

2010.4.11

ファネリング用ビーム調整 (実験2日目)


9:30

1ncビームの様子を確認する。OK $\delta E/E @ R031. 6m. 6l$

9:35

Kly-22 ターン多く。 E_s を 1.0kV 下げる~~sect 2~4 の束の軌道~~電荷量 @ A1 を $Q = 1.0nC \rightarrow 2.5nC$ まで上げる

sect 2~4 の軌道をなおし。ビーム口入で改善した

SC-6LA3 上のスポットが  のように右に広がりが出る (wake?)
→ 2-sector の ST を若干だけ改善

5-sector の軌道は

10:25

4-11k 上への位置合わせ。

BS-61-A1. A2. A3. energy-knob

SC-6LA3 上への $+3 \sim +4mm$ のズレを直すAmorphous 上への束中にいるように BS-61-A2, A3 を
振るとビームが欠け始める。BS-61-A1 により SC-61-A3 上への若干だけ中央方向に
ズレると欠けは改善Energy 変動におり時々ビームが欠けるので。Knob を \downarrow 2.
SC-61-A2 上への \downarrow の右に $3 \sim 2u$ ($+15mm?$) を
中央方向に動かして改善した。

2010/9/16

3T PF ~ の 5077-Matching.

飯田. 草野.

P.22, 21 を再現すればいい.

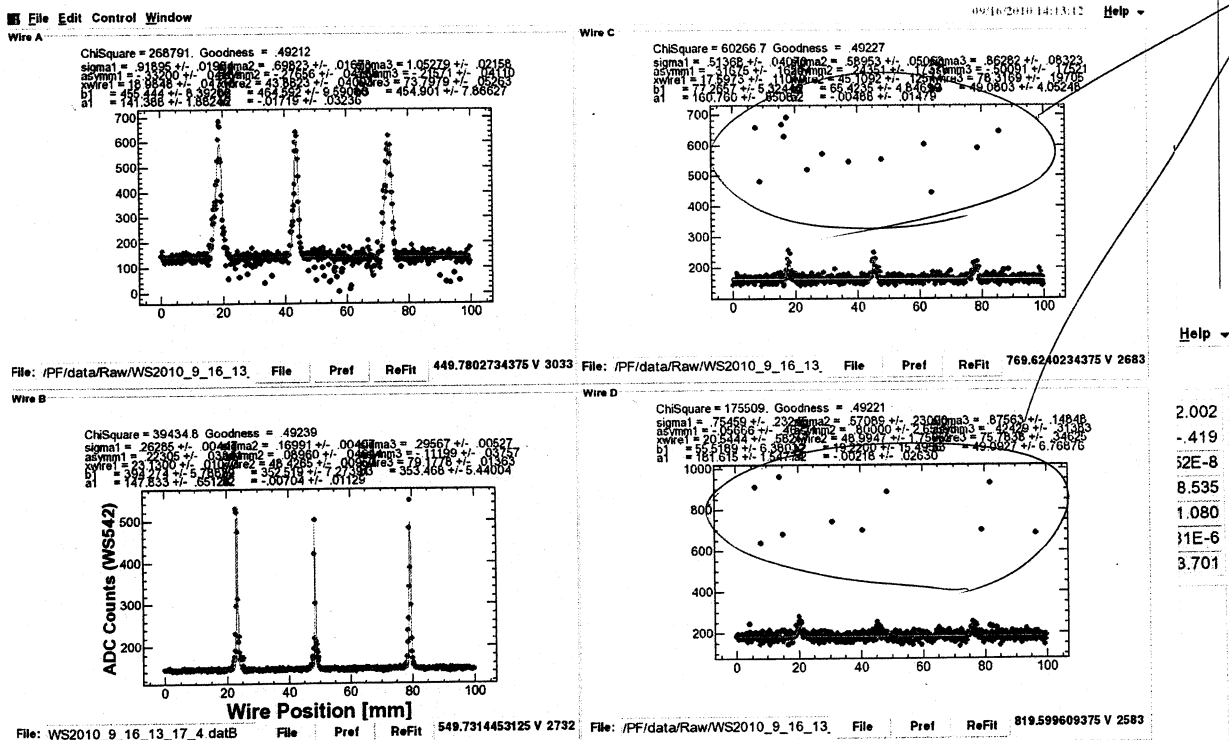
WireScanner の PF/BT line が #0- となっている (PF-V4-0-rφ.sad)

PF/BT の Optics 0- P21 の 5077 になる. 実際は.

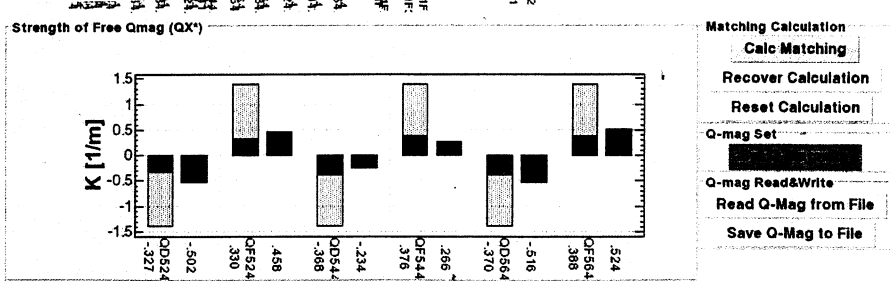
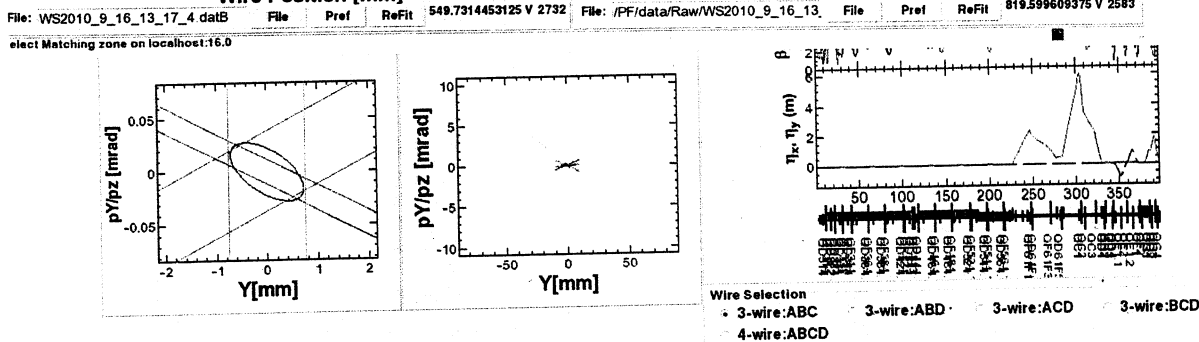
P.22 になっている (PF-V4-1-rφ.sad)

このデータを更新してやる

= 2本の Noise だけ
Pulse-
band to off
にする
とよかった

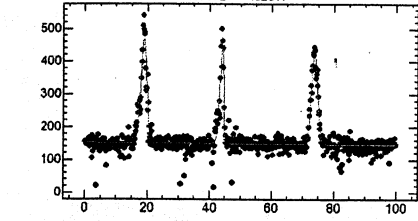


Help
2.002
-4.19
52E-8
8.535
1.080
11E-6
3.701
Help



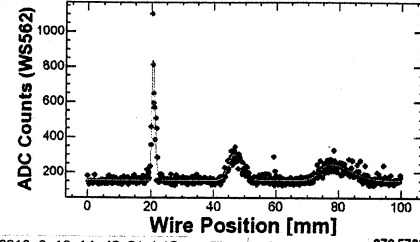
#1 Control Window

ChiSquare = 229146. Goodness = 49229
 sigma1 = 9.664 +/- 0.056 sigma2 = 58955 +/- 0.228 sigma3 = 1.01967 +/- 0.0061
 asym1 = 1.6729 +/- 0.0001 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 19.822 +/- 0.000 wire2 = 30.333 +/- 0.000 wire3 = 279.872 +/- 0.0152
 s1 = 149.243 +/- 1.7682 s2 = -0.7172 +/- 0.2917



Wire C

ChiSquare = 422586. Goodness = 49147
 sigma1 = 49058 +/- 0.118 sigma2 = 2.12690 +/- 1.457 sigma3 = 4.68309 +/- 4.0528
 asym1 = 0.8112 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 20.497 +/- 0.000 wire2 = 46.831 +/- 0.000 wire3 = 77.826 +/- 2.8688
 s1 = 182.998 +/- 2.6902 s2 = -1.0169 +/- 0.6059 s3 = 91.6531 +/- 5.93783

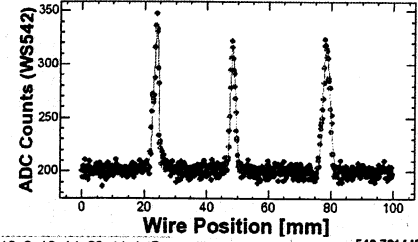


534.932
 63.851
 7.6403E-9
 37.379
 1.691
 1.2917E-8
 63.194

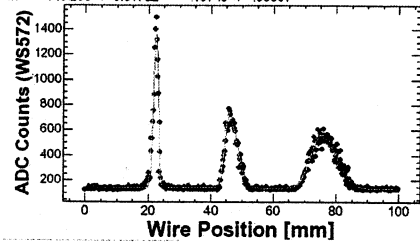
ata/Raw/WS2010_9_16_14. File Pref ReFit 449.7802734375 V 3034

File: WS2010_9_16_14_42_31.datC File Pref ReFit 879.5703125 V 2690

ChiSquare = 18247.0 Goodness = 49239
 sigma1 = 77239 +/- 0.156 sigma2 = 78173 +/- 0.175 sigma3 = 1.12976 +/- 0.2176
 asym1 = 38174 +/- 0.0000 asym2 = 25227 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 24.1175 +/- 0.0000 wire2 = 48.2274 +/- 0.0000 wire3 = 78.0504 +/- 0.0000
 s1 = 201.945 +/- 45.442 s2 = -0.2752 +/- 0.0798 s3 = 118.042 +/- 1.90828



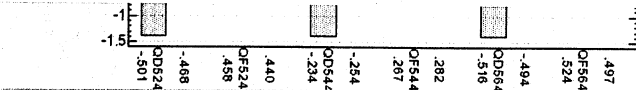
ChiSquare = 577586. Goodness = 49147
 sigma1 = 76197 +/- 0.118 sigma2 = 1.37693 +/- 0.418 sigma3 = 4.08020 +/- 0.8805
 asym1 = 1.0371 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 22.5103 +/- 0.0000 wire2 = 57.8178 +/- 0.0000 wire3 = 25.2434 +/- 0.8814
 s1 = 140.298 +/- 3.3172 s2 = -1.3745 +/- 0.6307 s3 = 423.284 +/- 7.28944



10_9_16_14_29_11.datB File Pref ReFit 549.7314453125 V 2733

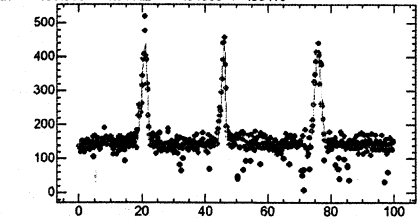
File: WS2010_9_16_14_45_3.datD File Pref ReFit 779.619140625 V 2589

Wire Selection
 3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
 4-wire:ABCD
 NonLinearFit Err(meas), n: n: 0 Err(opt) (%): 0
 Read Q-Mag from File
 Save Q-Mag to File



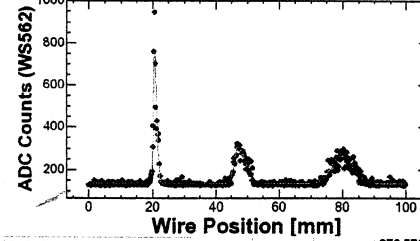
#1 Control Window

ChiSquare = 187325. Goodness = 49114
 sigma1 = 83630 +/- 0.228 sigma2 = 63773 +/- 0.268 sigma3 = 99115 +/- 0.3531
 asym1 = 0.0000 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 31.1478 +/- 0.0000 wire2 = 298.350 +/- 0.0000 wire3 = 10.8000 +/- 0.0000
 s1 = 138.000 +/- 1.9602 s2 = -0.4030 +/- 0.3416 s3 = 258.580 +/- 6.53913



Wire C

ChiSquare = 203720. Goodness = 49147
 sigma1 = 51732 +/- 0.118 sigma2 = 1.80512 +/- 0.733 sigma3 = 3.41610 +/- 1.5239
 asym1 = 0.8114 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 20.497 +/- 0.000 wire2 = 46.831 +/- 0.000 wire3 = 77.826 +/- 2.8688
 s1 = 142.780 +/- 1.9468 s2 = -1.03575 +/- 0.3718 s3 = 130.859 +/- 4.71964

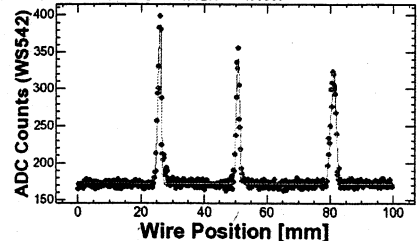


40.317
 4.567
 4.5412E-8
 222.173
 3.514
 1.5957E-7
 780.688

ata/Raw/WS2010_9_16_14. File Pref ReFit 449.7802734375 V 3036

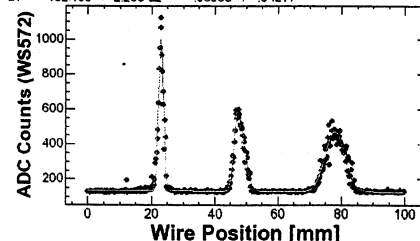
File: WS2010_9_16_14_53_47.datC File Pref ReFit 879.5703125 V 2691

ChiSquare = 17577.0 Goodness = 49147
 sigma1 = 53144 +/- 0.096 sigma2 = 52708 +/- 0.129 sigma3 = 83480 +/- 0.1766
 asym1 = -0.0001 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = -0.0000 +/- 0.0000
 wire1 = 26.0280 +/- 0.0000 wire2 = 124.25 +/- 0.0000 wire3 = 174.42 +/- 0.0000
 s1 = 171.473 +/- 55.3182 s2 = -1.0213 +/- 0.0667 s3 = 150.162 +/- 2.72464



Wire D

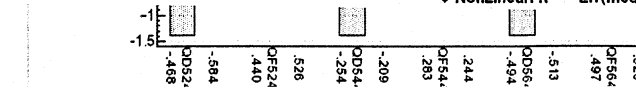
ChiSquare = 280582. Goodness = 49147
 sigma1 = 79933 +/- 0.118 sigma2 = 1.55755 +/- 0.329 sigma3 = 3.07192 +/- 0.6323
 asym1 = 0.8221 +/- 0.0000 asym2 = 0.0000 +/- 0.0000 asym3 = 0.0000 +/- 0.0000
 wire1 = 22.5103 +/- 0.0000 wire2 = 47.1135 +/- 0.0000 wire3 = 77.826 +/- 2.8688
 s1 = 132.195 +/- 2.28942 s2 = -0.6533 +/- 0.3211 s3 = 342.148 +/- 5.79261



10_9_16_14_52_40.datB File Pref ReFit 549.7314453125 V 2734

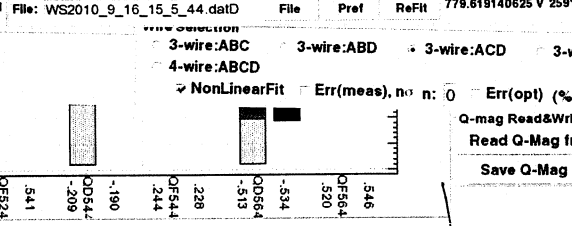
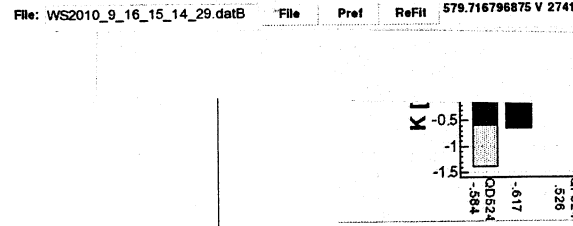
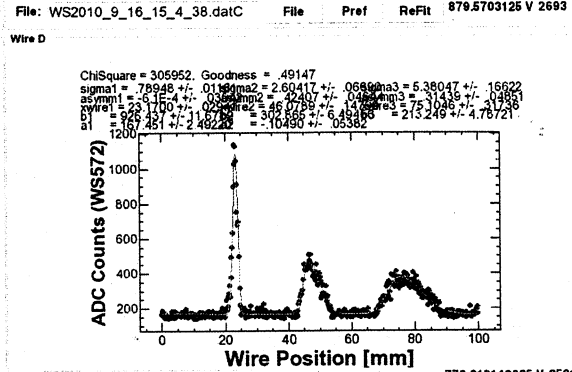
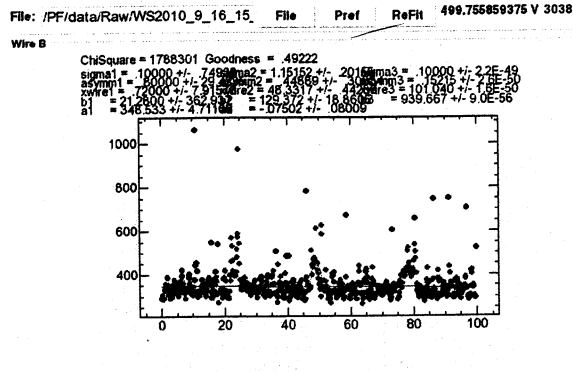
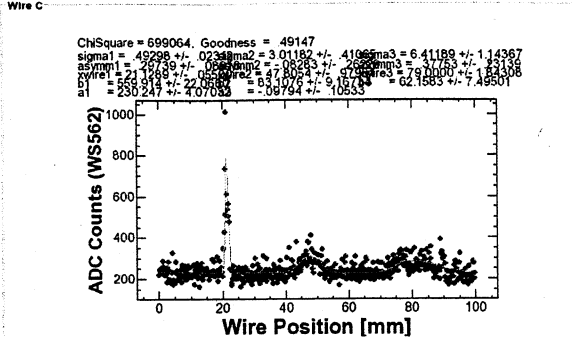
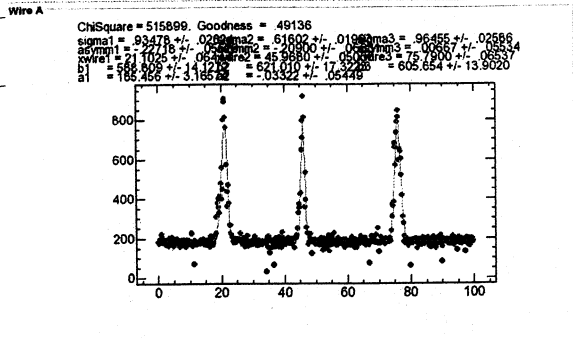
File: WS2010_9_16_14_54_54.datD File Pref ReFit 779.619140625 V 259

Wire Selection
 4-wire:ABCD 3-wire:BCD
 NonLinearFit Err(meas), n: n: 0 Err(opt) (%): 0
 Read Q-Mag from File
 Save Q-Mag to File



File Edit Control Window

09/16/2010 15:16:51 Help



← この測定の時にもとした

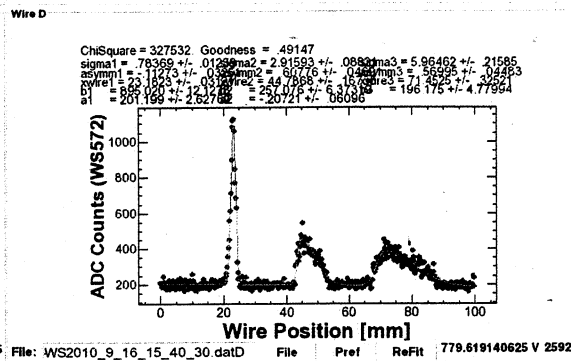
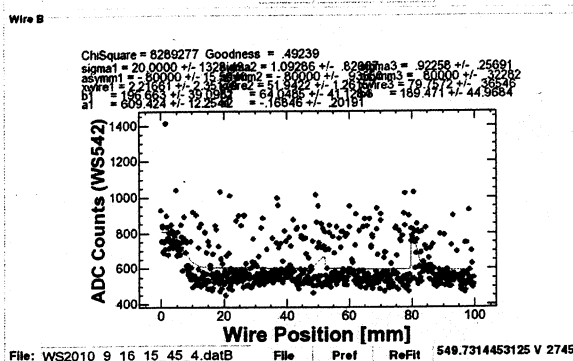
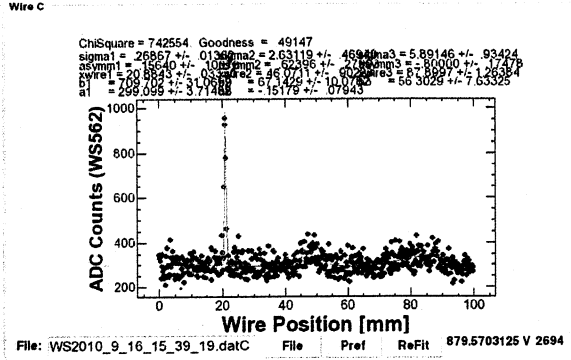
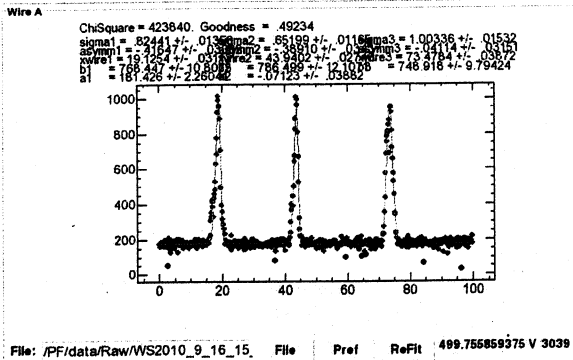
- 158.330
- 19.949
- .299E-8
- 167.807
- 1.455
- 912E-8
- 44.192

hTc
 2m)

setした。3 wireで全く
 測定できなくなった
 結果にあり
 変更の方向の上
 もとした

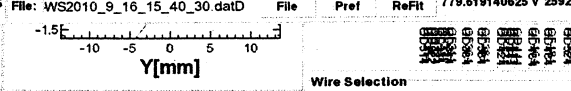
File Edit Control Window

09/16/2010 15:46:38 Help



09/16/2010 15:46:4

BP581 [m] :
 BP581 :
] : 4
 .mm.mrad :
 g y :
 ag y : 5
 iag y :



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

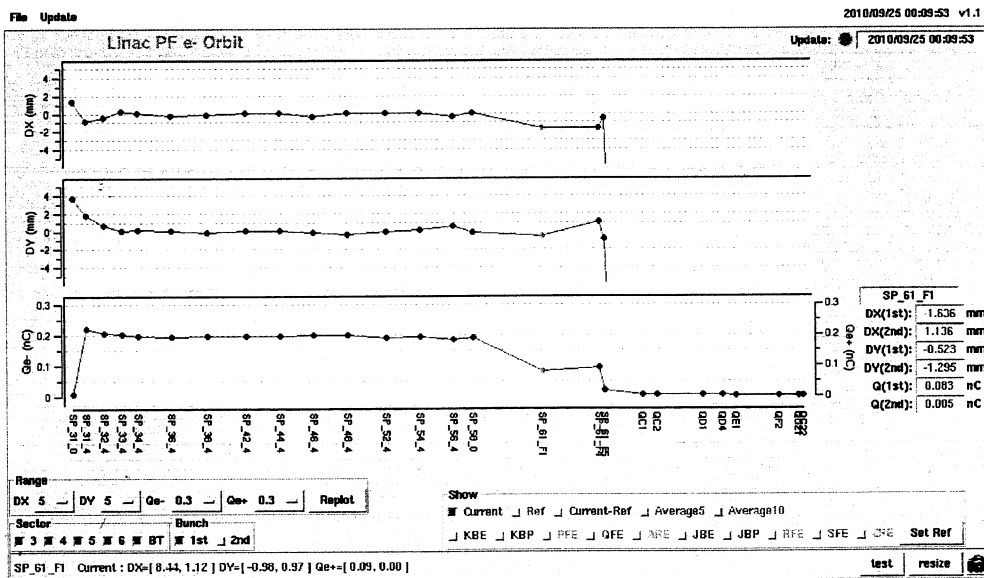
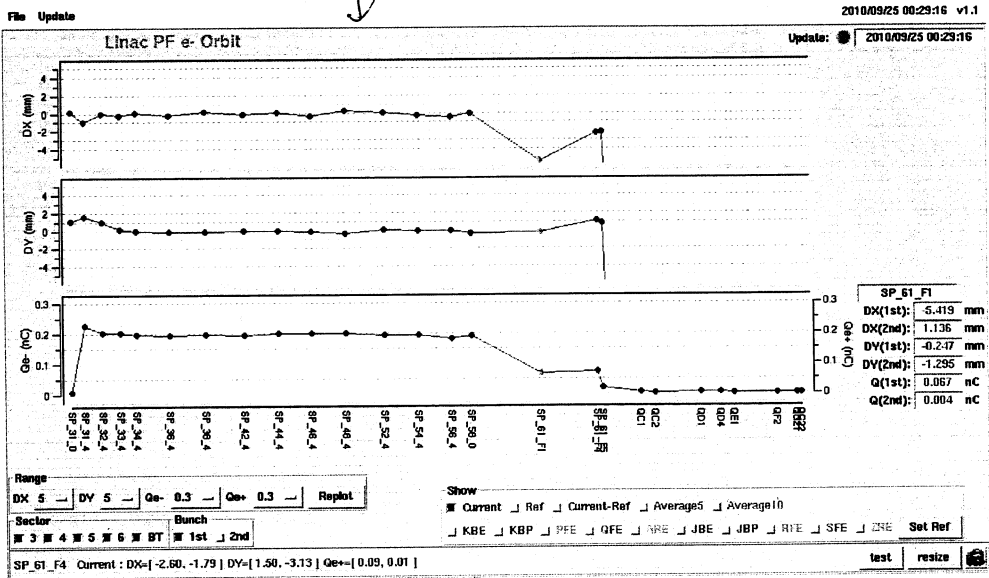
NonLinearFit Err(meas), no n: 0 Err(opt) (%):

6/F11の
透過率が悪い
イネキの調整に
合わせたい

2010.9.29 PF 0.849%
2.5866(9/24) $+0.872$ 2.6083(9/21) GeV
SP-61-F1 -5mm +2mm

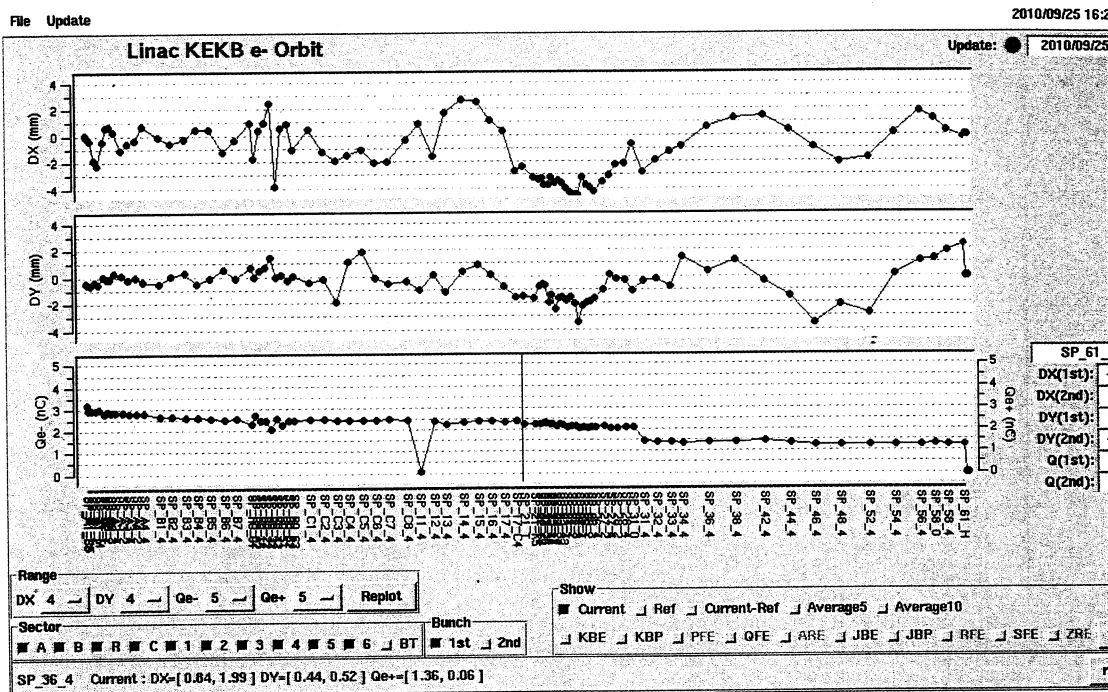
BP-58-1 2.799 (-0.35%) → 2.781 (-0.08%)
BH-61-F1 " ← 152.821 → 151.6
BH-61-F9 " ← 116.337 → 115.906
BX-61-F3 -1.9A. ~~1.9A?~~ 0

-0.8%

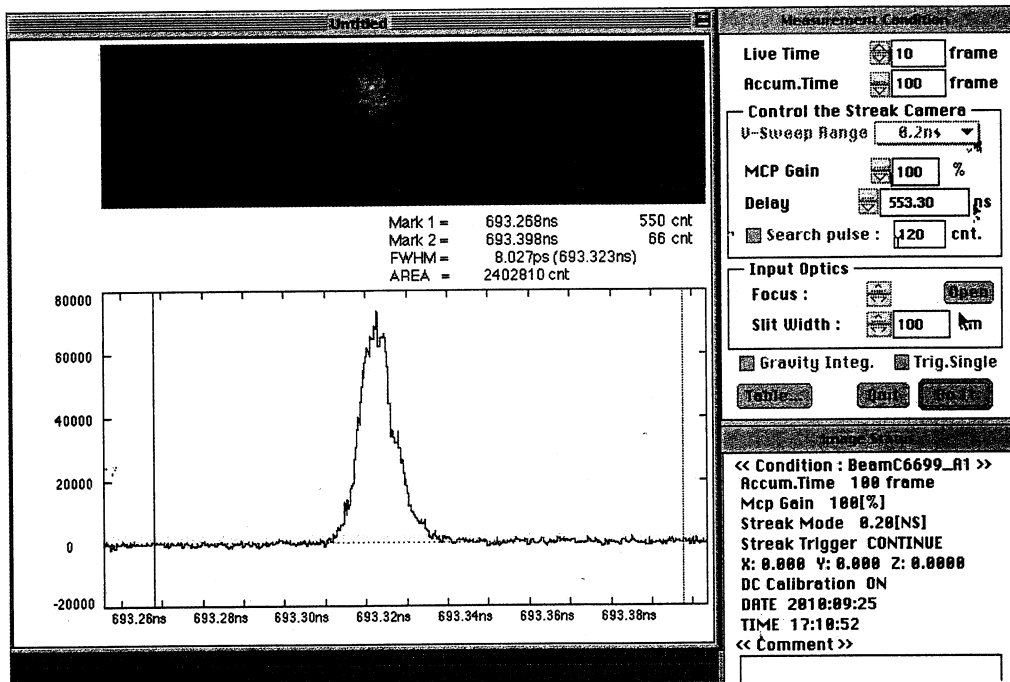


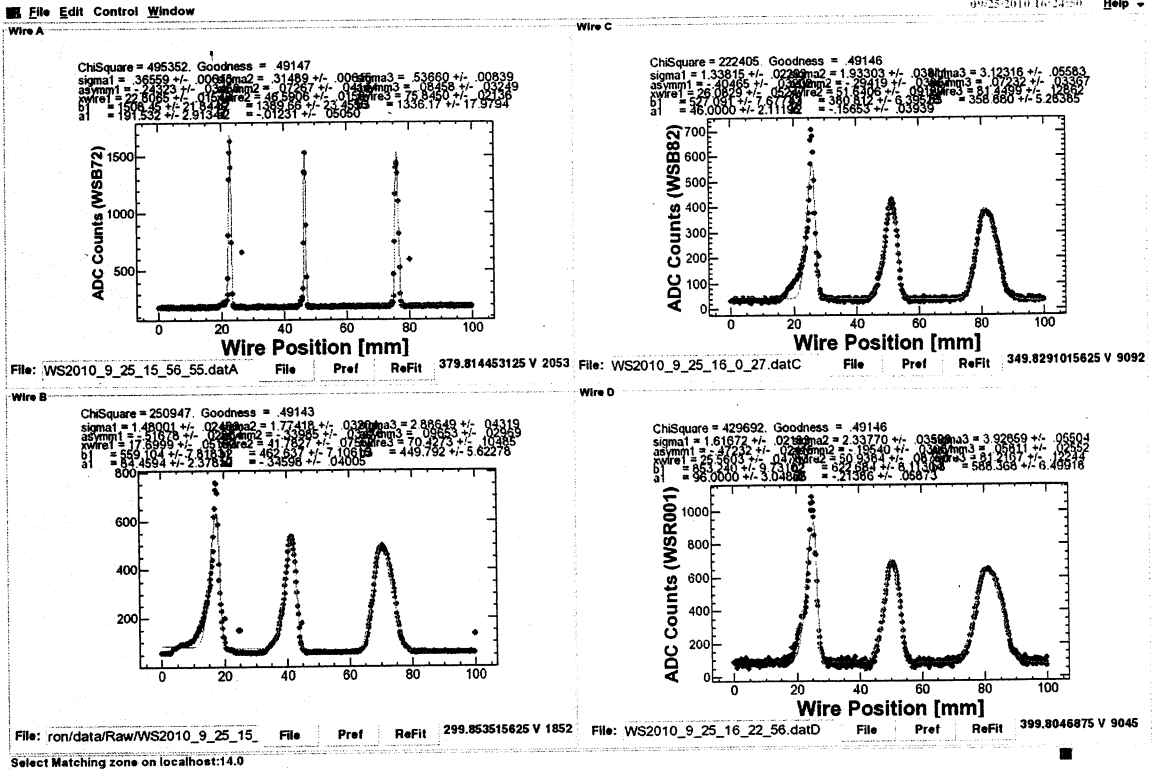
入射角を元に戻す。

加速器の電子光学

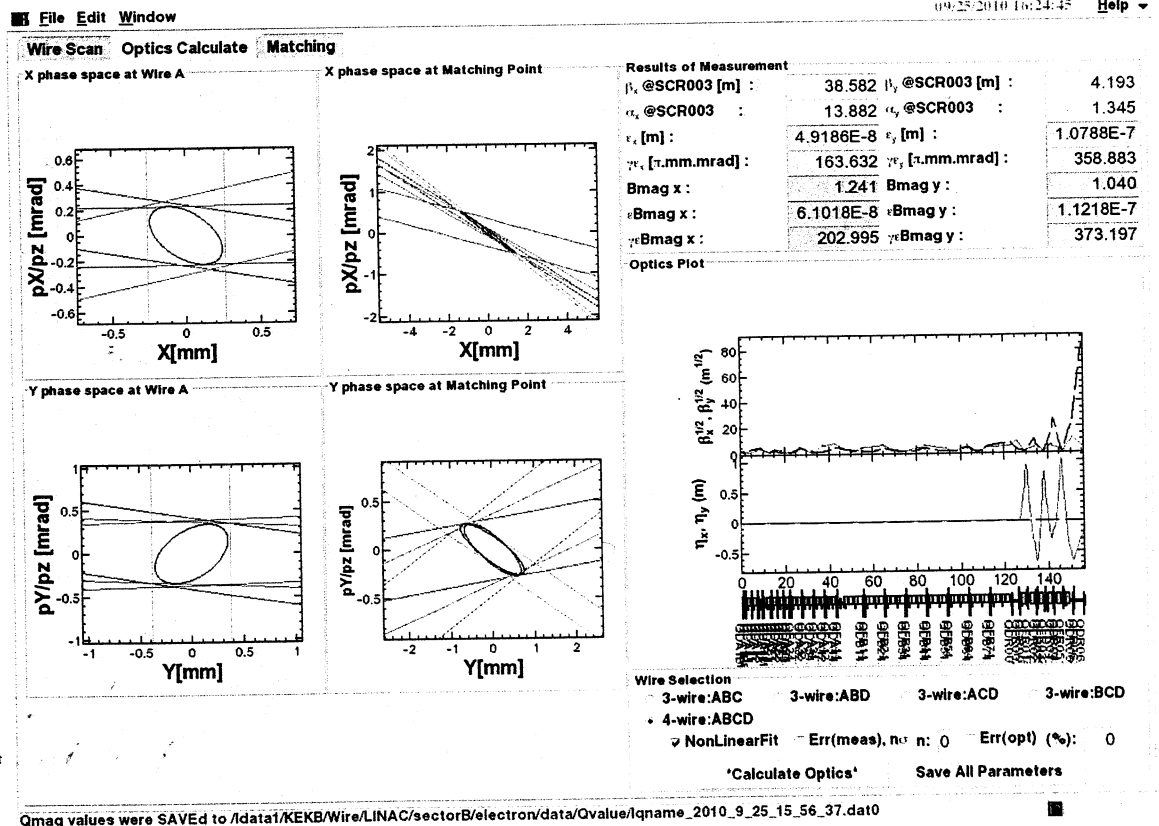


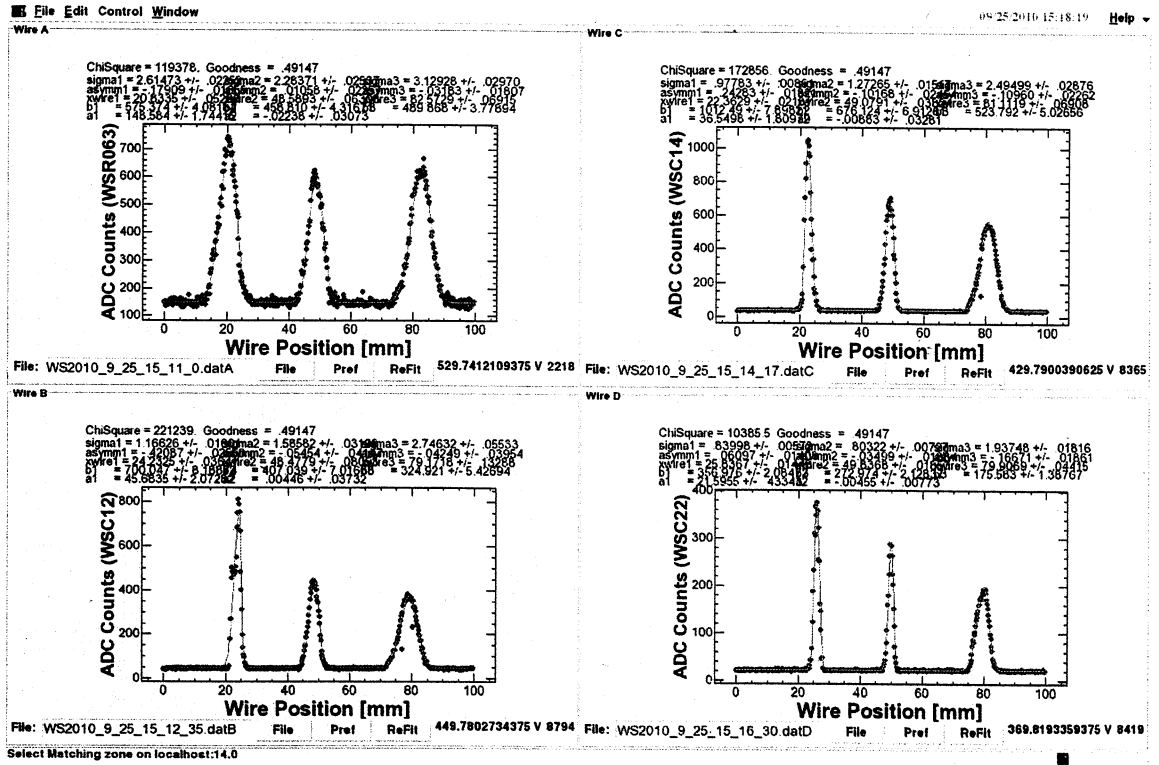
BT = data 4980.all (3mC)



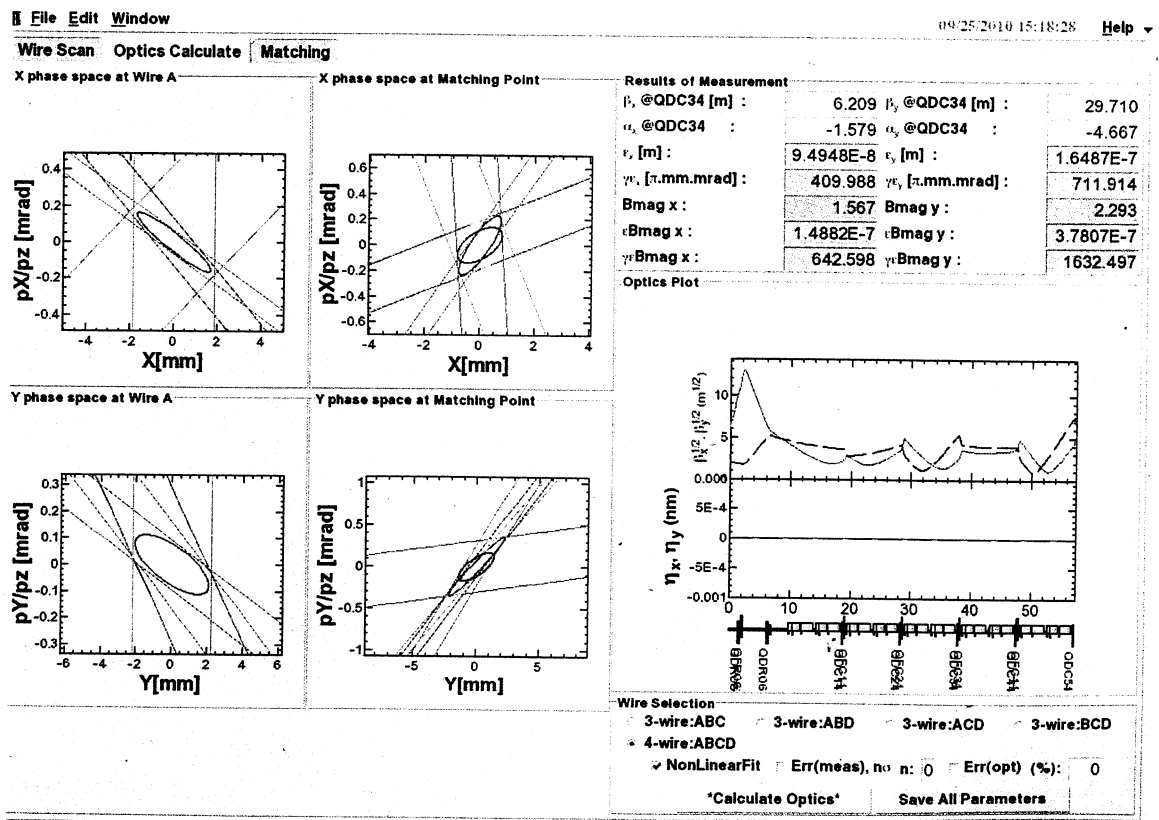


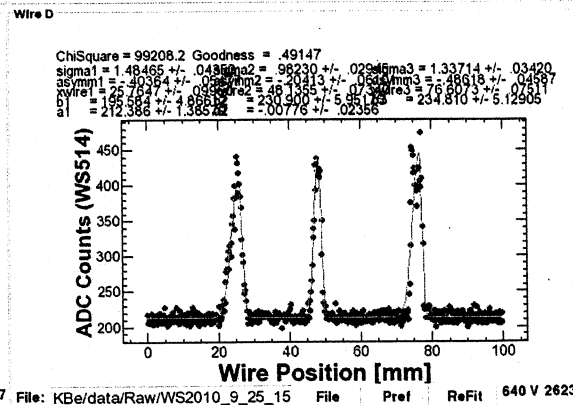
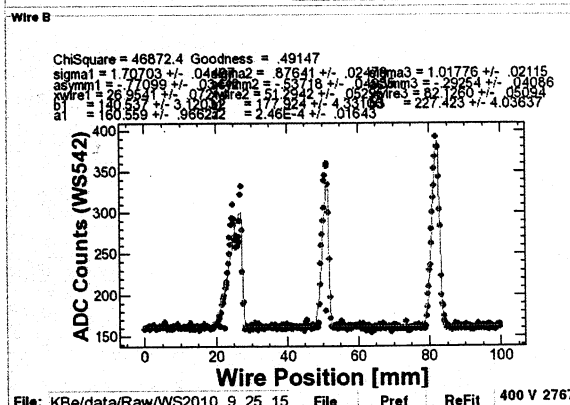
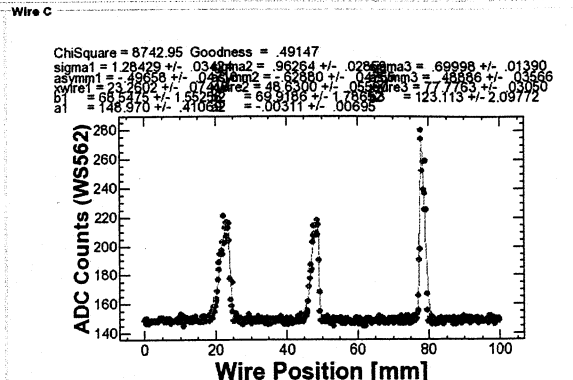
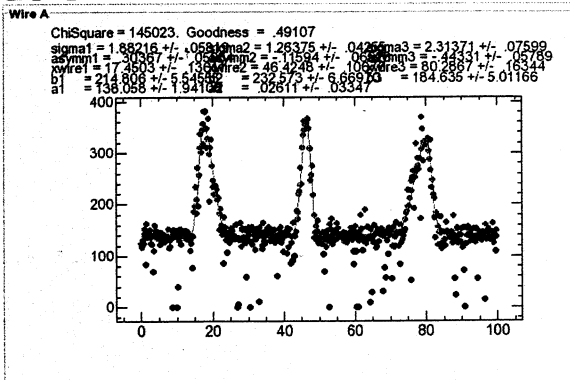
Best e- 3mc 10Hz





$c \approx 10^{-3} \text{ mC } 10 \text{ Hz}$





Select Matching zone on localhost:13.0

579-e- 3mc 10Hz

Wire Scan Optics Calculate Matching

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

Y phase space at Wire A Y phase space at Matching Point

Results of Measurement

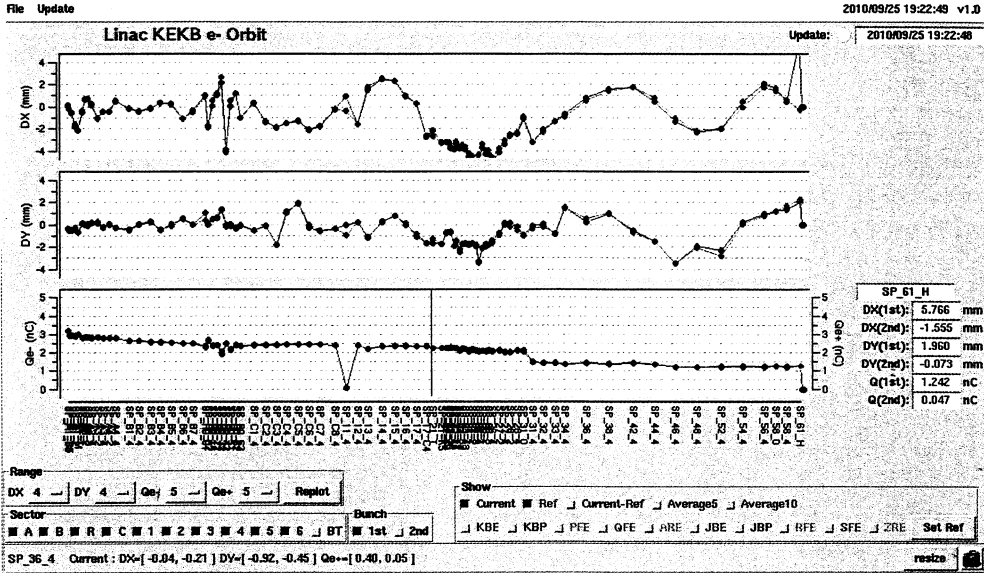
μ_x @BM611E [m] :	25.492	μ_y @BM611E [m] :	32622.665
σ_x @BM611E :	.840	σ_y @BM611E :	-1210.540
r_x [m] :	6.8486E-8	r_y [m] :	6.561E-11
μ_x [r.mm.mrad] :	1114.200	μ_y [r.mm.mrad] :	1.067
Bmag x :	1.003	Bmag y :	1084.234
σ Bmag x :	6.8724E-8	σ Bmag y :	7.1133E-8
μ Bmag x :	1118.065	μ Bmag y :	1157.269

Optics Plot

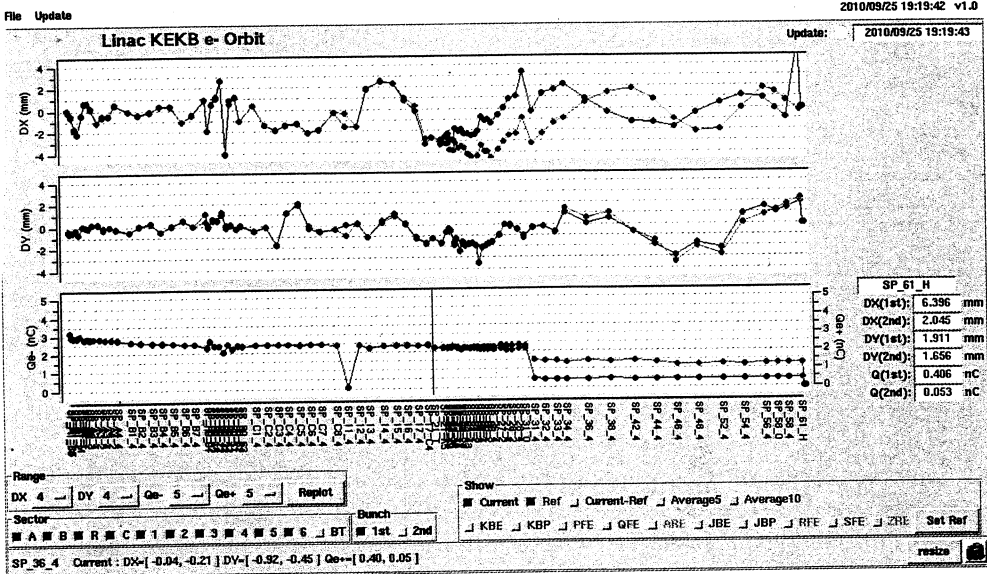
Wire Selection
 3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
 4-wire:ABCD
 NonLinearFit Err(meas), no n: 0 Err(opt) (%) : 0

'Calculate Optics' Save All Parameters

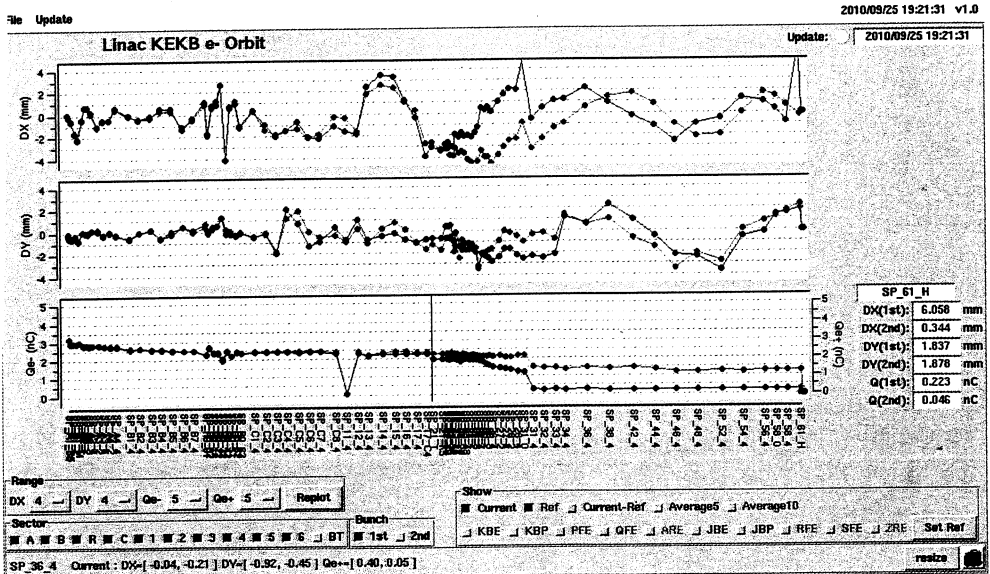
Omaq values were SAVED to /data1/KEKB/Wire/LINAC/sector5/KEKB/data/Qvalue/qname_2010_9_25_15_31_13.dat0



2-2 STB



1-1 STB



0-1 STB