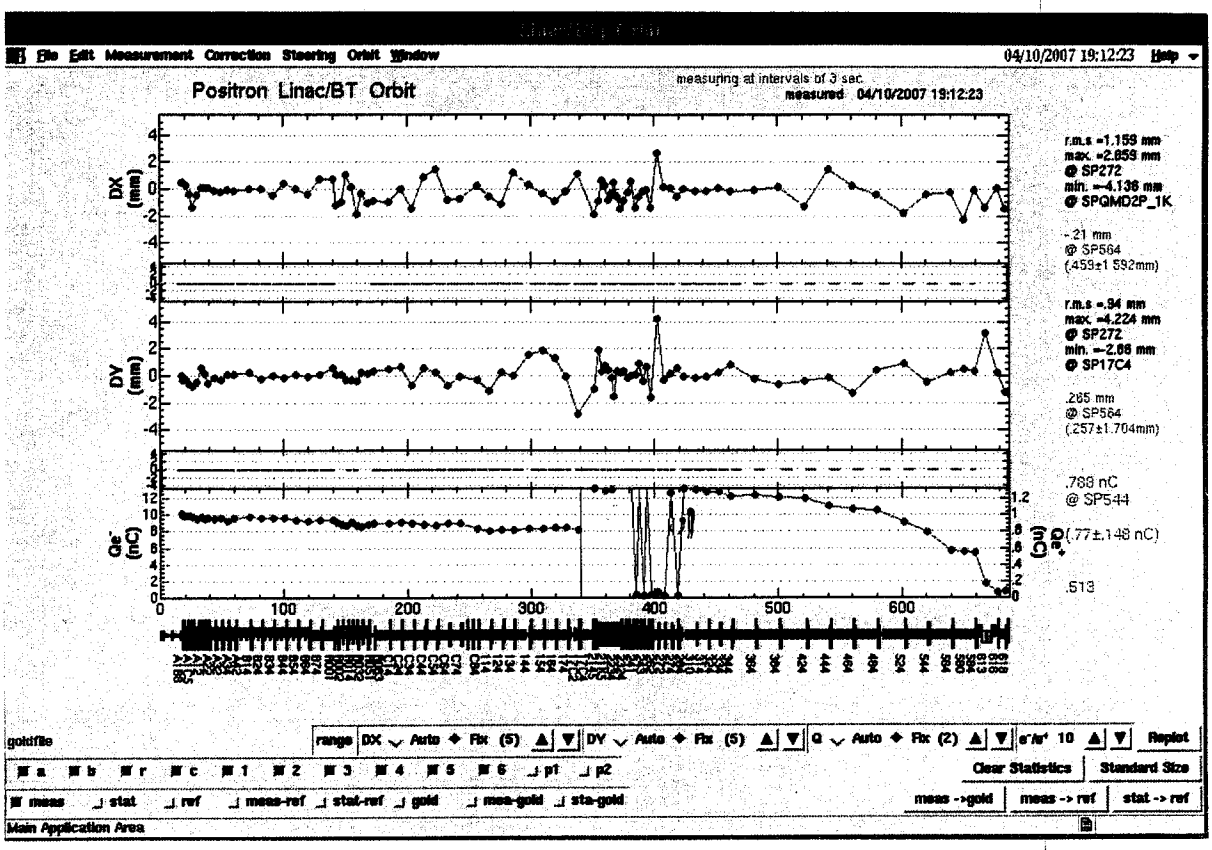
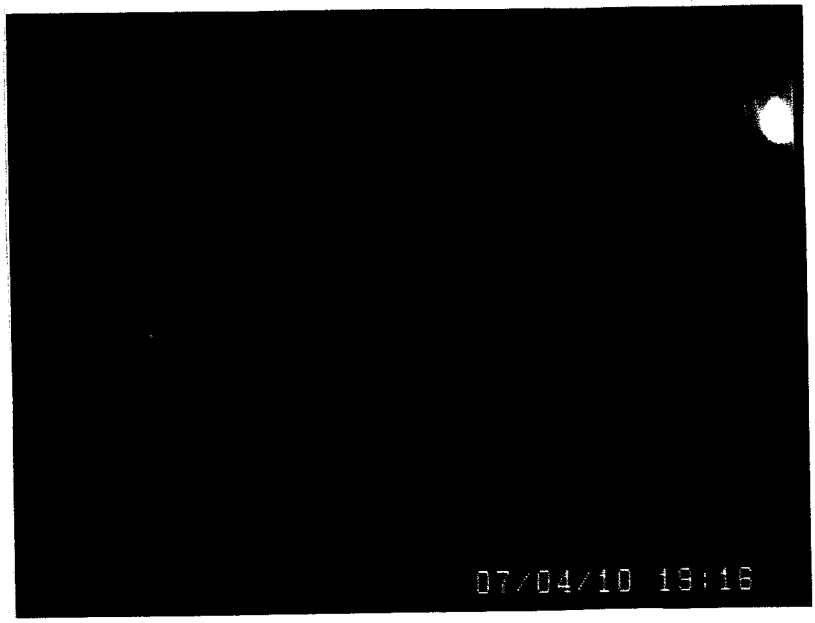
41

7:12


File Edit Measurement Correction Steering Orbit Window
04/10/2007 19:12:23
Help
Positron Linac/BT Orbit
measuring at intervals of 3 sec.
measured 04/10/2007 19:12:23
DX (mm)
DY (mm)
Qe- (nC)
r.m.s =1.159 mm
max. =2.859 mm
@ SP272
min. =-4.136 mm
@ SPQMD2P_1K
-.21 mm
@ SP564
(.459±1.592mm)
r.m.s =.94 mm
max. =4.224 mm
@ SP272
min. =-2.66 mm
@ SP17C4
.265 mm
@ SP564
(.257±1.704mm)
.788 nC
@ SP544
(.77±.148 nC)
.513
100
200
300
400
500
600
goldfile
range
DX Auto Fix (5)
DY Auto Fix (5)
Q Auto Fix (2)
10
Replot
Clear Statistics
Standard Size
meas
stat
ref
meas-ref
stat-ref
gold
meas-gold
sta-gold
meas ->gold
meas -> ref
stat -> ref
Main Application Area


07/04/10 19:16

SC-61-H

2007.4.11 Energy Equalization 実験

親 41. 42. ~~43~~
Eql. 44. ~~45~~

14:54 STD-BY 4-5 → 4-8
Acc 4-8 → 4-5

RF/E 調整 → 所用の phase パラメータを set する。

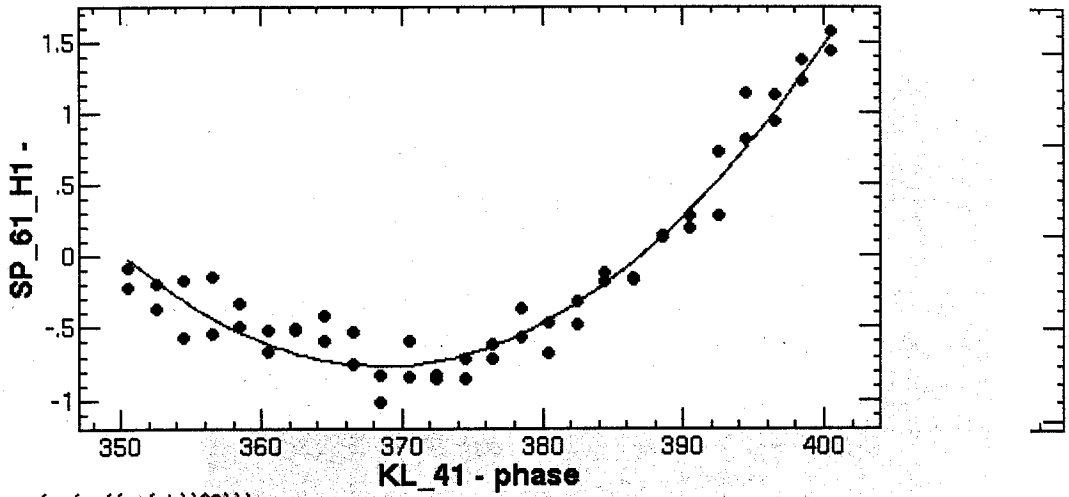
(モード)ARビーム
15:08 Crest Phase を測る

		Egain (MeV)
KL-41 →	368.7°	171.4
42 →	260.4°	166.8
43 →	~~100.5°~~	161.6
45 →	~~373.6°~~ 368.2°	150.4
-44 →	377.0°	~~[illegible]~~

STDBY 4-3 → 3-7
Acc 3-7 → 4-3

File Edit Window 04/11/2007 15:14:40 Help 29 Help

ChiSquare = 1.17086 Goodness = .47313
a = .00228 +/- 1.07E-4 b = 368.657 +/- .44879 c = -.76816 +/- .03028 3937



Function = (c+(a ((x+(-b))^2)))

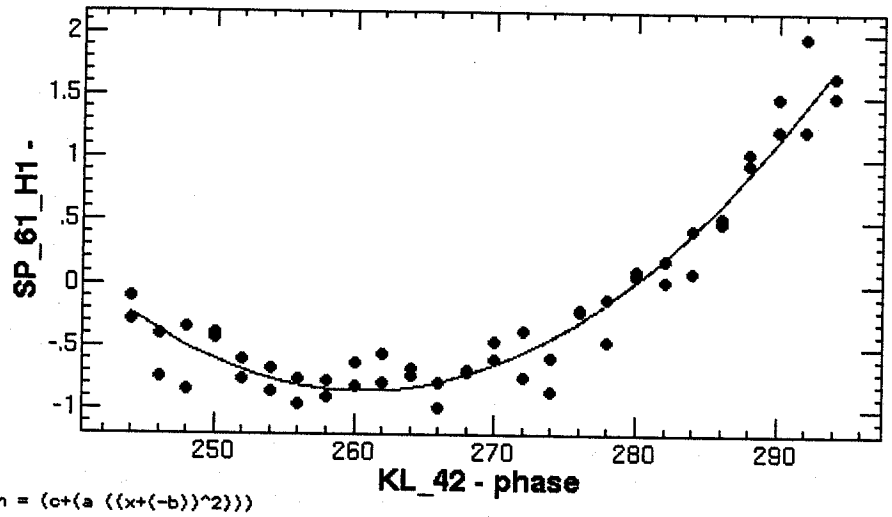
Egain = (KL41)+(42)+(43)
= 499.8 MeV

Egain 4-5 = 150.4 MeV
Egain 4-4 = 146.2 MeV

File Edit Window 04/11/2007 15:20:24 Help 7:36 Help

niSquare = 1.80435 Goodness = .47313

= .00228 +/- 1.33E-4 b = 260.417 +/- .63221 c = -.85257 +/- .03664 .03045

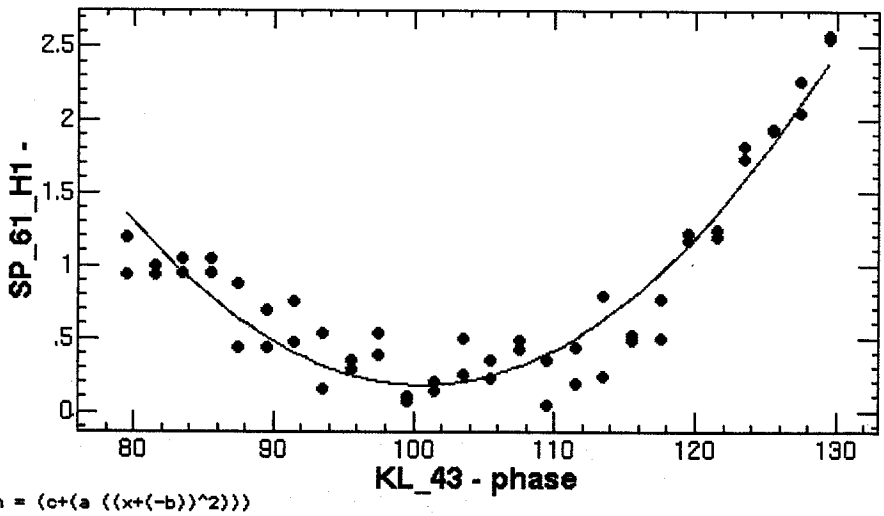


notion = (c+(a ((x+(-b))^2)))

File Edit Window 04/11/2007 15:27:57 Help 24:58

iSquare = 2.02440 Goodness = .47313

= .00265 +/- 1.40E-4 b = 100.543 +/- .41247 c = .18197 +/- .04139 .05978



notion = (c+(a ((x+(-b))^2)))

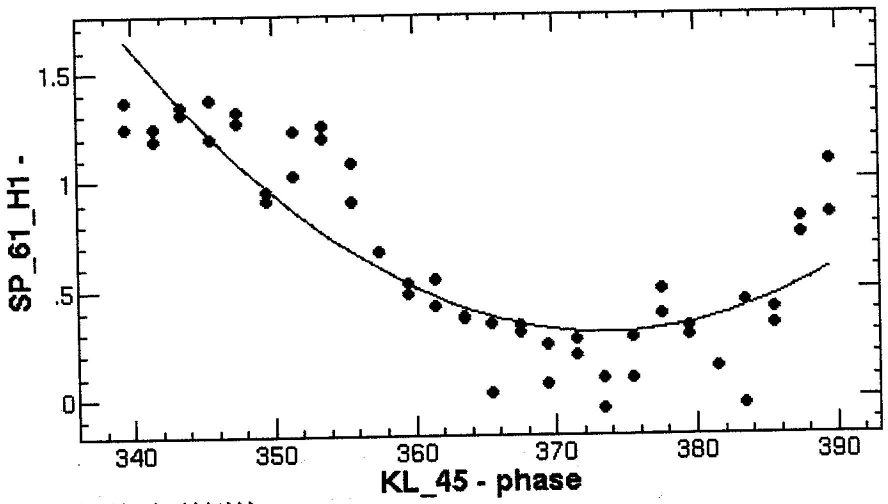
Help ▾ Help

File Edit Window 04/11/2007 15:39:23 Help ▾

ChiSquare = 2.57370 Goodness = .47313

a = .00115 +/- 1.58E-4 b = 373.607 +/- 1.54893 c = .30069 +/- .04345

68



Function = (c+(a ((x+(-b))^2)))

15:54 8 GeV e^- beam で 各unitのゲイン測定.

吉田氏の orbit correction を働かせる.

File Edit Window 04/11/2007 16:23:33 Help ▾

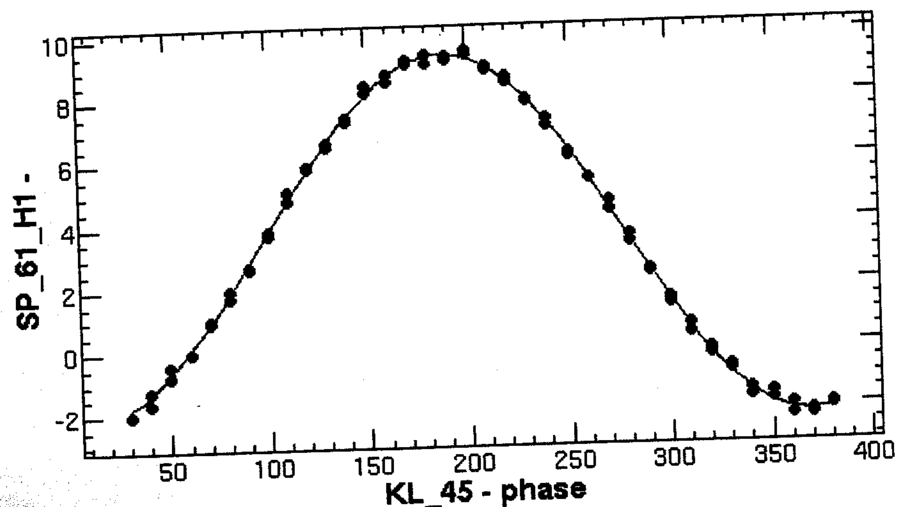
ChiSquare = 1.30573 Goodness = .47719

a = -5.7789 +/- .02338 c = 188.065 +/- .22944 d = 3.58730 +/- .01645

Egain

$= \frac{5.78}{307.5} \times 8000$

$= 150.4$ MeV.

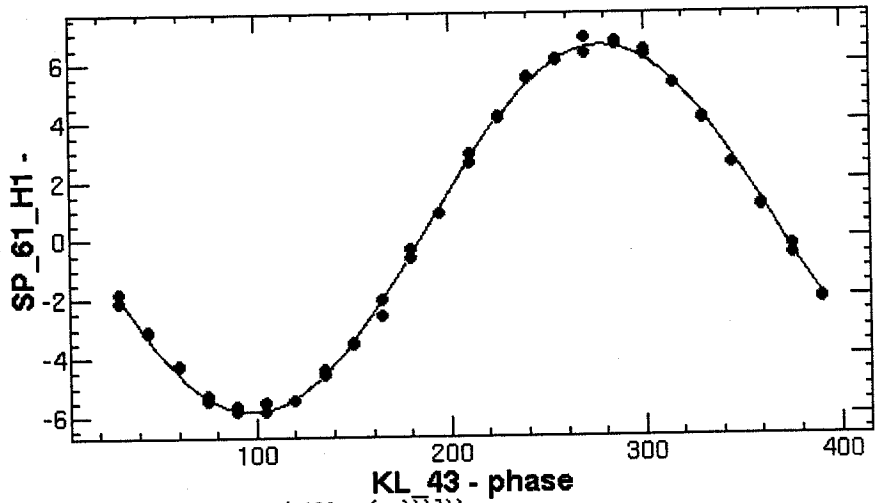


Function = (d+(a Cos[(.0174532925 (-180+x+(-c)))]))

File Edit Window 04/11/2007 17:00:00 Help

ChiSquare = 1.65904 Goodness = .47256

a = 6.21206 +/- .03815 c = 98.0805 +/- .34226 d = .36656 +/- .02661



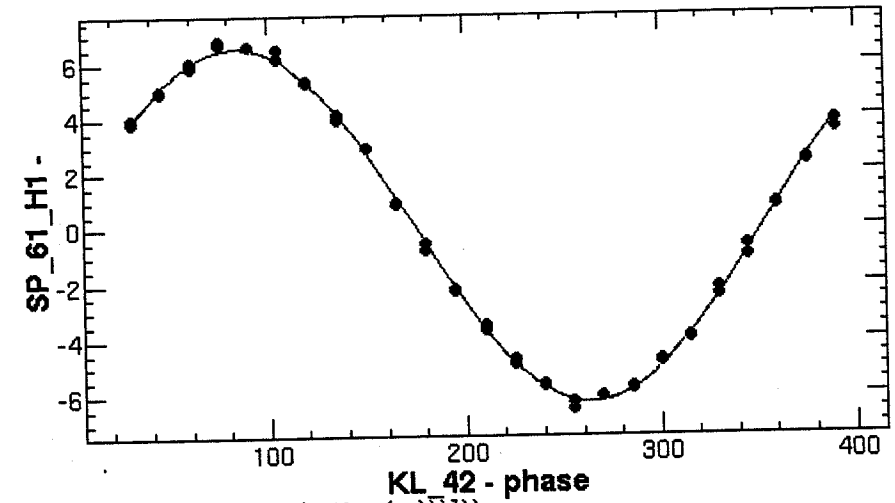
Function = (d+(a Cos[(.0174532925 (-180+x+(-c))]))

Egain
$= \frac{6.21}{307.5} \times 8000$
$= 161.6$ MeV

e Edit Window 04/11/2007 17:12:39 Help

ChiSquare = 1.43954 Goodness = .47256

a=6.41222 +/- .03526 c = 263.865 +/- .31158 d = .14367 +/- .02479



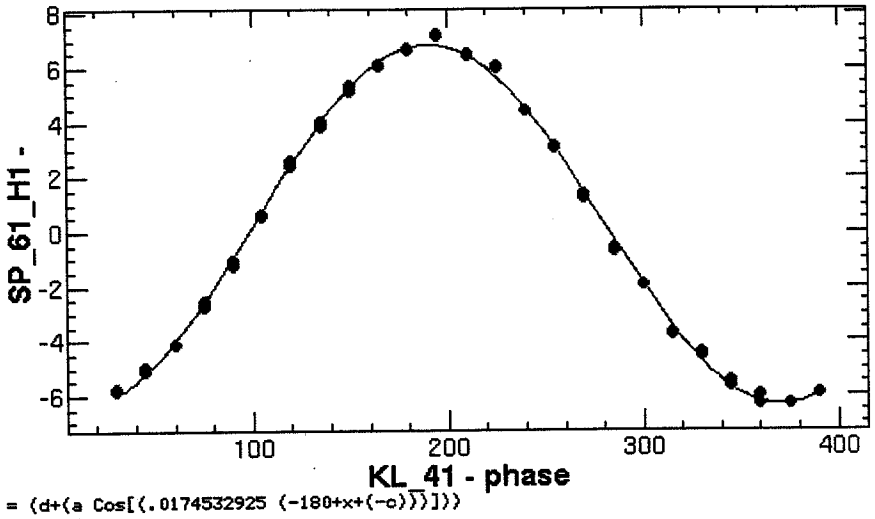
on = (d+(a Cos[(.0174532925 (-180+x+(-c))]))

Egain
$= \frac{6.41}{307.5} \times 8000$
$= 166.8$ MeV

Egain
$= \frac{6.59}{307.5} \times 8000$
$= 171.4$ MeV

File Edit Window 04/11/2007 17:23:51 Help

ChiSquare = 1.72795 Goodness = .47256
a = -6.5942 +/- .03783 c = 190.496 +/- .33867 d = .25403 +/- .02716



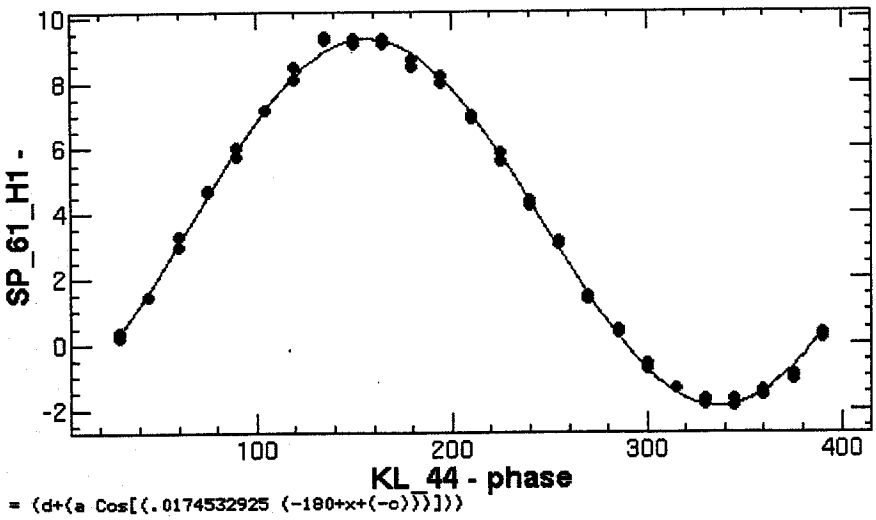
Function = (d+(a Cos[(.0174532925 (-180+x+(-c)))]))

trig get KL_44 6600 ns
- sp 177 ns
- phase 2750 ns
- delay 2379 ns
- width 3227 ns

Egain
$= \frac{5.62}{307.5} \times 8000$
$= 146.2$ MeV

File Edit Window 04/11/2007 17:39:23 Help

ChiSquare = 1.52453 Goodness = .47256
a = -5.6177 +/- .03627 c = 156.855 +/- .36594 d = 3.70710 +/- .02551



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

47

1:45 ~~Beg~~ ARビームに戻す。

Crest phase をとる。

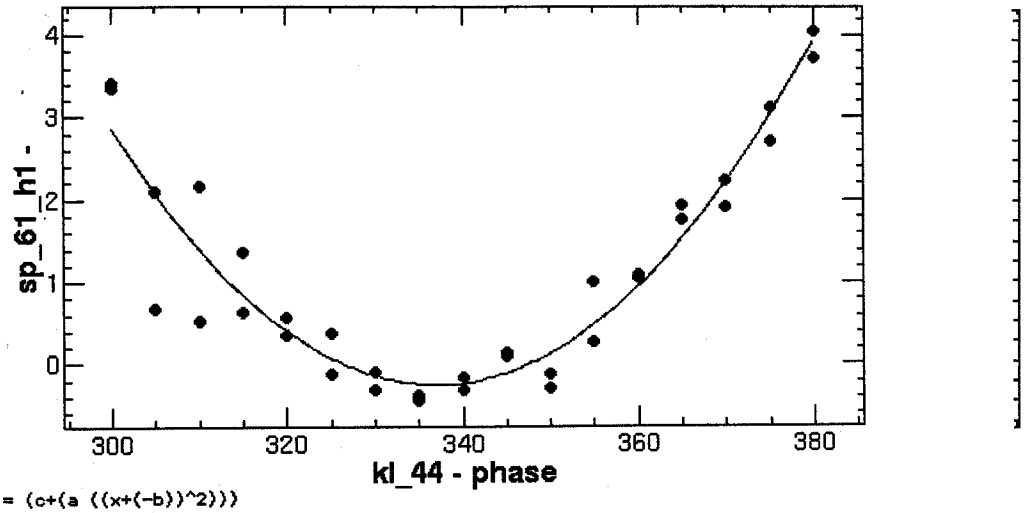
KL-44 377° $\xrightarrow{-180°}$ 197° ✗

File Edit Window 04/11/2007 18:19:48 Help Help

iSquare = 5.59510 Goodness = .46621

= .00227 +/- 1.36E-4 b = 337.011 +/- .67978 c = -.25462 +/- .10906 40

※ Esが下がっていた。



notion = (c+(a ((x+(-b))^2)))

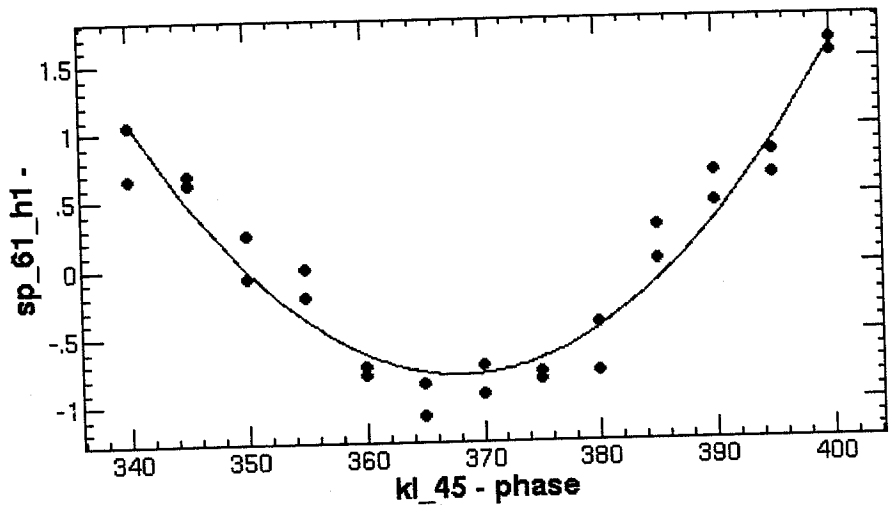
kl 44vssp_61_h1 on lcg3:0.0

KL-44, 45 Standby

knobでエネルギーを変えて、ビームスポットがスクリーン中央へセット。

File Edit Window 04/11/2007 18:52:06 Help

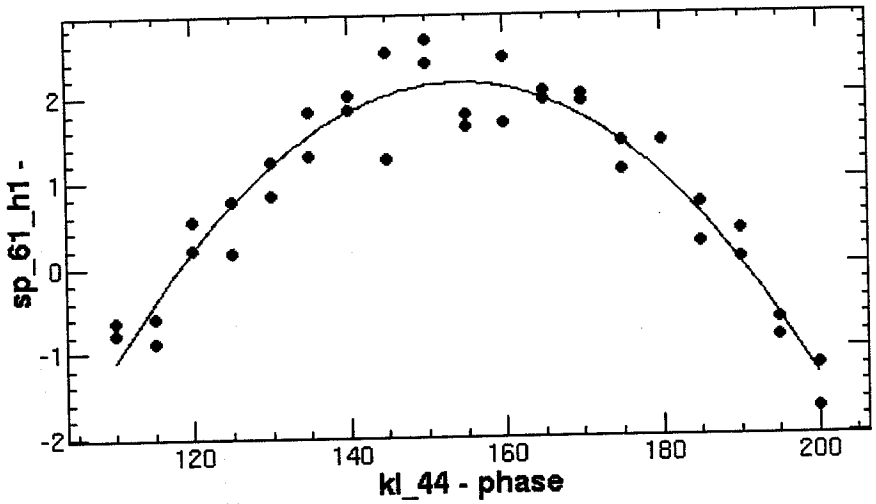
ChiSquare = 1.17850 Goodness = .46077
a = .00236 +/- 1.43E-4 b = 368.154 +/- .51488 c = -.78960 +/- .06670



Function = (c+(a ((x+(-b))^2)))

File Edit Window 04/11/2007 19:13:53 Help

ChiSquare = 4.26426 Goodness = .46820
a = -.00166 +/- 8.48E-5 b = 154.254 +/- .62505 c = 2.14455 +/- .08511



Function = (c+(a ((x+(-b))^2)))

KL 44 154.3°
KL 45 368.2°

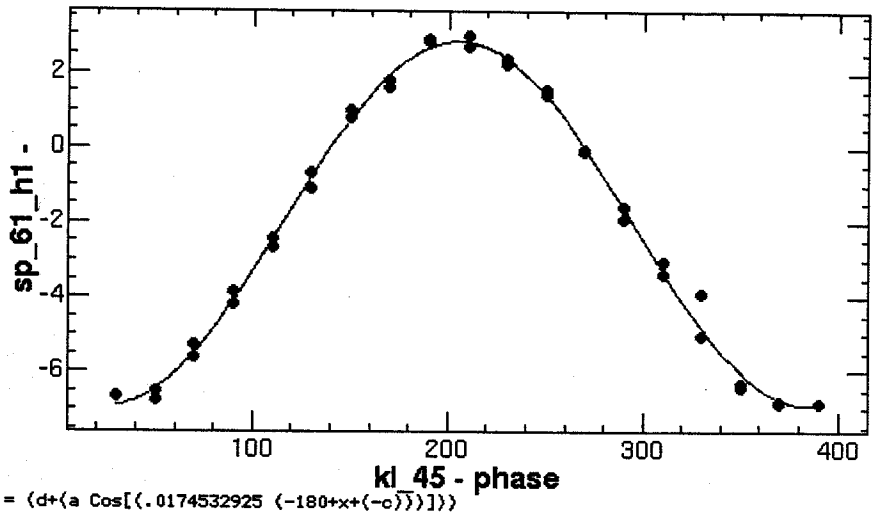
HE gain) = 0.972
L(Power) = 0.945
Es (45) = 42.0 kV → 39.7 kV

20:26 kL-45 の Es を 42.0 kV → 40.0 kV に下げる

File Edit Window 04/11/2007 20:53:52 Help

ChiSquare = 2.18818 Goodness = .46820
a = -4.8657 +/- .05608 c = 205.140 +/- .69374 d = -2.0449 +/- .04067

Es = 40 kV

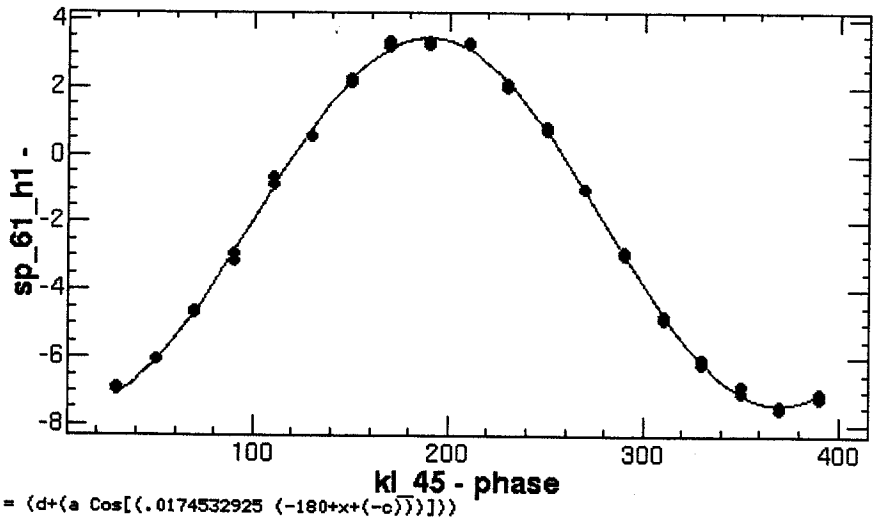


Function = (d+(a Cos[(.0174532925 (-180+x+(-c)))]))

File Edit Window 04/11/2007 21:24:58 Help

ChiSquare = .70454 Goodness = .46820
a = -5.4266 +/- .03201 c = 189.712 +/- .35106 d = -1.9697 +/- .02308

Es = 41.5 kV



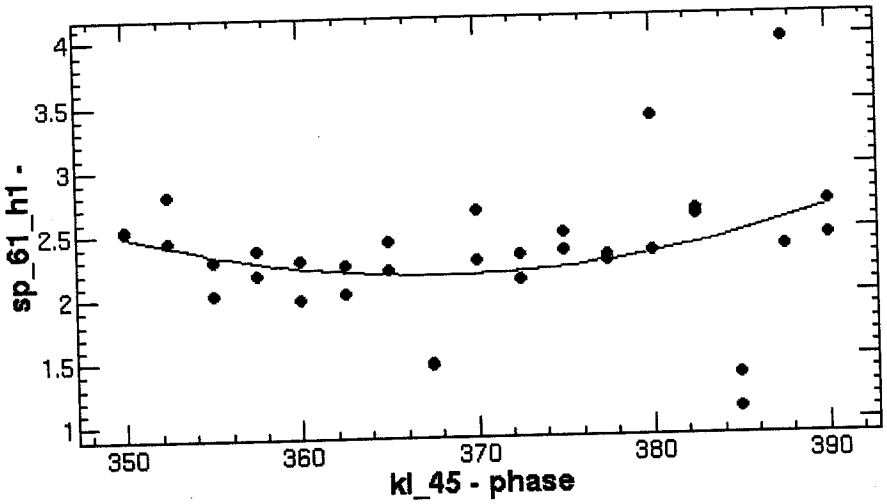
Function = (d+(a Cos[(.0174532925 (-180+x+(-c)))]))

KL.45 Es=41.9 KV にセット。

±2.6mm
4-9-9 STDBP
+3.7mm

File Edit Window 04/11/2007 21:35:01 Help

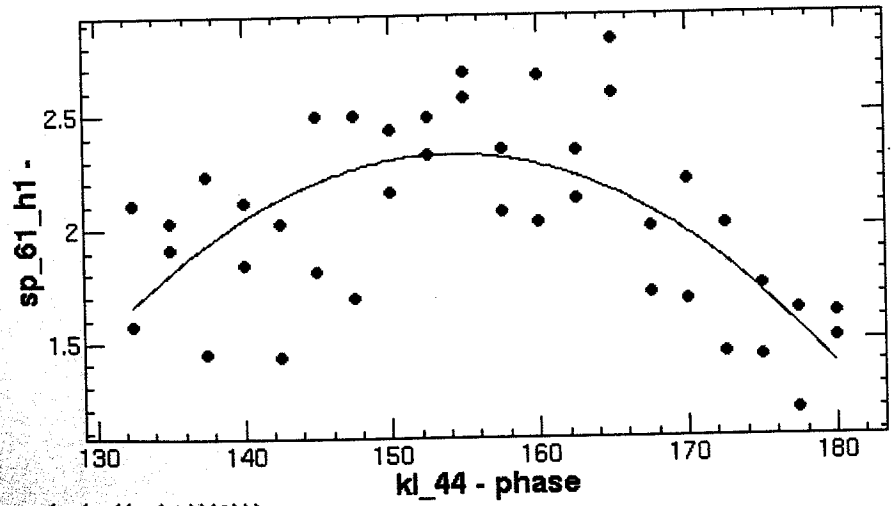
ChiSquare = 8.23517 Goodness = .46621
a = .00102 +/- 6.62E-4 b = 367.809 +/- 3.82194 c = 2.16697 +/- .13157



Funotion = (c+(a ((x+(-b))^2)))

File Edit Window 04/11/2007 21:45:30 Help

ChiSquare = 3.66662 Goodness = .46907
a = -.00140 +/- 2.69E-4 b = 154.198 +/- 1.29050 c = 2.32227 +/- .07432



Function = (c+(a ((x+(-b))^2)))

KL.45 Es=40.0 にセット。 380°。