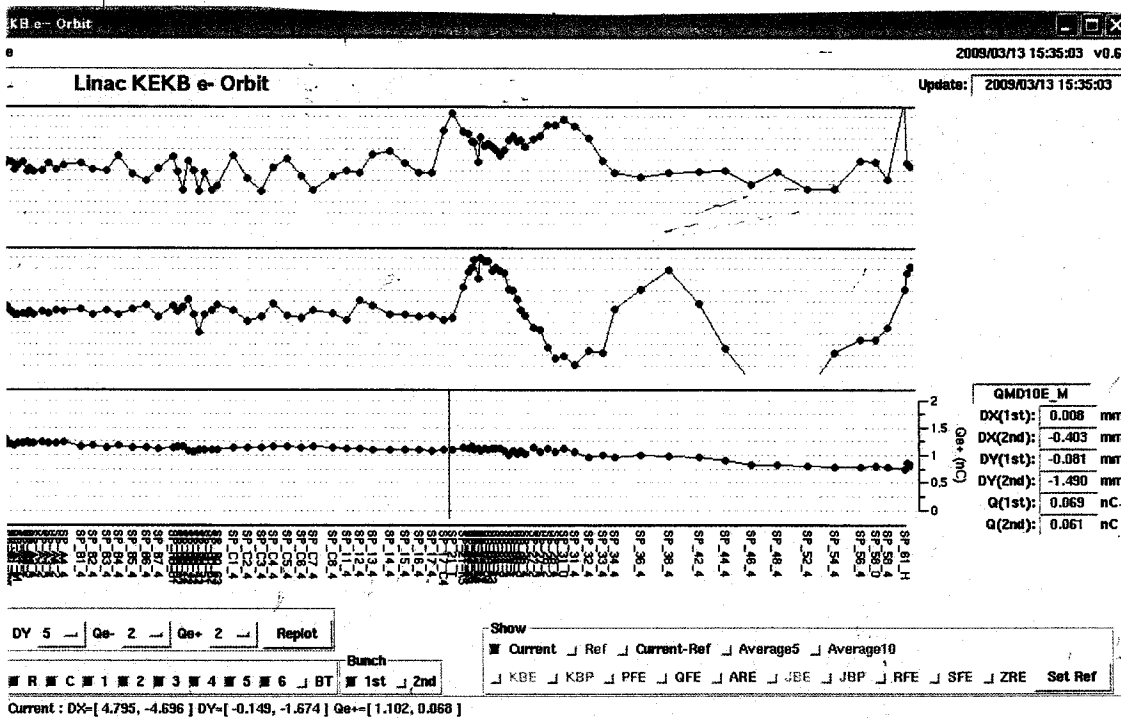
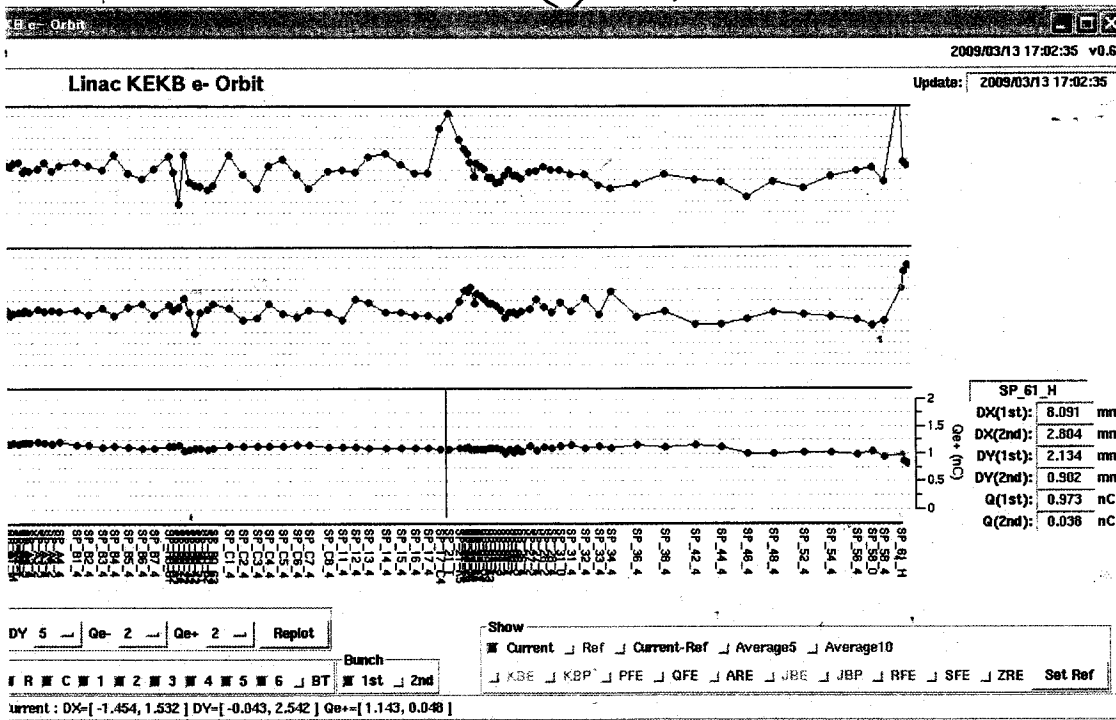


09.03.13

振動計測の Wire Scanner セットアップ - 測定 (飯田氏)

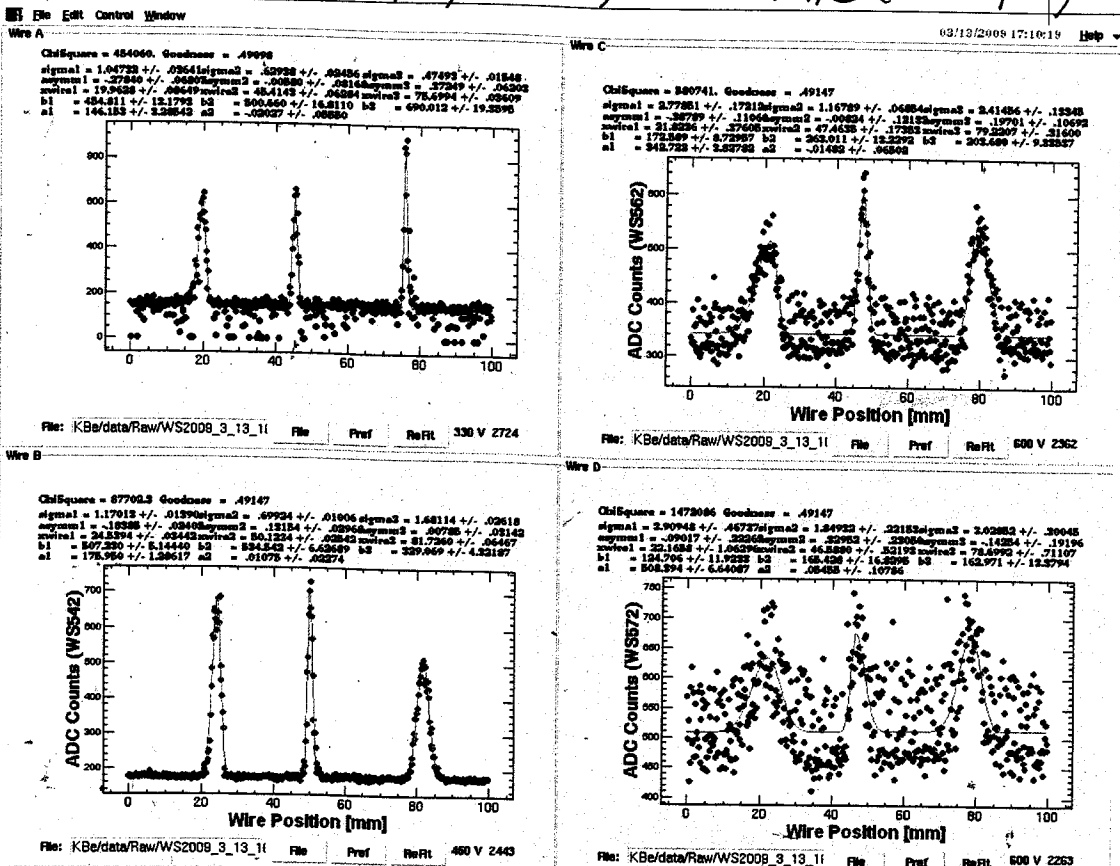


3/12 B3ホの 振動計測 + Pulse STC 20090312-122334.log
 DC STC を調整し、軌道を直交に
 Wire Scanner セットアップ - 再測定実施。
 ↓ 調整後



BT 113x-9 = data 4878.all (2セ-0) (pulse STC = 20090312-122334.log)

調整後の Wire Scanner 測定 (5077-)



Status Display

File Edit Window 08/13/2009 17:11:02 Help

Wire Scan Optics Calculate Matching

X phase space at Wire A X phase space at Matching Point

Results of Measurement

β_x @BM611E [m] :	553.270	β_y @BM611E [m] :	408.225
α_x @BM611E :	-3.784	α_y @BM611E :	4.358
ϵ_x [m] :	1.6784E-8	ϵ_y [m] :	1.1497E-8
γ_{ex} [r.mm.mrad] :	262.645	γ_{ey} [r.mm.mrad] :	178.973
EBmag x :	23.890	EBmag y :	8.889
ECBmag x :	4.0096E-7	ECBmag y :	8.9372E-8
ECBmag x :	5274.534	ECBmag y :	1555.044

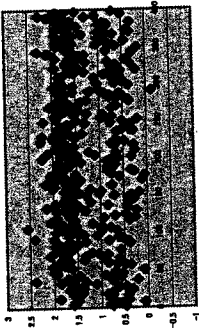
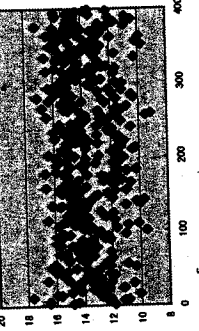
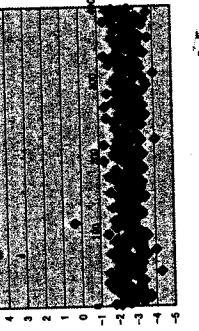
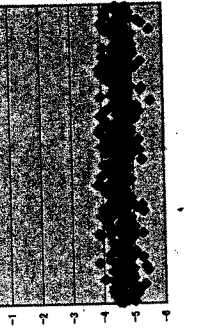
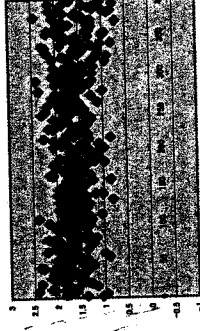
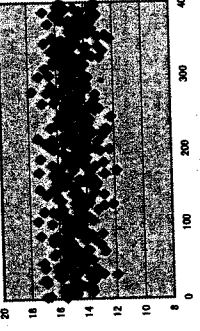
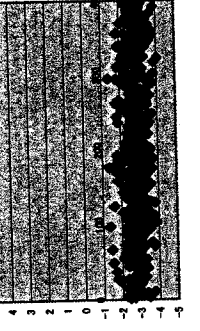
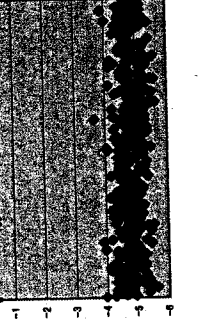
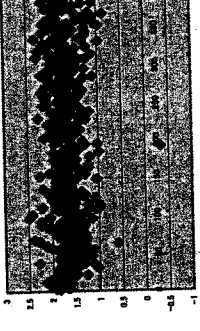
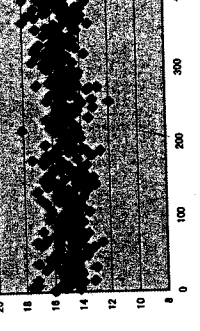
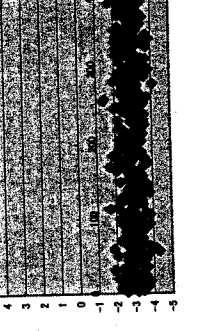
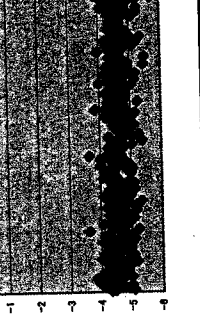
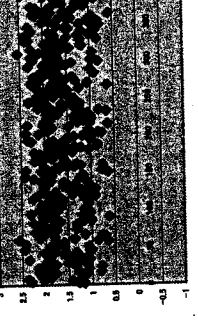
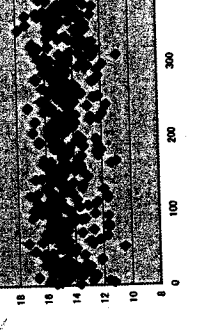
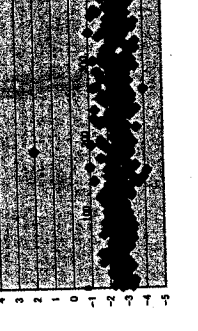

Optics Plot

Wire Selection
 3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
 4-wire:ABCD
 NonLinearFit Err(mass), nO n: 0 Err(opt) (%): 0
 Calculate Optics Save All Parameters

Information are SAVED to fdata1/KEKB/Wire/LINACsectors/KEKBE/data/MatchResult/WSL5e_2009_3_13_17_10_41

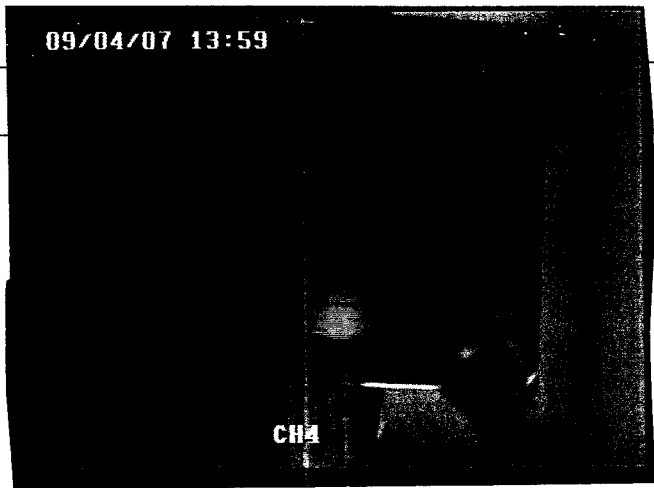
PF-A1 ビームにおけるBPMでのビーム変動観測

2009/03/13 三菱SC工藤

<p>SB_B OVERALL 1185 Energy R0-qfe 1.6072 SB_B φ 96.0°</p>				
<p>SB_B OVERALL 1200 Energy R0-qfe 1.6490 SB_B φ 100.0°</p>				
<p>SB_B OVERALL 1210 Energy R0-qfe 1.7105 SB_B φ 105.0°</p>				
<p>SB_B OVERALL 1175 Energy R0-qfe 1.6332 SB_B φ 93.0°</p>				

*予-クは 5Hz X 80sec = 400点
 *SP_RQ 32 (J monte) RA 2 レンジ E 50mV → 2mV に変換して測定
 *SP_61-F1 (J monte) B2 レンジ E 200mV → 50mV に変換して測定
 *SP_61-FA, F5 (J monte) k6B1 レンジ E 200mV → 10mV に変換して測定

4/7



LER Beam

194

SC

2-4-3

←途中で止る→

4/8

3ヶ月前 共通 Optics Matching 後 (B079-12 LER, C079-12 HTR)

Q: 20090408-17:39:20
 St: 20090408-17:40:18 12 save
 (PT-BT 6171~75 + New Optics)

Q 20090413-15:22:20 12 save
 Qの Group 2 だけ 99% の設定に合わせた。

4/13

→訂正. 08/6/10 0.5 3, 4, 5, 7, 11, 20, 22 と 思った
 BT04-13-2009-17:32:51(Q) 12 Q. St 12 save
 50 (St)

BT
 e+ Matching 前

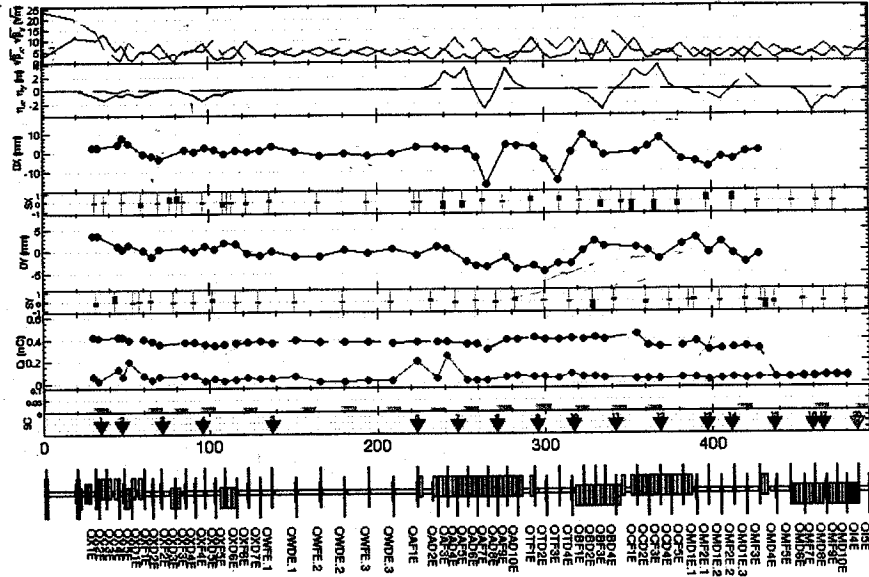
Q: BT04-13-2009-21:39:26 12 save
 St: 21:40:03

Matching 後

Q: BT04-13-2009-22:25:17
 St: " " 22:25:16

dew

Electron BT Line



File Edit Control Window

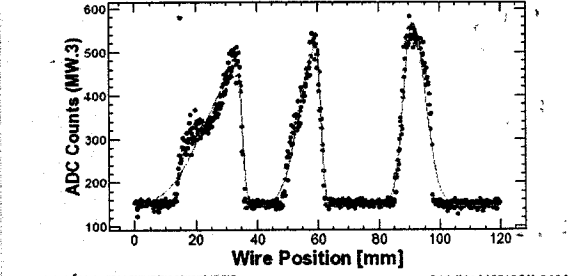
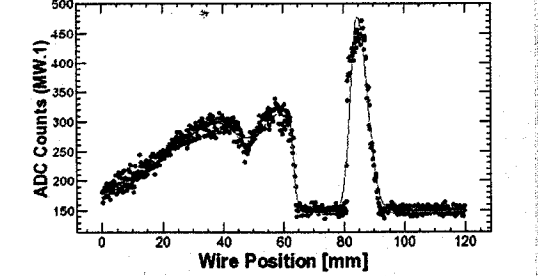
04/13/2009 17:49:03 Help

Wire C

ChiSquare = 196472 Goodness = 49307
 sigma1 = 14.2571 +/- 51605 sigma2 = 7.00842 +/- 44696 sigma3 = 2.77754 +/- 03715
 asymm1 = -23022 +/- 03631 asymm2 = -60000 +/- 02419 asymm3 = -48717 +/- 02590
 xwire1 = 963173 +/- 57500 xwire2 = 917261 +/- 17120 xwire3 = 944916 +/- 08779
 b1 = 101.706 +/- 5.11753 b2 = 173.003 +/- 3.41313 b3 = 208.666 +/- 3.60219
 a1 = 144.320 +/- 5.41120 a2 = 03937 +/- 02589

Wire C

ChiSquare = 590476 Goodness = 49307
 sigma1 = 6.33912 +/- 13921 sigma2 = 3.41238 +/- 06582 sigma3 = 3.55760 +/- 05756
 asymm1 = -80000 +/- 02007 asymm2 = -62078 +/- 02523 asymm3 = 17371 +/- 03107
 xwire1 = 335808 +/- 10541 xwire2 = 596291 +/- 12203 xwire3 = 511000 +/- 15515
 b1 = 298.900 +/- 4.32857 b2 = 364.399 +/- 4.16936 b3 = 422.169 +/- 3.61443
 a1 = 147.044 +/- 3.79164 a2 = 00160 +/- 04614



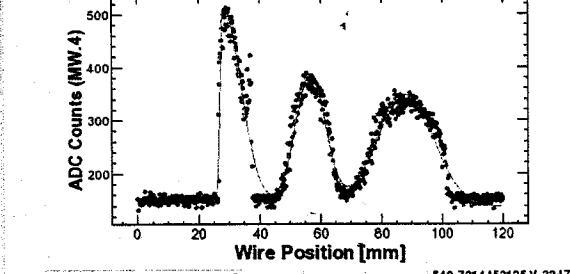
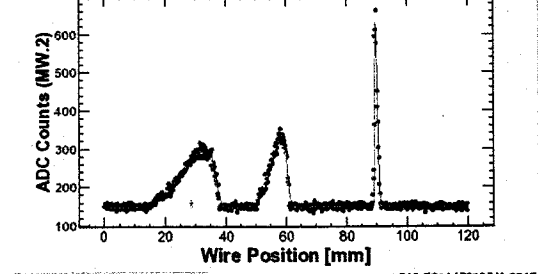
WS2009_4_13_17_46_21.datA File Pref ReFit 549.7314453125 V 444

File: WS2009_4_13_17_47_28.datC File Pref ReFit 549.7314453125 V 3424

Wire D

ChiSquare = 57362.1 Goodness = 49307
 sigma1 = 5.13088 +/- 06677 sigma2 = 2.53965 +/- 03351 sigma3 = 44.333 +/- 00521
 asymm1 = -63322 +/- 01592 asymm2 = -60298 +/- 02131 asymm3 = 43000 +/- 02187
 xwire1 = 343789 +/- 11310 xwire2 = 593001 +/- 08828 xwire3 = 965747 +/- 01183
 b1 = 143.773 +/- 1.48490 b2 = 185.154 +/- 2.06625 b3 = 463.458 +/- 4.90177
 a1 = 148.591 +/- 9.1163 a2 = 02364 +/- 01137

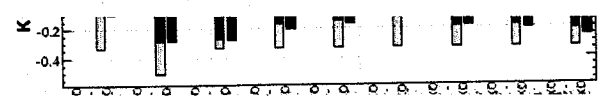
ChiSquare = 393967 Goodness = 49307
 sigma1 = 3.35610 +/- 08291 sigma2 = 4.87538 +/- 10076 sigma3 = 5.13096 +/- 20021
 asymm1 = 72101 +/- 02136 asymm2 = -01851 +/- 04058 asymm3 = -01079 +/- 03768
 xwire1 = 28.0828 +/- 06790 xwire2 = 58.7593 +/- 23425 xwire3 = 88.1143 +/- 39447
 b1 = 366.057 +/- 4.81195 b2 = 243.067 +/- 4.16613 b3 = 207.252 +/- 3.42362
 a1 = 148.274 +/- 2.08476 a2 = -08625 +/- 03638



WS2009_4_13_17_46_40.datB File Pref ReFit 549.7314453125 V 3815

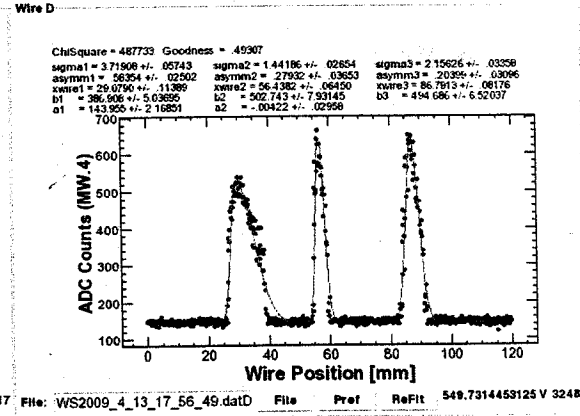
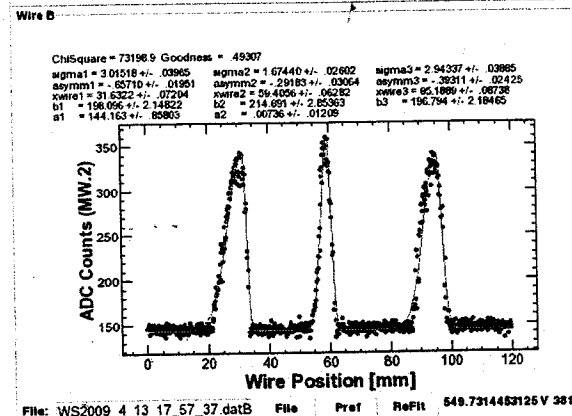
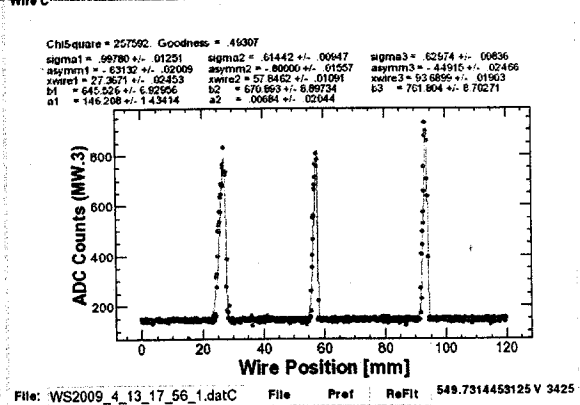
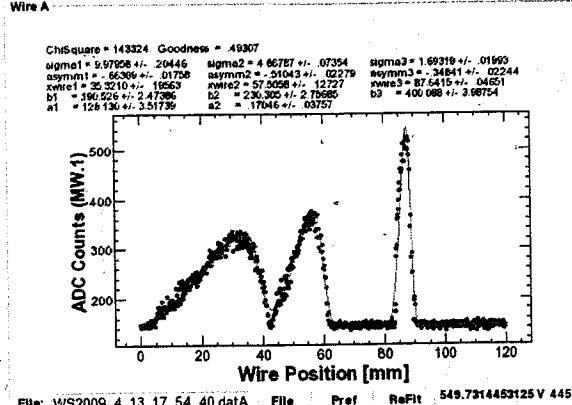
File: WS2009_4_13_17_48_16.datD File Pref ReFit 549.7314453125 V 3247

3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
 4-wire:ABCD
 NonLinearFit Err(meas), n: n: 0 Err(opt) (%): 0
 'Calculate Optics' Save All Parameters



Head O-mag from File
 Save O-Mag to File

101.822
4.517
8.2151E-7
13206.911
1.474
1.2111E-6
19470.60E



Wire Scan Optics Calculate Matching

Xphase space at Wire A

Xphase space at Matching Point

Results of Measurement

β_x , @MW.1 [m] :	24.752	β_y , @MW.1 [m] :	457.386
α_x , @MW.1 :	-1.693	α_y , @MW.1 :	23.426
ϵ_x [m] :	5.6067E-8	ϵ_y [m] :	1.3416E-7
γ_x , [r.mm.mrad] :	901.349	γ_y , [r.mm.mrad] :	2156.831
Bmag x :	1.507	Bmag y :	5.181
ϵ Bmag x :	8.4514E-8	ϵ Bmag y :	6.9506E-7
γ Bmag x :	1358.679	γ Bmag y :	11174.011

Optics Plot

Wire Selection

3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD

4-wire:ABCD

NonLinearFit Err(meas), n: 0 Err(opt) (%): 0

Calculate Optics Save All Parameters

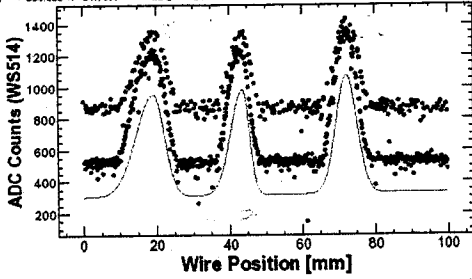
5077-e⁺

50 Hz

File Edit Control Window

Wire A

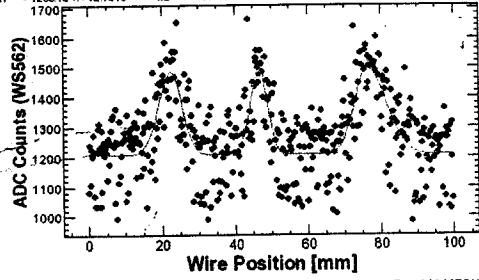
ChiSquare = 10478 Goodness = 4966
 sigma1 = 3.82279 +/- 43985 sigma2 = 2.52245 +/- 30798 sigma3 = 2.86436 +/- 29381
 asym1 = -2.5036 +/- 20071 asym2 = -28203 +/- 23314 asym3 = 00823 +/- 20439
 xwire1 = 19.2430 +/- 92306 xwire2 = 49.6261 +/- 71530 xwire3 = 72.1155 +/- 71480
 b1 = 642.350 +/- 57.6687 b2 = 657.902 +/- 68.2463 b3 = 746.805 +/- 64.0695
 a1 = 304.000 +/- 34.7977 a2 = 29110 +/- 32789



File: WS2009_4_13_20_7_58.datA File Pref ReFit 449.7802734375 V 2744

Wire C

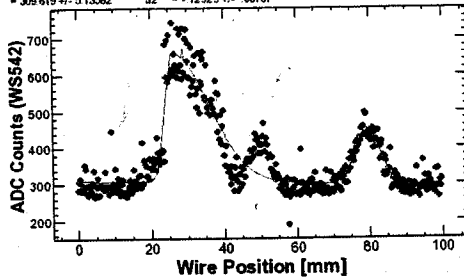
ChiSquare = 4182916 Goodness = 4963
 sigma1 = 3.16999 +/- 37191 sigma2 = 2.37120 +/- 30259 sigma3 = 4.30670 +/- 43846
 asym1 = -0.5447 +/- 22596 asym2 = -0.7089 +/- 29032 asym3 = 19756 +/- 18256
 xwire1 = 22.4786 +/- 67590 xwire2 = 46.8278 +/- 74391 xwire3 = 76.3126 +/- 95505
 b1 = 276.953 +/- 26.5709 b2 = 281.452 +/- 30.2513 b3 = 289.634 +/- 23.1410
 a1 = 120816 +/- 12.7940 a2 = -00917 +/- 22477



File: WS2009_4_13_20_5_36.datC File Pref ReFit 719.6484375 V 2372

Wire B

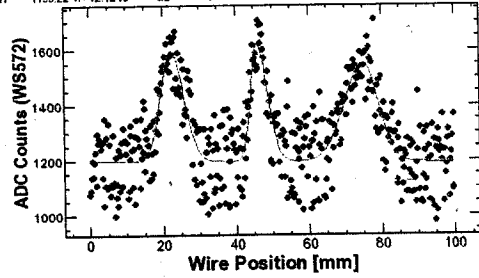
ChiSquare = 751532 Goodness = 4963
 sigma1 = 0.1000 +/- 8.3E-20 sigma2 = 6.03088 +/- 17166 sigma3 = 3.30943 +/- 29414
 asym1 = -80000 +/- 4.0E-22 asym2 = 67829 +/- 04013 asym3 = 07770 +/- 16869
 xwire1 = 28.7496 +/- 4.4E-21 xwire2 = 25.8391 +/- 29497 xwire3 = 79.1361 +/- 68272
 b1 = 42.2863 +/- 1.8E-25 b2 = 354.206 +/- 8.38614 b3 = 153.632 +/- 11.0669
 a1 = 309.619 +/- 5.12662 a2 = -12.923 +/- 38737



File: WS2009_4_13_20_4_40.datB File Pref ReFit 499.755859375 V 2452

Wire D

ChiSquare = 3965777 Goodness = 4963
 sigma1 = 3.13390 +/- 24787 sigma2 = 2.25956 +/- 18596 sigma3 = 4.59484 +/- 34852
 asym1 = 11890 +/- 15244 asym2 = 27054 +/- 19322 asym3 = -11348 +/- 14183
 xwire1 = 22.1268 +/- 36431 xwire2 = 45.7731 +/- 45152 xwire3 = 74.3184 +/- 70490
 b1 = 369.620 +/- 26.0278 b2 = 425.560 +/- 30.1634 b3 = 356.347 +/- 21.8373
 a1 = 1159.22 +/- 12.1249 a2 = -00853 +/- 20098



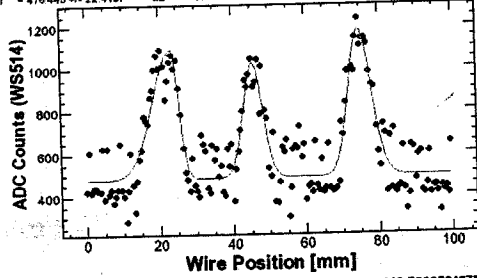
File: WS2009_4_13_20_7_7.datD File Pref ReFit 719.6484375 V 2270

5 Hz

File Edit Control Window

Wire A

ChiSquare = 1736621 Goodness = 48475
 sigma1 = 3.50292 +/- 30490 sigma2 = 2.64608 +/- 27560 sigma3 = 3.14823 +/- 24202
 asym1 = -40521 +/- 14787 asym2 = 04194 +/- 20862 asym3 = 11767 +/- 14896
 xwire1 = 23.0899 +/- 63246 xwire2 = 45.4199 +/- 67600 xwire3 = 74.4610 +/- 57395
 b1 = 610.039 +/- 41.9864 b2 = 942.025 +/- 47.4390 b3 = 693.206 +/- 43.8015
 a1 = 476.445 +/- 22.4157 a2 = 17532 +/- 35772

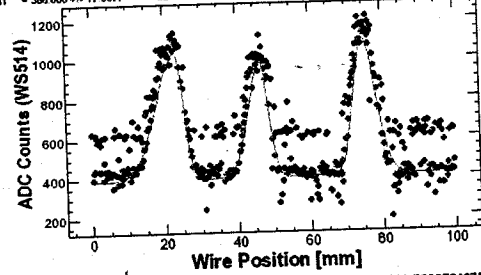


File: WS2009_4_13_20_9_24.datA File Pref ReFit 449.7802734375 V 2745

File Edit Control Window

Wire A

ChiSquare = 6658317 Goodness = 4963
 sigma1 = 3.68002 +/- 23105 sigma2 = 2.71885 +/- 19819 sigma3 = 3.04102 +/- 19204
 asym1 = -43249 +/- 10289 asym2 = -24170 +/- 14113 asym3 = 16698 +/- 10581
 xwire1 = 23.0050 +/- 46598 xwire2 = 46.5218 +/- 46947 xwire3 = 74.5056 +/- 43476
 b1 = 647.002 +/- 31.3109 b2 = 586.699 +/- 35.7348 b3 = 597.395 +/- 33.0275
 a1 = 386.000 +/- 17.9077 a2 = 25360 +/- 26389

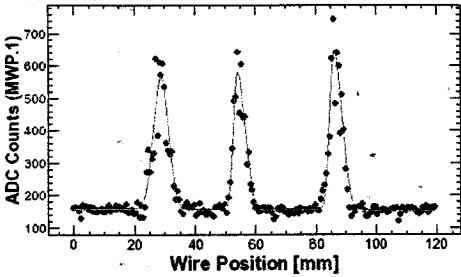


File: WS2009_4_13_20_7_58.datA File Pref ReFit 449.7802734375 V 2744

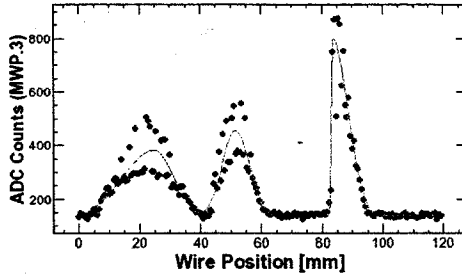
12.5 Hz

7ヤ-ヤ、スクリーンが入っている時に特に

ChiSquare = 211917 Goodness = 48621
 sigma1 = 2.34817 +/- 10834 sigma2 = 1.88828 +/- 08211 sigma3 = 1.55149 +/- 08136
 asymm1 = 0.0577 +/- 09308 asymm2 = 2.9050 +/- 06992 asymm3 = 2.7576 +/- 08196
 xwire1 = 28.7161 +/- 25763 xwire2 = 53.9150 +/- 12136 xwire3 = 85.9901 +/- 19504
 b1 = 409.063 +/- 15.9130 b2 = 422.329 +/- 17.6427 b3 = 490.918 +/- 17.3089
 a1 = 180.230 +/- 5.36236 a2 = -04.327 +/- 07432



ChiSquare = 441446 Goodness = 48621
 sigma1 = 8.62726 +/- 86087 sigma2 = 4.52916 +/- 31972 sigma3 = 2.62232 +/- 10324
 asymm1 = 2.24991 +/- 11636 asymm2 = 0.4498 +/- 12455 asymm3 = 8.6000 +/- 04106
 xwire1 = 24.6490 +/- 118954 xwire2 = 51.3990 +/- 67989 xwire3 = 83.6072 +/- 13691
 b1 = 257.850 +/- 18.1732 b2 = 325.791 +/- 18.4886 b3 = 663.497 +/- 21.5437
 a1 = 118.302 +/- 22.4846 a2 = 2.2047 +/- 24246



9.519	189.21
292	
2.9680E-7	
2087.515	36.71
2.266	12.561
6.7262E-7	93.961
4730.793	30 -4
	29.99
	11.111
	3.680
	117.70
	29.991
	7.369
	154.53
	8.121
	2.6011
	8.604

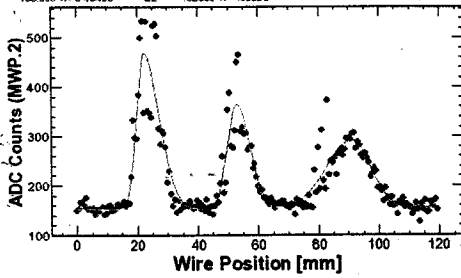
File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4626

File: WS2009_4_13_21_34_13.datC File Pref ReFit 849.5849609375 V 4055

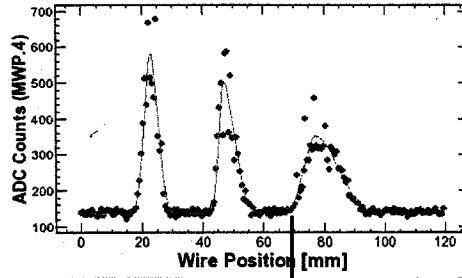
Wire B

Wire D

ChiSquare = 228221 Goodness = 48621
 sigma1 = 3.61614 +/- 19272 sigma2 = 3.80725 +/- 27875 sigma3 = 7.23003 +/- 69126
 asymm1 = 3.0601 +/- 06377 asymm2 = 1.6835 +/- 15001 asymm3 = -15289 +/- 16698
 xwire1 = 22.0786 +/- 42302 xwire2 = 52.7251 +/- 56173 xwire3 = 80.8614 +/- 148181
 b1 = 314.751 +/- 19.4891 b2 = 209.811 +/- 13.4756 b3 = 135.409 +/- 10.1166
 a1 = 153.950 +/- 6.48450 a2 = 02.006 +/- 06526



ChiSquare = 219096 Goodness = 48621
 sigma1 = 2.25152 +/- 09624 sigma2 = 2.53652 +/- 12352 sigma3 = 5.44286 +/- 33382
 asymm1 = 0.6980 +/- 08294 asymm2 = 4.0815 +/- 05013 asymm3 = 3.2915 +/- 11108
 xwire1 = 22.7437 +/- 23627 xwire2 = 46.6537 +/- 27968 xwire3 = 76.8040 +/- 73816
 b1 = 445.079 +/- 16.2792 b2 = 368.914 +/- 15.2640 b3 = 213.014 +/- 10.5686
 a1 = 137.048 +/- 5.63469 a2 = 02.055 +/- 07869



File: WS2009_4_13_21_33_14.datB File Pref ReFit 849.5849609375 V 4220

File: WS2009_4_13_21_35_40.datD File Pref ReFit 849.5849609375 V 4150

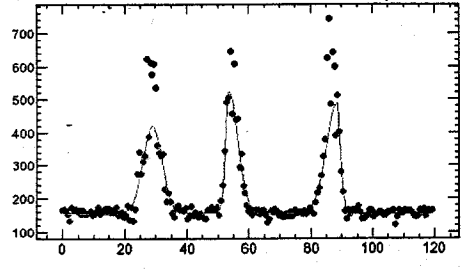
Q-Mag values were SET and saved to file and sad.

Q-Mag values were SET and saved to file and sad.

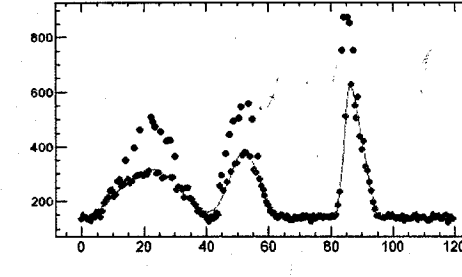
Set L2 p. 2 in the program (2.1.1.1.1)

File Edit Control Window

ChiSquare = 66520.4 Goodness = 48578
 sigma1 = 2.08025 +/- 13689 sigma2 = 2.02594 +/- 06499 sigma3 = 2.33366 +/- 08102
 asymm1 = -0.2357 +/- 06313 asymm2 = 4.7757 +/- 02910 asymm3 = -5.5350 +/- 06078
 xwire1 = 28.8479 +/- 32307 xwire2 = 53.3816 +/- 14808 xwire3 = 86.5404 +/- 18219
 b1 = 245.693 +/- 14.0335 b2 = 4367.328 +/- 12.1189 b3 = 353.049 +/- 12.8096
 a1 = 157.478 +/- 3.22365 a2 = -02.964 +/- 04364



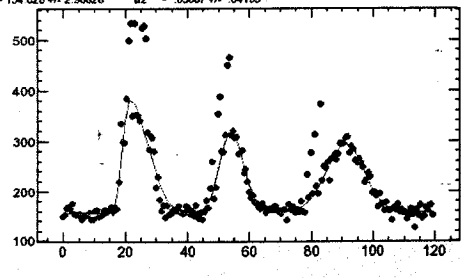
ChiSquare = 55468.1 Goodness = 48527
 sigma1 = 10.0848 +/- 53086 sigma2 = 4.71341 +/- 17837 sigma3 = 2.83817 +/- 06672
 asymm1 = -1.1315 +/- 07177 asymm2 = 0.1332 +/- 07031 asymm3 = 3.0038 +/- 04341
 xwire1 = 22.7215 +/- 84203 xwire2 = 52.0349 +/- 41127 xwire3 = 80.8687 +/- 16180
 b1 = 105.866 +/- 8.70259 b2 = 255.382 +/- 8.40417 b3 = 484.494 +/- 11.0857
 a1 = 113.149 +/- 10.4046 a2 = 2.7008 +/- 10965



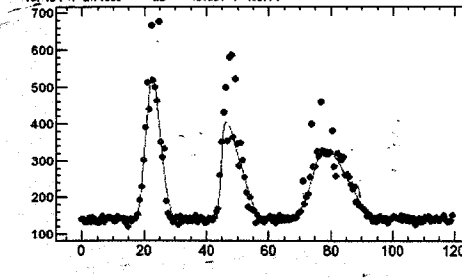
File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4626

File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4055

ChiSquare = 41884.5 Goodness = 48566
 sigma1 = 4.03152 +/- 13643 sigma2 = 3.88811 +/- 17906 sigma3 = 6.13550 +/- 29496
 asymm1 = 4.5299 +/- 05993 asymm2 = 0.0128 +/- 08858 asymm3 = -0.0201 +/- 08489
 xwire1 = 21.2521 +/- 26394 xwire2 = 53.8713 +/- 44485 xwire3 = 91.1172 +/- 61411
 b1 = 225.628 +/- 7.59259 b2 = 181.163 +/- 6.72985 b3 = 135.549 +/- 4.81435
 a1 = 154.628 +/- 2.96628 a2 = 03007 +/- 04185



ChiSquare = 45348.6 Goodness = 48578
 sigma1 = 2.25482 +/- 05635 sigma2 = 2.90336 +/- 10202 sigma3 = 5.48271 +/- 18416
 asymm1 = 1.8885 +/- 04792 asymm2 = 6.1231 +/- 05472 asymm3 = 2.8114 +/- 06312
 xwire1 = 22.2853 +/- 13439 xwire2 = 45.8458 +/- 20185 xwire3 = 77.7945 +/- 42542
 b1 = 391.865 +/- 8.84489 b2 = 289.685 +/- 10.8365 b3 = 184.316 +/- 5.45345
 a1 = 137.124 +/- 2.71939 a2 = 01534 +/- 03774

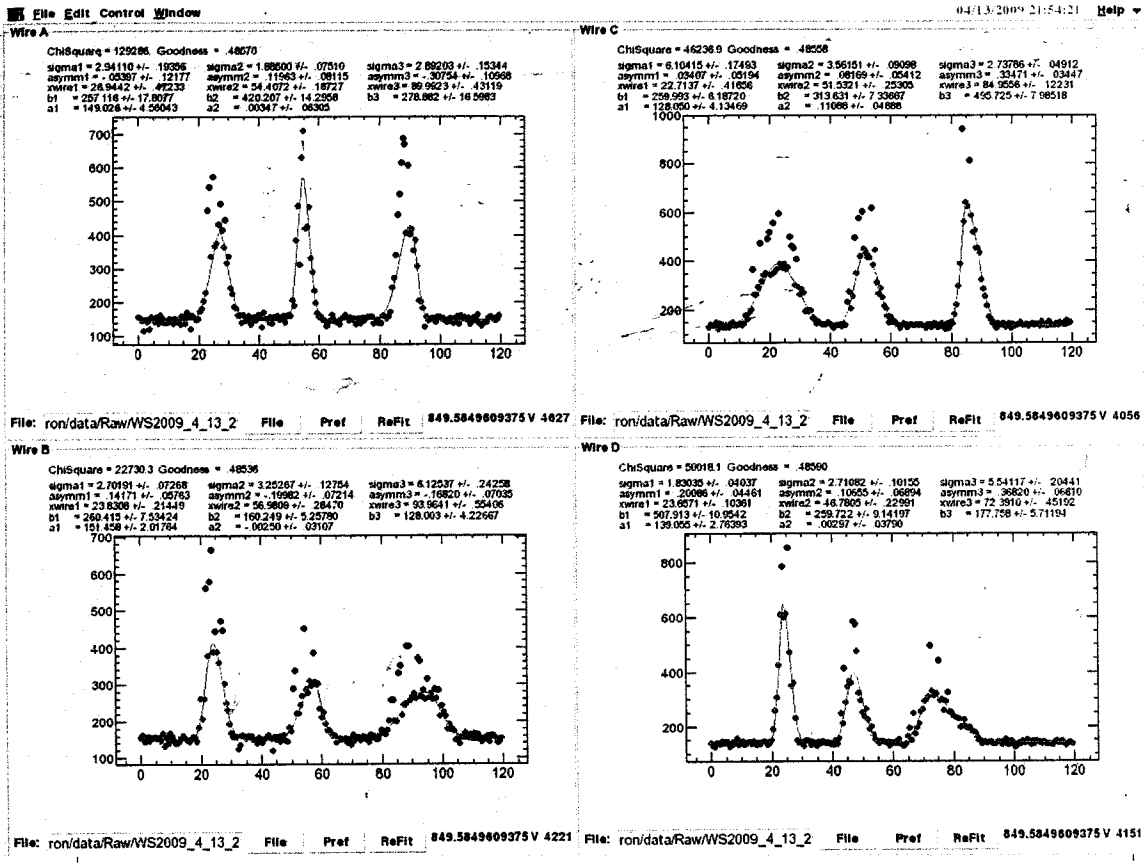


15.386	
009	
2.8788E-7	
2024.767	31
2.463	
7.0901E-7	
4986.771	

3-wire:BCD
 r(opt) (%): 0
 meters

Qmag values were SAVED to\data1\KEKB\Wire\B\Tin\pos\ron\data\Qvalue\qname_2009_4_13_21_45_12.dat0

Q-Mag values were SET and saved to file and sad.



File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4827 File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4056

File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4221 File: ron\data\Raw\WS2009_4_13_2 File Pref ReFit 849.5849609375 V 4151

File Edit Window 8/13/2009 21:54:21 Help

Wire Scan Optics Calculate Matching

X phase space at Wire A X phase space at Matching Point

Results of Measurement

β_x @MWP.1 [m] :	8.164	β_y @MWP.1 [m] :	20.023
α_x @MWP.1 :	-658	α_y @MWP.1 :	868
ϵ_x [m] :	4.7216E-7	ϵ_y [m] :	2.4791E-7
γ_x [r.mm.mrad] :	3320.902	γ_y [r.mm.mrad] :	1743.628
Bmag x :	1.003	Bmag y :	1.303
rBmag x :	4.7358E-7	rBmag y :	3.2314E-7
γ rBmag x :	3330.920	γ rBmag y :	2272.786

Optics Plot

Wire Selection
 3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
 4-wire:ABCD

NonLinearFit Err(meas), n: 0 Err(opt) (*): 0

'Calculate Optics' Save All Parameters

G-Mag values were SET and saved to file and sad.

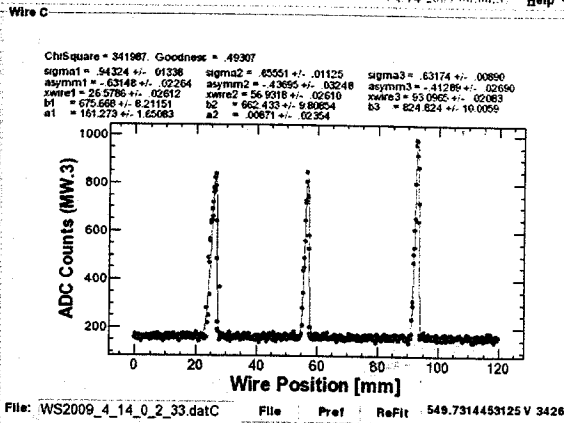
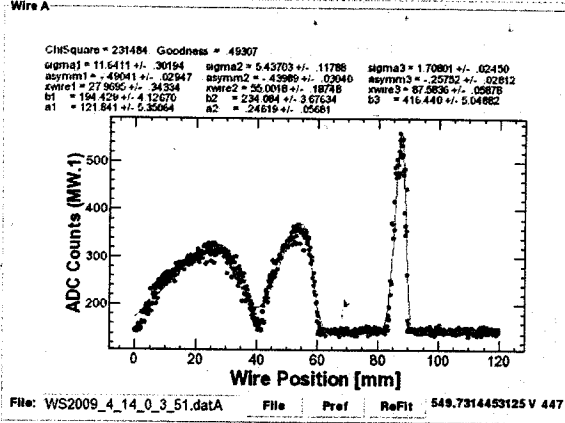
e⁻

BT matching $\rightarrow \rightarrow 2$

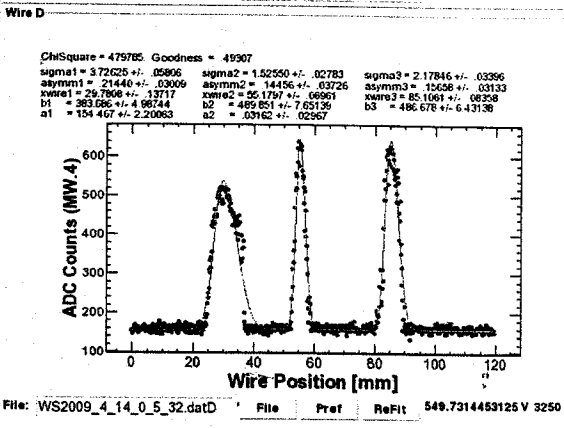
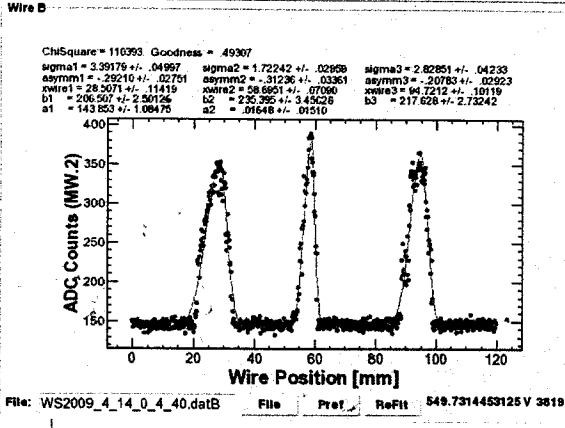
(37)

200

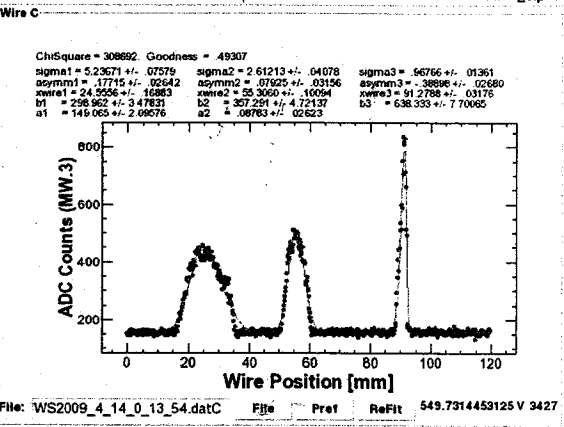
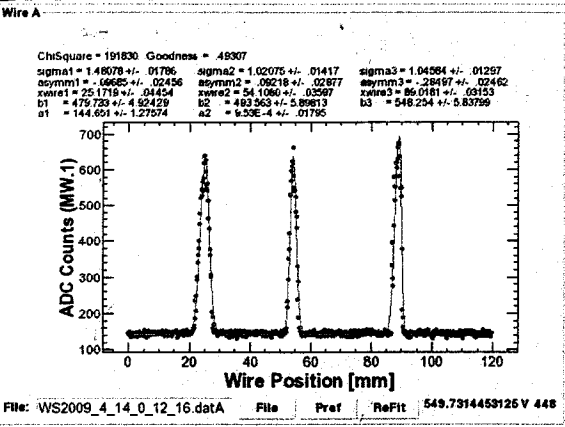
BT 04-13-2009-23:59:36 1-sare



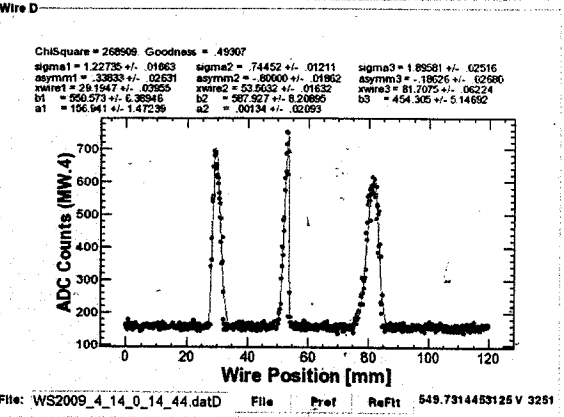
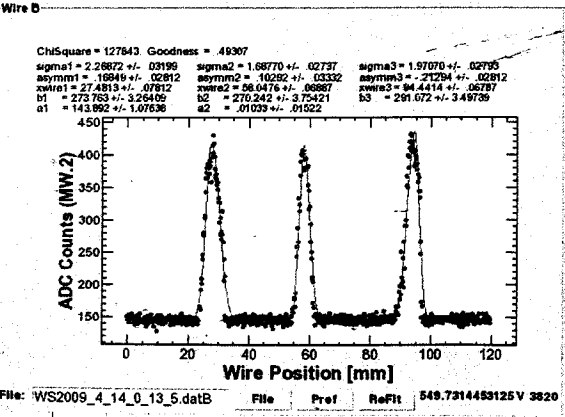
563
28
1.117E
1796
6
7.121E
1144E



350
1796
6
7.121E
1144E
-Wire:BCI
%): 0



17.7E
-1E
6.2211E
1000.12
2.8E
1.7667E
2840.2E



350
1796
6
7.121E
1144E
-Wire:BCD
%): 0

BT 04-14-2009-00:38:07 1-sare