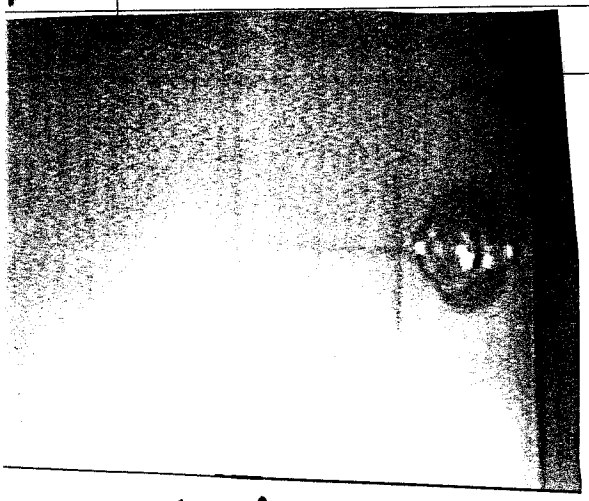
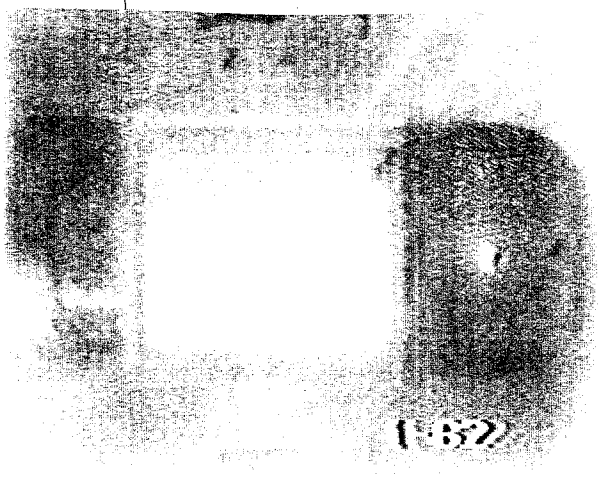
11



61-A2

61-A3



61-A4

BT: data 3874. all (channeling 20050109)
Phase. data 1491. phase. all
Acc-Mode: data 235. mode. all

ニセ-ラ"

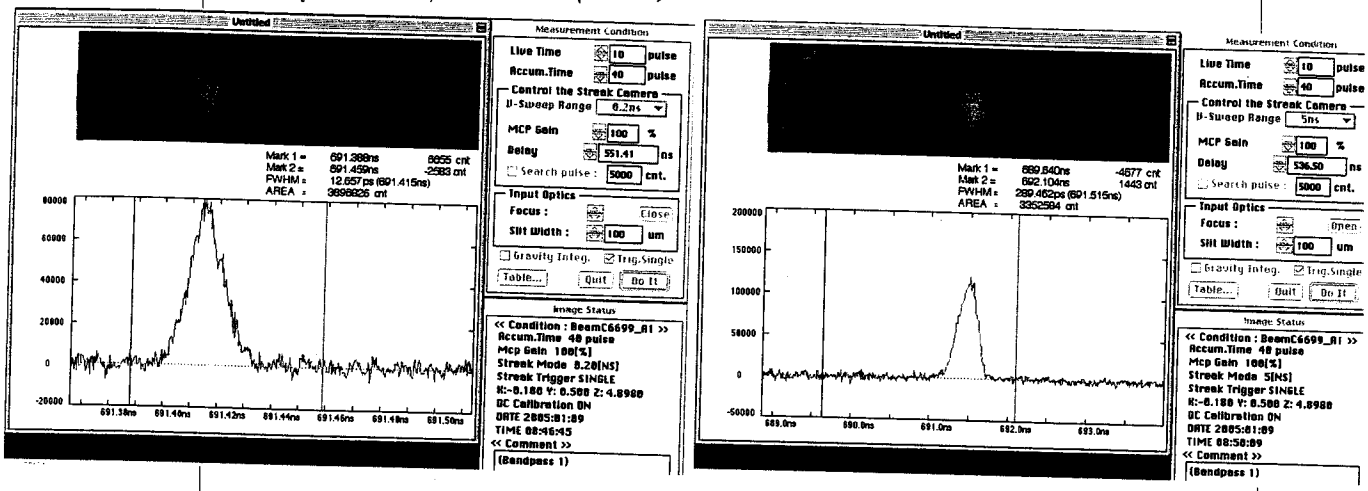
2005 Jan/9

8:60 Chan 実験ビーム調整.

Kekb e⁻ 1mA ビーム. 0.884nC @ Sp-SB-4

ほぼビームは再現している.

A1 バンチ長計測に移る.

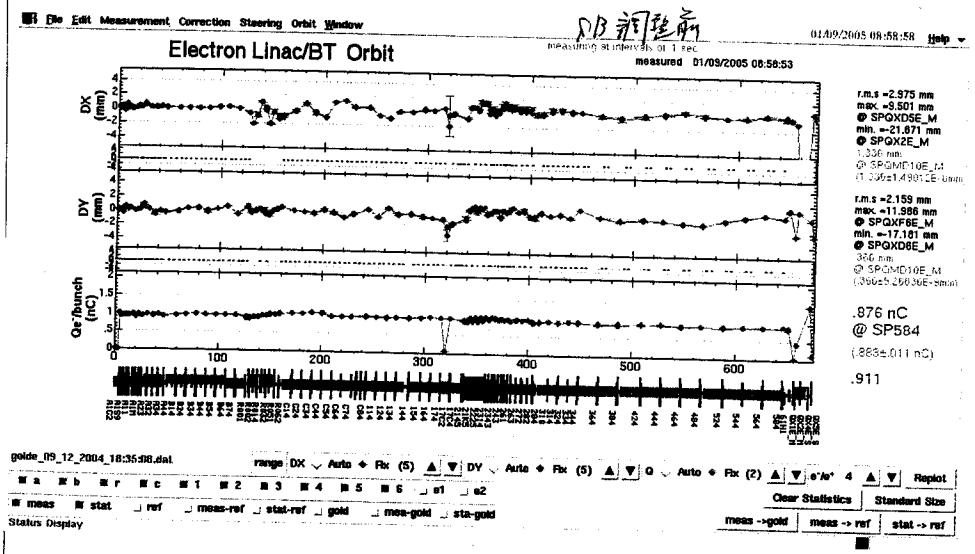


FWHM 12.657 ps. OK.

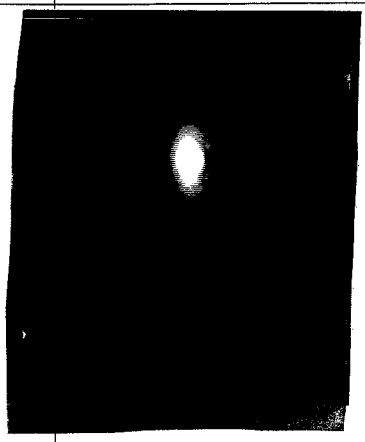
9:02 SB 強調

δφ (Eff φ) SBC, 1, 2-4

→ -2.0 deg.

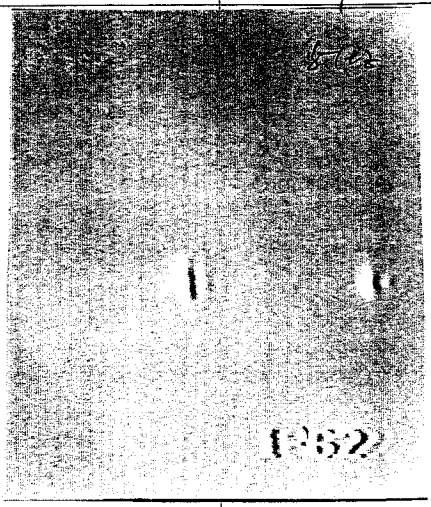


Kekb e⁻ Inc. @ 10Hz ~ 7

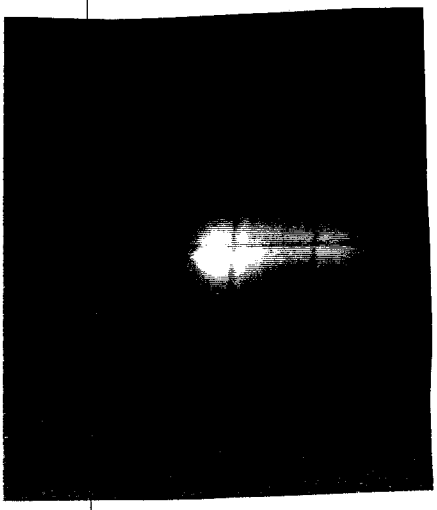


SC 61-A3.

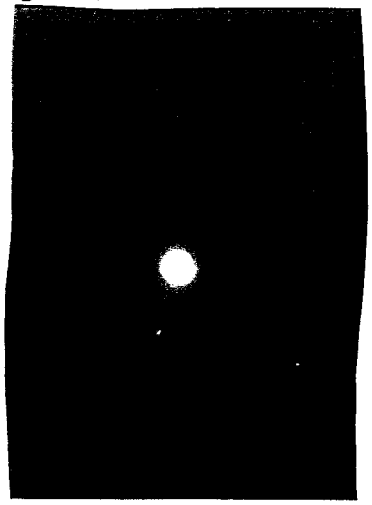
SC_61_A2



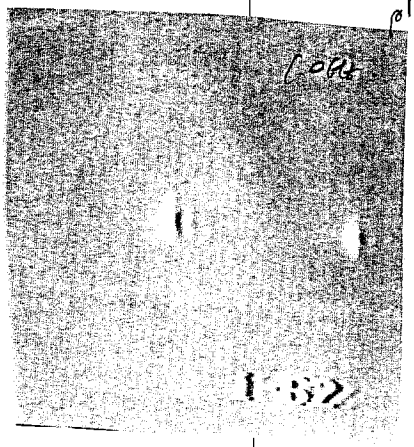
SC_61_A4



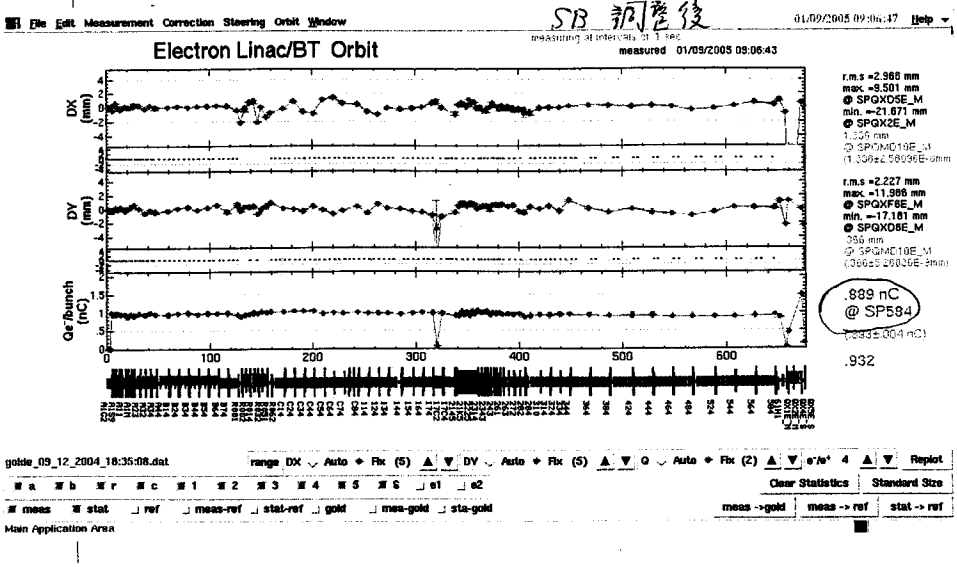
Sc-61-A1



Sc-61-A1.



SC-61-A4



9:27 X-stage を 0点にもどす. (set-to 初期)

9:28 ウシロー スマセナー 調整.

Orbit file を更新 する事. phasing を新しくしたので.

工藤ソフトで 更新 OK?

9:52 現時点での ビーム位置計測.

BS-61-A2 = -10. A

BS-61-A3 = -10.0 A.

は すでに 許容値で おさまっている.

BS_61_A1 = 0方向 → スリット(A1) GL. Pwに戻す.

Vertical を 中心に 来るように した.

SY-61-A2 = 0

SY-61-A1 = 2.578(A)

QD-61-A1 9.615 → 元に戻す.

● モニターしながら で 決める

元に戻す

BS-61-A1 ⇒ 0Aに 戻す.

Main Bend 61-A1 を つかう. nominal 19120 A.

少し 強めて 補助コイルで 合わせて ビーム位置が 真中に くるようにする

SC-61-A1 を 見ながら Mainと BSで だいたい 元の 位置に 戻るように 調整する.

BS-61-A1 = -0.486A. (← 0Aから)

BS-61-A3 = -10 → 垂直方向に Bend を 曲げた ため

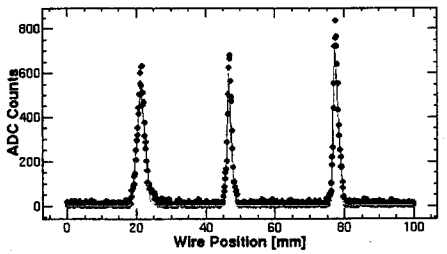
15

File Edit Window 01/09/2005 09:48:35 Help

Wire A

ChiSquare = 202610. Goodness = .49239

sigma1 = 1.08908 +/- .01469	sigma2 = .62969 +/- .00993	sigma3 = .72311 +/- .009
asym1 = -.012852 +/- .02772	asym2 = .02774 +/- .02239	asym3 = .24284 +/- .024
xwire1 = 21.3202 +/- .03697	xwire2 = 46.7995 +/- .02535	xwire3 = 77.3736 +/- .021
b1 = 561.677 +/- 6.46837	b2 = 627.135 +/- 8.40047	b3 = 761.721 +/- 7.915
a1 = 2.00000 +/- 1.55562	a2 = -.00953 +/- .02651	

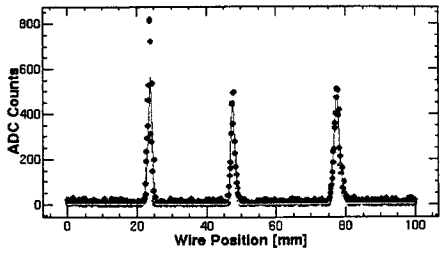


File: WS2005_1_9_9_35_25.datA File Pref ReFit -549.7314453125 V

Wire C

ChiSquare = 342746. Goodness = .49239

sigma1 = .54415 +/- .01083	sigma2 = .56631 +/- .01669	sigma3 = .79639 +/- .019
asym1 = -.02098 +/- .04168	asym2 = .18502 +/- .06178	asym3 = -.04966 +/- .050
xwire1 = 23.6175 +/- .02798	xwire2 = 47.4656 +/- .04239	xwire3 = 77.5259 +/- .048
b1 = 589.418 +/- 11.8954	b2 = 453.906 +/- 11.6461	b3 = 471.973 +/- 9.814
a1 = 2.00000 +/- 1.95421	a2 = .00631 +/- .03390	

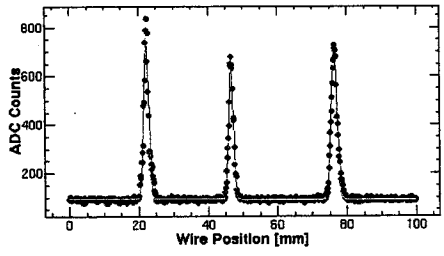


File: WS2005_1_9_9_46_17.datC File Pref ReFit -549.7314453125 V

Wire B

ChiSquare = 156653. Goodness = .49239

sigma1 = .68931 +/- .00867	sigma2 = .67775 +/- .00987	sigma3 = .86391 +/- .010
asym1 = -.00899 +/- .02648	asym2 = -.01691 +/- .03037	asym3 = -.02238 +/- .025
xwire1 = 22.1895 +/- .02242	xwire2 = 46.5967 +/- .02521	xwire3 = 76.3801 +/- .027
b1 = 699.779 +/- 7.12731	b2 = 571.358 +/- 7.17299	b3 = 606.237 +/- 6.399
a1 = 94.1275 +/- 1.33592	a2 = -.02430 +/- .02306	

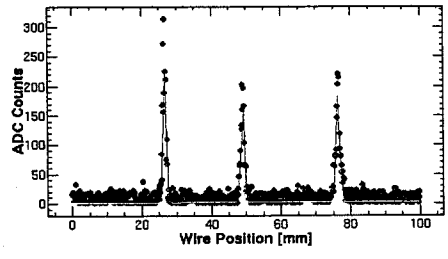


File: WS2005_1_9_9_36_13.datB File Pref ReFit -499.755859375 V

Wire D

ChiSquare = 106933. Goodness = .49239

sigma1 = .47825 +/- .01592	sigma2 = .50660 +/- .02288	sigma3 = .57378 +/- .023
asym1 = .23053 +/- .06744	asym2 = -.24103 +/- .09172	asym3 = -.08690 +/- .065
xwire1 = 26.3396 +/- .03949	xwire2 = 49.6589 +/- .05694	xwire3 = 76.4421 +/- .060
b1 = 246.874 +/- 7.03885	b2 = 175.425 +/- 6.84876	b3 = 191.792 +/- 6.447
a1 = 2.00000 +/- 1.08294	a2 = .01270 +/- .01873	



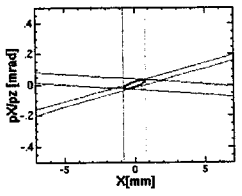
File: WS2005_1_9_9_45_6.datD File Pref ReFit -549.7314453125 V

Hard Copy

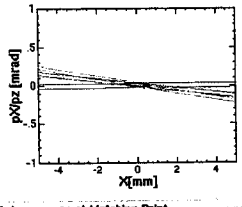
File Edit Window 01/09/2005 09:49:40 Help

Wire Scan | Optics Calculate | Matching

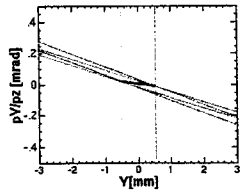
X phase space at Wire A



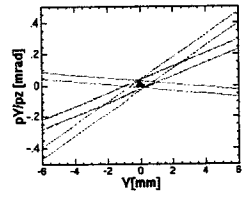
X phase space at Matching Point



Y phase space at Wire A



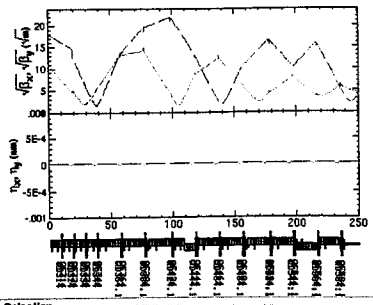
Y phase space at Matching Point



Results of Measurement

β_x @BM611 [m] :	32.688	β_y @BM611 [m] :	19.086
α_x @BM611 :	.938	α_y @BM611 :	2.167
ε_x [m] :	1.1875E-8	ε_y [m] :	1.8628E-9
$\gamma\varepsilon_x$ [π.mm.mrad] :	185.911	$\gamma\varepsilon_y$ [π.mm.mrad] :	29.163
Bmag x :	1.058	Bmag y :	4.693
εBmag x :	1.3170E-8	εBmag y :	9.1638E-9
γεBmag x :	206.182	γεBmag y :	143.466

Optics Plot



Wire Selection

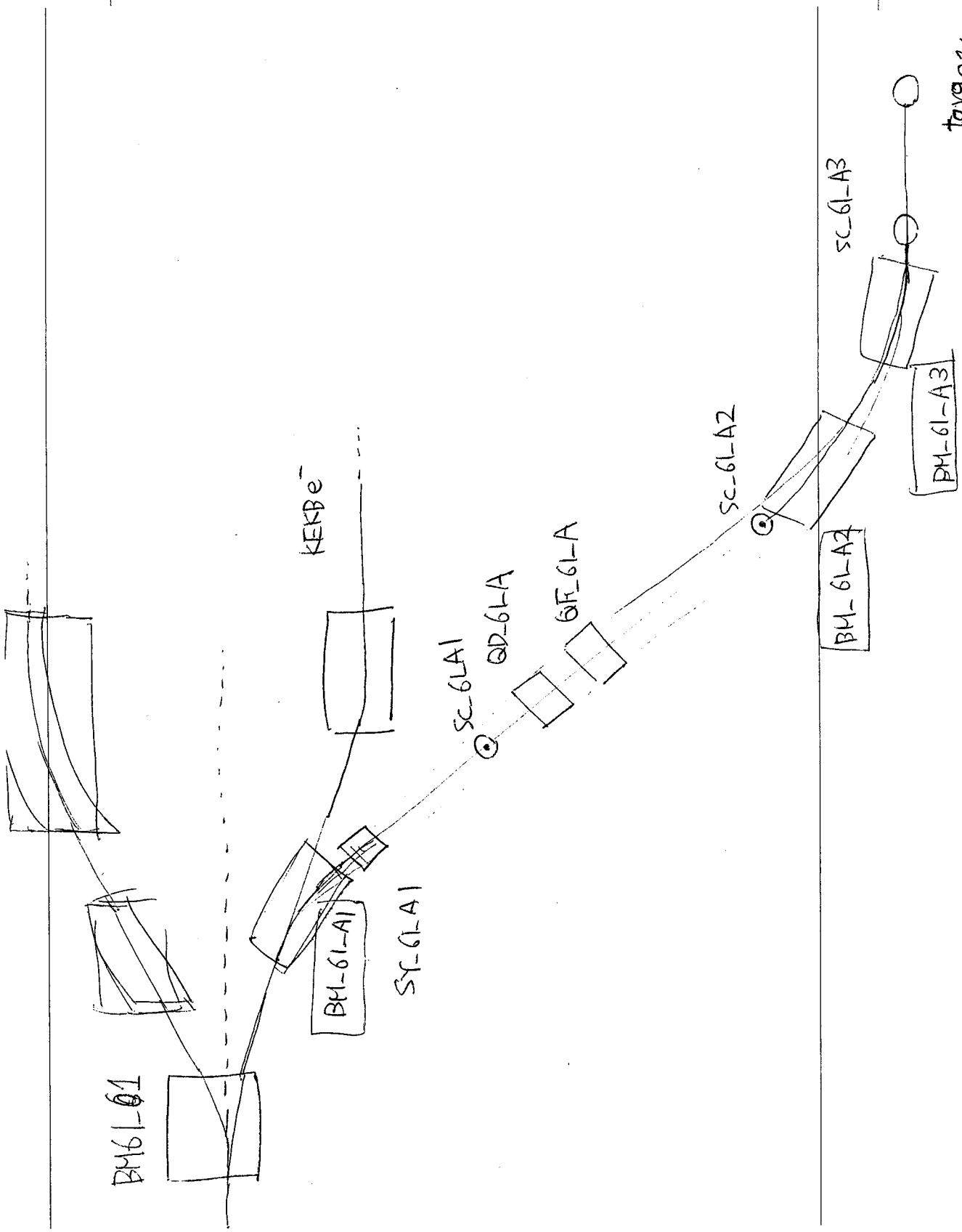
◆ 3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD

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_2005_1_9_9_34_2.dat0


target
SC_61_A3
BM_61_A3
BM_61_A2
SC_61_A2
6F_61_A
QD_61_A
SC_61_A1
KEKB e⁻
BH_61_A1
SY_61_A1
BM61_61

17

$\frac{1^-}{400} = \frac{1}{80}$ rad

BM 6L-A1 を 狩める方向に Set する.

狩る前. 189.5084 (A) → 187.204 → 189.011 final.

BS-61-A1 4.916 (A) に set → 7.934.

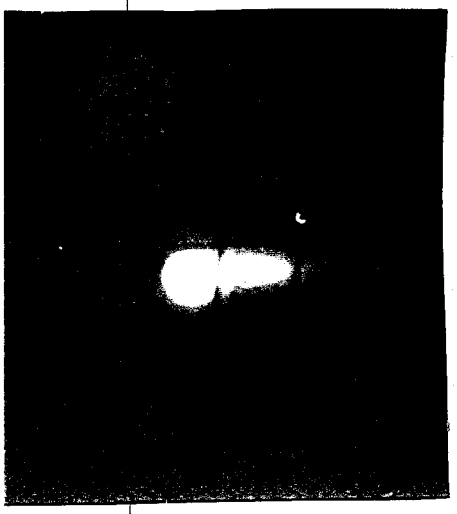
BS-61-A3 −10 → −8.129 (A) → −6.200 final.

ST-61-A1 2.575 → 1.256 (A)

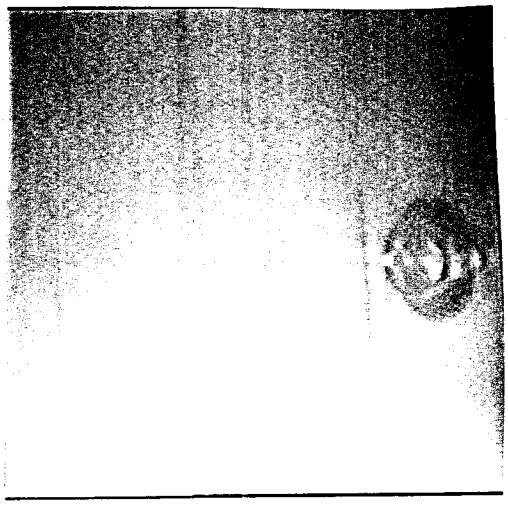
Energy knob 8.000 変更なし. Energy FB off

BS-61-A2 −10 → −8.000 → −6.015

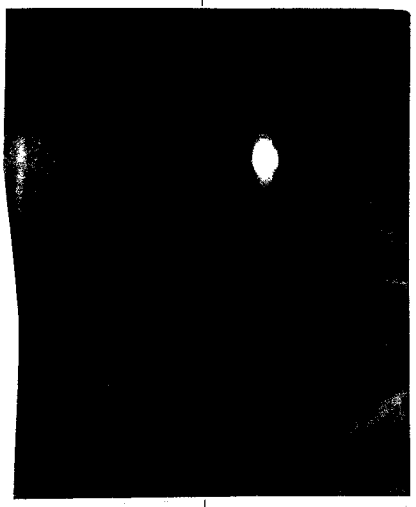
10:50 ST-61-A2 off



SC-61-A1

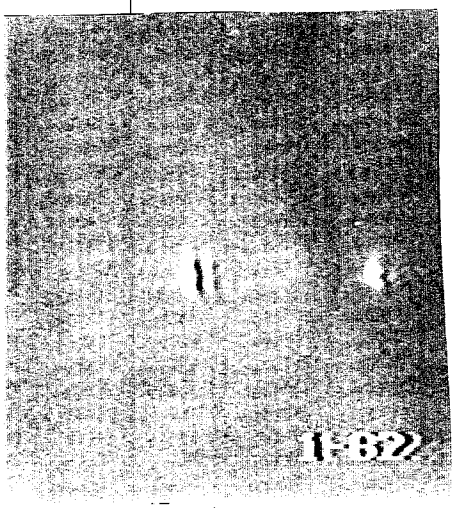


SC-61-A2



SC-61-A3

61-A3 の ビーム が 左に 寄って ほぼ 下向きに 出ている 真中に 持って 来る 調整 を 行った.



SC-61-A4

調整後のパラメータ

ACC Mode: data236.mode.all (channeling 20050109-

Mag : data3877.all (〃

RF-Phase: data1494.phase.all (〃

にセーブ.

21:40~

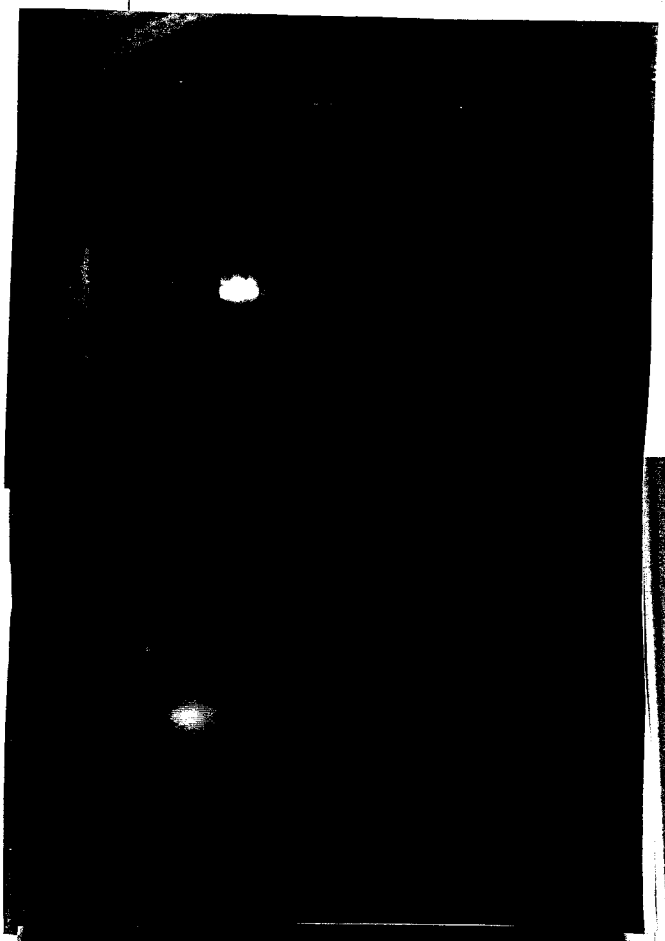
0.1nC ｵﾝﾘﾝ 調整.

Gun "050108-0.1nC" load.

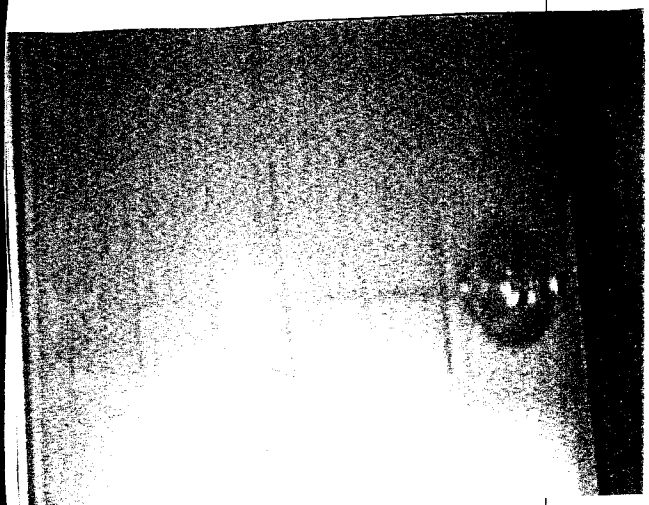
SB C1, 2, 3, 4. ｵﾌﾄﾞ = 0 に 戻す.

QF_61_A1 9.420 → 9.536 A
~~QD~~ -61-A1 9.615 → ~~[redacted]~~ 9.681 A.

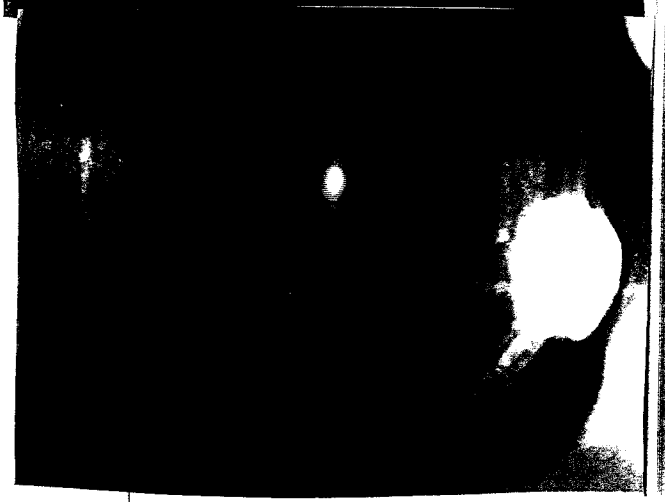
SC-RO-31



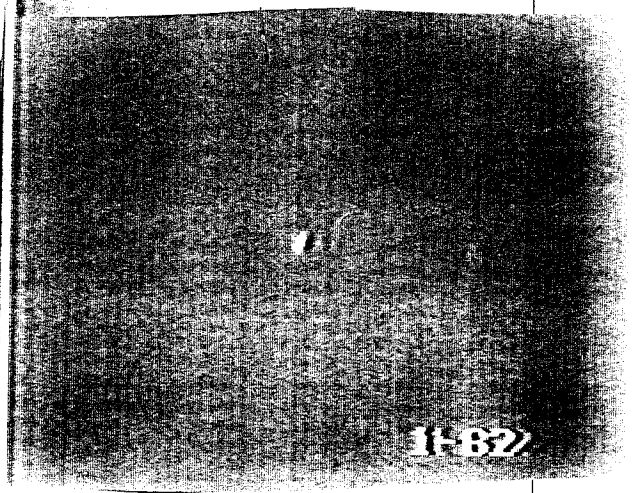
SC-61-A1



SC-61 A2



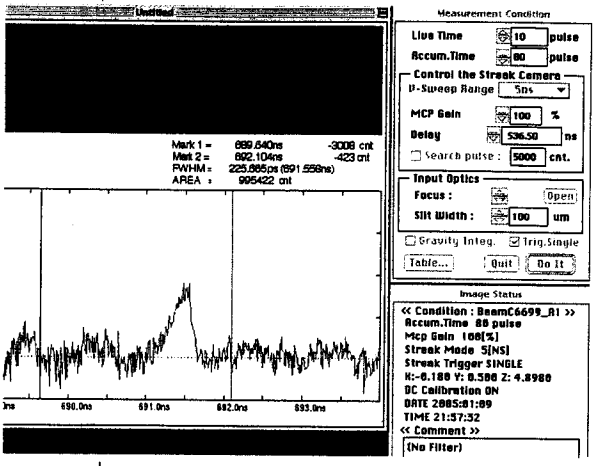
SC-61-A3

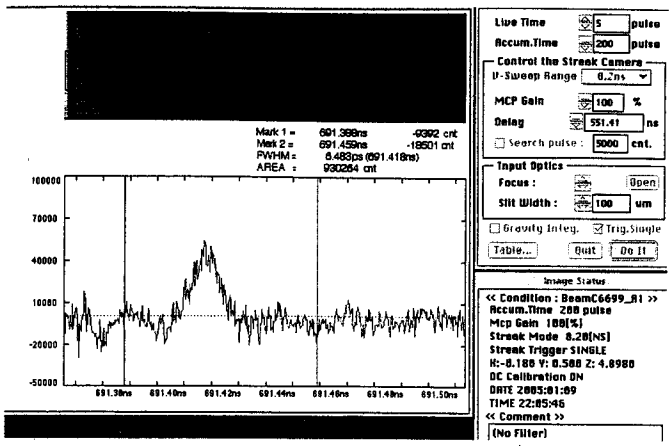


SC-61 A4

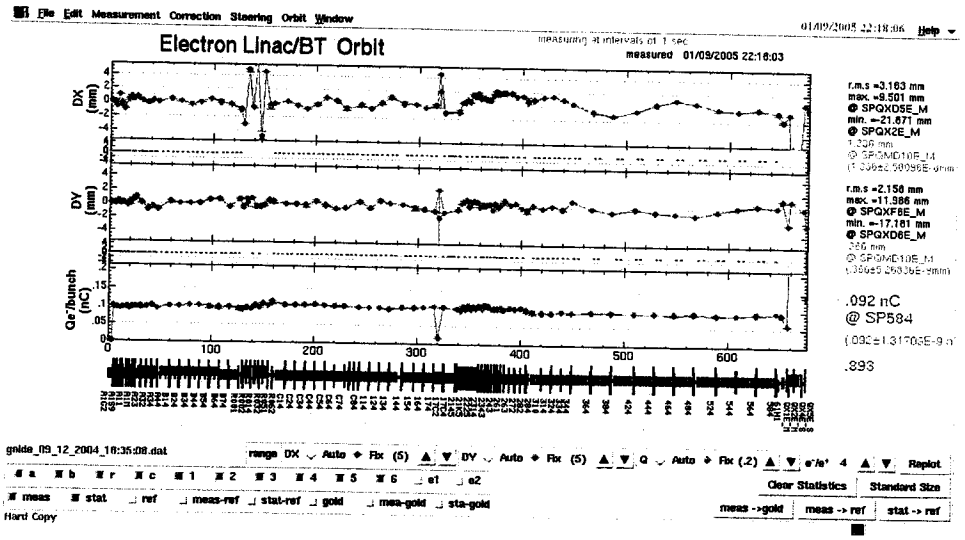
19

22:05 ビーム軌道計測





22:15 ワイヤー計測.



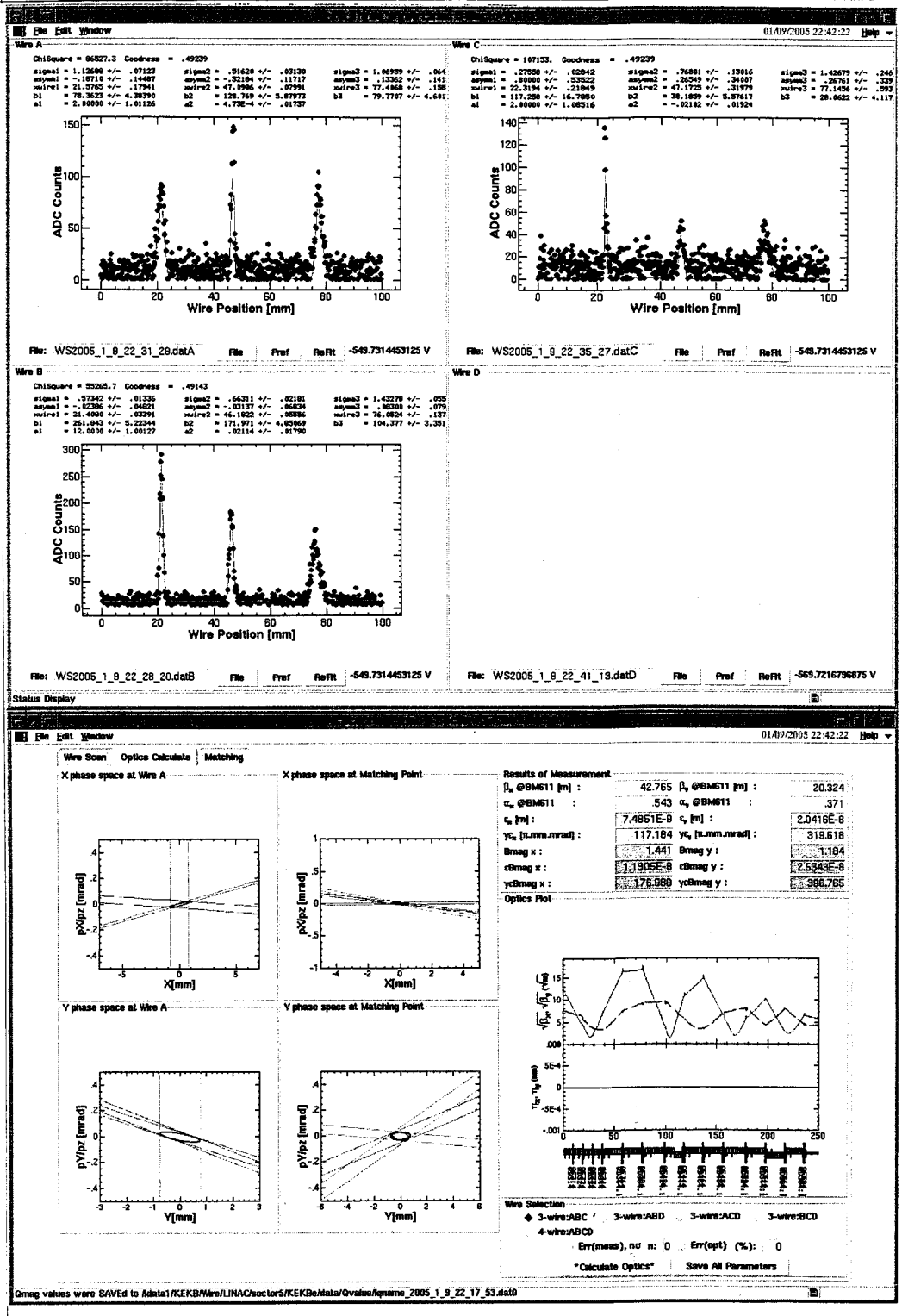
調整後のパラメータ

Acc Mode : data237.mode.all (channeling 20050109-3)

Magnet : data3878.all (;)

RF-Phase : data1495.phase.all (;)

にセーブ



03:36 BT : data 3789. all (channeling 20050110)
Phase : data 1496. phase. all (")
Acc-Mode : data 238. mode. all (")
KE-7"