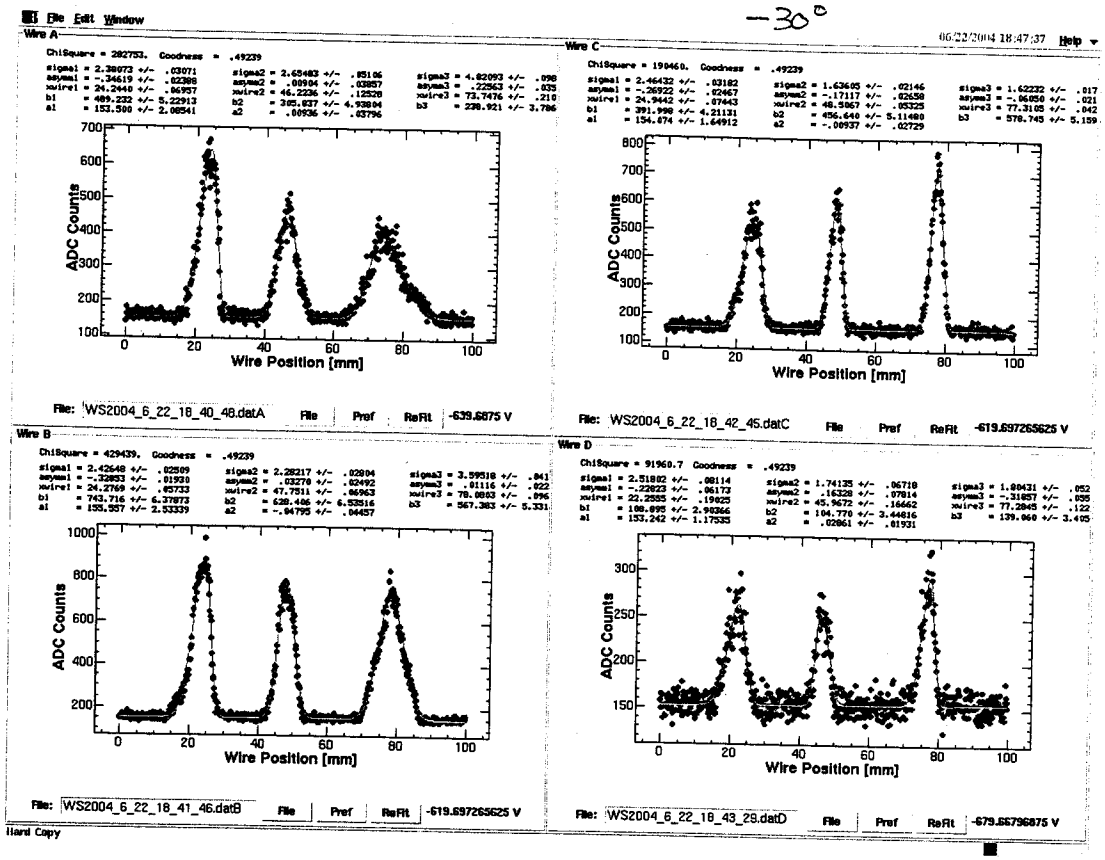
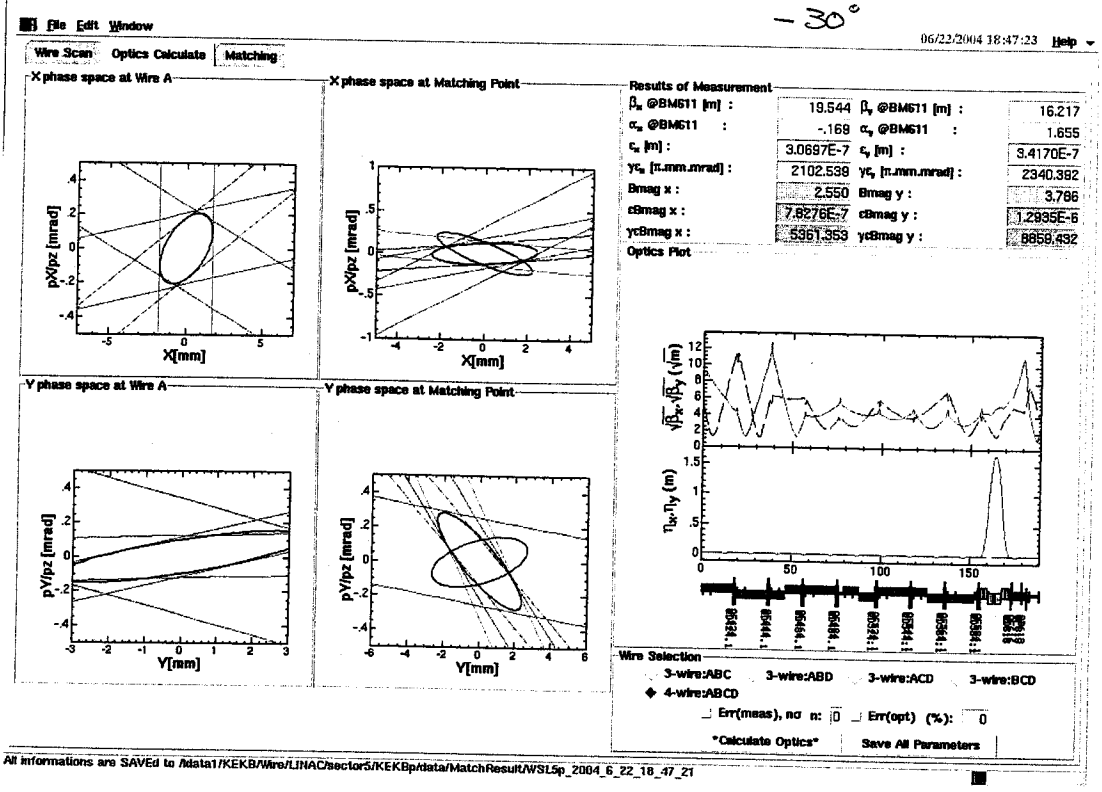

File Edit Window
-30°
06/22/2004 18:47:37 Help
Wire A
Wire C
Wire B
Wire D
ADC Counts
Wire Position [mm]
File: WS2004_6_22_18_40_46.datA
File: WS2004_6_22_18_42_45.datC
File: WS2004_6_22_18_41_46.datB
File: WS2004_6_22_18_43_29.datD
File Pref ReFit
Hard Copy


File Edit Window
-30°
06/22/2004 18:47:23 Help
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
pX/pz [mrad]
X[mm]
pY/pz [mrad]
Y[mm]
Results of Measurement
Optics Plot
Wire Selection
3-wire:ABC
3-wire:ABD
3-wire:ACD
3-wire:BCD
4-wire:ABCD
Calculate Optics
Save All Parameters
All informations are SAVEd to /data1/KEKB/Wire/LINAC/sector5/KEKBp/data/MatchResult/WSL5p_2004_6_22_18_47_21

2004 6/22 10:43

8 GeV e^- C sector wire scanner.

$\gamma\varepsilon_x = 1.1$ [mm·rad] → 1.1×10^{-6} [m] ?

$\gamma\varepsilon_y = 1.6$ [mm·rad] 1.6×10^{-6} [m] ←?

β_x(2004) 8.974 m β_y 16.617 m

α_x −0.7943 α_y −2.237

LINAC Multi Energy

目的 PF. AR. KEKB 同時入射 Study
8GeV, 2.5GeV.

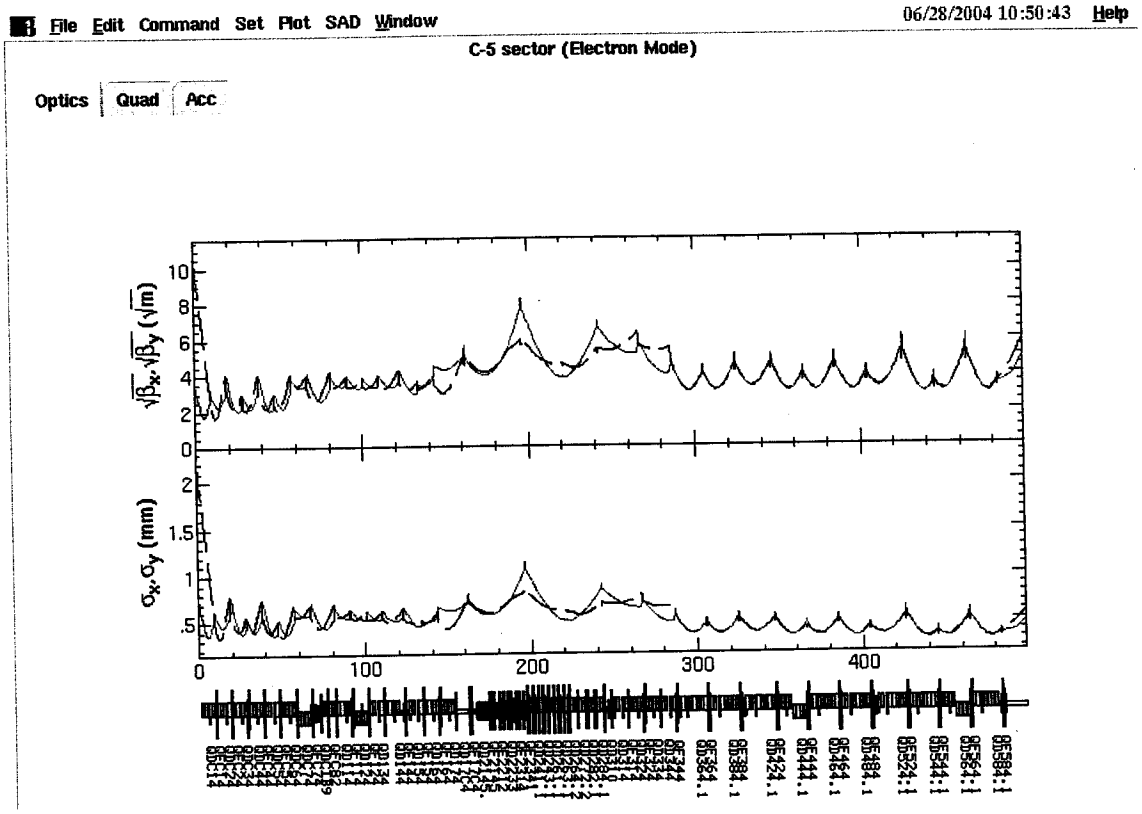
2004. 6/28 ~11:00

8GeV e⁻ 大西. 紙谷. 小川. 古川. 飯田 菊地. 横山.

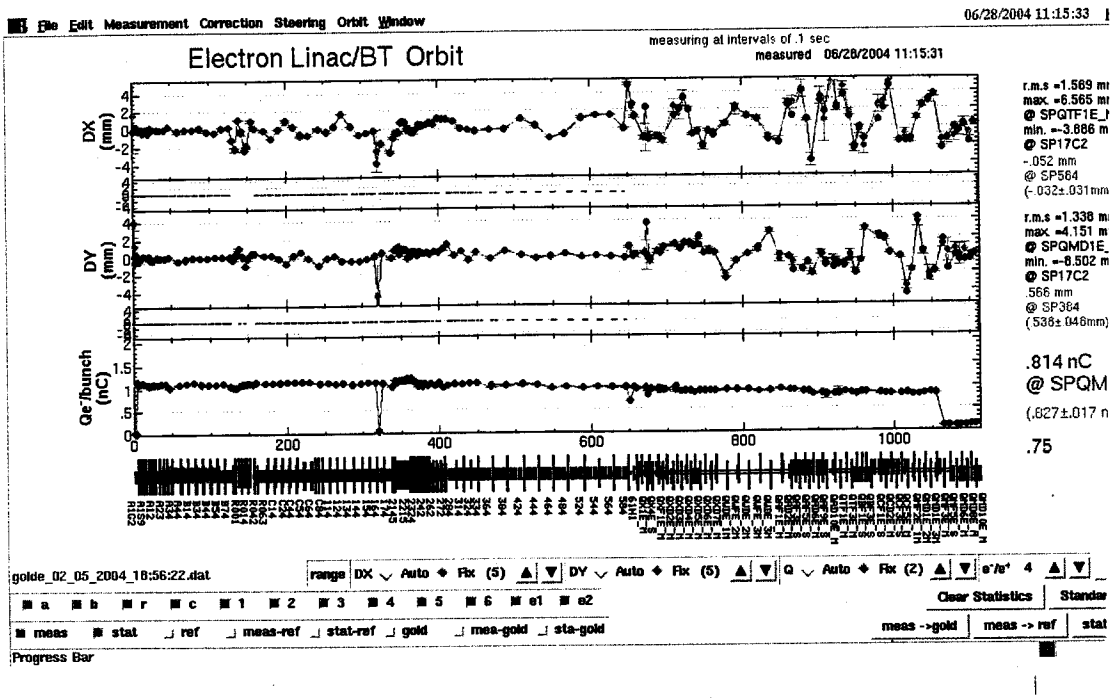
① Collector ワイヤースキャナーの測定値を使って.
大西氏 New Optics を設定. (Cセクター以降)

11:29

fudge factor 1.2 set



軌道補正

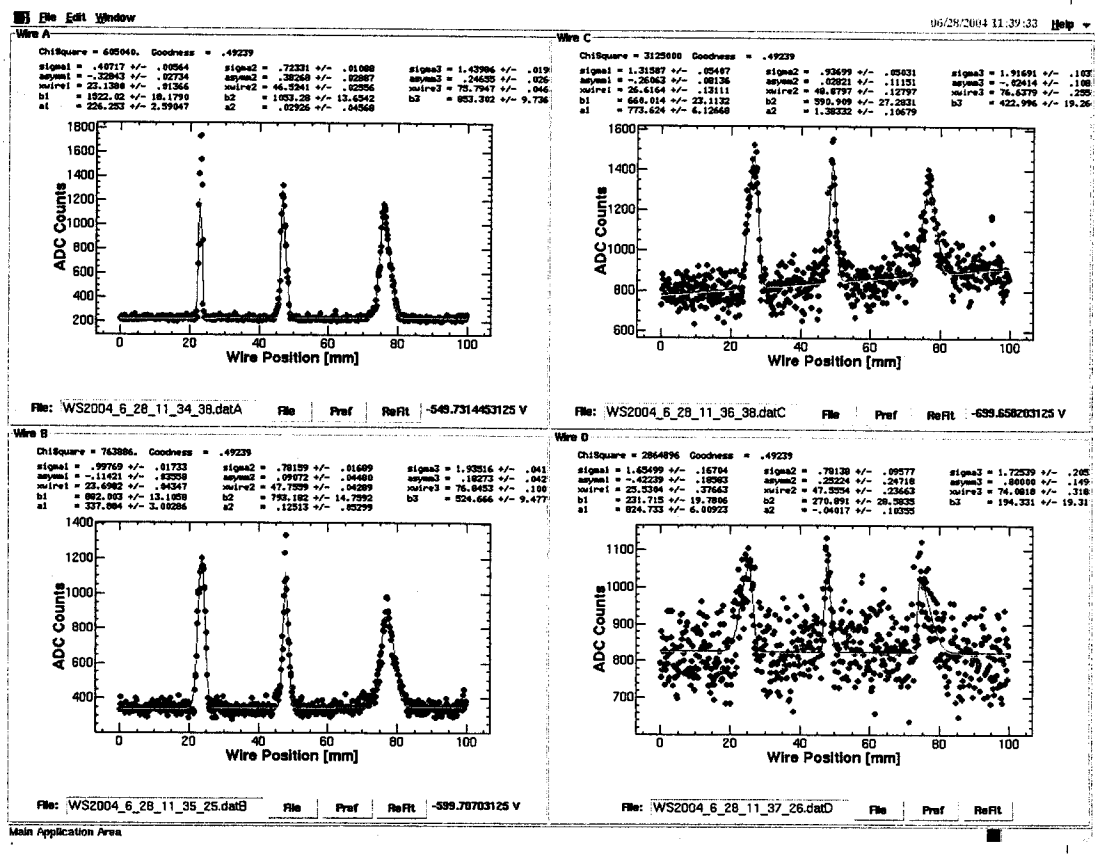


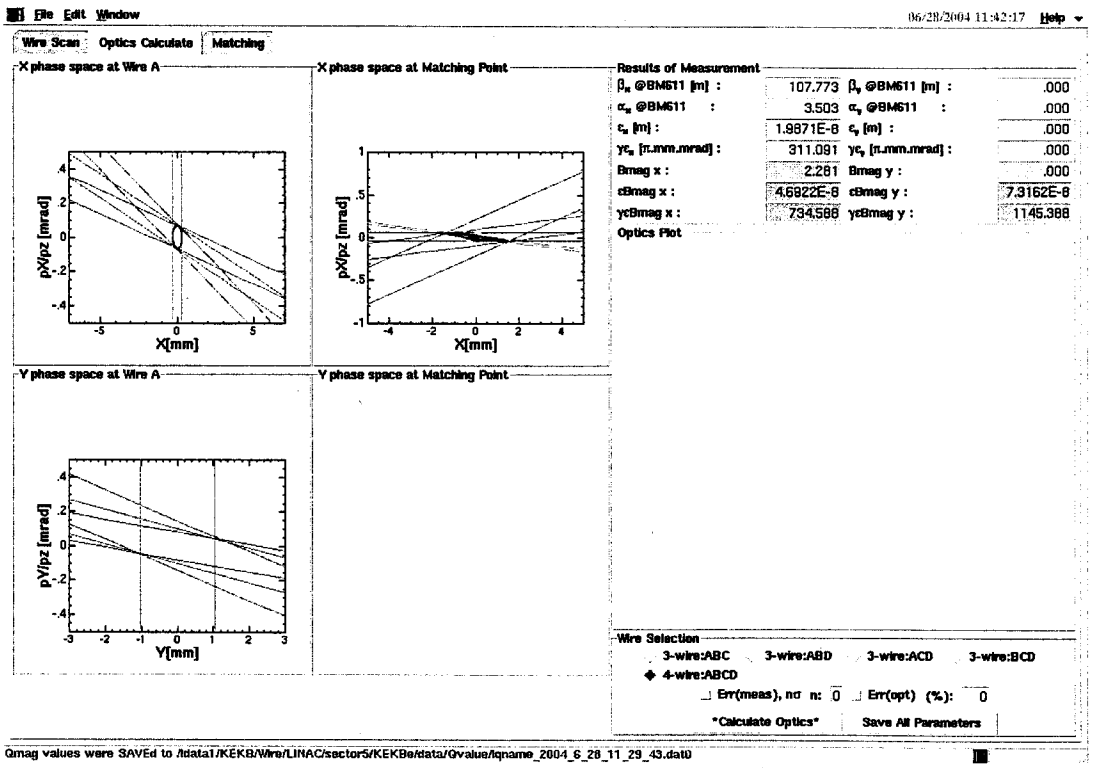
137

11:29 ワイヤースキャナー スタンダード測定

"lqname_2004_6_28_11_29_43.dat0"

8GeV New optics.





OAのまま.

- ~~Q{ED}31, Q{ED}34 も CNT にする~~
- 5セクター最後のQMも design になるように計算し直す
- fudge factor (Matching とれるように) ~~→~~ BM611 = 1.023 (5セクター Q magnet のみ)

~13:50 ↑ ~~モード~~

2.5 GeV. BM611 の design parameter は

~14:30 軌道補正

"lqname_2004_6_28_14_47_34.dat0"

予定

2.5GeV.

- Energy define BM611 → SP61H/SC61H (エネルギープロブ) 51/52
- ECS Magnet を 8.0 → 2.5 GeV.
  ① スクリーンを見る. ② 軌道を記録 (spdata)
- Wire で測る.

8.0 GeV.

- 軌道は補正しない. (大きくは.)
- Wire で Matching
- Energy Spread 調整
- BT
  - Energy Spread (Wire)
  - Matching (-)
- 入射.

裏で家入さん Study していたが終る。
KEKB 通常運転に.

入射繰り返しが変えられない トラブル発生.

16:52 Study 再開. Dump Mode へ.
SC 61H のスクリーンで確認するため
(ECS 頭)

BM_name	BMcurrent	BeamEnergy
BM_61_1	119.292 A	2.7035 GeV

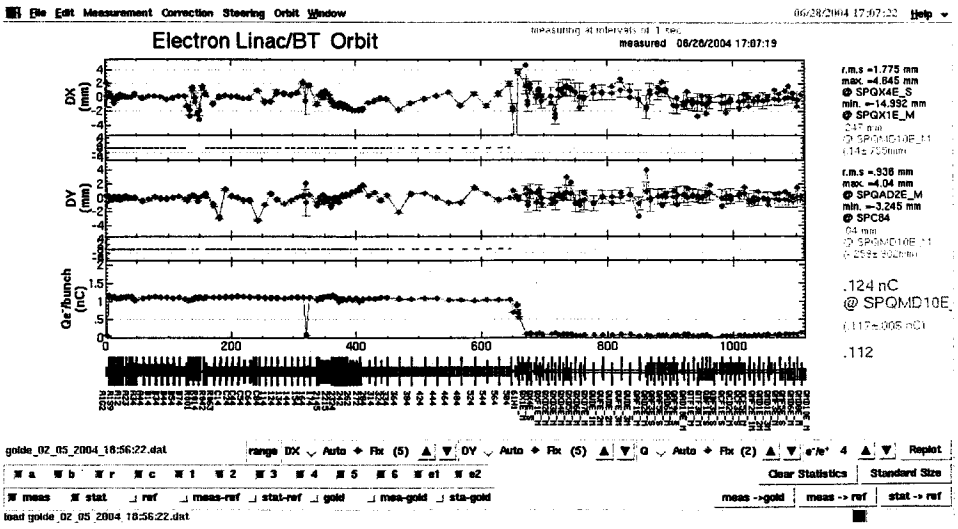
BS_name	BScurrent
BS_61_1	OFF A

Information

Dispersion = 0.331 m at SC_61_H
Dispersion = 2.444 m at SC_61_A1
Dispersion = 3.776 m at SC_61_A2

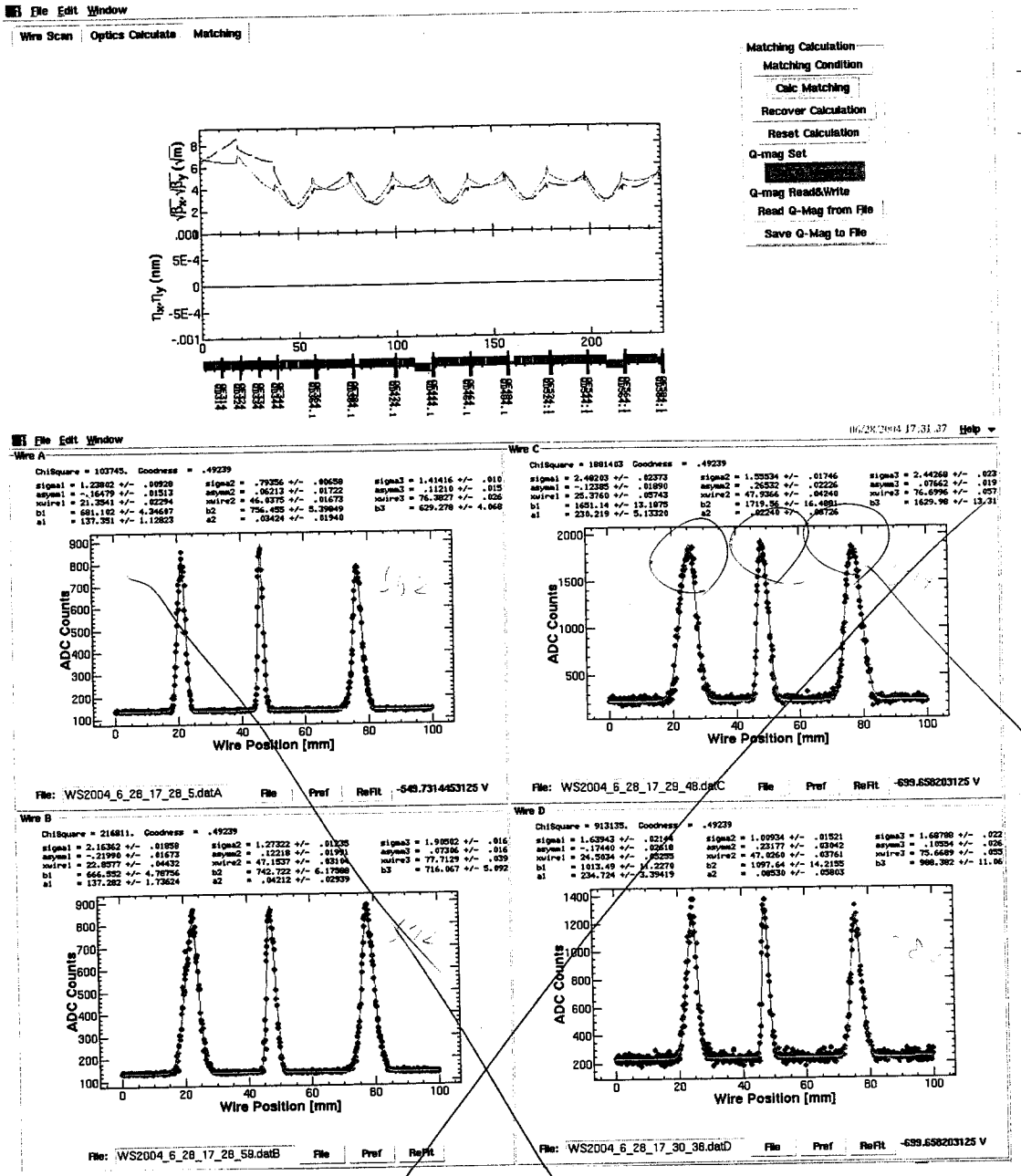
Messages

A1A | A4A | ARC | BCS | 28A | 61H | 61A | ECS | Quit



Quadrupole QF584 を Manual で調整.
14.081 → 17.377 (A)

QDF584 も



ビームサイズは8GeVの4倍.

PMのHVが高すぎたためにサチッている P.143.

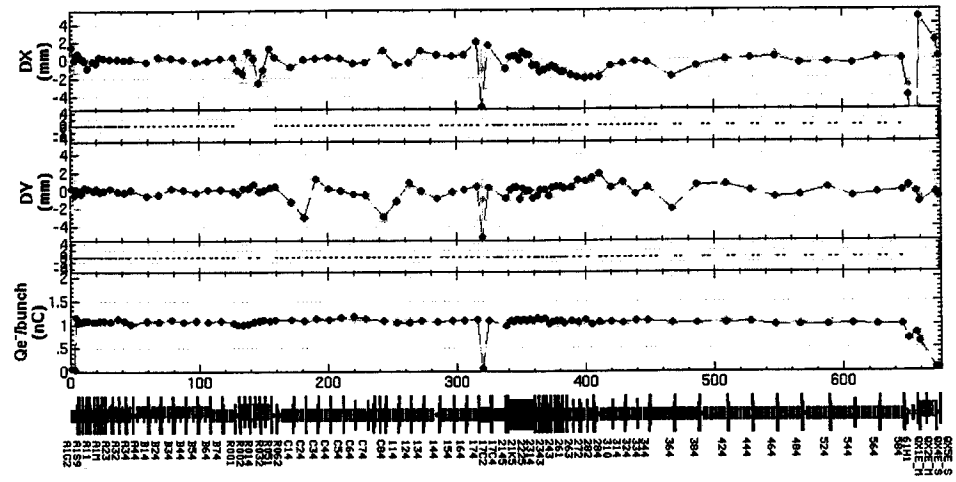
xは4倍

141

File Edit Measurement Correction Steering Orbit Window 2.7 GeV 06/28/2004 17:30:31 Help

Electron Linac/BT Orbit

measuring at intervals of .1 sec
measured 06/28/2004 17:30:29



r.m.s =1.861 mm
max. =4.712 mm
@ SPQX2E_M
min. =-16.005 mm
@ SPQX1E_M
-4.067 mm
@ SP61H1
(-2.945±.609mm)

r.m.s =.972 mm
max. =2.451 mm
@ SPQCD2E_M
min. =-5.232 mm
@ SP17C2
-.076 mm
@ SP5H4
(-.092±.095mm)

.106 nC
@ SPQMD10E_
(.116±.006 nC)

.099

golde_02_05_2004_18:56:22.dat range DX Auto Fix (5) DV Auto Fix (5) Q Auto Fix (2) e⁻/e⁺ 4 Replot

a b r c 1 2 3 4 5 6 e1 e2 Clear Statistics Standard Size

meas stat ref meas-ref stat-ref gold mea-gold sta-gold meas ->gold meas -> ref stat -> ref

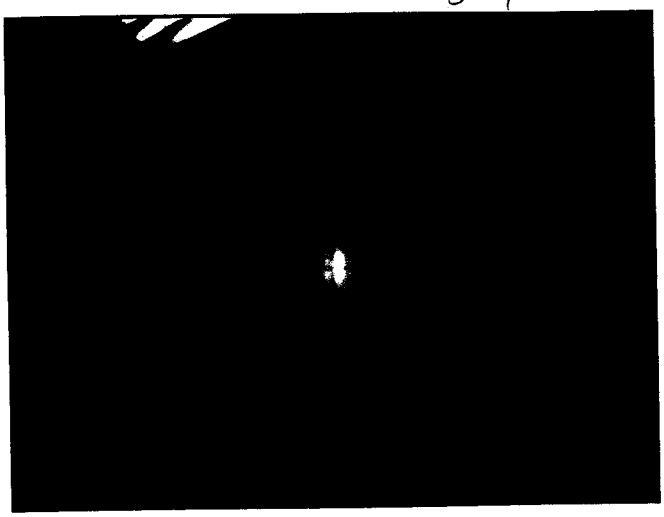
Hard Copy

2.7 GeV SEGIH QDF) 564. 584 [illegible]

2.5 (2.7 GeV)

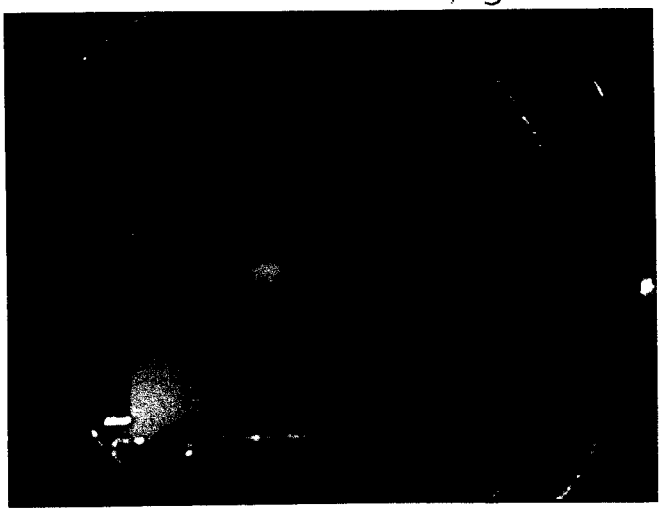
18:24 Wire Scanner 再測定

5-1

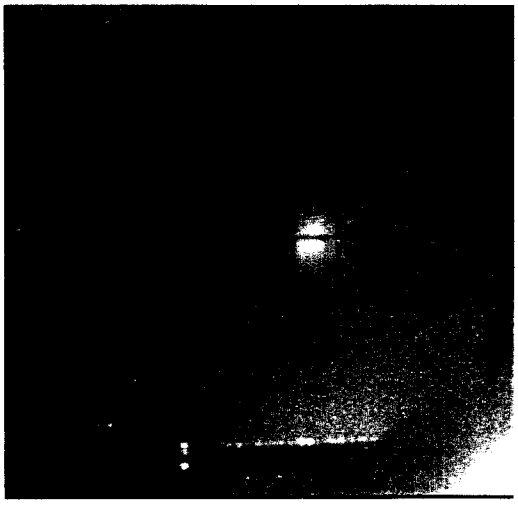


5-5

5-3



5-8



143

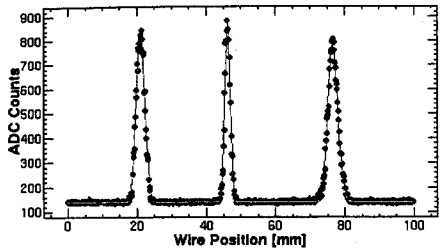
2.5 (2.7 GeV)

File Edit Window 06/28/2004 18:40:13 Help

Wire A

ChiSquare = 76745.6 Goodness = .49239

sigma1 = 1.22013 +/- .08767	sigma2 = .78948 +/- .80566	sigma3 = 1.42642 +/- .009
asymm1 = -.62873 +/- .01287	asymm2 = .04349 +/- .01589	asymm3 = .07868 +/- .013
xwire1 = 21.9467 +/- .01922	xwire2 = 46.1089 +/- .01442	xwire3 = 76.4728 +/- .022
b1 = 703.463 +/- 3.76533	b2 = 749.668 +/- 4.68149	b3 = 630.359 +/- 3.484
a1 = 139.374 +/- .96874	a2 = .02975 +/- .01667	

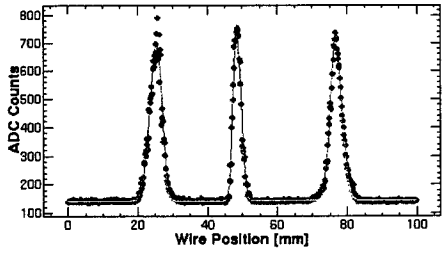


File: WS2004_6_28_18_30_2.datA File Pref ReFit -549.7314453125 V

Wire C

ChiSquare = 148737. Goodness = .49239

sigma1 = 1.71855 +/- .01627	sigma2 = 1.08739 +/- .01123	sigma3 = 1.70903 +/- .016
asymm1 = -.21521 +/- .01878	asymm2 = .11880 +/- .02126	asymm3 = .08898 +/- .019
xwire1 = 25.6121 +/- .03902	xwire2 = 48.2698 +/- .02831	xwire3 = 76.6983 +/- .040
b1 = 552.308 +/- 4.42611	b2 = 623.568 +/- 5.52915	b3 = 549.690 +/- 4.454
a1 = 141.192 +/- 1.37149	a2 = .02069 +/- .02348	

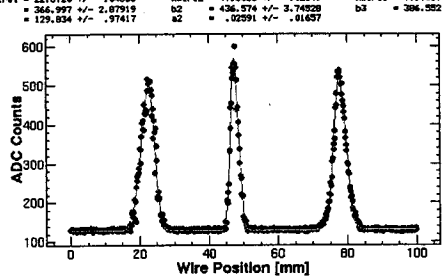


File: WS2004_6_28_18_32_31.datC File Pref ReFit -549.7314453125 V

Wire B

ChiSquare = 70799.5 Goodness = .49239

sigma1 = 1.94546 +/- .01815	sigma2 = 1.12874 +/- .01128	sigma3 = 1.73955 +/- .016
asymm1 = -.19436 +/- .01841	asymm2 = .09561 +/- .02961	asymm3 = .09662 +/- .019
xwire1 = 22.8728 +/- .04385	xwire2 = 47.3638 +/- .02849	xwire3 = 77.7067 +/- .039
b1 = 366.997 +/- 2.87919	b2 = 436.574 +/- 3.74528	b3 = 386.552 +/- 3.040
a1 = 129.834 +/- .97417	a2 = .02591 +/- .01657	

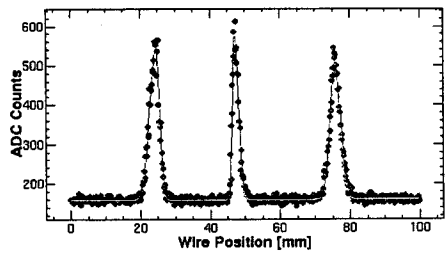


File: WS2004_6_28_18_35_23.datB File Pref ReFit -499.755859375 V

Wire D

ChiSquare = 94160.0 Goodness = .49239

sigma1 = 1.41806 +/- .01698	sigma2 = .89618 +/- .01228	sigma3 = 1.50247 +/- .019
asymm1 = -.29432 +/- .02236	asymm2 = .23714 +/- .02749	asymm3 = .06290 +/- .025
xwire1 = 24.5338 +/- .04057	xwire2 = 47.0246 +/- .03017	xwire3 = 75.7085 +/- .047
b1 = 380.484 +/- 3.86973	b2 = 413.327 +/- 4.84196	b3 = 346.024 +/- 3.762
a1 = 159.284 +/- 1.07616	a2 = .02278 +/- .01844	

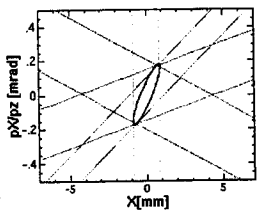


File: WS2004_6_28_18_28_0.datD File Pref ReFit -599.70703125 V

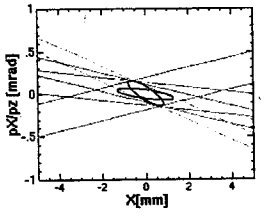
File Edit Window 06/28/2004 18:36:52 Help

Wire Scan | Optics Calculate | Matching

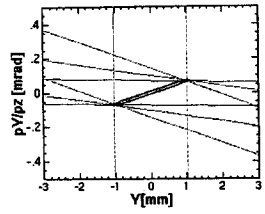
X phase space at Wire A



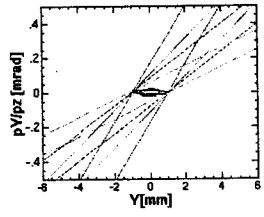
X phase space at Matching Point



Y phase space at Wire A



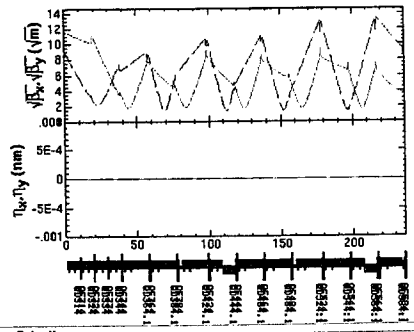
Y phase space at Matching Point



Results of Measurement

β_x @BM611 [m] :	9.872	β_y @BM611 [m] :	84.056
α_x @BM611 :	1.497	α_y @BM611 :	.444
ε_x [m] :	6.8464E-8	ε_y [m] :	1.1178E-8
$\gamma\varepsilon_x$ [π.mm.mrad] :	361.748	$\gamma\varepsilon_y$ [π.mm.mrad] :	59.062
Bmag x :	3.119	Bmag y :	1.793
εBmag x :	1.9402E-7	εBmag y :	1.8207E-8
γεBmag x :	1025.164	γεBmag y :	96.203

Optics Plot



Wire Selection

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

◆ 4-wire:ABCD

Err(meas), nσ n: 0 Err(opt) (%): 0

Calculate Optics Save All Parameters

Qmag values were SAVEd to /data1/KEKB/Wire/LINAC/sector5/KEKBe/data/Qvalue/lqname_2004_6_28_18_23_42.dat0