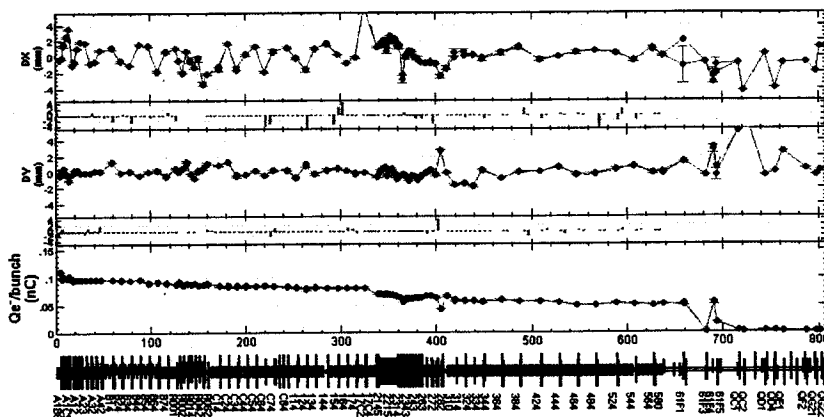


measuring at intervals of 1 sec  
measured 03/06/2008 18:21:36



r.m.s = 1.641 mm  
max = 6.554 mm  
@ SP17C4  
min. = -4.295 mm  
@ SPQC2  
366 mm  
@ SP564  
(1.074 ± 17.1 mm)

r.m.s = 1.293 mm  
max = 6.458 mm  
@ SPQC2  
min. = -1.702 mm  
@ SP334  
339 mm  
@ SP5C4  
1.454 ± 562 mm

.052 nC  
@ SP61F1  
(1.05 ± 0.01 nC)

297

← { data 4643.all  
data 1767.phase.all

range DX Auto + Fix (5) DV Auto + Fix (5) Q Auto + Fix (2) e<sup>-</sup> 4 Replot

Clear Statistics

meas stat ref meas-ref stat-ref

meas -> ref stat -> ref

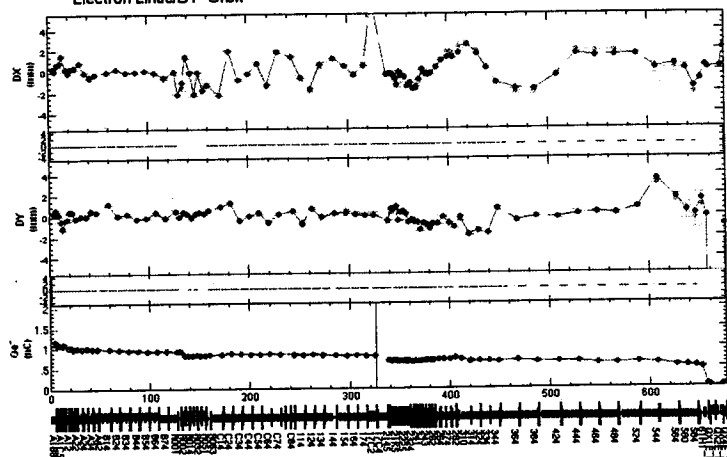
DX = [-3.14, 1.06] mm, Qbunch = .05 nC @ SP61F1 statistics [-1.857, 52, 1.057, 43] mm, .0572, 06E-3 nC

0.1 nC  
軌道を直した。

KEKB e<sup>-</sup>

measuring at intervals of 2 sec  
measured 03/06/2008 18:47:46

Electron Linac/BT Orbit



r.m.s = 1.634 mm  
max = 6.752 mm  
@ SP17C4  
min. = -4.168 mm  
@ SPQAF3E\_S  
361 mm  
@ SP5C4  
(1.092 ± 16.0 mm)

r.m.s = 1.359 mm  
max = 5.47 mm  
@ SPQTF1E\_M  
min. = -4.249 mm  
@ SPGWFE\_2M  
362 mm  
@ SP3C2  
1.17 ± 1.1 cm

.479 nC  
@ SP63H1  
(1.487 ± 0.19 nC)

699

← { data 4643.all  
data 1767.phase.all  
Delay -1 1.480

meas -> gold on 03/05/2008 00:49:45 range DX Auto + Fix (5) DV Auto + Fix (5) Q Auto + Fix (2) e<sup>-</sup> 1 Replot

Clear Statistics Standard Size

meas stat ref meas-ref stat-ref gold meas-gold stat-gold

meas -> gold meas -> ref stat -> ref

[DX,DY] = [-1.9, -1.9] mm, Qbunch = .71 nC @ SP2333 statistics [-.8171, 02, -.087, 21] mm, .897, 12 nC

KEKB e- C 777 - ~~2008~~ 測定

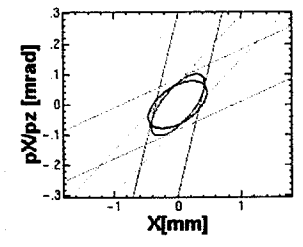
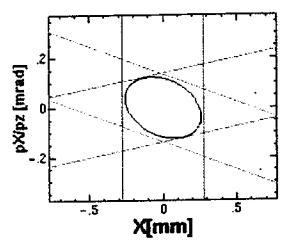
Wire Scan Optics Calculate Matching  
X phase space at Wire A

X phase space at Matching Point

Results of Measurement

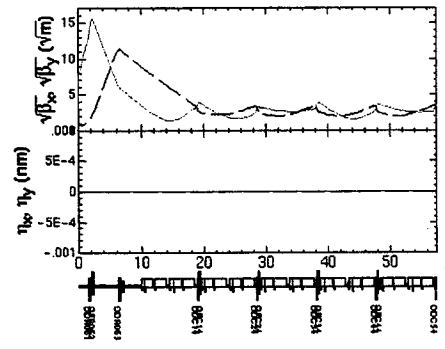
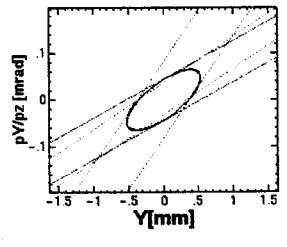
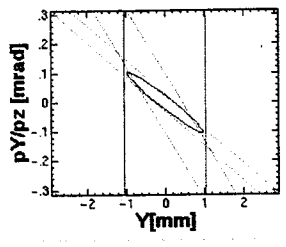
$\beta_x$ @QDC24 [m] :	5.851	$\beta_y$ @QDC24 [m] :	11.835
$\alpha_x$ @QDC24 :	-0.985	$\alpha_y$ @QDC24 :	-1.096
$\epsilon_x$ [m] :	3.0409E-8	$\epsilon_y$ [m] :	2.3184E-8
$\gamma\epsilon_x$ [r.mm.mrad] :	121.459	$\gamma\epsilon_y$ [r.mm.mrad] :	92.603
Bmag x :	1.144	Bmag y :	1.002
$\epsilon$ Bmag x :	3.4796E-8	$\epsilon$ Bmag y :	2.3220E-8
$\gamma\epsilon$ Bmag x :	138.984	$\gamma\epsilon$ Bmag y :	92.746

Optics Plot



Y phase space at Wire A

Y phase space at Matching Point

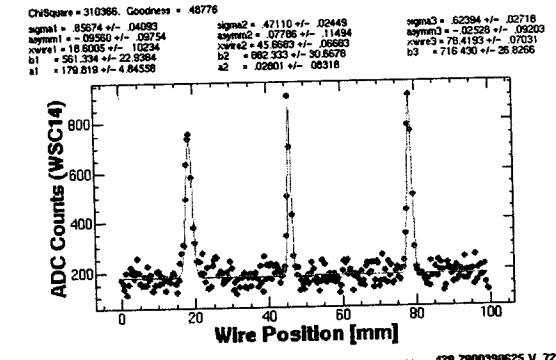
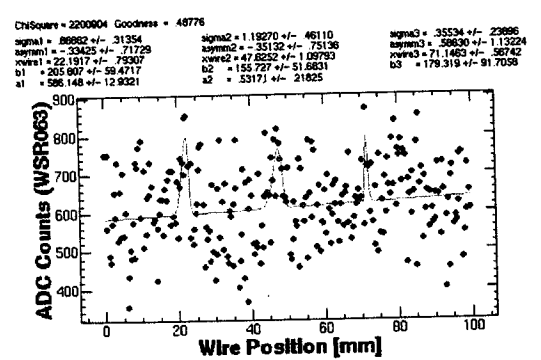


Wire Selection  
 3-wire:ABC 3-wire:ABD 3-wire:ACD  3-wire:BCD  
 4-wire:ABCD  
 NonLinearFit Err(mess), n $\sigma$  n: 0 Err(opt) (%): 0  
 \*Calculate Optics\* Save All Parameters

Omag values were SAVERed to /data1/KEKB/Wire/LINAC/sectorC/electron/data/Ovalue/omname\_2008\_3\_6\_18\_51\_25.dat0

File Edit Control Window  
Wire A

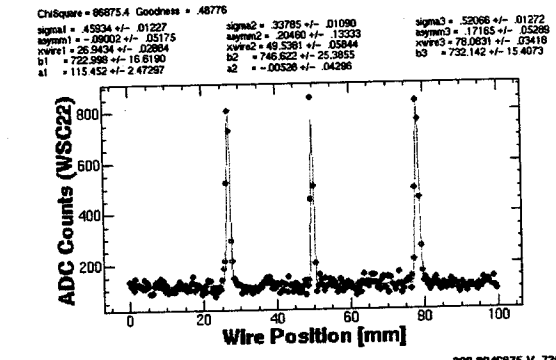
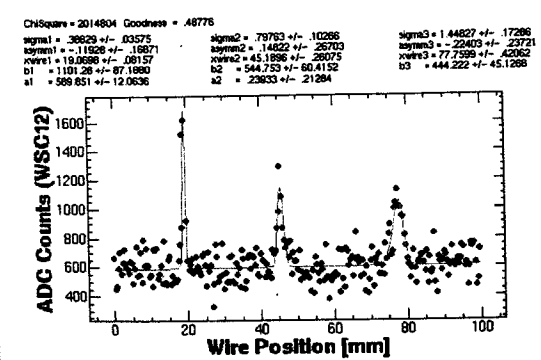
Wire C



File: WS2008\_3\_6\_18\_51\_33.datA File Pref ReFit 499.755653375 V 741 File: WS2008\_3\_6\_18\_53\_50.datC File Pref ReFit 429.7900390625 V 7230

Wire B

Wire D

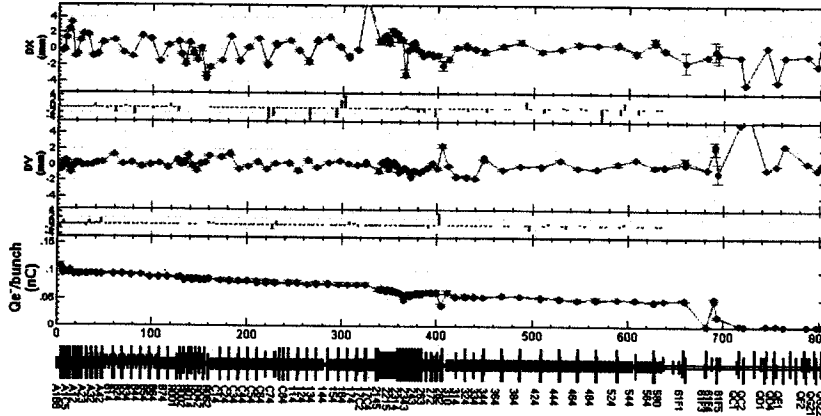


File: WS2008\_3\_6\_18\_52\_43.datB File Pref ReFit 499.755653375 V 7579 File: WS2008\_3\_6\_18\_55\_4.datD File Pref ReFit 399.8046875 V 7254

Select Matching zone on 172.19.86.32:0.0

45

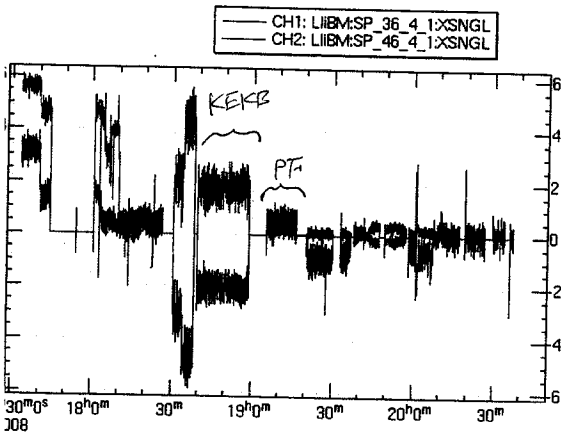
measuring at intervals of 1 sec  
measured 03/06/2008 19:16:14



r.m.s = 1.553 mm  
max = 6.659 mm  
@ SP17C4  
min = -4.235 mm  
@ SPQC2  
855 nm  
@ SP5A4  
(1.214 ± 0.23mm)  
r.m.s = 1.272 mm  
max = 6.458 mm  
@ SPQC2  
min = -1.587 mm  
@ SP334  
195 nm  
@ SP61F1  
(0.23 ± 0.03nm)  
.047 nC  
@ SP61F1  
(0.49 ± 0.03 nC)  
96.934

node v e\* e\* range DX v Auto + Fix (5) DV v Auto + Fix (5) Q v Auto + Fix (2) e/n\* 4 Replot  
 # meas # stat # ref # meas-ref # stat-ref  
 DX,DY = (-.54, 2) mm, Q/bunch = .05 nC @ SP61F1 statistics (-1.5272,02; 1.397.39) mm, .0571.47E-3 nC

0.1nC



測定前

	PF	KEKB
SHIB2 a 位相	57°	66.5
SHIB1	376.7	369.3

O.Lnc

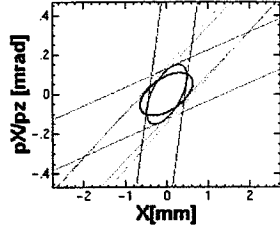
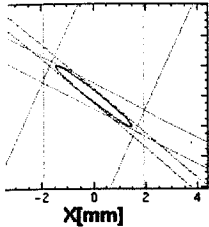
Window

03/06/2008 19:15:13 Help

Optics Calculate Matching

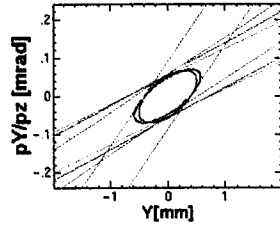
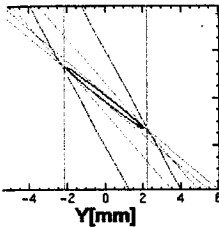
at Wire A

X phase space at Matching Point



at Wire A

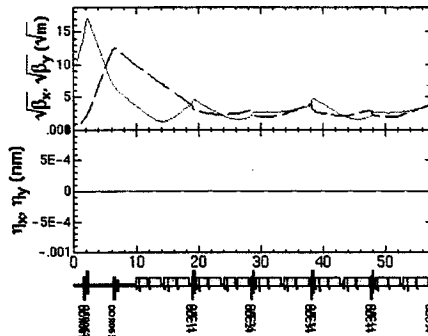
Y phase space at Matching Point



Results of Measurement

$\beta_x$ @QDC24 [m] :	4.073	$\beta_y$ @QDC24 [m] :	9.246
$\alpha_x$ @QDC24 :	-756	$\alpha_y$ @QDC24 :	-759
$\epsilon_x$ [m] :	5.8391E-8	$\epsilon_y$ [m] :	2.7422E-8
$\gamma_{Cx}$ [T.mm.mrad] :	242.132	$\gamma_{Cy}$ [T.mm.mrad] :	113.714
Bmag x :	1.279	Bmag y :	1.036
EBmag x :	7.4703E-8	EBmag y :	2.8451E-8
YEBmag x :	309.774	YEBmag y :	117.980

Optics Plot



Wire Selection

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

4-wire:ABCD

NonLinearFit Err(meas), n $\sigma$  n: 0 Err(opt) (%): 0

\* Calculate Optics \*

Save All Parameters

were SAVED to Adat1/KEKBA/Wire/LINAC/sector/Chetron/data/Qvalue/qname\_2008\_3\_6\_19\_9\_44.dat0

File Edit Control Window

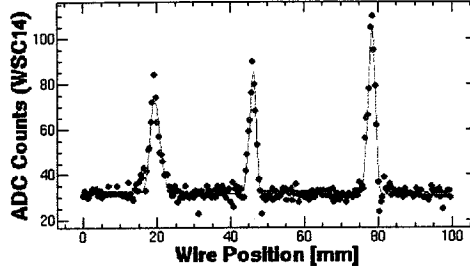
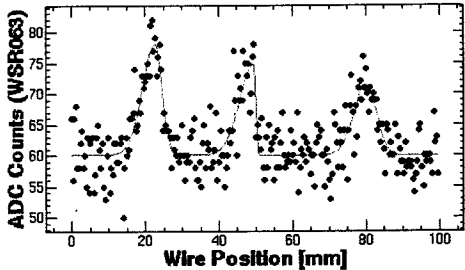
03/06/2008 19:15:07 Help

Wire A

Wire C

ChiSquare = 2996.21 Goodness = 48776  
 sigma1 = 2.67311 +/- 23572    sigma2 = 2.15599 +/- 24893    sigma3 = 3.08414 +/- 40254  
 asym1 = -31359 +/- 16332    asym2 = -80030 +/- 13327    asym3 = -10224 +/- 25198  
 wire1 = 22.9536 +/- 33434    wire2 = 49.4474 +/- 35344    wire3 = 80.0194 +/- 53020  
 b1 = 17.9091 +/- 1.29662    b2 = 14.7285 +/- 1.42724    b3 = 11.3247 +/- 1.21681  
 a1 = 80.1526 +/- 55847    a2 = -0.0172 +/- 0.0953

ChiSquare = 2037.52 Goodness = 48776  
 sigma1 = 1.31974 +/- 05810    sigma2 = 30463 +/- 03547    sigma3 = 96520 +/- 02679  
 asym1 = 14391 +/- 06373    asym2 = -21739 +/- 07681    asym3 = -27232 +/- 05415  
 wire1 = 18.1377 +/- 13651    wire2 = 46.1767 +/- 06729    wire3 = 76.5417 +/- 06417  
 b1 = 41.5873 +/- 1.50363    b2 = 53.4528 +/- 1.80425    b3 = 73.9546 +/- 1.74996  
 a1 = 32.4410 +/- 40555    a2 = -0.1226 +/- 0.0669



File: WS2008\_3\_6\_19\_10\_11.datA File Pref ReFit 439.75585375 V 742

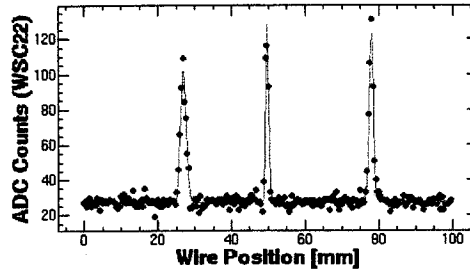
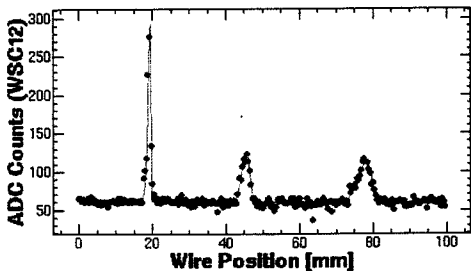
File: WS2008\_3\_6\_19\_12\_31.datC File Pref ReFit 429.790039625 V 7231

Wire B

Wire D

ChiSquare = 5809.85 Goodness = 48776  
 sigma1 = 40632 +/- 01374    sigma2 = 1.10381 +/- 03673    sigma3 = 1.90981 +/- 06962  
 asym1 = -80030 +/- 20511    asym2 = -22634 +/- 10441    asym3 = -22573 +/- 09263  
 wire1 = 18.4735 +/- 12796    wire2 = 45.5633 +/- 14151    wire3 = 78.0625 +/- 21648  
 b1 = 233.234 +/- 15.5441    b2 = 62.5172 +/- 2.75490    b3 = 53.2570 +/- 2.11951  
 a1 = 62.3733 +/- 65476    a2 = -0.0444 +/- 0.1163

ChiSquare = 1953.80 Goodness = 48776  
 sigma1 = 78900 +/- 02293    sigma2 = 41236 +/- 01328    sigma3 = 57041 +/- 01401  
 asym1 = 15685 +/- 03062    asym2 = 26228 +/- 03361    asym3 = -11061 +/- 05651  
 wire1 = 26.7227 +/- 03696    wire2 = 46.4044 +/- 02480    wire3 = 77.3636 +/- 03660  
 b1 = 74.3274 +/- 1.82024    b2 = 101.386 +/- 2.73345    b3 = 98.7522 +/- 2.21957  
 a1 = 27.3382 +/- 37304    a2 = -3.65 +/- 0.8648



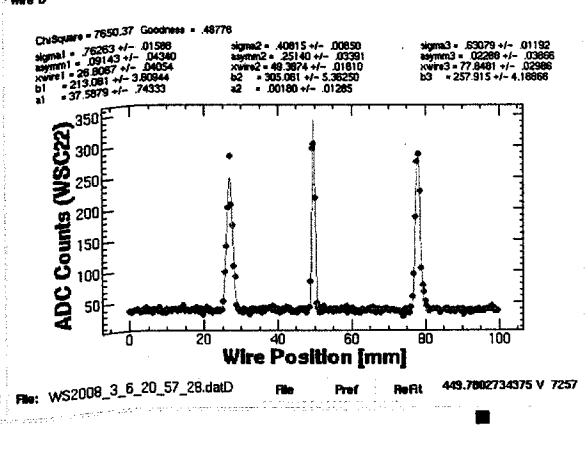
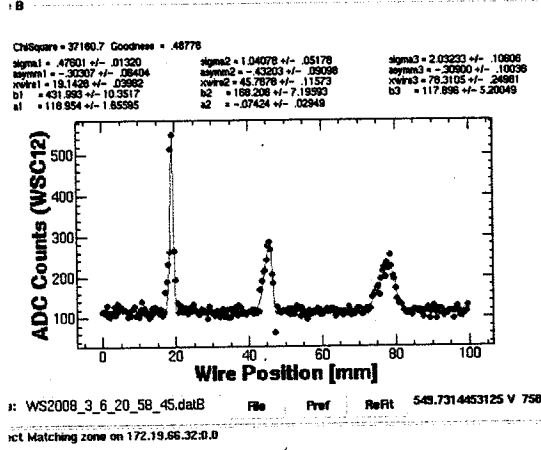
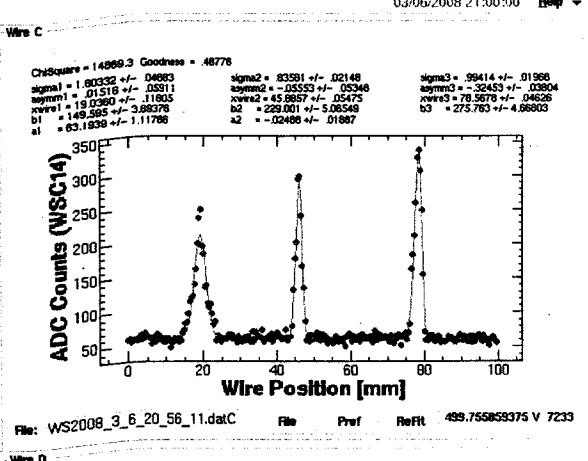
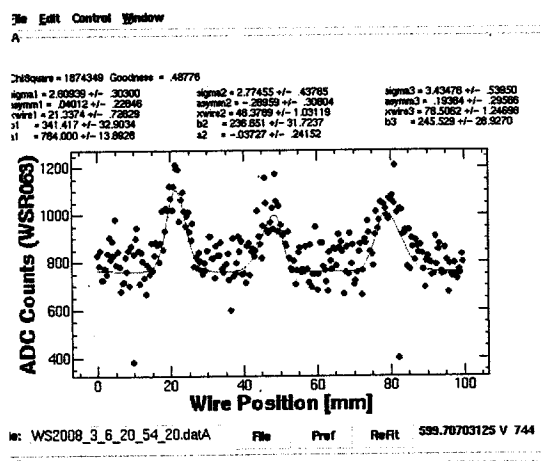
File: WS2008\_3\_6\_19\_11\_24.datB File Pref ReFit 439.75585375 V 7500

File: WS2008\_3\_6\_19\_13\_39.datD File Pref ReFit 399.8046875 V 7265

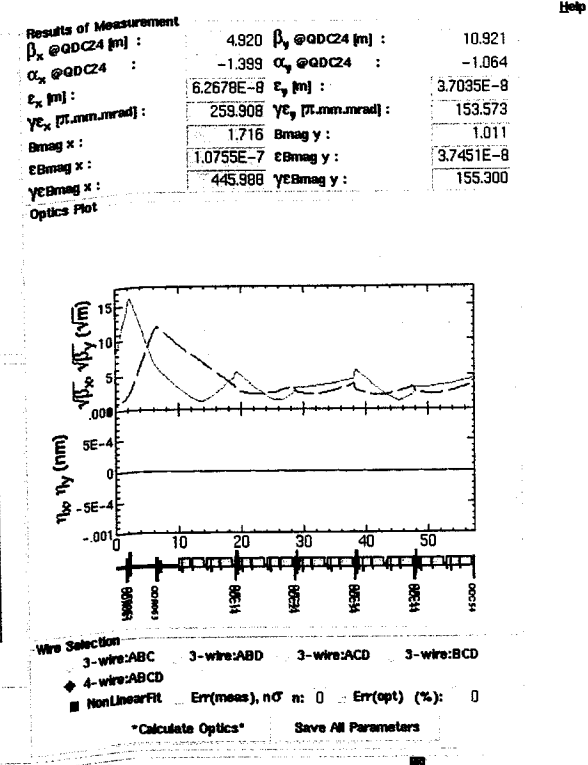
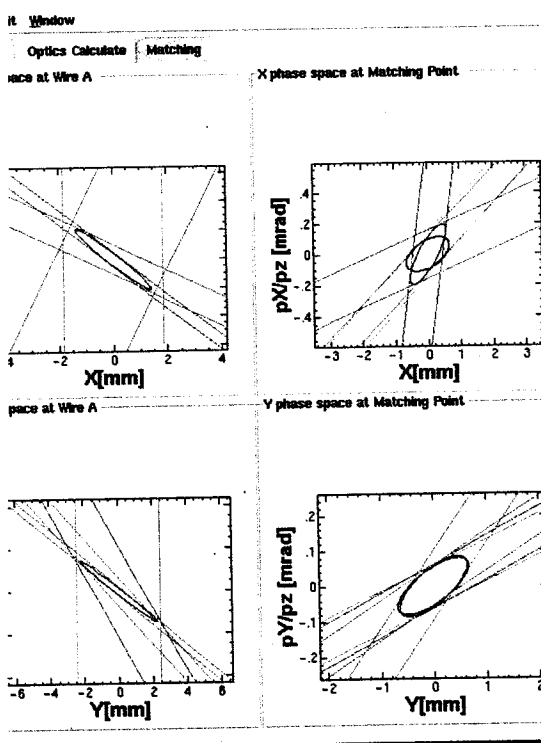
Select Matching zone on 172.19.66.32:0

47

PH マシン



ict Matching zone on 172.19.66.32.0

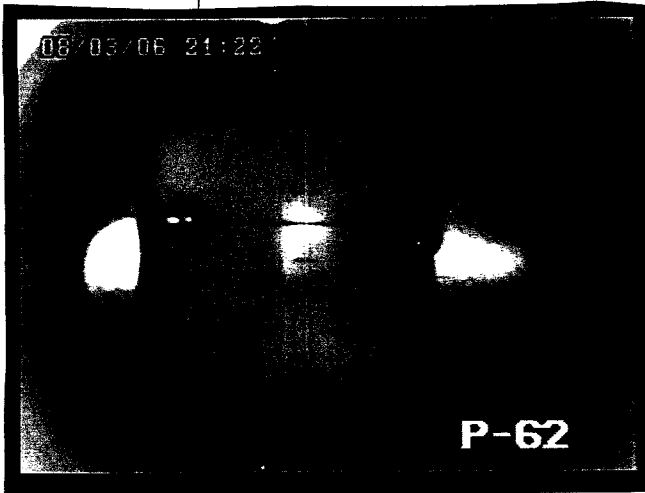
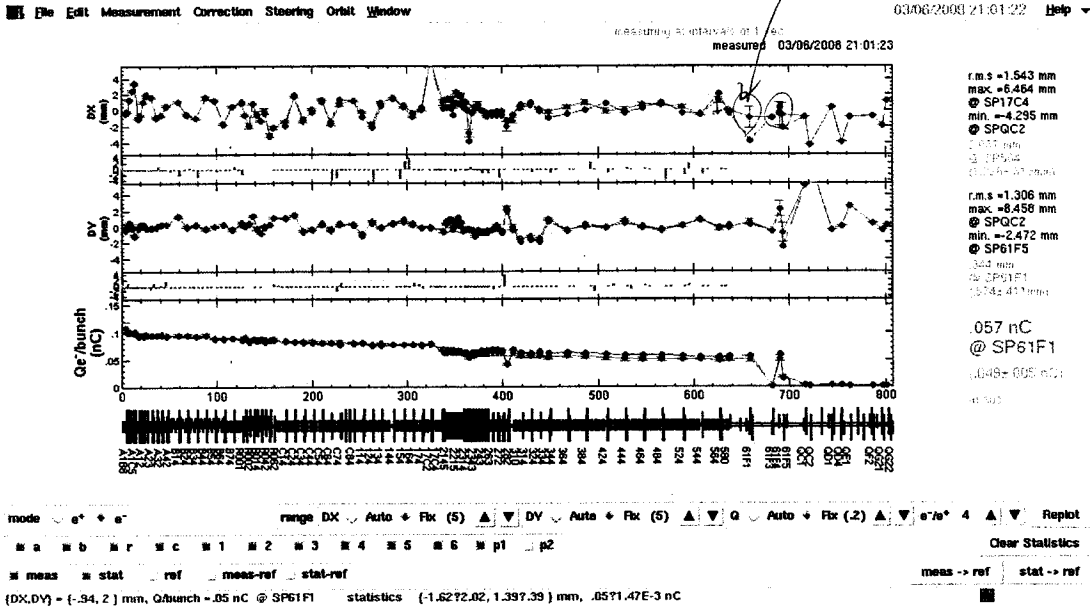


es were SAVED to Adata1/KEKB/Wire/LINAC/sectorC/electron/data/Qvalue/qname\_2008\_3\_6\_20\_49\_19.datD

Qmag values were SAVED to Adata1/KEKB/Wire/LINAC/sectorC/electron/data/Qvalue/qname\_2008\_3\_6\_20\_49\_19.datD

マッチング後

変動が激しい



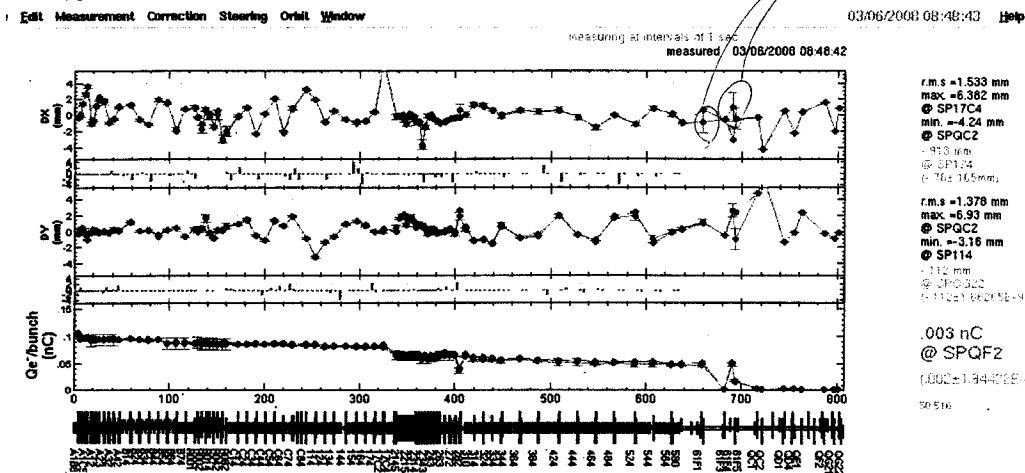
BT: data 4644.all  
 φ: data 1768-phase.all

F4のスクリーンでも激しく動いている  
 時、端しか見えなくなる  
 → ±2mm 以下の変動

スクリーン F4S

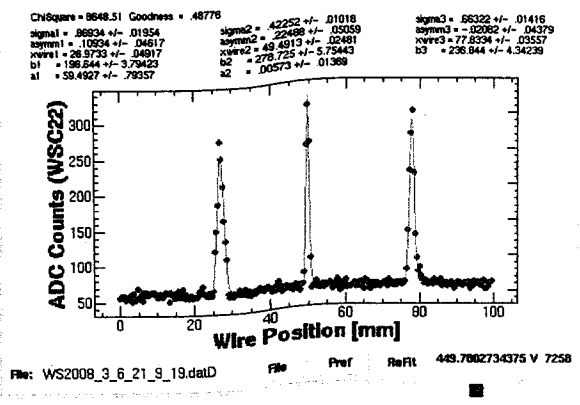
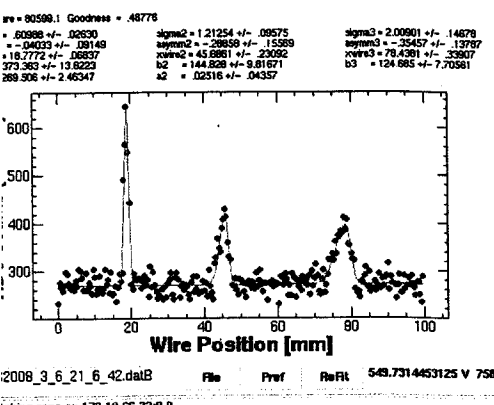
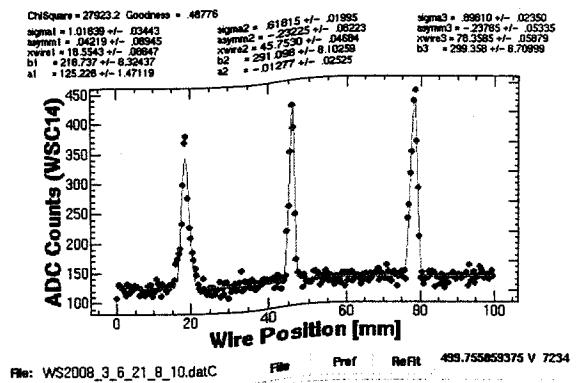
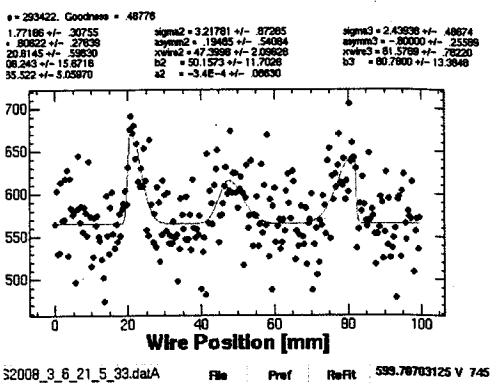
今朝のPF運転にラキター

運転時でもゆれ止む



① SX-503調整  
 後、Energy knob調整  
 data 4645.all  
 data 1769.phase.all

PF 最終 = 2/4/07



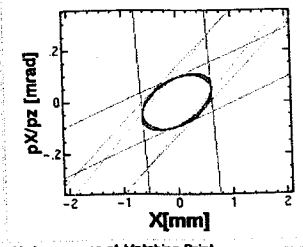
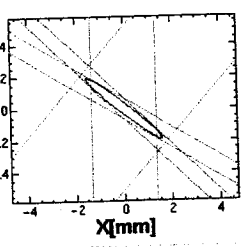
licing zone on 172.19.56.32.9.0

Edit Window

an Optics Calculate Matching

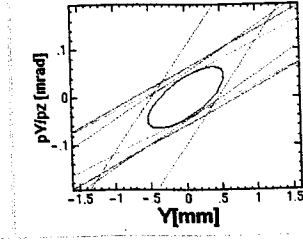
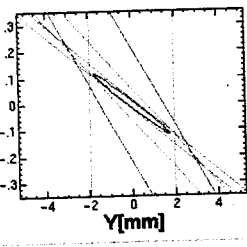
space at Wire A

X phase space at Matching Point



space at Wire A

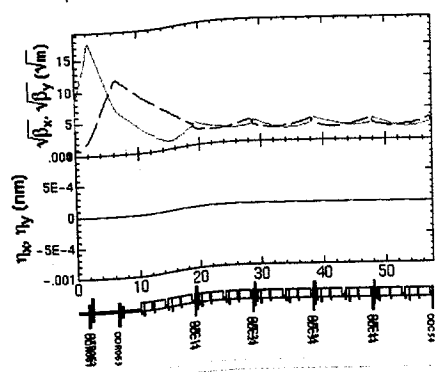
Y phase space at Matching Point



Results of Measurement

$\beta_x @ QDC24 [m]$	6.738	$\beta_y @ QDC24 [m]$	12.072
$\alpha_x @ QDC24$	-.445	$\alpha_y @ QDC24$	-1.059
$\epsilon_x [m]$	5.9575E-8	$\epsilon_y [m]$	2.3686E-8
$\gamma_{\epsilon_x} [r.mm.mrad]$	247.042	$\gamma_{\epsilon_y} [r.mm.mrad]$	98.220
Bmag x	1.012	Bmag y	1.000
$\epsilon Bmag x$	6.0303E-8	$\epsilon Bmag y$	2.3686E-8
$\gamma_{\epsilon Bmag x}$	250.061	$\gamma_{\epsilon Bmag y}$	98.220

Optics Plot



Wire Selection  
 3-wire:ABC     3-wire:ABD     3-wire:ACD     3-wire:BCD  
 4-wire:ABCD  
 NonLinearFit    Err(mess), nσ: 0    Err(opt) (%): 0  
 Calculate Optics\*    Save All Parameters

values were SAVEd to d:\data1\KEKB\Wire\LINAC\sector\electron\data\Qvalue\qname\_2008\_3\_6\_21\_5\_10.dat0

横山 紙谷 (小川 飯田)  
豊富 part time

運転パラメータ

set (KEKB) には

50

PF		Gum 3	Gum 1	target 後に Beam Loss していた
08. 3/10		PF	KEKB	target 前の TFB を {0.0} に set 73
10:20	SHB1	376.7°	369.3°	
	SHB2	58.1°	66.5°	
	Guin (ms)	0.39	0.973	

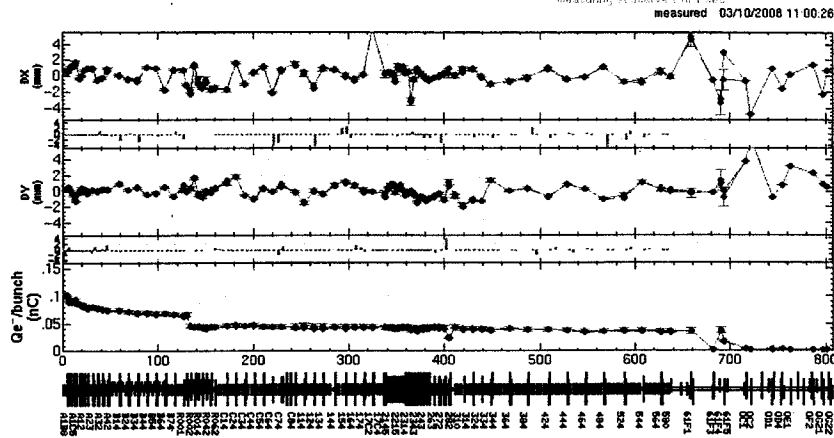
KEKB と同じ位相に set.  
SHB1 SHB2  
369.2°, 66.5°

{-0.8, 0.4}

PF 運転パラメータ - の子で target 前の TFB を {0.0} に

10:35  
10:25  
10:32  
10:38  
11:01

Edit Measurement Correction Steering Orbit Window

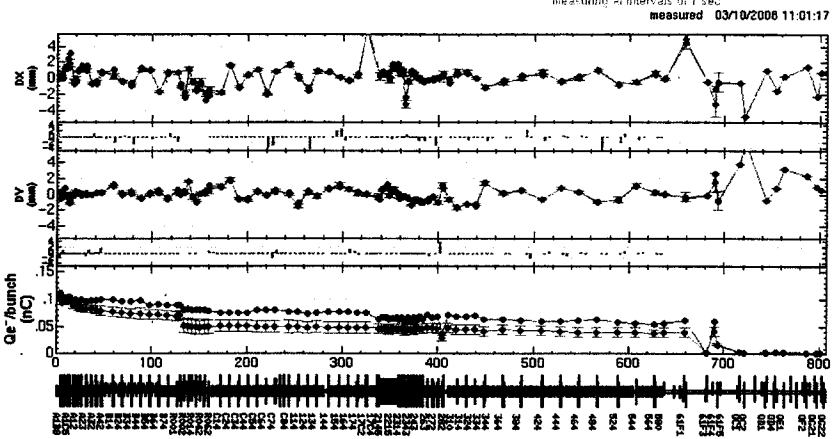


Arc の TFB に 103.5° → 102.5°  
SBAB の低電圧

del TFB を 高電圧  
元値

PF  
← KEKB の位相

Edit Measurement Correction Steering Orbit Window



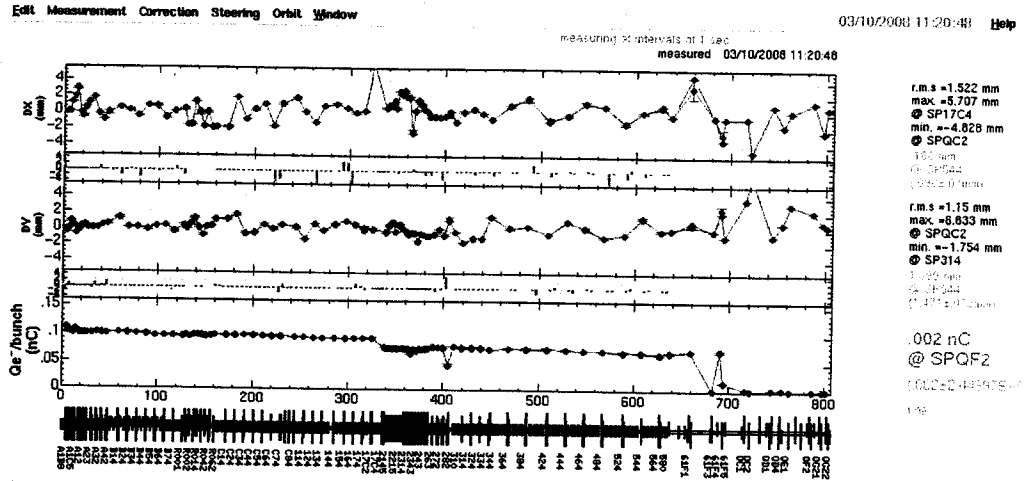
← PF  
運転 1.59-7 に  
E 止



51

{ SHB1            390.7°  
 { SHB2            42.8°

11:10



11:32

KTKB の運転 Opt: set

11:39

SHB1, SHB2  $\rightarrow$   
 (369.7° 99.0°) ~~に set~~ 所て調整 (2 通), 1 に set.  
 (390.7° 42.8°) に set  
 先程から Loss  $\downarrow$ . Arc 通過  $\rightarrow$  この状態.  
 (0.4 nC)

11:42

GUN delay 1 (0.973 ns)  $\rightarrow$  調整.

11:47

$\rightarrow$  1.520 1 に set

11:51

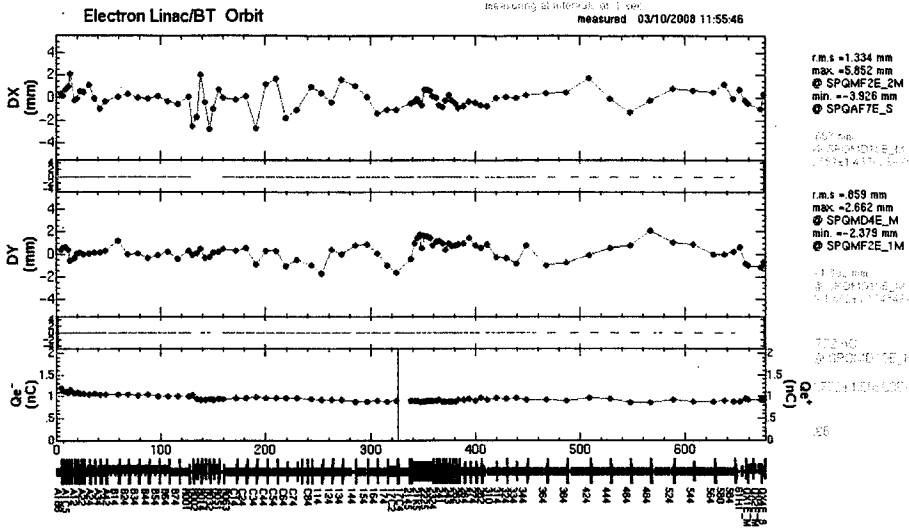
SB  $\rightarrow$  Arc の energy spread  $\rightarrow$  調整.  
 SB to 1  $\rightarrow$  1.0. 3 と 3.5 (1.0 の 2).  
 GUN の delay 1  $\rightarrow$  調整 7.3

11:53

SB 97.5  $\rightarrow$  98.0  
 delay 1 1.62 ns.

11:55

{ SBC 84.5  $\rightarrow$  92.5  
 { SB1~4 90.0  $\rightarrow$  98.0



12:00  
12:04

KEKB mode 2  
PF optics 3 set  
KEKB target 2 3

