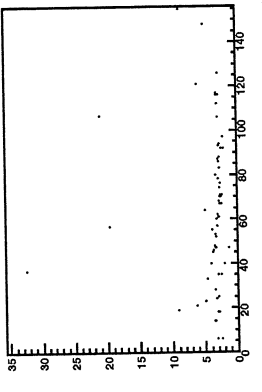
EF_Emax[1][Ca][E[1]] [bromine&br_b]



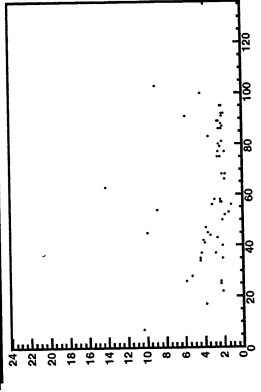
EF_Emax[0][Ca][E[0]] [bromine&br_b]



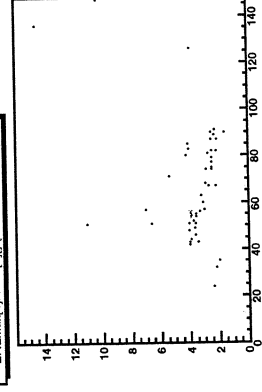
EF_Emax[6][Ca][E[6]] [bromine&br_b]



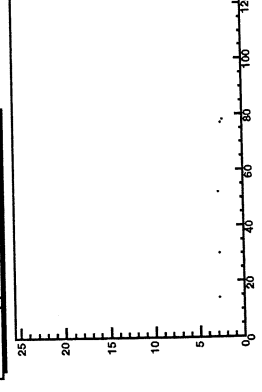
EF_Emax[5][Ca][E[5]] [bromine&br_b]



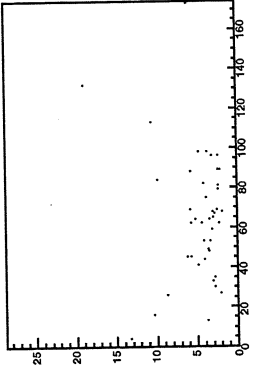
EF_Emax[4][Ca][E[4]] [bromine&br_b]



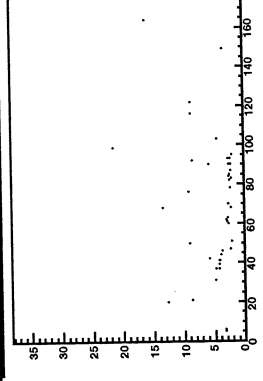
EF_Emax[3][Ca][E[3]] [bromine&br_b]



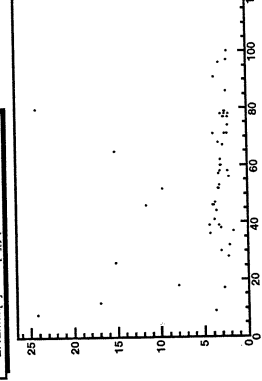
EF_Emax[11][Ca][E[11]] [bromine&br_b]



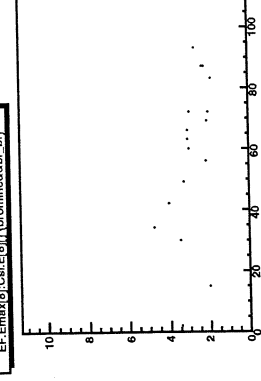
EF_Emax[10][Ca][E[10]] [bromine&br_b]



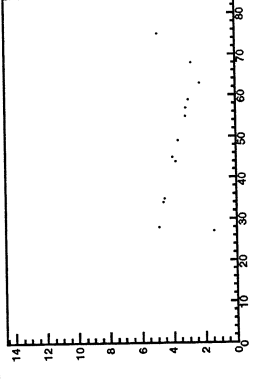
EF_Emax[9][Ca][E[9]] [bromine&br_b]



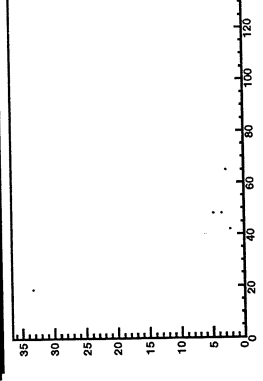
EF_Emax[8][Ca][E[8]] [bromine&br_b]



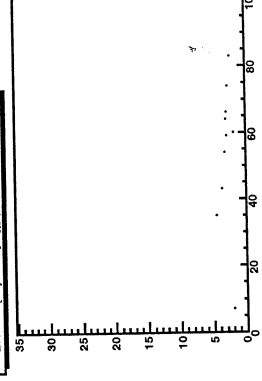
EF_Emax[19][Ca][E[19]] [bromine&br_b]



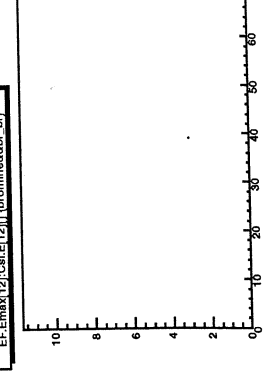
EF_Emax[17][Ca][E[17]] [bromine&br_b]



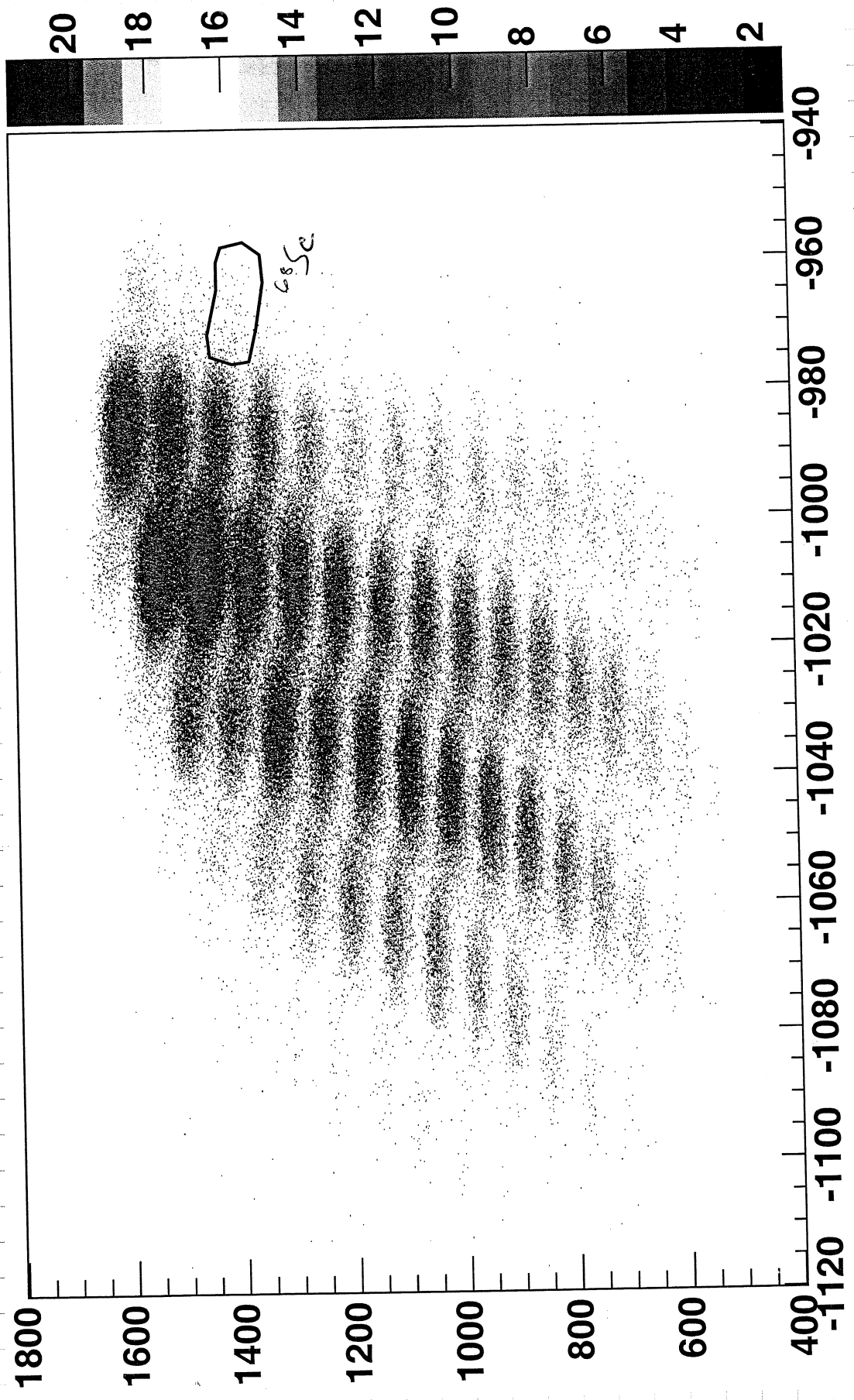
EF_Emax[16][Ca][E[16]] [bromine&br_b]



EF_Emax[12][Ca][E[12]] [bromine&br_b]



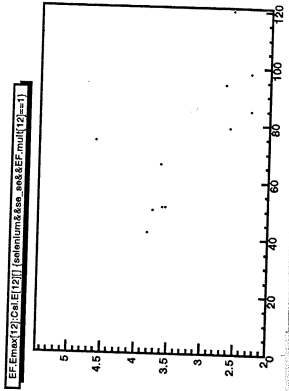
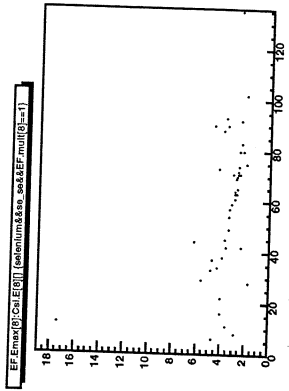
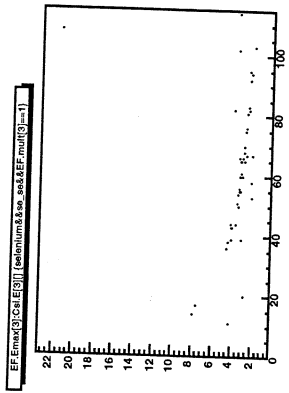
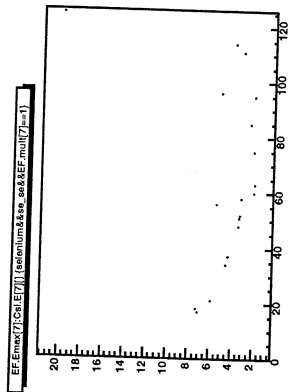
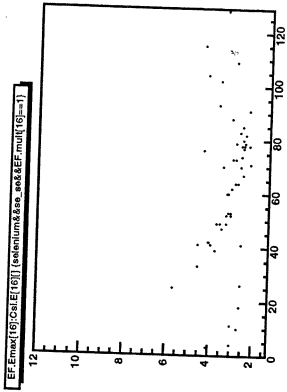
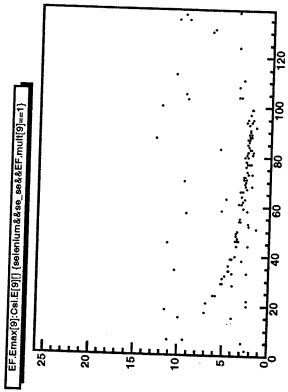
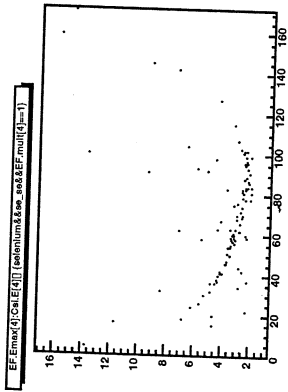
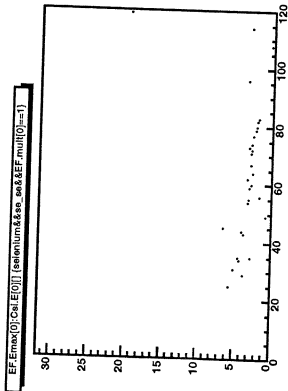
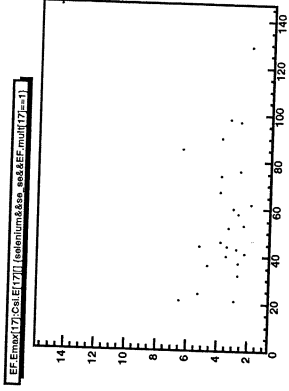
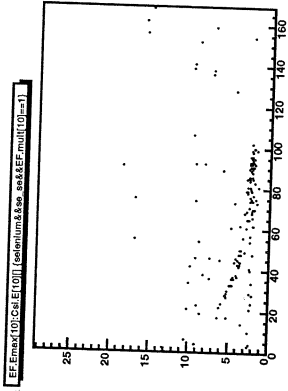
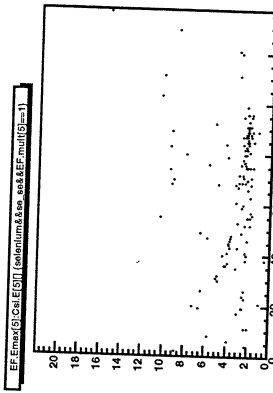
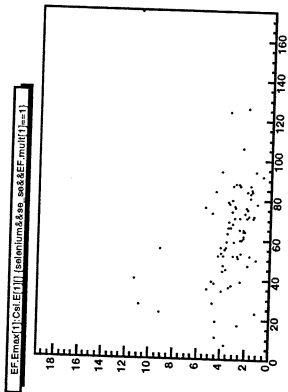
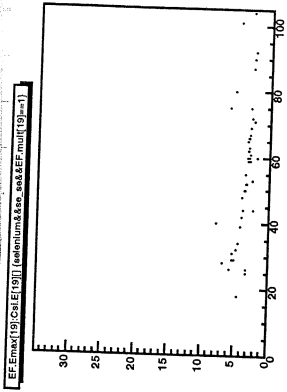
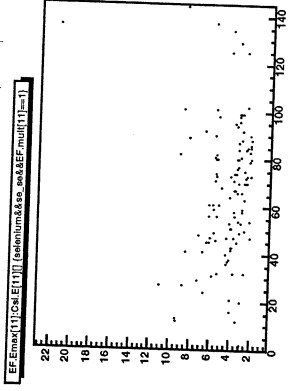
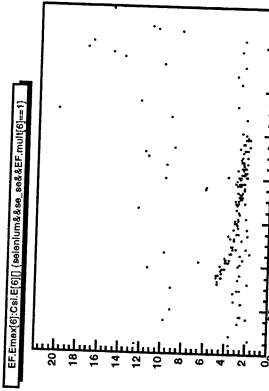
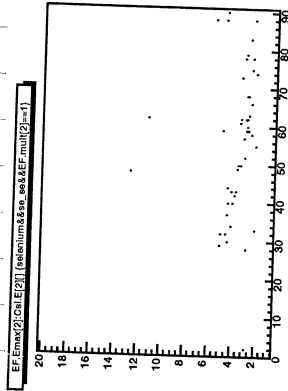
^{76}Se beam PID in S800



Can we also get the ^{76}Se beam breakup events of ^{68}Se from

EFus (ST for ⁶⁸Se

particles in SPO From ²⁰Sc beam

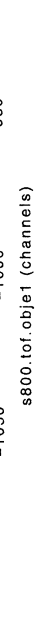
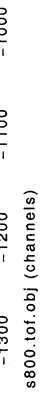
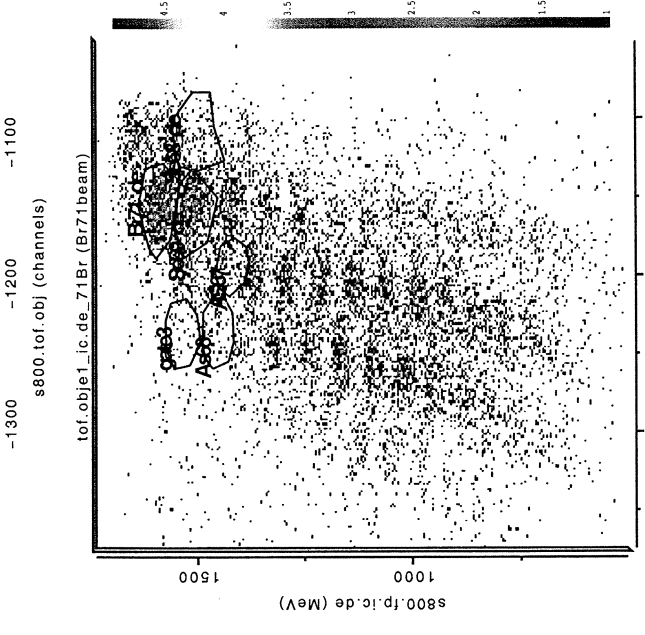
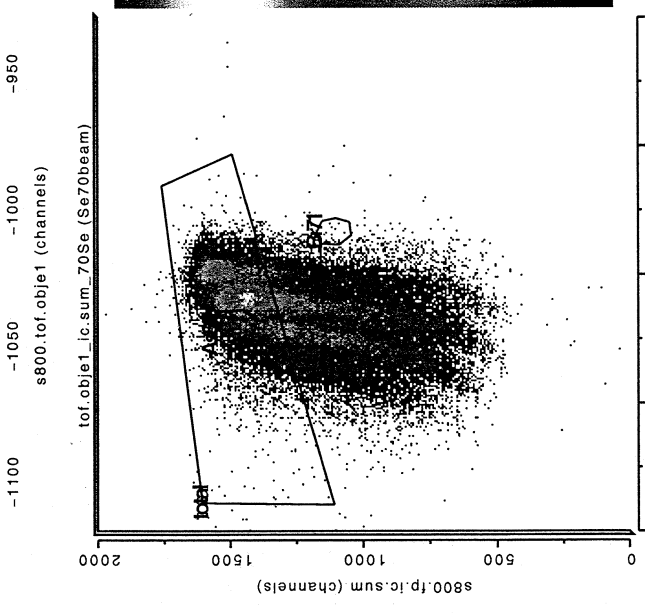
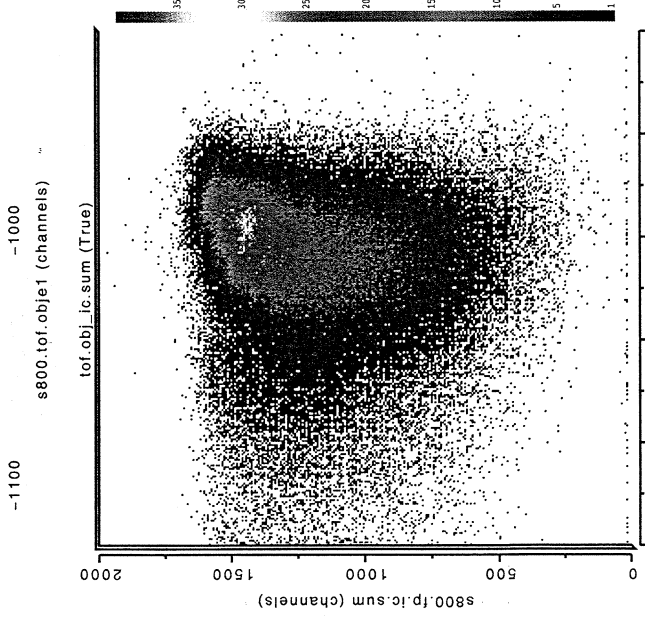
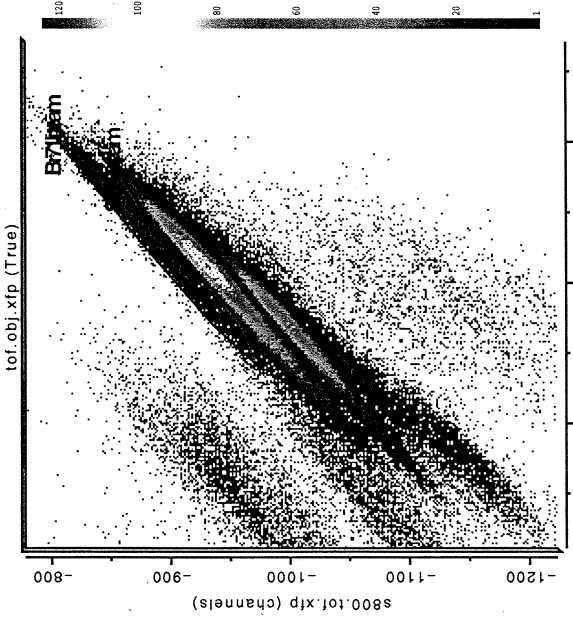
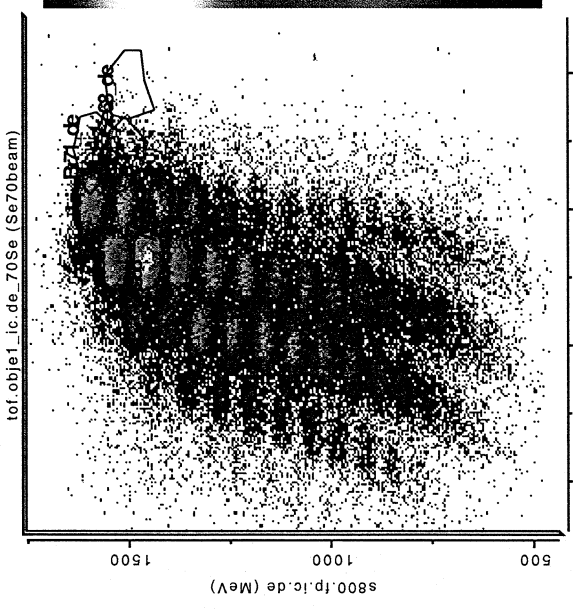
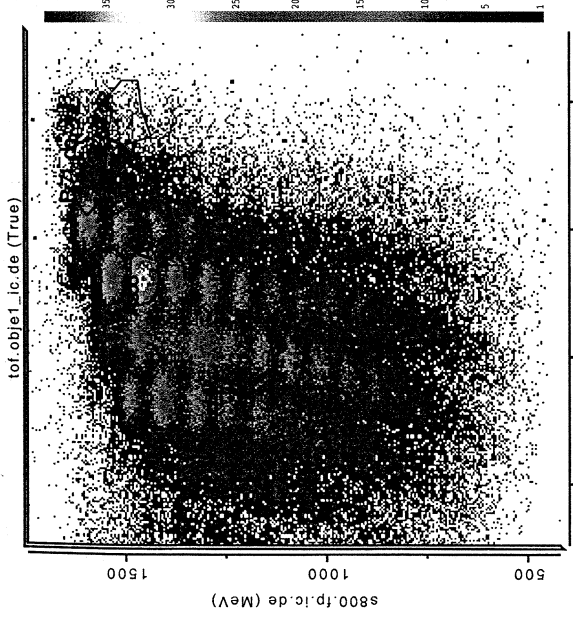


not = I

use

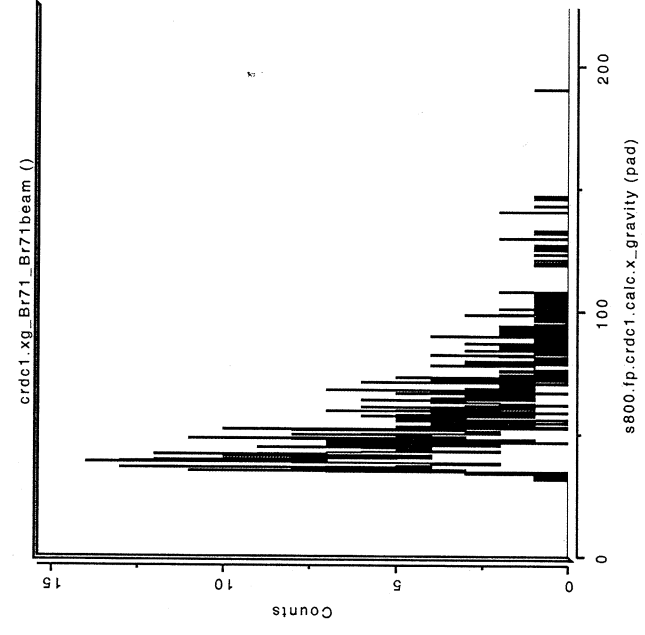
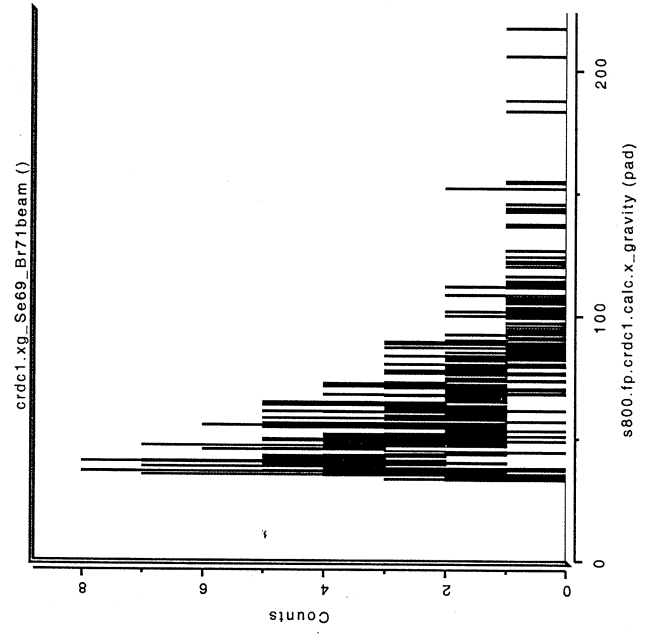
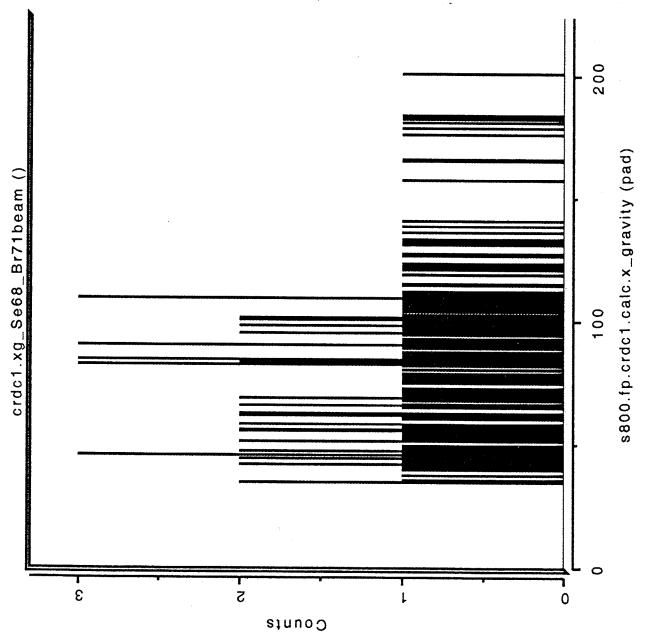
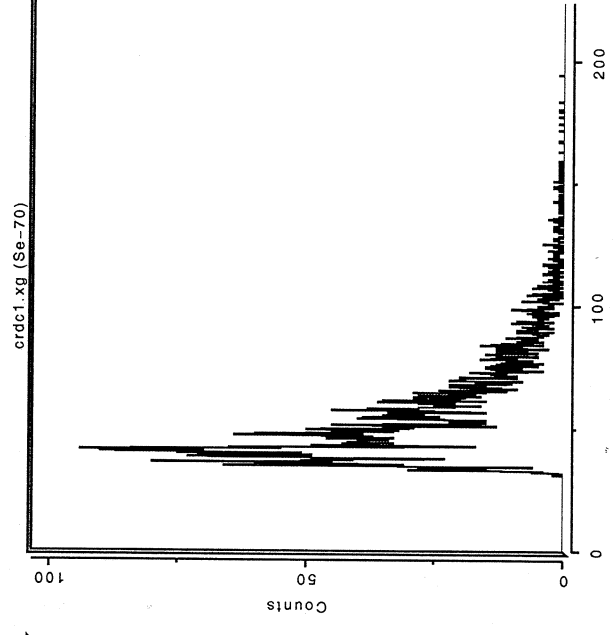
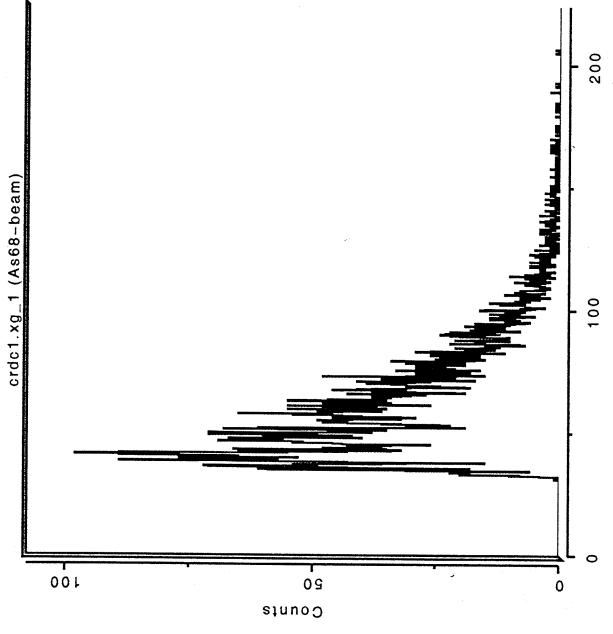
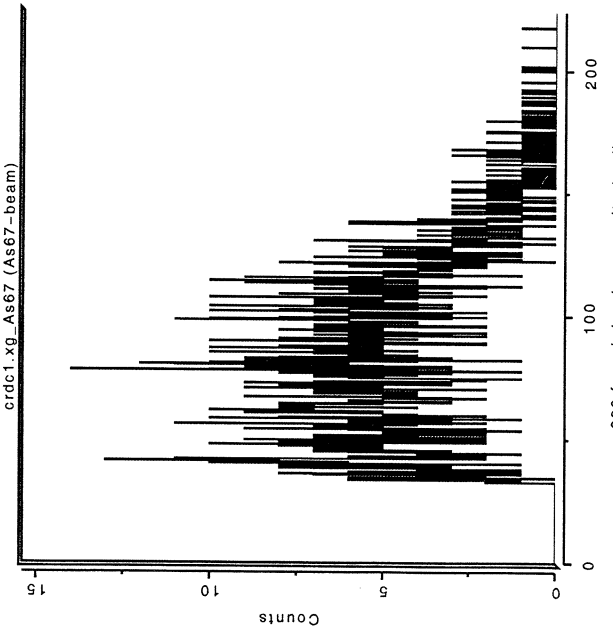
rose → '98 → use + P ?

Parabola-id spectra with Δ without de- γ correction



run 195 - 197

Fragment position in CRDC1



508 195-197

at 14:00

	V0Set	I0Set	VMon	IMon	Pw	St
T10_P12	80.00 V	2.0 uA	79.00 V	0.1 uA	Off	E
NOT_USED			0 V	0.2 uA	Off	E
NOT_USED						
CSI0	80.00 V	3.0 uA	79.30 V	0.0 uA	On	
Tow0Card15	210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	250.00 V	4.00 uA	250.25 V	0.76 uA	On	
Tow0Card9	190.00 V	3.00 uA	190.00 V	0.26 uA	On	
Tow0Card6	240.00 V	3.50 uA	239.75 V	2.60 uA	On	
NOT_USED	0.00 V	0.10 uA	0.25 V	0.00 uA	Off	
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On	
Tow1Card12	240.00 V	4.00 uA	240.00 V	1.18 uA	On	
Tow1Card9	200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On	
NOT_USED	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
NOT_USED	0.00 V	0.10 uA	0.50 V	0.00 uA	Off	
Tow2Card12	250.00 V	4.00 uA	250.25 V	0.66 uA	On	
Tow2Card9	110.00 V	4.00 uA	109.75 V	1.98 uA	On	
Tow2Card6	250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	210.00 V	3.00 uA	209.75 V	0.90 uA	On	
Tow3Card12	200.00 V	5.00 uA	200.00 V	1.48 uA	On	
Tow3Card9	120.00 V	3.00 uA	120.00 V	0.58 uA	On	
Tow3Card6	310.00 V	3.50 uA	309.50 V	0.92 uA	On	

Date:
Time:

	Vbias (V)	I (uA)
Csl0	80	0.0
Csl1		0.1
Csl2		0.1
Csl3		0.4
Back0	400	4.17
Back1	100	3.92
Back2	400	4.30
Back3	100	2.41
MCP0	1830	
MCP1	1700	
Foil0	1000	
Foil1	800	

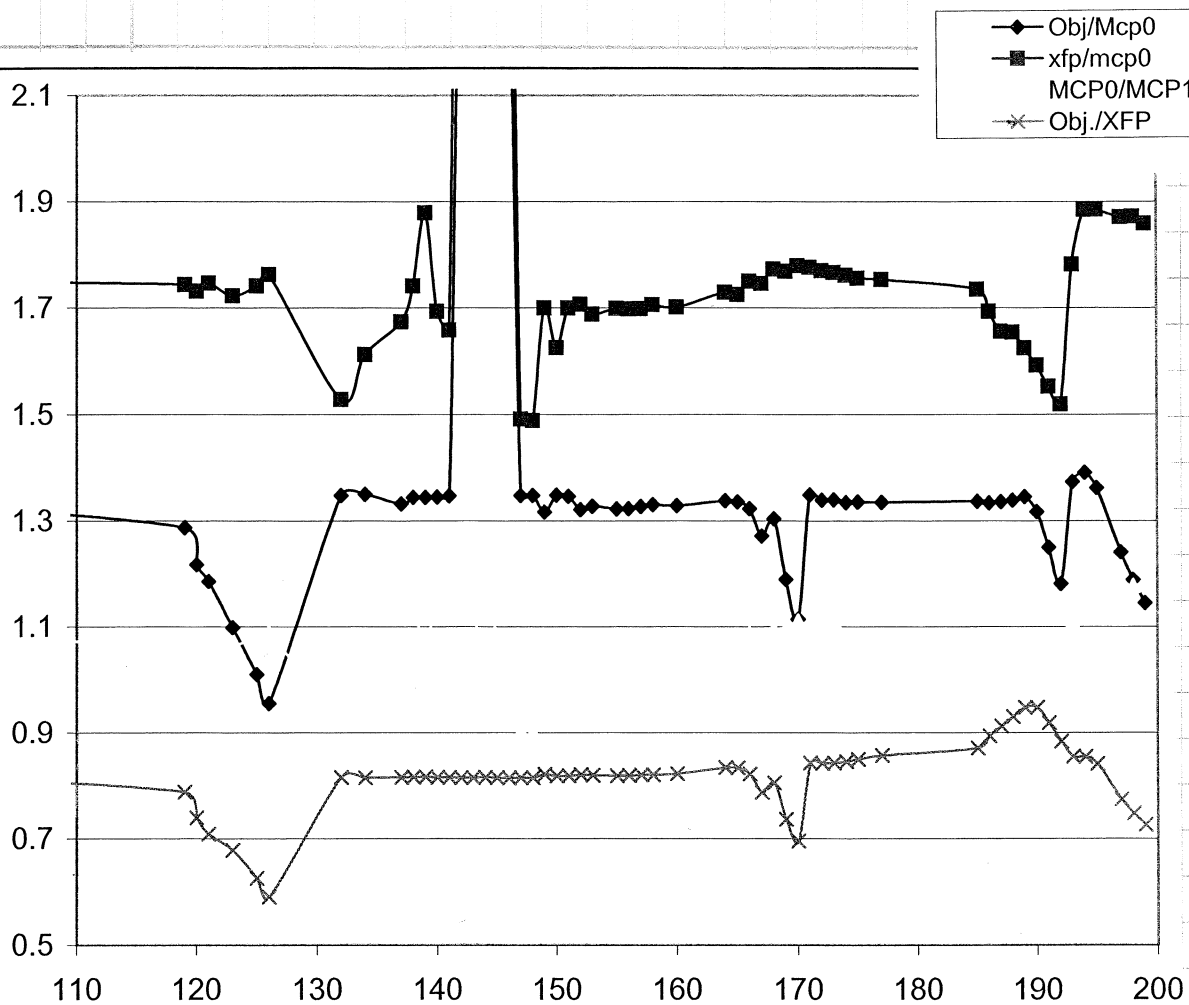
Run 216

mid-way thru: 8:00pm

Channel Name	V0Set	I0Set	VMon	IMon	Pw	St
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On	
Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.18 uA	On	
Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.94 uA	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On	
Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On	
Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On	
Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On	
Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On	
Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.90 uA	On	
Tow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	On	
Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On	
Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	On	
Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On	
Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On	
Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On	
Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.64 uA	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	

Date: 7/29/05
Time: 8:00 pm

	Vbias (V)	I (uA)
Csl0	79.25	0.0
Csl1	79.80	0.1
Csl2	80.10	0.4
Csl3	79.65	0.1
Back0	100	2.23
Back1	100	3.95
Back2	100	4.30
Back3	100	2.43
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		



7/29/05
3:00p

The scintillator was burning up at ~ 185 on x-axis. Voltage on photomultiplier was increased. This worked for a while but again the Obj decreases, indicating that the scintillator must be replaced.

(XFP)

HV OBJ = 1.5 kV
it was replaced

HV = 1300 kV
no replacement

17th beam is coming

run #207 - first run with beam

after plastics fixing and MIRA adjustment

17-48

29 July 151

Group 02

Date:
Time:

	Vbias (V)	I (µA)
Csl0		0.0
Csl1		0.1
Csl2		0.1
Csl3		0.4
Back0	4.19	
Back1	3.95 →	
Back2	3.3	
Back3	2.43	
MCP0		56.3
MCP1		55.4
Foil0		
Foil1		

Channel Name	V0Set	I0Set	VMon	IMon	Pw	Sta
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On	On
Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.18 uA	On	On
Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.94 uA	On	On
Tow1Card6	295.00 V	3.50 uA	295.00 V	0.80 uA	On	On
Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On	On
Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On	On
Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On	On
Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On	On
Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.90 uA	On	On
Tow3Card12	4 200.00 V	5.00 uA	200.25 V	1.48 uA	On	On
Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On	On
Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.92 uA	On	On
Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off	Off
Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On	On
Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On	On
Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On	On
Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.66 uA	On	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	Off
16	4861 V	23 C	1 V/s Dis Ramp			is

~~Run 108 is same as 127~~

you mean 213

Run 208 18:13 Alpha run

- Main Utility Setup Groups View

Group 02	Channel Name	V0Set	I0Set	VMon	IMon	Pw	Sta
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.94 uA	On	On	
Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.18 uA	On	On	
Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.94 uA	On	On	
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On	On	
Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.64 uA	On	On	
Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On	On	
Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On	On	
Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On	On	
Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.90 uA	On	On	
Tow3Card12	4 200.00 V	5.00 uA	200.25 V	1.48 uA	On	On	
Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On	On	
Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.92 uA	On	On	
Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off	Off	
Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On	On	
Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.74 uA	On	On	
Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On	On	
Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.66 uA	On	On	
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	Off	
16	4861 V	23 C	1 V/s Dis Ramp			is	

Run 219

at 10:50 pm

Channel Name	V0Set	I0Set	VMon	I0Mon	I1Mon	Pw
Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	0.96 uA	On
Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	1.20 uA	On
Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.96 uA	0.96 uA	On
Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	0.80 uA	On
Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	0.66 uA	On
Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	1.98 uA	On
Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	0.86 uA	On
Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	0.72 uA	On
Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	0.92 uA	On
Tow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	1.48 uA	On
Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	0.58 uA	On
Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	0.94 uA	On
Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	0.00 uA	Off
Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	0.50 uA	On
Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	0.76 uA	On
Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	0.28 uA	On
Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.70 uA	2.70 uA	On
Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	0.00 uA	Off

Date:
Time:

	Vbias (V)	I (uA)
Csl0	79.30	0.0
Csl1	79.80	0.1
Csl2	80.10	0.4
Csl3	79.70	0.1
Back0	100	4.25
Back1	100	3.97
Back2	100	4.31
Back3	100	2.45
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		

Run 222

- Main Utility Setup Groups View

Group 02	Channel Name	V0Set	I0Set	VMon	I0Mon	I1Mon	Pw
	Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	0.96 uA	On
	Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	1.20 uA	On
	Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.96 uA	0.96 uA	On
	Tow1Card6	295.00 V	3.50 uA	295.00 V	0.80 uA	0.80 uA	On
	Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	0.66 uA	On
	Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	1.98 uA	On
	Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	0.86 uA	On
	Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	0.72 uA	On
	Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	0.92 uA	On
	Tow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	1.48 uA	On
	Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	0.58 uA	On
	Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	0.94 uA	On
	Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	0.00 uA	Off
	Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	0.50 uA	On
	Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	0.76 uA	On
	Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	0.28 uA	On
	Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.68 uA	2.68 uA	On
	Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	0.00 uA	Off

16 4861 V 23 C 1 V/s Dis Ramp is

Date: 07/30/05
Time: 01:16

	Vbias (V)	I (uA)
Csl0	79.3	0.0
Csl1	79.8	0.1
Csl2	79.7	0.1
Csl3	80.1	0.4
Back0	100	4.24
Back1	100	3.97
Back2	100	4.31
Back3	100	2.46
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		

Run 225

Main Utility Setup Groups View IMon Pw

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw
ow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On
ow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	On
ow1Card9	4 200.00 V	3.00 uA	199.75 V	0.94 uA	On
ow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On
ow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On
ow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On
ow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On
ow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On
ow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	On
ow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	On
ow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On
ow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	On
ow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off
ow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On
ow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On
ow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On
ow0Card6	4 240.00 V	3.50 uA	239.75 V	2.72 uA	On
ow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off
6	4861 V	23 C	1 V/s Dis Ramp	is	

Date: 07/30/05
Time: 03:54

	Vbias (V)	I (uA)
Csl0	79.25	0.0
Csl1	79.75	0.1
Csl2	79.65	0.1
Csl3	80.1	0.4
Back0	100	4.76
Back1	100	3.98
Back2	100	4.30
Back3	100	2.46
MCP0	1829	56.2
MCP1	1700	55.4
Foil0		
Foil1		

Run 226

Main Utility Setup Groups View IMon Pw

Group 02

Channel Name	V0Set	I0Set	VMon	IMon	Pw
ow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On
ow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	On
ow1Card9	4 200.00 V	3.00 uA	199.75 V	0.96 uA	On
ow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On
ow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On
ow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On
ow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On
ow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On
ow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	On
ow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	On
ow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On
ow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	On
ow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off
ow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On
ow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On
ow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On
ow0Card6	4 240.00 V	3.50 uA	239.75 V	2.72 uA	On
ow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off
6	4861 V	23 C	1 V/s Dis Ramp	is	

Date: 07/30/05
Time: 04:55

	Vbias (V)	I (uA)
Csl0	79.35	0.0
Csl1	79.8	0.1
Csl2	79.7	0.2
Csl3	80.1	0.4
Back0	100	4.27
Back1	100	3.98
Back2	100	4.31
Back3	100	2.47
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		

RWN 22+

- Main Utility Setup Groups View						IMon	Pw
Group 02	Channel Name	V0Set	I0Set	VMon	IMon	Pw	
	Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On	
	Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	On	
	Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.94 uA	On	
	Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On	
	Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On	
	Tow2Card9	4 110.00 V	4.00 uA	109.75 V	1.98 uA	On	
	Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On	
	Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On	
	Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	On	
	Tow3Card12	4 200.00 V	5.00 uA	200.00 V	1.48 uA	On	
	Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On	
	Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.94 uA	On	
	Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off	
	Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On	
	Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On	
	Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On	
	Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.72 uA	On	
	Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off	
16	4861 V	23 C	1 V/s	Dis Ramp	is		

Date: 07/30/05
Time: 05:58

	Vbias (V)	I (uA)
Csl0	79.2	0.0
Csl1	79.75	0.1
Csl2	79.65	0.1
Csl3	80.1	0.4
Back0	100	4.25
Back1	100	3.96
Back2	100	4.30
Back3	100	2.47
MCP0	1829	56.3
MCP1	1700	55.4
Foil0		
Foil1		

30 July
 ~ 7:30 team is coming back.
 Run #1229 is junk due to wrong trigger
 Run 1230 is good, trigger is correct!

- Main Utility Setup Groups View

Group 02	Channel Name	V0Set	I0Set	W0n	IM0n	Pw
	Tow1Card15	290.00 V	4.00 uA	289.75 V	0.96 uA	On
	Tow1Card12	4 240.00 V	4.00 uA	240.00 V	1.20 uA	On
	Tow1Card9	4 200.00 V	3.00 uA	199.75 V	0.96 uA	On
	Tow1Card6	295.00 V	3.50 uA	294.75 V	0.80 uA	On
	Tow2Card12	4 250.00 V	4.00 uA	250.25 V	0.66 uA	On
	Tow2Card9	4 110.00 V	4.00 uA	110.00 V	1.98 uA	On
	Tow2Card6	4 250.00 V	4.00 uA	249.75 V	0.86 uA	On
	Tow2Card3	4 280.00 V	3.50 uA	280.00 V	0.72 uA	On
	Tow3Card15	4 210.00 V	3.00 uA	209.75 V	0.92 uA	On
	Tow3Card12	4 200.00 V	5.00 uA	200.00 V	1.50 uA	On
	Tow3Card9	4 120.00 V	3.00 uA	120.00 V	0.58 uA	On
	Tow3Card6	4 310.00 V	3.50 uA	309.50 V	0.96 uA	On
	Tow3Card3	4 0.00 V	0.10 uA	1.00 V	0.00 uA	Off
	Tow0Card15	4 210.00 V	3.00 uA	209.75 V	0.50 uA	On
	Tow0Card12	4 250.00 V	4.00 uA	250.25 V	0.76 uA	On
	Tow0Card9	4 190.00 V	3.00 uA	190.00 V	0.28 uA	On
	Tow0Card6	4 240.00 V	3.50 uA	239.75 V	2.72 uA	On
	Tow0Card1	0.00 V	0.10 uA	0.00 V	0.00 uA	Off
16	4861 V	23 C	1 V/s	Dis Ramp	is	

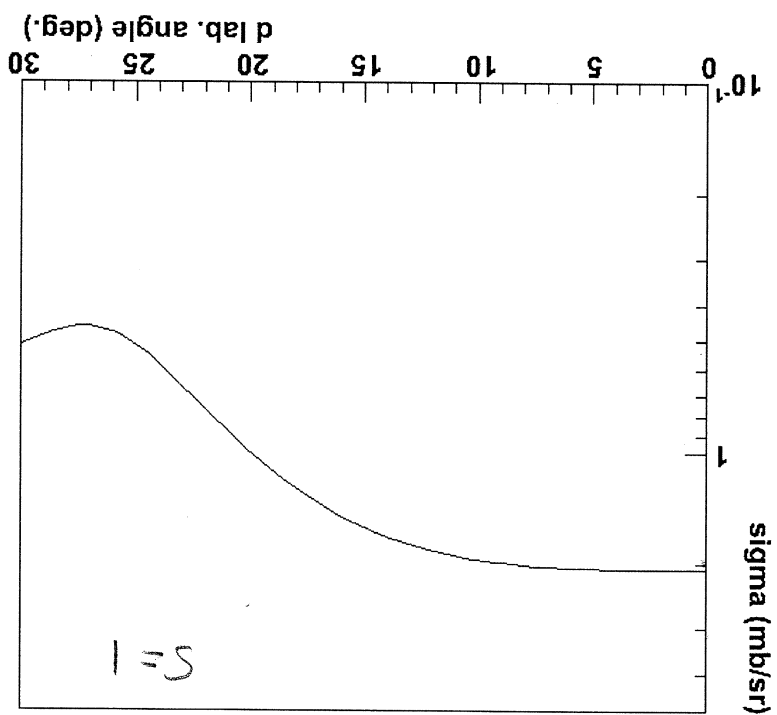
Date:
Time:

	Vbias (V)	I (μ A)
Csl0	21.35	0.0
Csl1	29.3	0.1
Csl2	79.7	0.1
Csl3	80.1	0.4
Back0		4.32
Back1		3.98
Back2		4.32
Back3		2.48
MCP0	1829	55.4
MCP1	1700	56.4
Foil0		
Foil1		

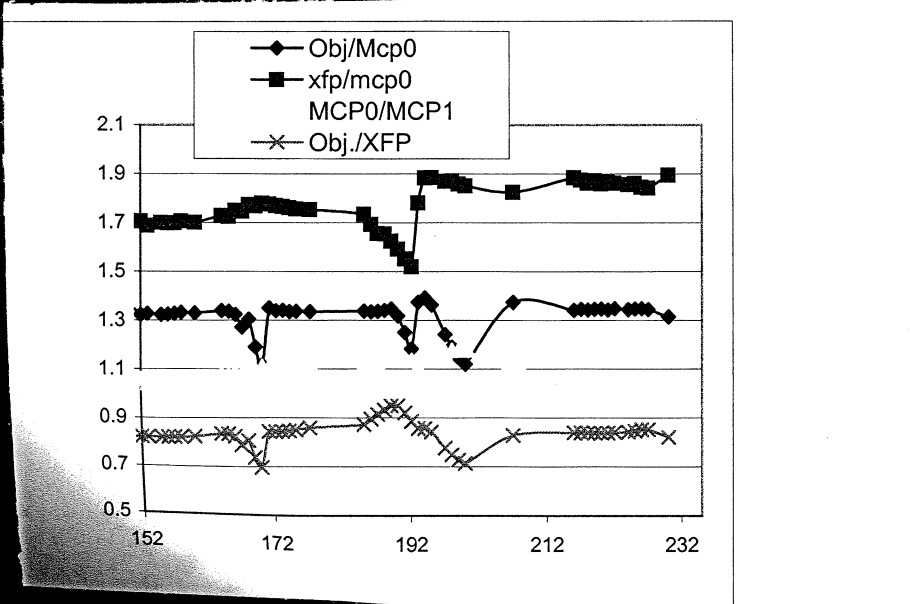
latch panel Back si Bios

105
106
107
108

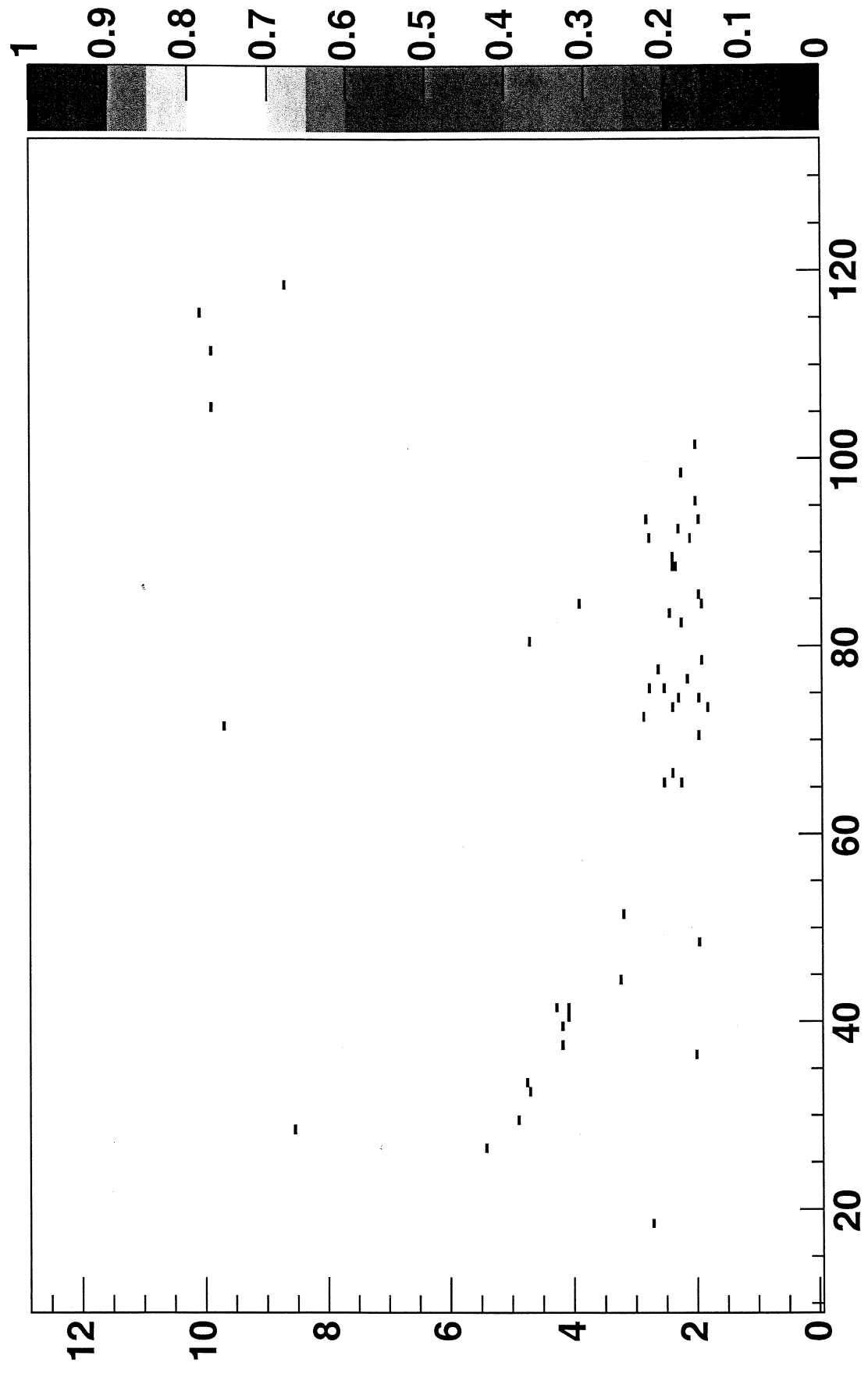
tow 0
tow 1
TOW 2
TOW 3



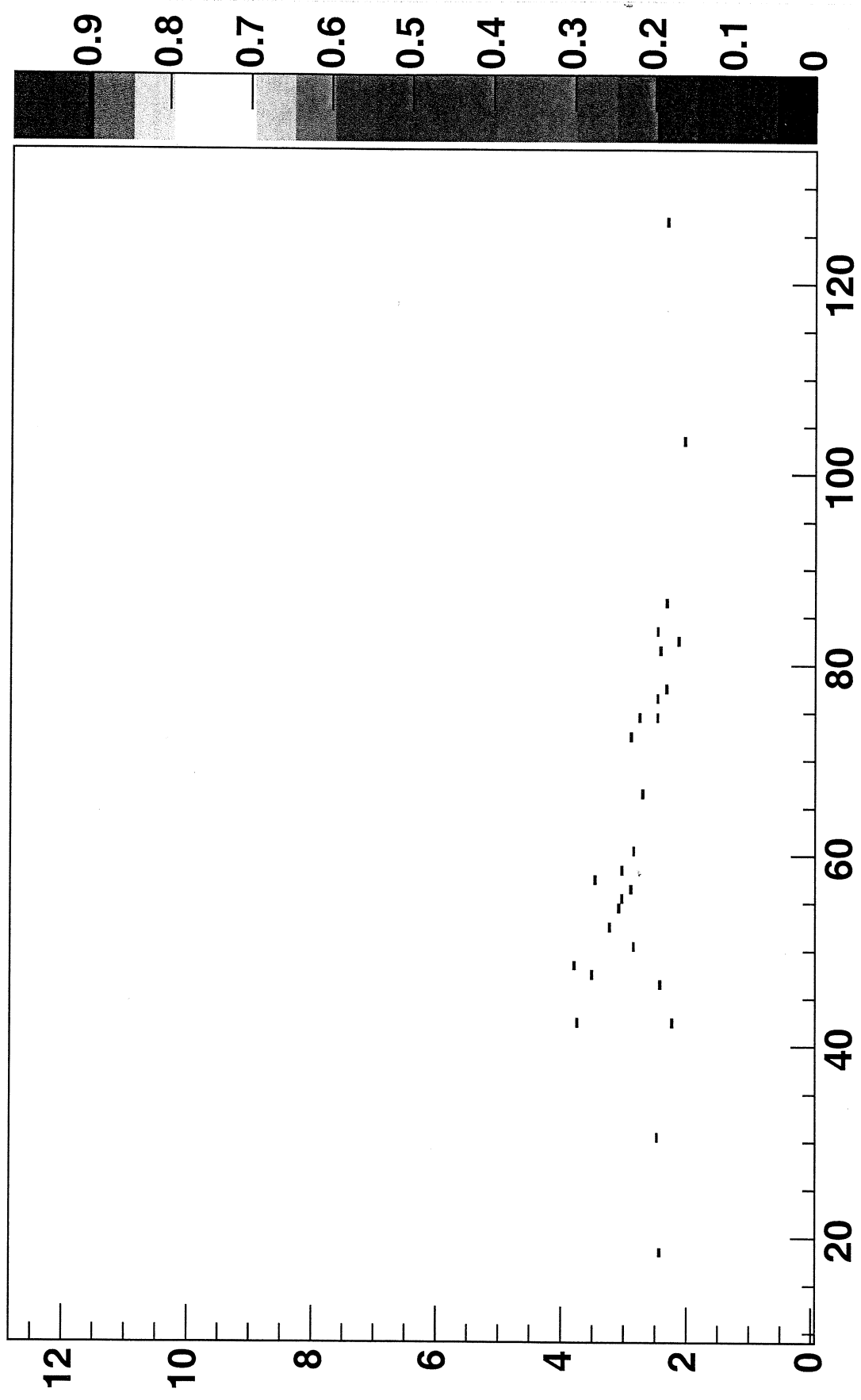
$^{65}\text{Ge}(p,d)^{64}\text{Ge}^{95}$ - 60 MeV - 2p3/2 - ADW CH89



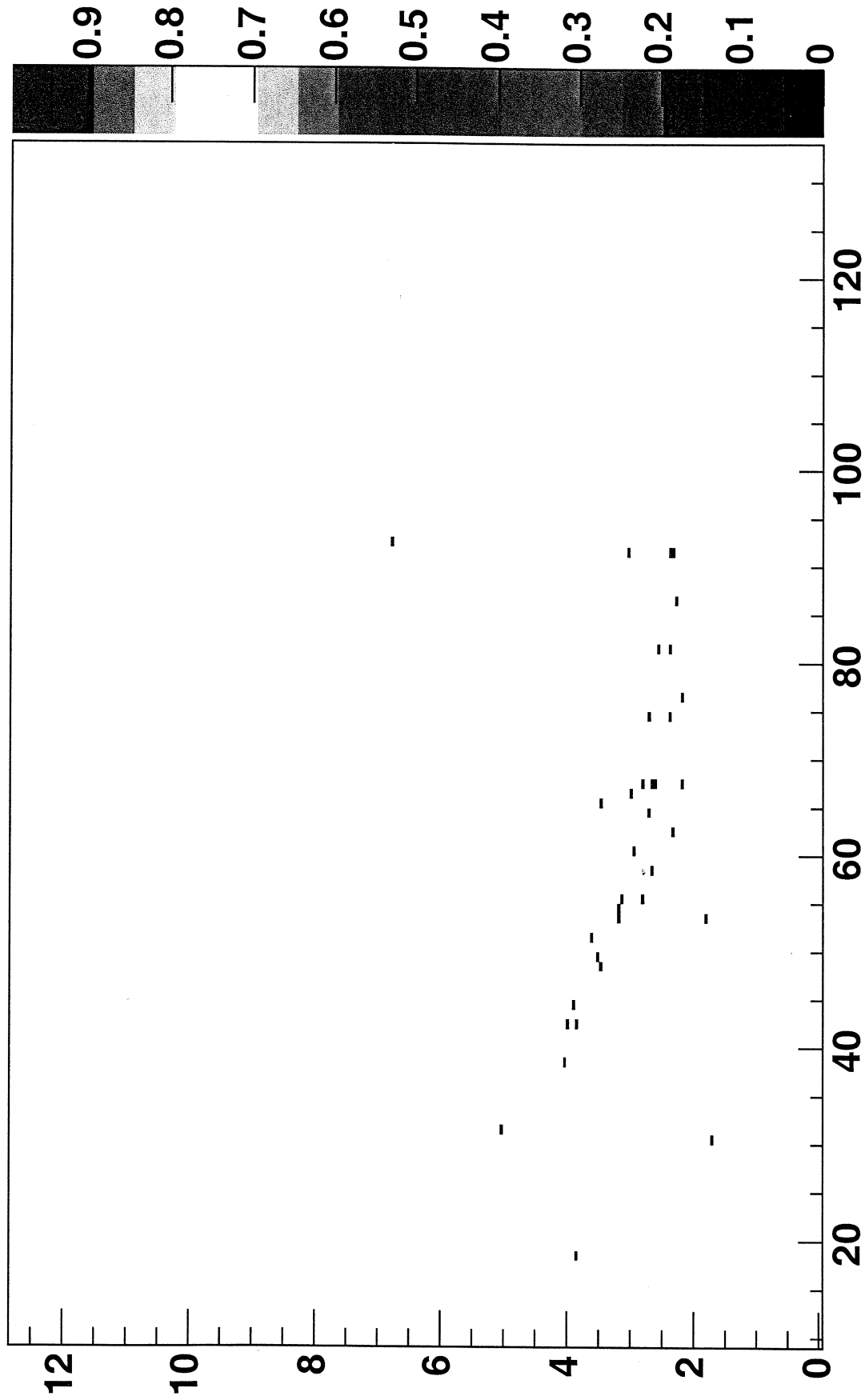
EB.E[9]{}:Csi.E[9]{} {selenium&&as_sel}



EB.E[9]:Cs.E[9] {selenium&&as_sel}



EB.E[9]{}:Csi.E[9]{} {selenium&&as_sel}



EB.E[9]::Csi.E[9] {selenium&&as_sel}

