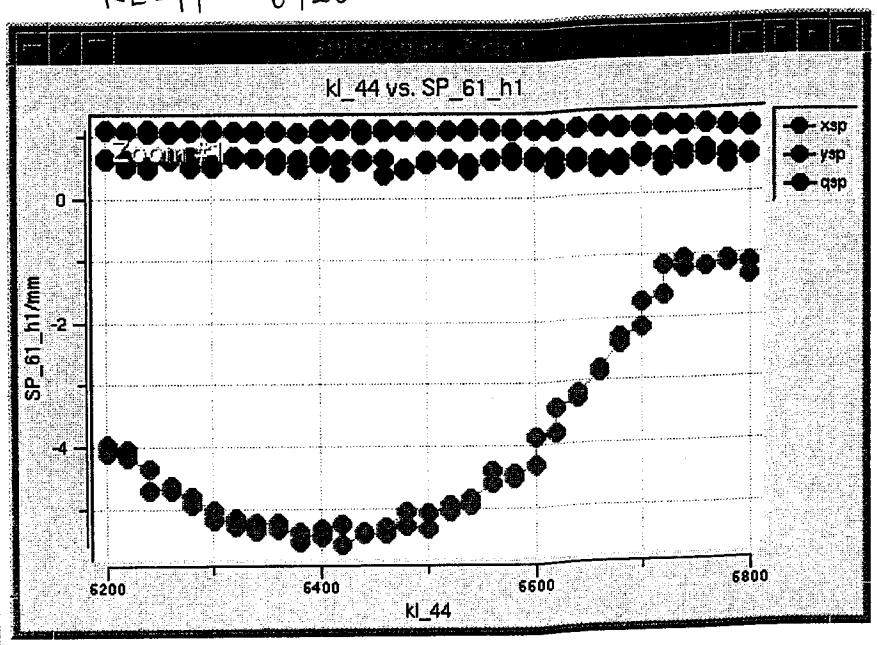
41

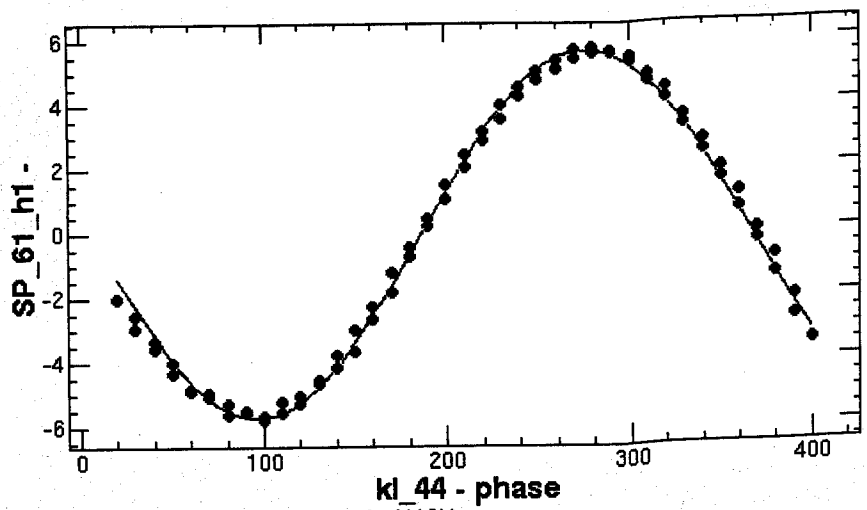
S = 42.0 kV , Pf = 36.00 MW , 現場 Pf = 45.6 ~ 46.1 MW → 計算 151 MeV
→ 154 MeV

KL-44 6420



le Edit Window 12/12/2006 14:02:32 Help

are = 5.27620 Goodness = .47828
70948 +/- .04367 o = 96.1834 +/- .41861 d = -.00815 +/- .03020



ion = (d+(a Cos[(.0174532925 (-180+x+(-o)))]))

Copy

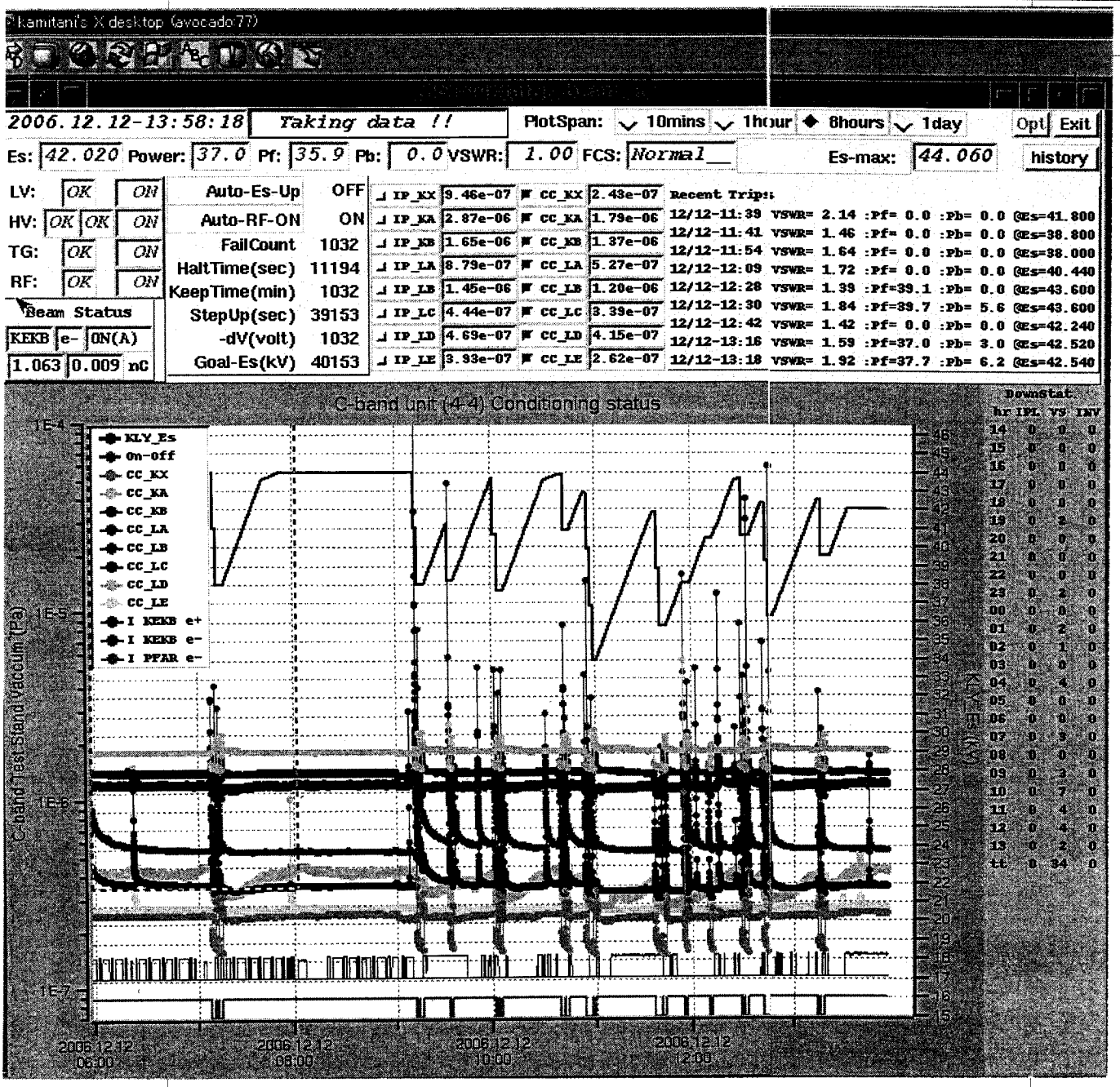
$E_{gain} = 8 \times \frac{5.709}{307.5}$

$= 148.5$ [MeV]

$\frac{148.5}{0.962 \times 4} = 38.59$ MV/m

$\frac{52.48}{3} \times 55$

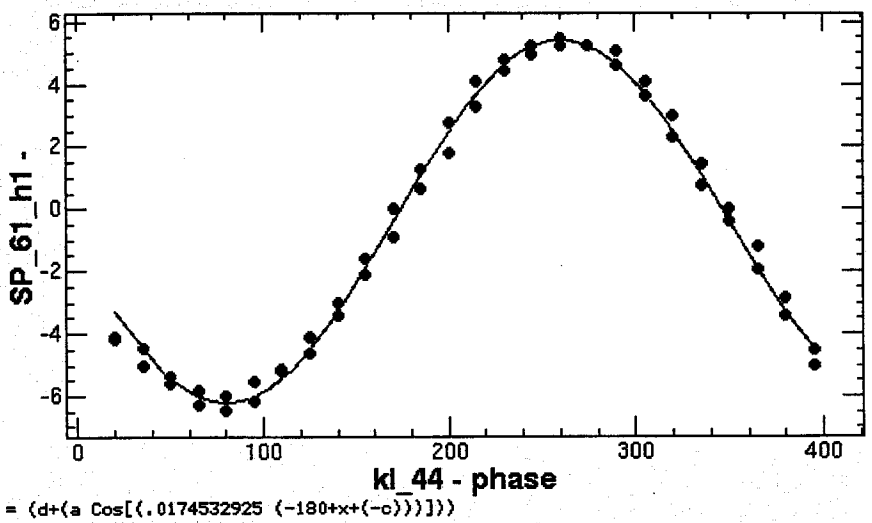
$\fallingdotseq 962.1333$


kamitani's X desktop (avocado77)
2006.12.12-13:58:18
Taking data !!
PlotSpan: 10mins 1hour 8hours 1day
Opt
Exit
Es: 42.020 Power: 37.0 Pf: 35.9 Pb: 0.0 VSWR: 1.00 FCS: Normal
Es-max: 44.060
history
LV: OK ON
HV: OK OK ON
TG: OK ON
RF: OK ON
Beam Status
KEKB e- ON(A)
1.063 0.009 nC
Auto-Es-Up OFF
Auto-RF-ON ON
FailCount 1032
HaltTime(sec) 11194
KeepTime(min) 1032
StepUp(sec) 39153
-dV(volt) 1032
Goal-Es(kV) 40153
IP_KX 9.46e-07 CC_KX 2.43e-07
IP_KA 2.87e-06 CC_KA 1.79e-06
IP_KB 1.65e-06 CC_KB 1.37e-06
IP_LA 8.79e-07 CC_LA 5.27e-07
IP_LB 1.45e-06 CC_LB 1.20e-06
IP_LC 4.44e-07 CC_LC 3.39e-07
IP_LD 4.69e-07 CC_LD 4.15e-07
IP_LE 3.93e-07 CC_LE 2.62e-07
Recent Trip:
12/12-11:39 VSWR= 2.14 :Pf= 0.0 :Pb= 0.0 @Es=41.800
12/12-11:41 VSWR= 1.46 :Pf= 0.0 :Pb= 0.0 @Es=38.800
12/12-11:54 VSWR= 1.64 :Pf= 0.0 :Pb= 0.0 @Es=38.000
12/12-12:09 VSWR= 1.72 :Pf= 0.0 :Pb= 0.0 @Es=40.440
12/12-12:28 VSWR= 1.39 :Pf=39.1 :Pb= 0.0 @Es=43.600
12/12-12:30 VSWR= 1.84 :Pf=39.7 :Pb= 5.6 @Es=43.600
12/12-12:42 VSWR= 1.42 :Pf= 0.0 :Pb= 0.0 @Es=42.240
12/12-13:16 VSWR= 1.59 :Pf=37.0 :Pb= 3.0 @Es=42.520
12/12-13:18 VSWR= 1.92 :Pf=37.7 :Pb= 6.2 @Es=42.540
C-band unit (4-4) Conditioning status
KLY_Es
On-off
CC_KX
CC_KA
CC_KB
CC_LA
CC_LB
CC_LC
CC_LD
CC_LE
I KEKB e+
I KEKB e-
I PFAR e-
C-band Test Stand Vaccum (Pa)
1E-4
1E-5
1E-6
1E-7
KLY_Es (MV)
2006.12.12 06:00
2006.12.12 08:00
2006.12.12 10:00
2006.12.12 12:00
Downstat
hr IPL YS INV

Es = 44.0 KV , Pf = 39.6 MW , 現場 Pf = 50.6 ~ 51.1 MW → 計算 158 MeV
→ 159 MeV

ile Edit Window 12/12/2006 14:38:50

uare = 6.29249 Goodness = .47313
.82305 +/- .07128 c = 440.014 +/- .68898 d = -.40242 +/- .04997



ion = (d+(a Cos[(.0174532925 (-180+x+(-c)))]))

$E_{gain} = 8 \times \frac{5.823}{307.5}$

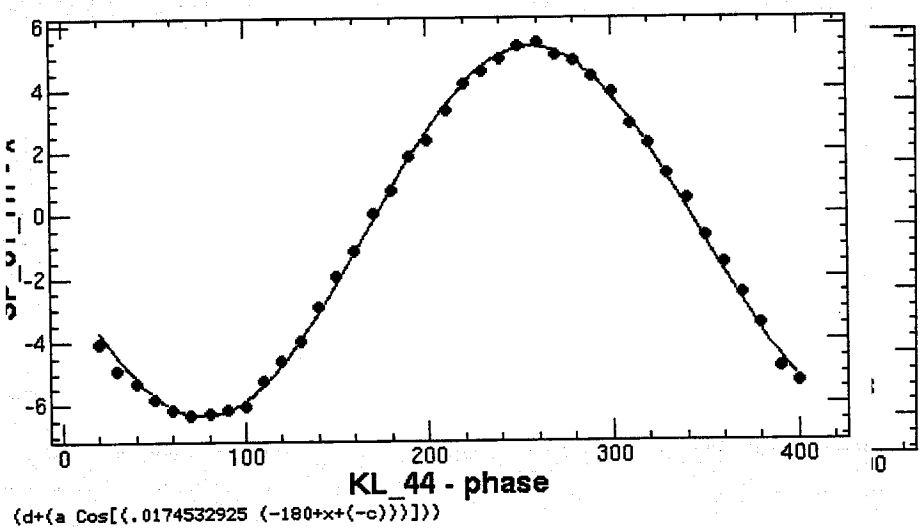
$= 151.5$ MeV

39.37 MV/m

Kl-44 6420

dit Window 12/12/2006 14:58:48 5:13

1.20237 Goodness = .46865
+/- .04169 c = 1336.83 +/- .40746 d = -.51392 +/- .02942 02636



(d+(a Cos[(.0174532925 (-180+x+(-c)))]))

$E_{gain} = 8 \times \frac{5.809}{307.5}$

$= 151.1$ MeV

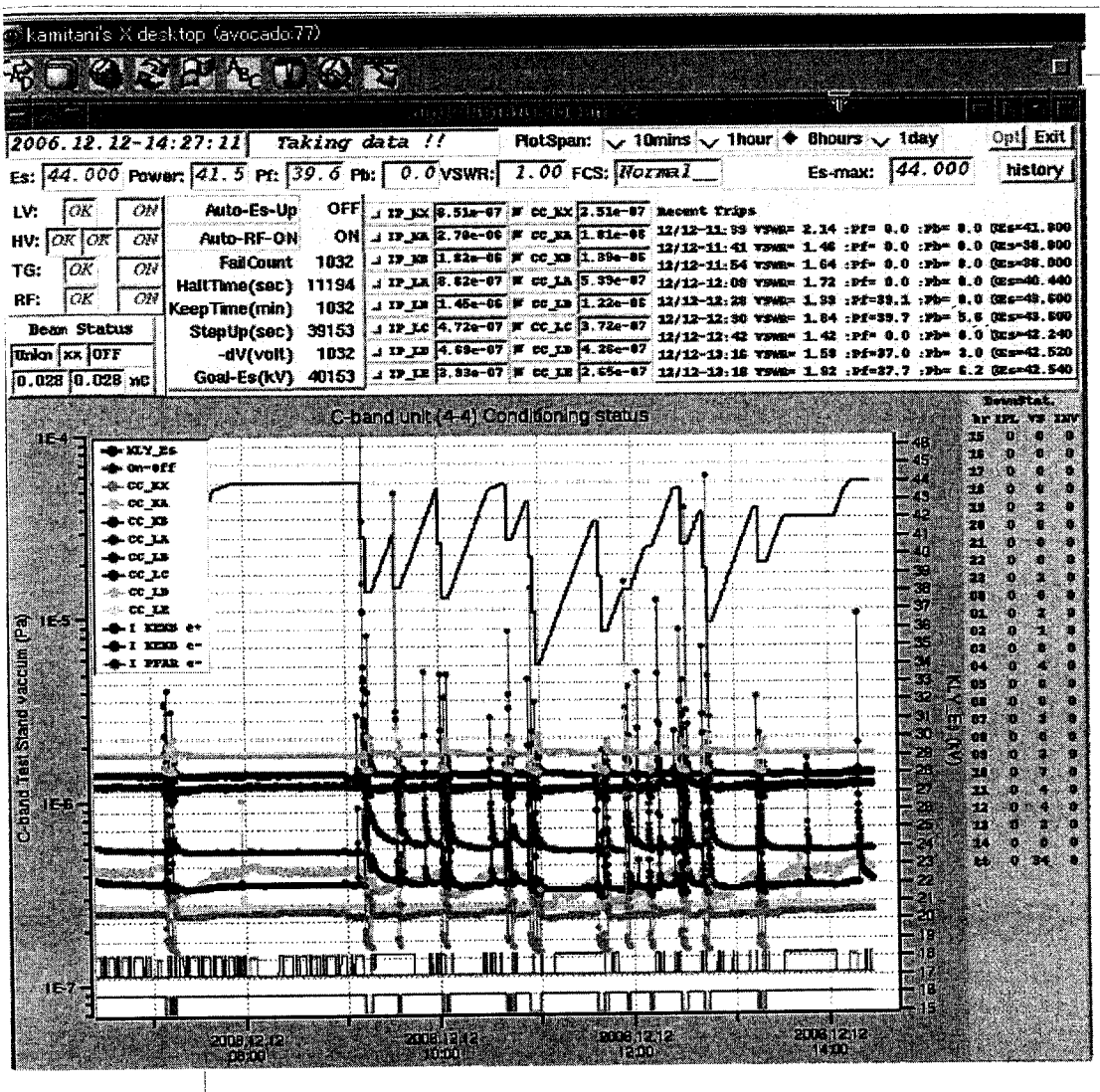
data点を1点だけで Fit した場合、

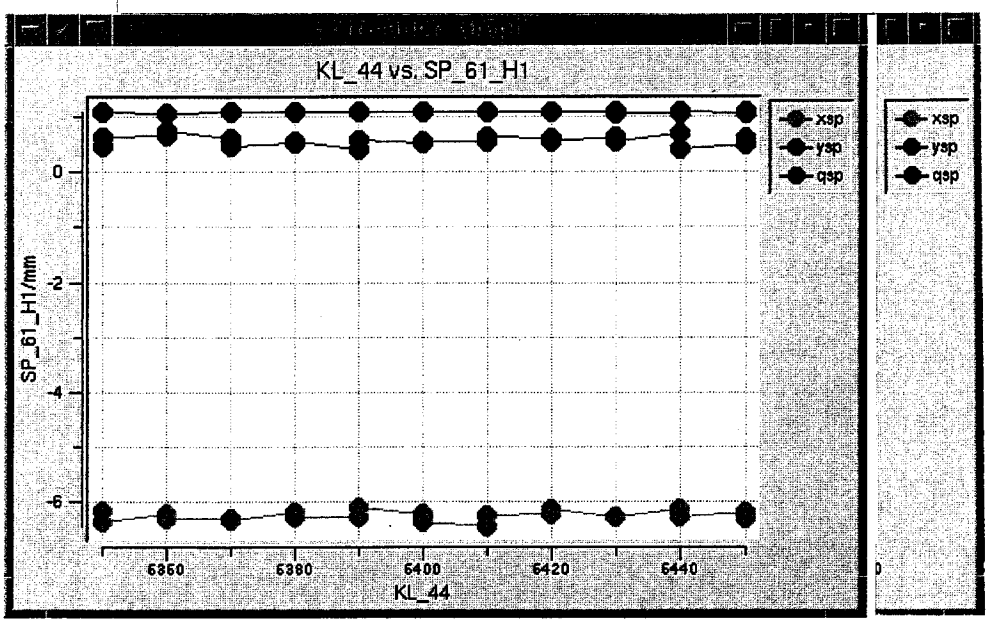
$E_{gain} = 8 \times \frac{5.837}{307.5}$

$= 151.8$ MeV

39.45 MV/m

Kl-44 6410

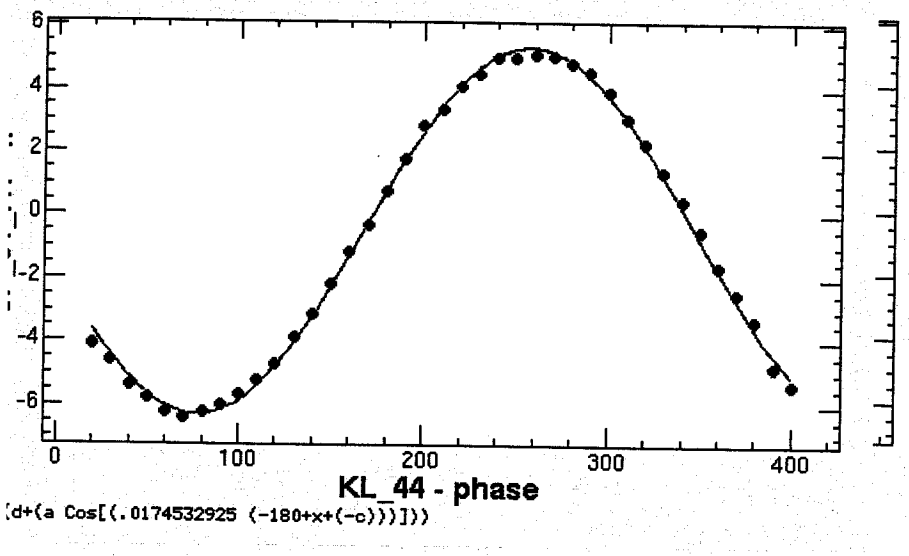

kamitani's X desktop (avocado77)
2006.12.12-14:27:11
Taking data !!
PlotSpan: 10mins 1hour 6hours 1day
Opt
Exit
Es: 44.000 Power: 41.5 Pf: 39.6 Pb: 0.0 VSWR: 1.00 FCS: Normal
Es-max: 44.000
history
LV: OK ON
HV: OK OK ON
TG: OK ON
RF: OK ON
Beam Status
Unkn XX OFF
0.028 0.028 nC
Auto-Es-Up OFF
Auto-RF-ON ON
FailCount 1032
HaltTime(sec) 11194
KeepTime(min) 1032
StepUp(sec) 39153
-dV(volt) 1032
Goal-Es(kV) 40153
Recent trips
C-band unit (4-4) Conditioning status
C-band Test Stand vacuum (Pa)
KL_ETLV1


KL_44 vs. SP_61_H1
xsp
ysp
qsp
SP_61_H1/mm
KL_44
6360
6380
6400
6420
6440

KL-44
6410

dit Window 12/12/2006 15:10:49 p0 Help

1.35316 Goodness = .46865
+/- .04426 c = 437.360 +/- .43382 d = -.49635 +/- .03121 760



$E_{gain} = 8 \times \frac{5.827}{307.5}$

$= 151.5$ MeV

data点を1点だけでFitした場合、

$E_{gain} = 8 \times \frac{5.813}{307.5}$

$= 151.2$ MeV

39.29 MV/m

'06
12/12
17:25

Multi Energy Study for KEKB e⁻

菊池. 大西. 飯田

[目的]
1nC の PF ビームを 減速 phase で作って
KEKB e⁻ へ 入射する.
(HER)

1. ECS を 2.5 GeV に set して Energy を 確認する
   KLY 3-1 を Stand by にする
   SB 3.4.5 $\Delta\phi = +13°$
   2.

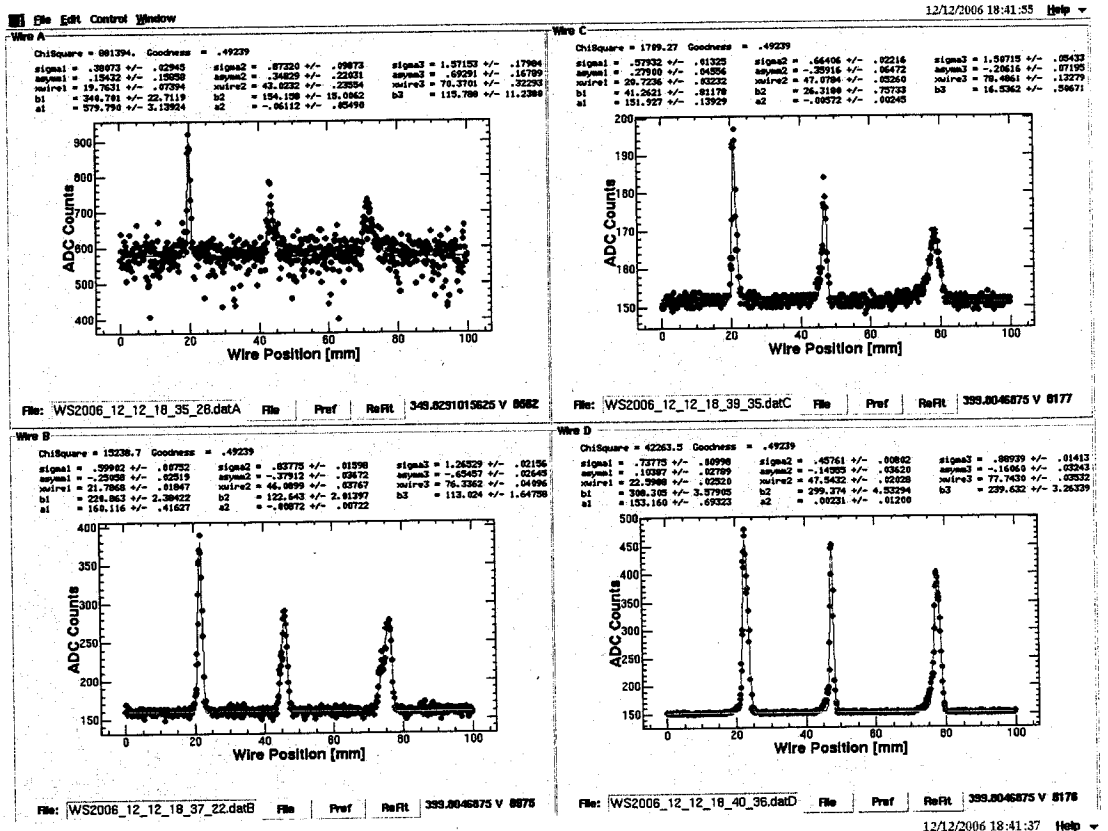
・ 3.4.5 セクター から 減速位相.

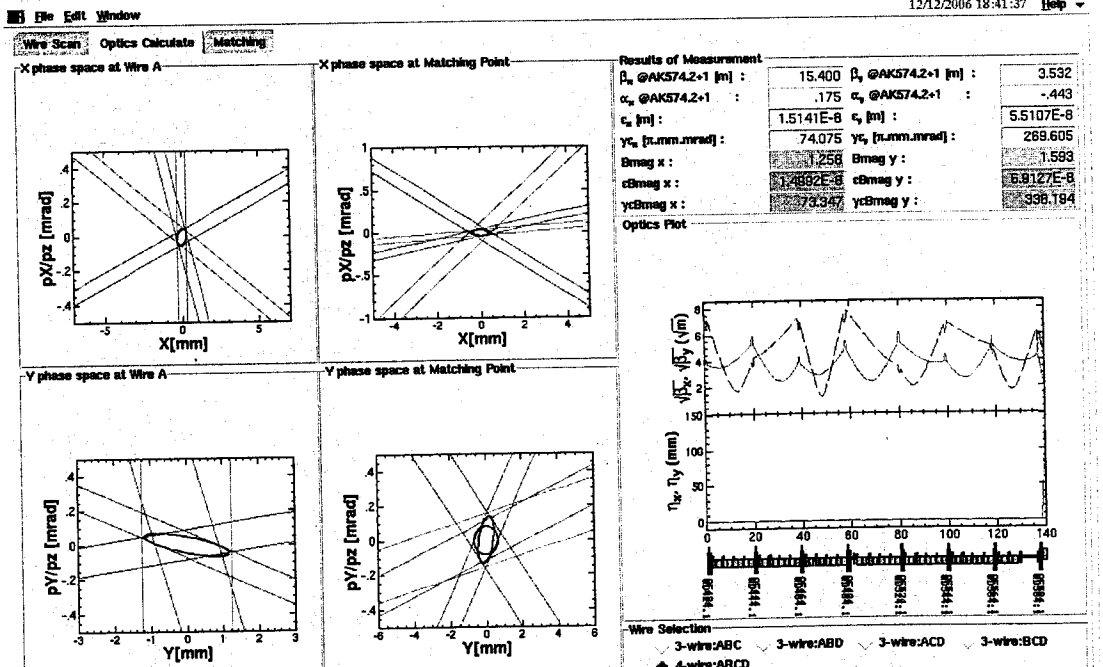
ECS 初期化 パネル
(Ecm)
Eset = 3.308 GeV で.
Ebeam = 2.5 GeV になる.

⊙ 4. セクター 以降の Q mag を set した.
3
Matching 値に

47

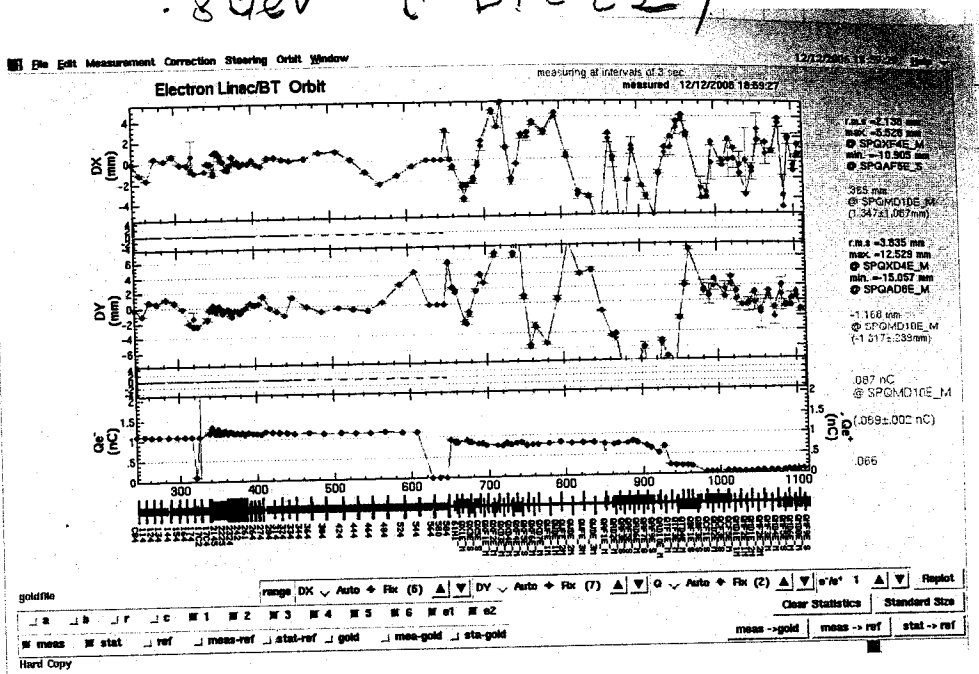
減速
PF 2.5GeV 1nC Beam



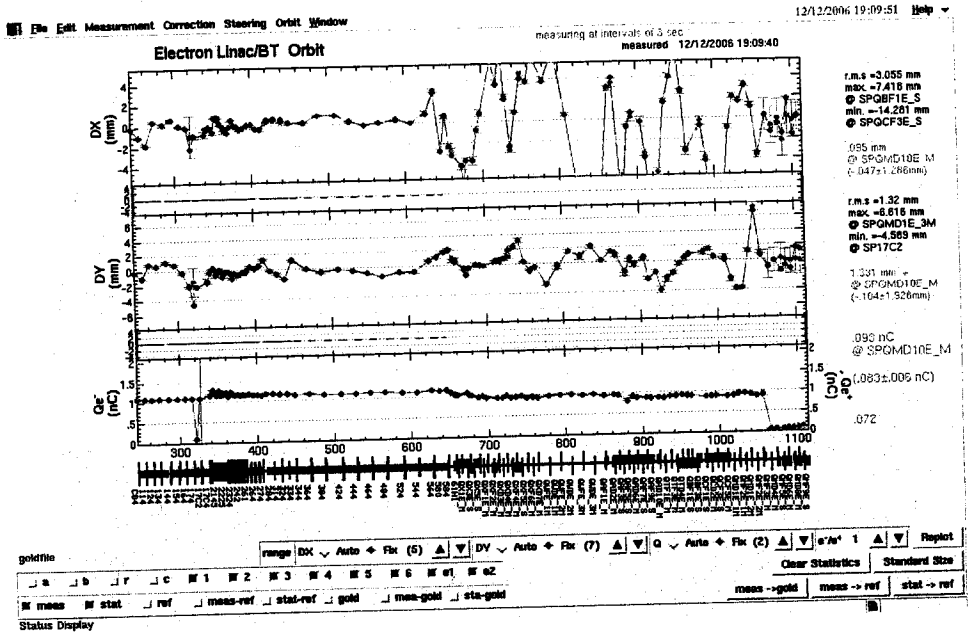


Qmag values were SAVEd to /idata1/KEKB/Wire/LINAC/sector5/PF/data/Qvalue/qname_2006_12_12_18_23_48.dat0

・8GeV で BTeを通す



・LINAC 軌道を補正する



"BTe12_12_2006_19:12:53" に Steering を save

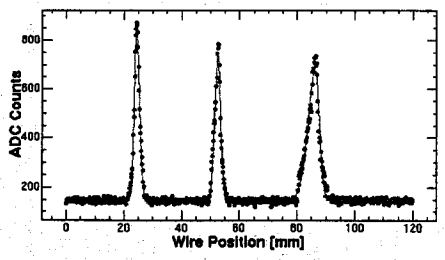
19:23:23" に Qmagnet を save

File Edit Control Window 12/12/2006 19:23:30 Help

Wire A

ChiSquare = 242399. Goodness = .49307

sigma1 = .09981 +/- .01064	sigma2 = 1.02472 +/- .01323	sigma3 = 1.97486 +/- .02112
asymm1 = .11902 +/- .02439	asymm2 = -.14521 +/- .02835	asymm3 = -.29316 +/- .02995
xwire1 = 24.2825 +/- .82676	xwire2 = 52.5281 +/- .83333	xwire3 = 86.1946 +/- .85867
b1 = 696.272 +/- 7.89228	b2 = 395.600 +/- 6.61779	b3 = 525.940 +/- 4.79579
a1 = 147.128 +/- 1.39636	a2 = .00301 +/- .02005	

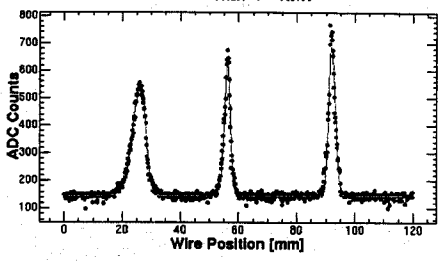


File: WS2006_12_12_19_20_59.datA File Pref ReFit 469.7705078125 V 246

Wire C

ChiSquare = 179455. Goodness = .49307

sigma1 = 2.27817 +/- .82684	sigma2 = 1.04109 +/- .01447	sigma3 = 1.14183 +/- .01339
asymm1 = -.29869 +/- .02296	asymm2 = -.19698 +/- .02838	asymm3 = .17128 +/- .02383
xwire1 = 26.2989 +/- .86382	xwire2 = 56.2278 +/- .03619	xwire3 = 91.7736 +/- .03332
b1 = 389.173 +/- 3.86392	b2 = 472.569 +/- 5.64986	b3 = 539.194 +/- 5.40859
a1 = 146.955 +/- 1.28762	a2 = -.00299 +/- .01790	

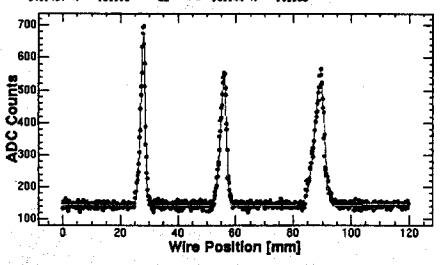


File: WS2006_12_12_19_18_54.datC File Pref ReFit 469.7705078125 V 2270

Wire B

ChiSquare = 85056.7 Goodness = .49307

sigma1 = .82294 +/- .08881	sigma2 = 1.06372 +/- .81202	sigma3 = 1.68168 +/- .01593
asymm1 = -.26329 +/- .01958	asymm2 = -.38525 +/- .02239	asymm3 = -.32442 +/- .01839
xwire1 = 27.9683 +/- .01966	xwire2 = 56.8130 +/- .02916	xwire3 = 89.4936 +/- .03787
b1 = 823.671 +/- 4.37889	b2 = 395.544 +/- 3.84769	b3 = 380.507 +/- 3.07660
a1 = 145.467 +/- .81998	a2 = .01144 +/- .01183	

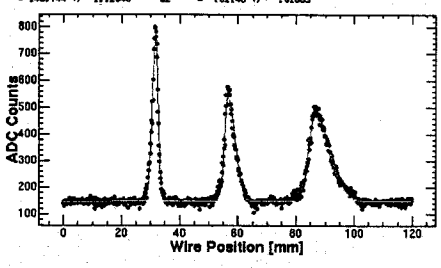


File: WS2006_12_12_19_19_52.datB File Pref ReFit 469.7705078125 V 2580

Wire D

ChiSquare = 155501. Goodness = .49307

sigma1 = 1.88199 +/- .01008	sigma2 = 1.88319 +/- .02184	sigma3 = 3.68061 +/- .03873
asymm1 = -.19617 +/- .02041	asymm2 = .33698 +/- .02381	asymm3 = .39094 +/- .01940
xwire1 = 31.6773 +/- .02505	xwire2 = 56.4671 +/- .05190	xwire3 = 86.5043 +/- .08549
b1 = 622.517 +/- 5.36982	b2 = 386.889 +/- 4.90783	b3 = 324.739 +/- 2.87440
a1 = 146.744 +/- 1.12048	a2 = .02148 +/- .01683	

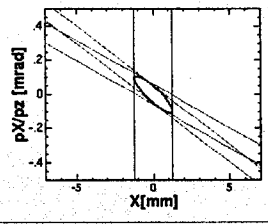


File: WS2006_12_12_19_17_54.datD File Pref ReFit 469.7705078125 V 2147

File Edit Window 12/12/2006 19:22:50 Help

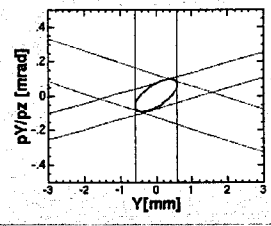
Wire Scan | Optics Calculate | Matching

X phase space at Wire A



X phase space at Matching Point

Y phase space at Wire A

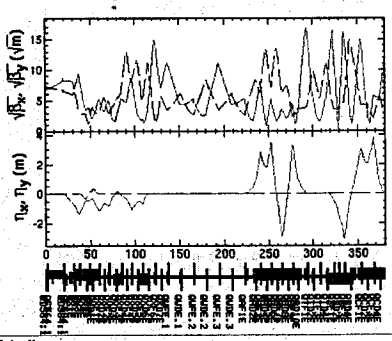


Y phase space at Matching Point

Results of Measurement

β_x @MW.1 [m] :	18.328	β_y @MW.1 [m] :	33.345
α_x @MW.1 :	-.009	α_y @MW.1 :	1.989
ε_x [m] :	6.1516E-8	ε_y [m] :	4.1456E-8
$\gamma\varepsilon_x$ [π.mm.mrad] :	962.887	$\gamma\varepsilon_y$ [π.mm.mrad] :	648.894
Bmag x :	1.538	Bmag y :	1.093
εBmag x :	9.4636E-8	εBmag y :	4.5298E-8
γεBmag x :	1481.280	γεBmag y :	709.046

Optics Plot



Wire Selection

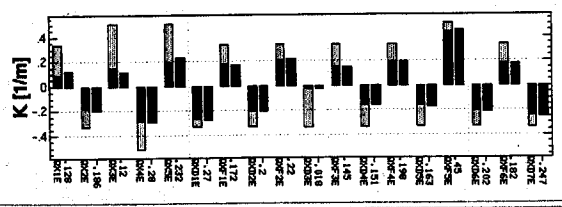
3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD

4-wire:ABCD

Err(meas), nσ n: 0 Err(opt) (%): 0

"Calculate Optics" Save All Parameters

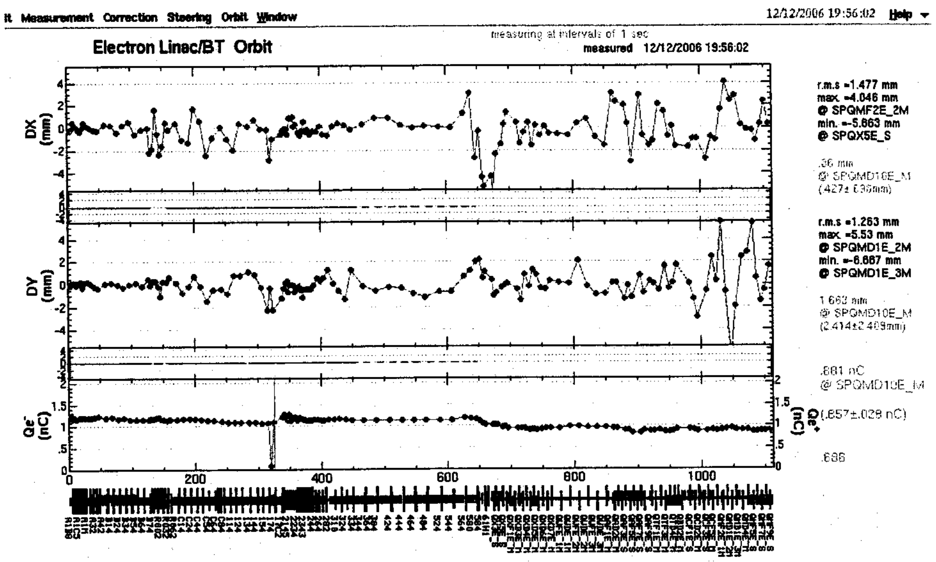
Qmag values were SAVEd to /data1/KEKB/Wire/BTin/electron/data/Qvalue/qname_2006_12_12_19_14_12.dat0



Qmag values were SAVEd to /data1/KEKB/Wire/BTin/electron/data/Qvalue/qname_2006_12_12_19_14_12.dat0

KEKB-HER へ入射. 4.0mA/s @50Hz.
(軽く Septum 調整しただけで入った)

・Energy を調整して BT 第1 Arc の軌道を補正した



20:35 @Cセクターから Matching した Optics を load

・8GeV.