

Pump detector dewar

4.8×10^{-8} before opening
 8:20 am 4.0×10^{-7} Torr open the key
 9:10 am 5.3×10^{-8}
 11:15 am 4.7×10^{-8}

DK = -22.5kV dis = 1.6mV QMS = 1.2 @ 8.3-12
 PVI = 2 atm He

3 mJ				
0.75	ac 7490(3)	150k 15H	4	
	ac 7491(5)	500k false	120	
	ac 7492(5)	150k	16788	120
	ac 7493(3)	85k	16738	120
	ac 7494(3)	121k	16718	120
	ac 7495(3)	136k	97	
4 atm He				
2 mJ			120	

16618

↑ +0.20

PV₂ AR (4 atm) 5 mJ, Like Si

0.75	ac 7496(3)	14H	5 mJ		40
0.75	ac 7497(3)	238k prob.	16654		120/20
	ac 7498(3)	140k	E: (300-1200)		97
	ac 7499(3)	178k			118
	ac 7500(3)	112k			116
	ac 7501(3)	58k			117
	ac 7502(3)	59k			119k
m/z	120	118	116	117	119
	32.6%	24.2%	14.5%	7.68%	0.6%
Theoretical	1	0.75	0.44	0.24	0.26
	240k	178k	112k	58k	59
Exp	1	0.74	0.47	0.24	0.25
	ac 7503(3)	34k	Ratio to 120 =		
	ac 7504(3)	29k	0.18/0.14/124		
			0.14/0.12/122		

ac7505(3) 78 3k noise No Signal 125
 ac7506(3) 3k 5k noise No Signal 121

Ratio of m/z for Tin from MSST
 matches ratio of Tin in Exp.

Two masses between 110 amu and 125 amu
 also do not occur in Exp, as they
 are absent in heavy for isotopes

12/6/2023

PMT: -1.35kV PK: -22.5kV dis: 1.6mV QMS: 1.2 @
 5.30-12

PUI: -400V Ar, 4atm Sn Rod

0.75° ac7507(3) PMT: 1.10kV 14M 40

5mJ, 16654

0.75° ac7508(3) 56k 120

ac7509(3) 45k 7mJ 120

ac7510(3) 59k 3mJ 120

E: 150:1200 (3mJ) 1660.

Opt. Delay

0.75° ac7511(3) 61k 16664 (+) 120

ac7512(3) 55k 16674 120

ac7513(3) 50k 16684 120

ac7514(3) 44k 16694 120

ac7515(3) 46k 48k bad shape 16644 120

ac7516(3) 58k 61k 16669 120

ac7517(3) 52k 55k 16659 120

ac7518(3) 55k 57k 16666 120

ac7519(3) 54k 16662 120

350-1200 ac7520(3) 11k 13k 754 16602 120

Lens position

ac7521(3) 55k 57k -0.20 (6.40) 120

ac7522(3) 53k 56k -0.15 (6.25) 120

ac7523(3) 51k 53k 6.40

ac7524(3) 44k 50k 6.55 120

ac7525(3) 51k 53k 6.65 120

ac7526(3) 41k 43k 6.75 120

ac7527(3) 52k 55k 120

ac7528(3) 54k 120

0.75°	ac7529(3)	55k 57k	↔ 6.60	120
0.75°	ac7530(3)	54k 56k	↔ 6.80	120
0.75°	ac7531(3)	53k 55k	↔ 7.00	120
	ac7532(3)	52k 54k	↔ 6.20	120
	ac7533(3)	52k 54k	↔ 6.00	120
	ac7534(3)	44k 47k	↔ 5.50	120
	ac7535(3)	53k 55k	↔ 6.60	120
	ac7536(3)	48k 51k	16664 10 mJ	120
	ac7537(3)	51k	16674 1	120
	ac7538(3)	48k 51k	16684	120
	ac7539(3)	43k 45k	16654	120
	ac7540(3)	48k 50k	16669	120
	ac7541(3)	52k 52k	16679	120
	ac7542(3)	48k 51k	16676	120
	ac7543(3)	39k 42k	16676 7 mJ	120
	ac7544(3)	43k 45k	16666	120
	ac7545(3)	42k	16656	120
	ac7546(3)	36k	16676	120
	ac7547(3)	40k	16671	120
	ac7548(3)	41k	16661	120

5 mJ

ac7549(3)	51k	16654	120.1
ac7550(3)	47k	16654	120
ac7551(3)	50k 52k	16664	120
ac7552(3)	46k	16674	120
ac7553(3)	33k	16644	120

2 mJ

ac7553(3)	63k	16654	120
ac7554(3)	41k	16664	120
ac7555(3)	65k	16674	120
ac7556(3)	81k	16664	120.1

10 mJ

ac7557(3)	60k	16664	120.1
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Now Calibration 4.2 @ 5.5 / 5.
PVI - Ar (4 atm)

ac7558(3)	11M		120
5 mJ 1			
ac7559(3)	660k	16664	120
ac7560(3)	591k	16674	120
ac7561(3)	613k	16684	120
ac7562(3)	513k	16644	120
ac7563(3)	483k	16694	120

127
P609
ROR9
Cal - 0.275
or 5.00

ae7564(4) 533k 16684 120
 ae7565(3) 45k 118
 ae7566(3) 30k - overlap from other masses 121
 ae7567(3) 3k μ Single 126
 ae7568(3) 116
 ae7569(3) 504k 120

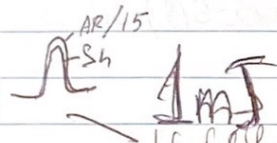
3 mJ

ae7570(3) 641k 120

2 mJ

ae7571(3) 800k 120

Complete overlay



ae7572(3) 430k 16684 120
 ae7573(3) 532k 16684 120
 ae7574(3) 500k 16664

Chopper IN

5.12 1024 ③
 4096

12/7/2023

PMV-1.55kV PK-22.5uV QMS 12@5.3-13

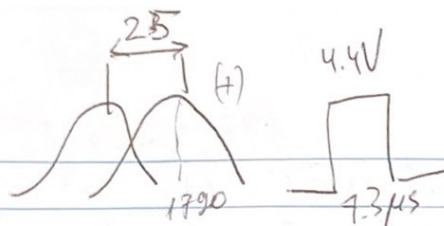
PVI = $CF_2 I$ 5% m He Delay 188G

Calibration (check)

m/z	PMV	Coast.
19		✓
31	1.55kV	✓
50		✓
88.5	1.55kV	0.3k ✓
127	1.35	43k ✓
177	1.35kV	9k ✓
196	1.35kV	29k ✓

PVI = -400V, AR(4 Atm), Sn Rod, $P \cdot 6 \cdot 10^{-4}$

ae7575(-) 1600-2100 PMV-1.10kV 40
 ae7576(-) 1600-2000 1.15kV 40
 ae7577(-) 1.20kV 40
 ae7578(-) 1 μ sec 2 Gyol. 1600-2000 1.20k 40
 ae7579(+) 40
 ae7580(-) 2 μ sec. 1c 1600-2000 1.25 PMV 40
 ae7581(-) 1.30 PMV 40



2
ae7581(-) 2 cycles 1600-2000 40
ae7582(+) 40

A: 1790

E: 200-180

ae7584(3) 6M 60 6.86 13.1 PMT=120 40

1mJ 16684

ae7585(3) 251k 655 8.43 2.21 A+1800 120

ae7586(3) 183k 1805 120

ae7587(3) 110k 1810 120

ae7588(3) 116k 1790 120

ae7589(3) 204k 1795 120

ae7590(3) 220k 1797 120

ae7591(3) 256k 1803 120

ae7592(3) 223k 1801 120

ae7593(3) 250k 1799 120

16686

ae7594(3) 232k 1796 120

ae7595(3) 234k 1797 120

ae7596(3) 191k 1803 120

16688

ae7597(3) 232k 1800 120

ae7598(3) 264k 1803 120

ae7599(3) 220k 1806 120

ae7600(3) 4.9M 1800 40
1803 40

Si → 1837 m/s
SiH₄ 827 m/s
Sn → 655 m/s
] C = A - 70

$$36.2 + 35.6 = 71.8$$

$$\frac{71.8 \cdot 10^{-3}}{1837} = 0.03909$$

$$\frac{100 \text{ mm}}{1000} = 0.1$$

$$\frac{100 \text{ mm}}{655} = 0.153$$

$$\frac{71.8}{655} = 0.1096$$

$$0.071 \mu\text{s}$$

$$C = A - 141$$

Cold Head IN

$$S_n = 0$$

$$C = A + 9$$

$$S_n = 650$$

$$Q = 864$$

$$\frac{43.1}{864} = 0.050$$

$$\frac{43.1}{864} = 0.050$$

$$\frac{43.1}{655} = 0.065$$

$$+ 15 \mu\text{s}$$

$$C = A + 24$$

800V

075° ac 7601(3) 22k 24k 647 8.60 21 120

ac 7602(3) — No signal Very Low 136

ac 7603(3) 120 No 150

ac 7604(3) 200 No signal 151

 $\text{SnO}_2 +$

120 16

136

 $\text{Sn} + \text{SiH}_4 \rightarrow \text{SiSnH}_2 + \text{H}_2$

110

SiH₄ 550 Torr - 400V

800V

195° ac 7605(30) C=A-0. 150

ac 7606(50) C=A+57 150

$$\omega = \frac{1}{RC} \Rightarrow C = \frac{1}{\omega R} = \frac{0.012}{1000} = 12 \mu\text{F}$$

$$\tau = 6 \mu\text{s}$$

ac 7607(50) 150

Fe + O₂ C=A+2.

$$\frac{664}{111} = 0.083$$

 $\text{Sn} + \text{O}_2$

ac 7607(50) 17k 42k C=A+26 150

ac 7608(15) C=A+50 150

ac 7609(25) 1k C=A+70 150

ac 7610(25) 15k C=A+80 150

ac 7611(25) 13k C=A+100 150

ac 7612(25) 22k C=A+120 150

ac 7613(25) 23k C=A+140 150

ac 7614(25) C=A+160 150

ac 7615(25) C=A+20 150

12/8/2023

1.2

PAC-1.35kV PR-22.5kV QMS-#05.3-13. dist 1.6mV

PU12 4atm Ar Sn Rod Potable, A+1800

PU2: O₂ 550 Torr. C=A+29

nd. YAG

075° ac 7616(3) 170k 182k 648 8.96 2.057 120

ac 7617(3) 200k

Calculated
 $C=A+29$

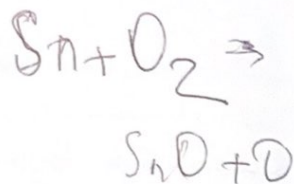
195° ac 7618(25) 19k 43k 136

ac 7619(25) 16k 46k C=A+39 136

ac 7620(25) 10k 48k C=A+19 136

ac 7621(25) 13 25k C=A+19 136

ac 7622(25) 25k 43k C=A+9 136



Sally
Jenny

51246 - 42
- 5144

19.5°	ac 7628(25)	22k	40k	136
45°	ac 7629(25)	14k	42k	136
9.5°	ac 7630(25)	23k	42k	136
19.5°	ac 7631(25)	23k	41k	136
39.5°	ac 7632(25)	15k	34k	136
49.5°	ac 7633(25)	4.5k	22k	136
59.5°	ac 7634(25)	17	18k	136
19.5°	ac 7635(25)	23k	42k	136

0.75°	ac 7642 (3)	181k	182k	652/8.87/1.95	120
	ac 7643 (1)	205k	204		

12/9/2023

QMS = 12@5.3-13 PWT-1.35kV Pk. -22.5kV d.s. 1.6kV
 PU1 = -400V, AR, 4atm, $T+1800$, Sn Rod
 PU2 = -400V, 550 Torr, O₂, C = A + 9

80eV

075° ac7644(25) 174k 174k 647 9.3 2.0 120
 ac7645(3) 195k 120

80eV

119.5° ac7646(25) 18k 3k 136
 17.0° ac7647(25) 21k 34k 136
 14.5° ac7648(25) 195k 34k 136
 12° ac7649(25) 22k 35k 136
 9.5° ac7650(25) 11k 38k 136
 24.5° ac7651(25) 26k 38k 136
 29.5° ac7652(25) 24k 38k 136
 34.5° ac7653(25) 20k 34k 136
 39.5° ac7654(25) 16k 30k 136
 44.5° ac7655(25) 98k 24k 136
 49.5° ac7656(25) 27k 18k 136
 54.5° ac7657(25) 59k 15k 136
 119.5° ac7658(25) 26k 4k 136

119.5° ac7659(25) 27k 43k 136
 17° ac7660(25) 27k 42k 136
 14.5° ac7661(25) 29k 44k 136
 12° ac7662(25) 28k 44k 136
 9.5° ac7663(25) 30k 46k 136
 24.5° ac7664(25) 26k 42k 136
 29.5° ac7665(25) 26k 40k 136
 34.5° ac7666(25) 23k 38k 136
 39.5° ac7667(25) 15k 32k 136
 44.5° ac7668(25) 9.6k 26k 136
 119.5° ac7669(25) 28k 44k 136

075° ac7670(25) 203k 254k 674 8-5 2-3 120

5226 no beam? hmmm

12/11/2027

New Cali Preface 1.2
 21@5.3-15

QMS: 12@5.3-15 Pk-25kV PWT-1.35kV d.s. 1.6kV
 PU1 = -400V, 4atm, Sn Rod Rotate
 PU2 = -400V, O₂, 550 Torr

80cl

0.75° ac7671(3) 180k 18k 623 87 2.03 120
~~ac7672(3)~~ 120

19.5° ac7673(3) 18k 45k 136/120
 17 ac7674(3) 205k 49k 136/20
 14.5 ac7675(3) 18k 180k 136/120
 12 ac7676(3) 10k 415k 136/136
 9.5 ac7677(3) 175k 39k 136
 24.5 ac7678(25) 19k 41k 136
 29.5 ac7679(25) 18k 40k 136
 34.5 ac7680(25) 16k 39k 136
 39.5 ac7681(25) 15k 37k 136
 44.5 ac7682(25) 8.7k 30k 136
 49.5 ac7683(25) 8k 25k 136
 54.5 ac7684(25) 2k 25k 136
~~59.5 ac7685(25)~~ 1k 24k 136
19.5° ac7686(25) 21k 41k 136

20.5 ~~18.5~~ ac7687(25) 8.5k 30k 132
 20.5 ~~14.5~~ ac7688(25) 4.9k 26k 133
 20.5 ac7689(25) 12k 34k 134
 20 ac7690(25) 42k 27k 135
 19.5 ac7691(25) 443 25k 136
 19.5 ac7692(25) 1.5k 26k 138
 19.5 ac7693(25) 989 25k 139

19.5° ac7694(25) 2.1k 24k 140
 19.5° ac7695(25) -744 24k 141

0.75° ac7696(3) 140k 141k 120
 0.75° ac7697(3) 137k 139k 120
 0.75° ac7698(3) 141k 143k 647 9.1 1.9 120

19.5° ac7699(25) 17k 41k 136
 17° ac7700(25) 16k 40k 136
 14.5° ac7701(25) 16k 39k 136
 12° ac7702(25) 15k 39k 136
 9.5° ac7703(25) 12k 37k 136
 24.5° ac7704(25) 16k 39k 136
 29.5° ac7705(25) 16k 39k 136
 34.5° ac7706(25) 14k 36k 136
 39.5° ac7707(25) 8k 32k 136
 44.5° ac7708(25) 6.4k 30k 136
 49.5° ac7709(25) 648 26k 136
 54.5° ac7710(25) -51 24k 136
 59.5° ac7711(25) 669 25k 136
19.5° ac7712(25) 16k 39k 136
 0.75° ac7713(3) 142k 144k 654 9.2 1.8 120

12/12/2023

QMS-Calibrated, airt. shifted

dis: 1.6mV QMS 4.2@5.3-16 PMT-195kV PK: -225kV

PV12 - 400V, 4A in the Sn Road Refecto

PU22 - 400V, 0, 550 Tapp.

604, 7.4 2.7

025 ac 27714(-5) 196k 197k ^{009 1.1 1.1} 5.3-16 120

QC771573 / 826 5.3-15

ac 7716 (S) 2004 1004 603 7.4 2.75

195 a07717 (35) 28k 46k 136

ac7718 (25)

19.5) ac 7719 (25) sol 48h 136

17	Gr 7720(25)	35h	51h	136
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12 ac7721 (25) 33/c 51/c 136

9.5 ac7722 (25) 371C 581C 136

44.5 ac 7723 (25) 191c 381c 136

49.5 ac 7724 (25) He 264 136

54.5 $\approx 7725(25) 1.3k 19k$ 136

19.5° ae7726(25) 37K 55K 136

17 GC7727(25) 46 68h 136

h^o ac 7728 (25) 37u 57u 136

9.59 ac 2229 (25) 40k 58k 136

44.5 ac7730 (25) 15u 32u 136

49.5 ac 7431 (25) 6h 7uk

545	ap 22 32(25) 2k 19k	136
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1950 28/8/25 36k 54k

20⁰ ac 7734/25/35k 49k

20.5° at 7735 (25) 201c 381c

10.5° PIC 7736 (25) 24h 49h

200	ac 7737 (25)	28k	4uk	138
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19.5°	ac7738(25)	5.8k 11k	158
			140

19.5° ac 773966/ 6k 25k

185

13

8 Oct 40

0.75 ac 77 40(3) 1916 1926 622 +.36 2.5 12

ac 77 10 (3) 176 194 176 Nothing

41

AT 42(3) 6 989 197

12/13/2018

dis: 16 and pcr-135kV pl-225kV, qas-12@5.3-16

$PV_1 = -4000 \text{ J}$ At 4 Atm. In Rod Rotate,

PH. - 4001 Bally BBG Park

0.75° ac-Fus(z) 198h 199h 672 7.85 2.48 12