



# **EXPERIMENT**

Spectrum Name:  
Description:  
Student ID:  
Detector:  
Comments:  
Start Time: February 07, 2023, 10:59:32  
End Time: February 07, 2023, 11:06:00

# **SET UP**

Acquisition Mode: PHA Pre-Amp	High Voltage: 0
Conversion Gain: 1024 Coarse Gain: 1	Fine Gain: 1.00
Upper Discriminator: 1048 Channels	Lower Discriminator: 14 Channels
Live Time: 386.89 Real Time: 388.54	Percent Dead: 0.42

# **REGIONS OF INTEREST: Not Calibrated**

ROI Start	ROI End	Gross	Net	Centroid	FWHM
32	35	4093	104	33	--
39	43	21079	12163	40	--
151	154	4259	1189	152	--
165	170	9392	6865	167	2
193	199	23971	-3679	198	--
210	219	3391	3110	214	3
242	248	189	55	244	3
285	291	155	73	288	4
345	351	154	13	346	--
514	520	99	49	516	3
822	833	193	138	829	4

0: 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |  
10: 0 | 0 | 0 | 0 | 1 | 0 | 1 | 1 | 27 | 490 |  
20: 583 | 631 | 679 | 698 | 696 | 765 | 835 | 793 | 816 | 836 |  
30: 868 | 927 | 1000 | 1064 | 1076 | 953 | 965 | 932 | 1060 | 1181 |  
40: 6124 | 12153 | 989 | 632 | 716 | 707 | 658 | 623 | 703 | 680 |  
50: 682 | 720 | 623 | 714 | 709 | 724 | 735 | 713 | 746 | 718 |  
60: 690 | 743 | 787 | 744 | 759 | 728 | 721 | 773 | 712 | 780 |  
70: 782 | 772 | 756 | 817 | 843 | 824 | 785 | 803 | 778 | 818 |  
80: 821 | 894 | 894 | 876 | 913 | 873 | 1143 | 1041 | 884 | 849 |  
90: 804 | 805 | 873 | 854 | 833 | 779 | 797 | 833 | 864 | 759 |  
100: 859 | 896 | 822 | 833 | 761 | 753 | 845 | 785 | 734 | 750 |  
110: 753 | 655 | 704 | 651 | 580 | 566 | 492 | 461 | 500 | 452 |  
120: 432 | 444 | 580 | 567 | 391 | 365 | 366 | 326 | 304 | 327 |  
130: 318 | 369 | 360 | 266 | 251 | 287 | 237 | 264 | 219 | 236 |  
140: 251 | 222 | 221 | 214 | 221 | 240 | 217 | 199 | 206 | 183 |  
150: 200 | 203 | 897 | 2656 | 503 | 149 | 179 | 154 | 169 | 176 |  
160: 139 | 167 | 144 | 166 | 195 | 173 | 211 | 1179 | 5993 | 1714 |  
170: 122 | 116 | 135 | 125 | 117 | 114 | 133 | 101 | 97 | 114 |  
180: 95 | 116 | 106 | 118 | 109 | 89 | 111 | 90 | 114 | 118 |  
190: 109 | 110 | 87 | 103 | 115 | 100 | 157 | 852 | 10254 | 12390 |  
200: 753 | 38 | 35 | 34 | 39 | 41 | 26 | 23 | 37 | 31 |  
210: 42 | 38 | 48 | 151 | 1395 | 1516 | 128 | 35 | 11 | 27 |  
220: 23 | 24 | 19 | 26 | 21 | 24 | 22 | 29 | 24 | 27 |  
230: 28 | 20 | 21 | 23 | 24 | 21 | 27 | 28 | 17 | 21 |  
240: 19 | 17 | 22 | 18 | 36 | 50 | 25 | 21 | 17 | 23 |  
250: 18 | 17 | 15 | 14 | 18 | 21 | 14 | 21 | 23 | 12 |  
260: 12 | 20 | 14 | 10 | 19 | 27 | 17 | 18 | 16 | 18 |  
270: 16 | 11 | 19 | 13 | 12 | 12 | 22 | 12 | 14 | 9 |  
280: 16 | 18 | 17 | 15 | 5 | 11 | 17 | 25 | 43 | 32 |  
290: 16 | 11 | 14 | 17 | 19 | 14 | 16 | 11 | 16 | 10 |  
300: 14 | 13 | 19 | 19 | 16 | 14 | 15 | 14 | 14 | 10 |  
310: 8 | 12 | 10 | 17 | 19 | 15 | 9 | 9 | 19 | 13 |  
320: 11 | 10 | 11 | 20 | 26 | 10 | 9 | 15 | 7 | 15 |  
330: 34 | 30 | 12 | 14 | 10 | 3 | 9 | 11 | 13 | 12 |  
340: 4 | 11 | 12 | 17 | 9 | 40 | 50 | 17 | 18 | 8 |  
350: 5 | 16 | 5 | 6 | 7 | 8 | 5 | 8 | 11 | 11 |  
360: 14 | 5 | 15 | 12 | 7 | 7 | 11 | 7 | 13 | 9 |  
370: 8 | 4 | 9 | 9 | 13 | 7 | 16 | 11 | 5 | 7 |  
380: 8 | 13 | 15 | 18 | 12 | 9 | 6 | 7 | 14 | 8 |  
390: 3 | 12 | 6 | 5 | 9 | 11 | 15 | 9 | 10 | 10 |  
400: 7 | 5 | 6 | 8 | 6 | 4 | 8 | 13 | 7 | 11 |  
410: 13 | 8 | 9 | 11 | 19 | 14 | 7 | 12 | 6 | 8 |  
420: 9 | 13 | 7 | 4 | 6 | 9 | 6 | 11 | 12 | 7 |  
430: 6 | 6 | 12 | 3 | 16 | 8 | 8 | 11 | 11 | 12 |  
440: 11 | 2 | 9 | 8 | 11 | 6 | 9 | 5 | 8 | 5 |  
450: 4 | 13 | 7 | 12 | 7 | 5 | 7 | 7 | 7 | 10 |  
460: 10 | 3 | 7 | 12 | 8 | 15 | 8 | 12 | 4 | 8 |  
470: 9 | 8 | 6 | 8 | 6 | 8 | 7 | 4 | 6 | 8 |  
480: 7 | 9 | 10 | 11 | 8 | 8 | 3 | 11 | 3 | 15 |  
490: 8 | 15 | 8 | 10 | 7 | 10 | 5 | 6 | 5 | 3 |

500: 4 | 11 | 3 | 6 | 8 | 5 | 10 | 6 | 6 | 9 |  
510: 7 | 6 | 4 | 5 | 7 | 9 | 25 | 30 | 11 | 8 |  
520: 9 | 7 | 9 | 2 | 10 | 6 | 5 | 8 | 5 | 3 |  
530: 12 | 5 | 5 | 12 | 9 | 3 | 3 | 4 | 4 | 9 |  
540: 7 | 8 | 7 | 8 | 10 | 7 | 4 | 7 | 10 | 14 |  
550: 17 | 10 | 2 | 2 | 5 | 9 | 3 | 5 | 5 | 7 |  
560: 4 | 2 | 7 | 1 | 5 | 4 | 8 | 14 | 8 | 3 |  
570: 8 | 7 | 10 | 2 | 7 | 9 | 11 | 6 | 7 | 5 |  
580: 6 | 10 | 5 | 4 | 4 | 7 | 1 | 3 | 7 | 3 |  
590: 7 | 8 | 5 | 1 | 8 | 7 | 5 | 2 | 6 | 4 |  
600: 6 | 4 | 5 | 5 | 8 | 6 | 3 | 3 | 3 | 6 |  
610: 4 | 9 | 1 | 6 | 3 | 3 | 5 | 7 | 5 | 7 |  
620: 4 | 8 | 6 | 5 | 6 | 8 | 4 | 5 | 4 | 5 |  
630: 2 | 3 | 4 | 6 | 5 | 9 | 11 | 11 | 7 | 3 |  
640: 6 | 7 | 6 | 5 | 6 | 6 | 4 | 6 | 3 | 5 |  
650: 3 | 2 | 6 | 2 | 5 | 9 | 4 | 1 | 5 | 3 |  
660: 3 | 2 | 6 | 1 | 4 | 5 | 13 | 11 | 4 | 2 |  
670: 13 | 1 | 4 | 3 | 4 | 1 | 7 | 4 | 6 | 9 |  
680: 8 | 4 | 7 | 11 | 4 | 5 | 3 | 4 | 5 | 6 |  
690: 6 | 6 | 2 | 3 | 6 | 7 | 6 | 7 | 3 | 4 |  
700: 2 | 2 | 12 | 3 | 10 | 7 | 1 | 1 | 0 | 4 |  
710: 3 | 3 | 3 | 2 | 4 | 3 | 4 | 5 | 8 | 5 |  
720: 5 | 2 | 5 | 9 | 5 | 6 | 4 | 2 | 2 | 3 |  
730: 1 | 5 | 3 | 5 | 2 | 4 | 4 | 2 | 6 | 1 |  
740: 2 | 2 | 6 | 2 | 3 | 0 | 2 | 1 | 4 | 2 |  
750: 3 | 3 | 4 | 3 | 7 | 3 | 7 | 12 | 8 | 4 |  
760: 2 | 2 | 3 | 0 | 2 | 4 | 2 | 2 | 1 | 4 |  
770: 1 | 2 | 6 | 6 | 2 | 0 | 1 | 1 | 0 | 1 |  
780: 3 | 4 | 0 | 3 | 4 | 1 | 1 | 1 | 1 | 0 |  
790: 3 | 1 | 1 | 4 | 0 | 1 | 4 | 1 | 7 | 4 |  
800: 4 | 4 | 2 | 0 | 1 | 1 | 2 | 2 | 1 | 2 |  
810: 2 | 0 | 0 | 7 | 1 | 2 | 1 | 1 | 1 | 1 |  
820: 1 | 1 | 3 | 2 | 2 | 3 | 2 | 6 | 17 | 26 |  
830: 55 | 52 | 25 | 0 | 0 | 0 | 2 | 2 | 1 | 1 |  
840: 1 | 0 | 1 | 2 | 2 | 1 | 0 | 2 | 1 | 0 |  
850: 1 | 3 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 3 |  
860: 1 | 1 | 1 | 3 | 1 | 1 | 0 | 1 | 1 | 1 |  
870: 0 | 2 | 0 | 1 | 1 | 1 | 2 | 0 | 0 | 0 |  
880: 1 | 1 | 2 | 0 | 3 | 1 | 0 | 1 | 0 | 0 |  
890: 1 | 1 | 1 | 3 | 3 | 1 | 3 | 3 | 0 | 2 |  
900: 1 | 1 | 1 | 2 | 6 | 0 | 2 | 2 | 0 | 1 |  
910: 0 | 1 | 1 | 1 | 0 | 0 | 1 | 2 | 1 | 0 |  
920: 2 | 1 | 0 | 1 | 0 | 1 | 0 | 2 | 0 | 1 |  
930: 2 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 2 | 0 |  
940: 0 | 1 | 2 | 1 | 2 | 3 | 3 | 0 | 0 | 1 |  
950: 1 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 1 | 0 |  
960: 1 | 0 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 1 |  
970: 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 2 | 1 |  
980: 0 | 1 | 4 | 4 | 0 | 0 | 1 | 1 | 1 | 1 |  
990: 1 | 1 | 0 | 1 | 3 | 1 | 1 | 1 | 2 | 1 |

```
1000: 3 | 3 | 2 | 4 | 2 | 0 | 1 | 1 | 0 | 1 |
1010: 0 | 0 | 1 | 0 | 1 | 1 | 1 | 0 | 0 | 0 |
1020: 0 | 1 | 0 | 0 |
```