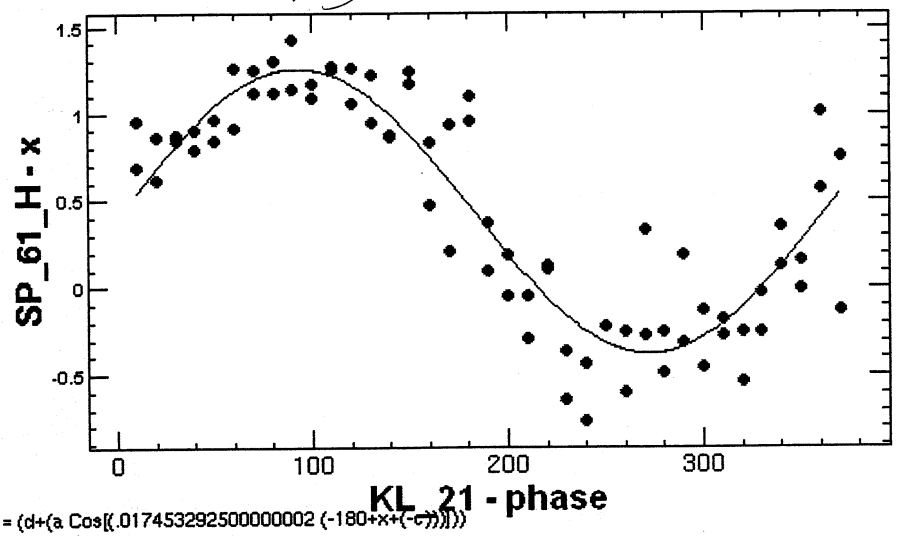
File Edit Window 12/21/2010 22:34:10 Help

ChiSquare = 4.86495 Goodness = .47768

a = .81747 +/- .04361 c = -1167.5 +/- 2.98098 d = .43852 +/- .03045

$E_s = 35.0$ MeV

273.5°



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

KL_21vsSP_61_H on 172.19.66.32:3.0

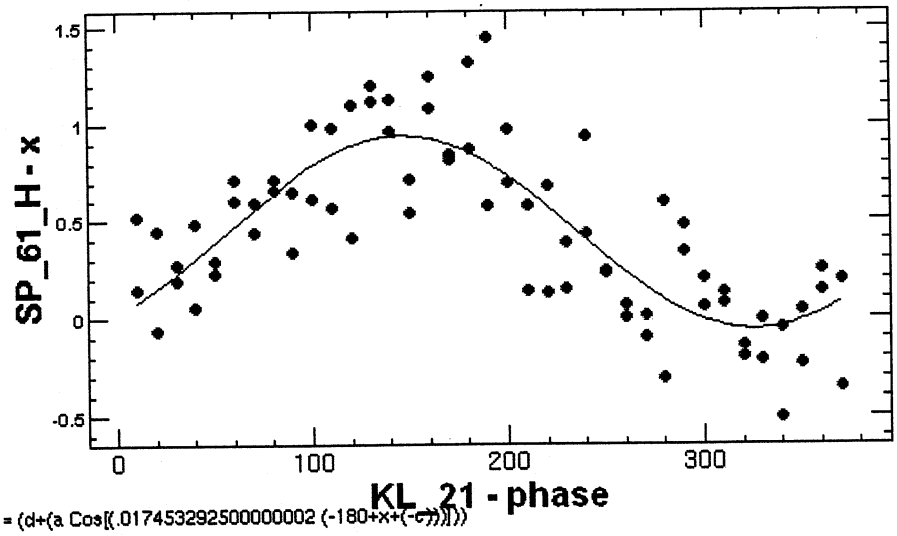
File Edit Window 12/21/2010 22:25:23 Help

ChiSquare = 4.80360 Goodness = .47768

a = -.49752 +/- .04278 c = 145.714 +/- 4.93042 d = .44007 +/- .03026

$E_s = 30.0$ MeV

325.7°



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

KL_21vsSP_61_H on 172.19.66.32:3.0

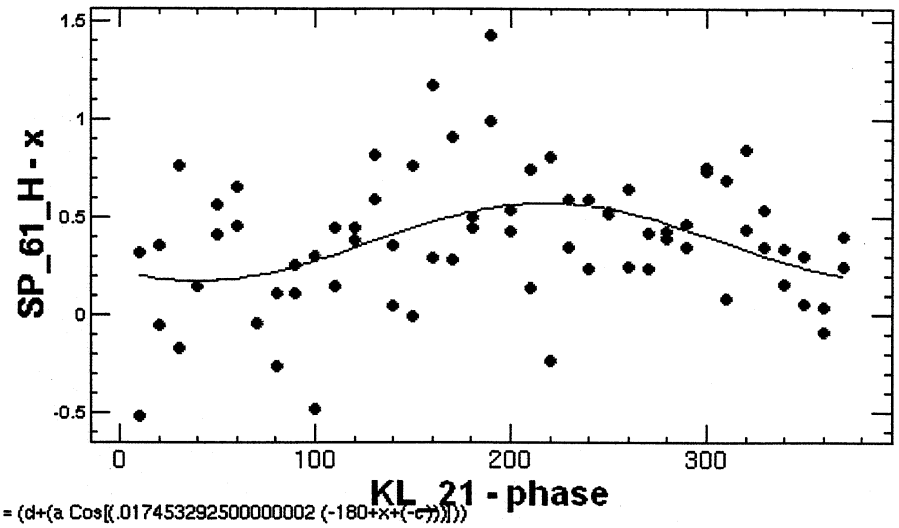
File Edit Window 12/21/2010 22:46:16 Help

ChiSquare = 7.31185 Goodness = .47768

a = -.20025 +/- .05242 c = 218.969 +/- 15.2225 d = .37513 +/- .03733

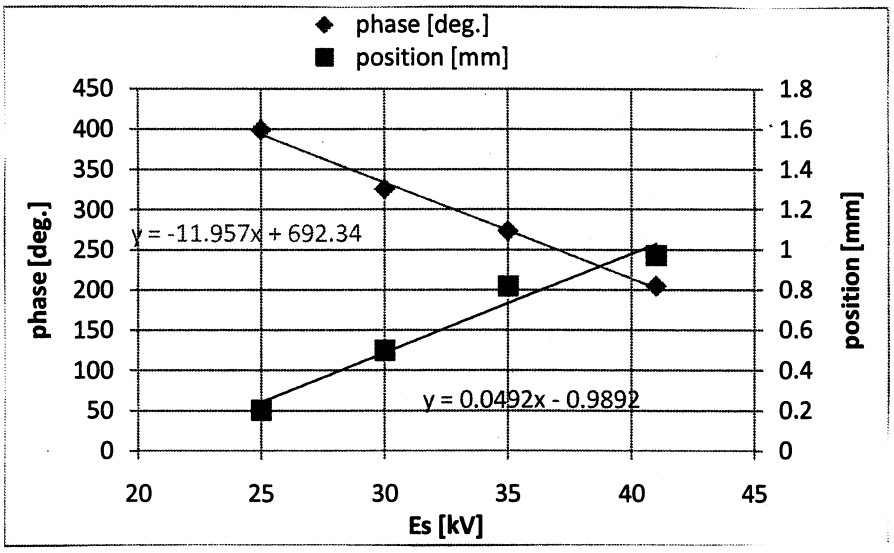
$E_S = 25.0$ kV

399.0°



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

KL_21vsSP_61_H on 172.19.66.32:3.0



position	Es	ph
1	40.4	208.9
0.75	35.3	269.7
0.5	30.3	330.4
0.25	25.2	391.2

208.9 − 165.1 = 43.8

~~343.9 − 208.9~~

	Facc (mm)	Es (KLY 18)	φ (KLY 18)	Es (KLY 21)	φ (KLY 21)	
①	1.6	39.4	165.1	40.4	208.9	Δφ ⇒ 43.8°
②	1.2	34.6	224.4	35.3	269.7	⇒ 45.3°
③	0.8	29.7	283.8	30.3	330.4	⇒ 46.6°
	0.4					
④	1.4	37.0	194.8	37.9	239.3	⇒ 44.5°
⑤	1.5	38.2	179.9	39.2	224.1	⇒ 44.2°
⑥	1.3	35.8	209.6	36.6	254.5	⇒ 44.9°
⑦	1.0	32.1	254.1	32.8	300.0	⇒ 45.9°

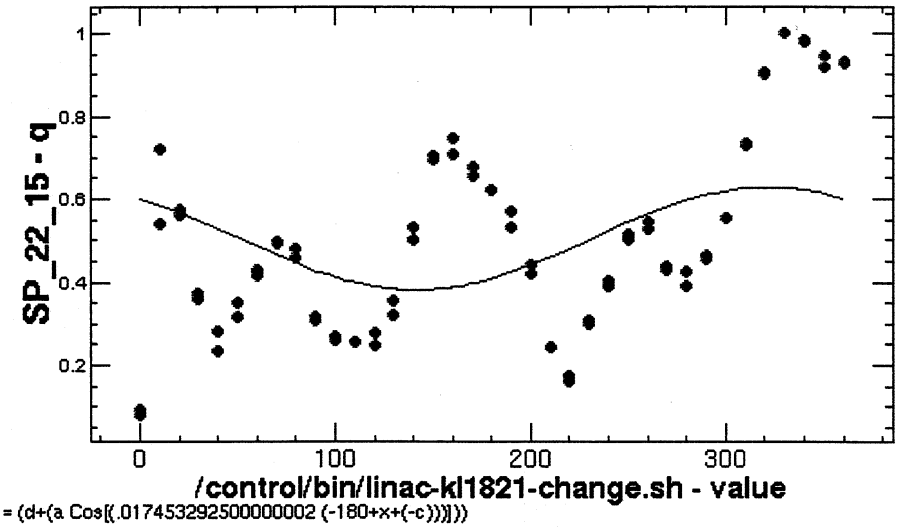
1-8			2-1			
	Es	Ph		Es	Ph	Δph
1.6	39.4	165.1	1	40.4	208.9	43.8
1.5	38.2	179.9	0.9375	39.2	224.1	44.2
1.4	37.0	194.8	0.875	37.9	239.3	44.5
1.3	35.8	209.6	0.8125	36.6	254.5	44.9
1.2	34.6	224.4	0.75	35.3	269.7	45.2
1	32.1	254.1	0.625	32.8	300.0	45.9
0.8	29.7	283.8	0.5	30.3	330.4	46.6
0.4	24.9	343.2	0.25	25.2	391.2	48.0

File Edit Window 12/21/2010 23:13:43 Help

ChiSquare = 3.44760 Goodness = .47768

a = .12354 +/- .03615 c = 141.208 +/- 16.8702 d = .50468 +/- .02563

① Yet_max = 1.00 nC



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

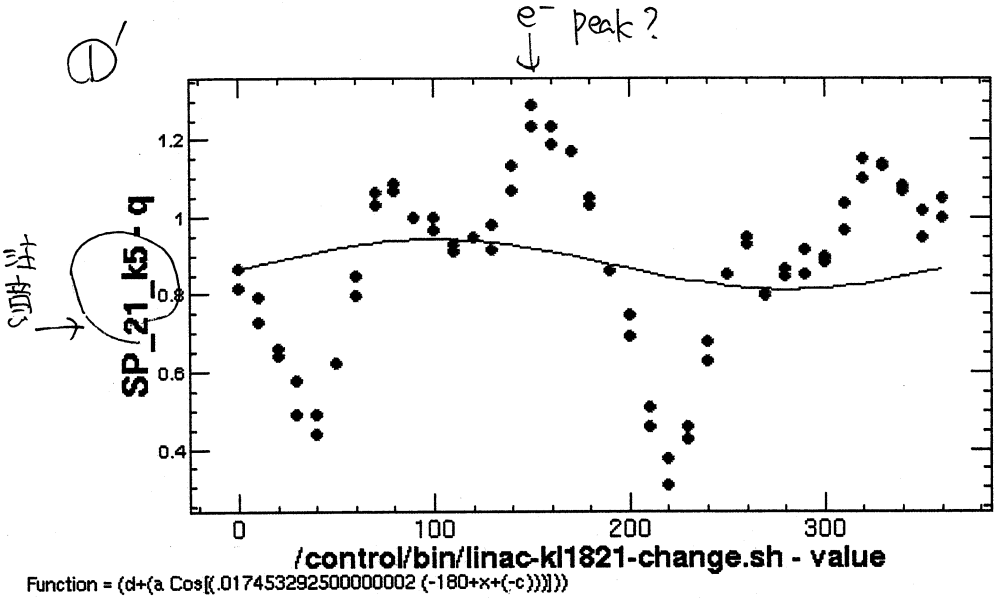
/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

Ye+
1.00
0.546
0.144

0.886
0.973
0.722
0.249

File Edit Window 12/21/2010 23:17:29 Help

ChiSquare = 3.65516 Goodness = .47768
a = -.06532 +/- .03779 c = 99.9885 +/- 32.8832 d = .87852 +/- .02639

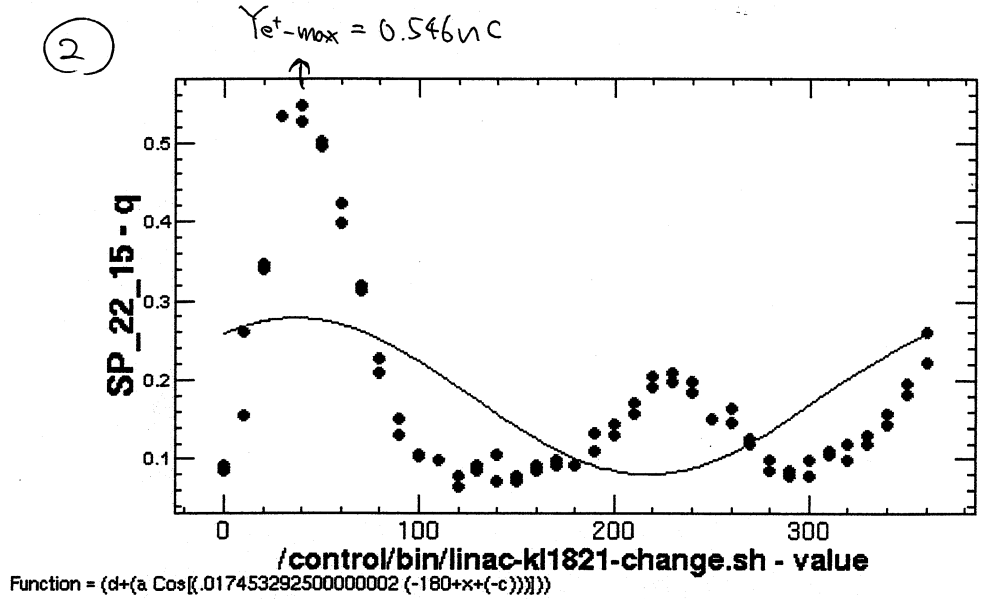


Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

/control/bin/linac-kl1821-change.shvsSP_21_k5 on 172.19.66.32:3.0

File Edit Window 12/21/2010 23:25:49 Help

ChiSquare = .83254 Goodness = .47768
a = .09885 +/- .01775 c = 216.747 +/- 10.3673 d = .17945 +/- .01260



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

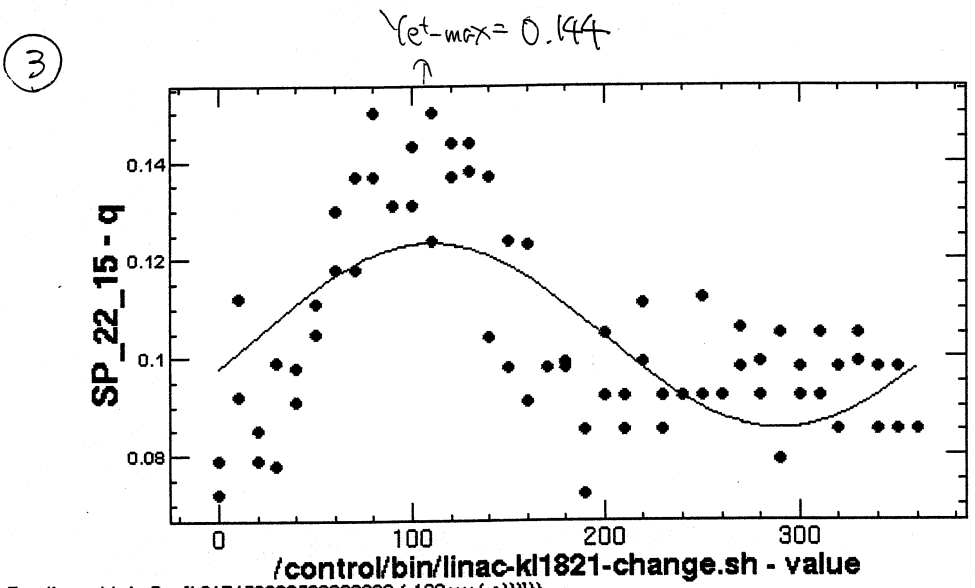
/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

File Edit Window 12/21/2010 23:31:56 Help

ChiSquare = .01642 Goodness = .47768

a = -.01901 +/- .00253 c = 109.443 +/- 7.46257 d = .10440 +/- .00177

(3)



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

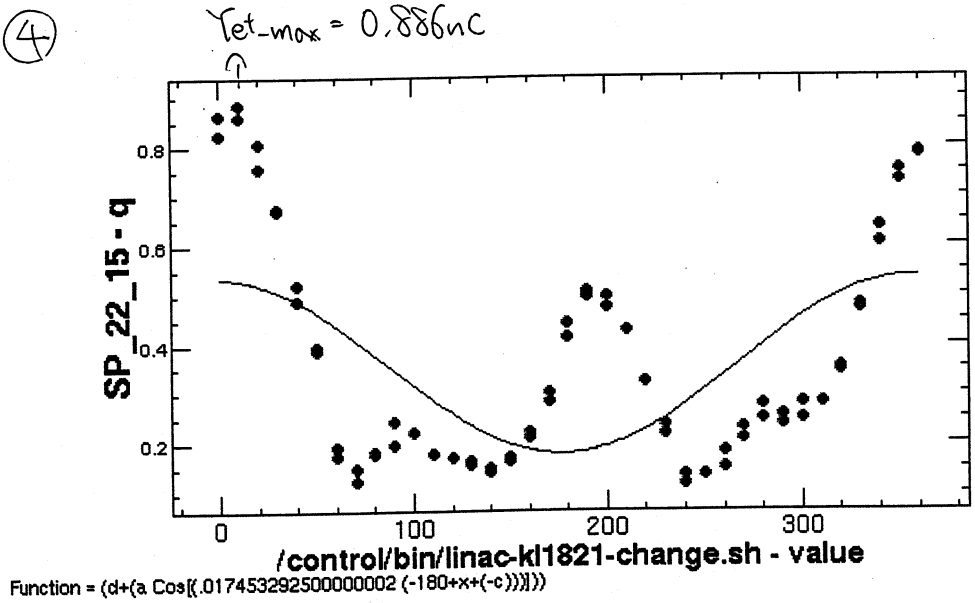
/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

File Edit Window 12/21/2010 23:38:16 Help

ChiSquare = 2.47315 Goodness = .47768

a = .17766 +/- .03030 c = 176.972 +/- 10.0442 d = .35765 +/- .02171

(4)



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

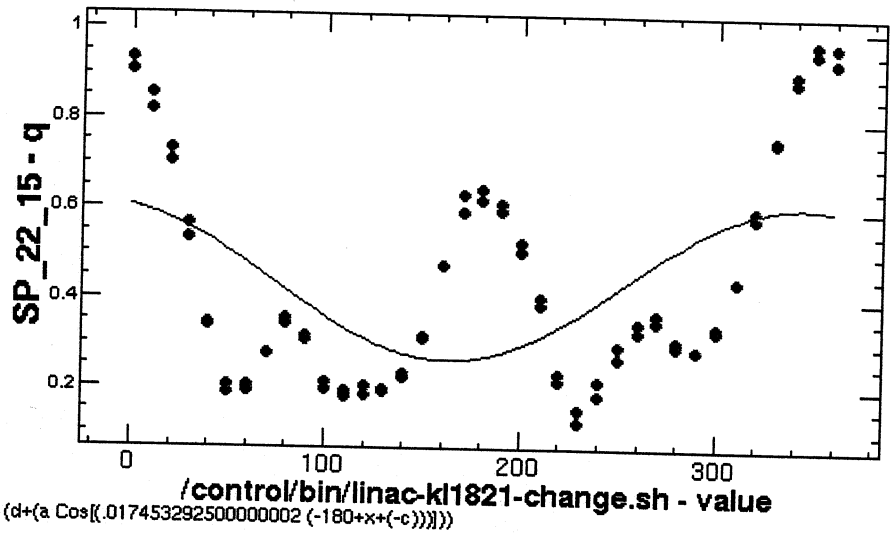
/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

File Edit Window 12/21/2010 23:44:03 Help

ChiSquare = 3.31464 Goodness = .47768

a = .17448 +/- .03515 c = 163.343 +/- 11.8011 d = .43623 +/- .02514

(5)



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

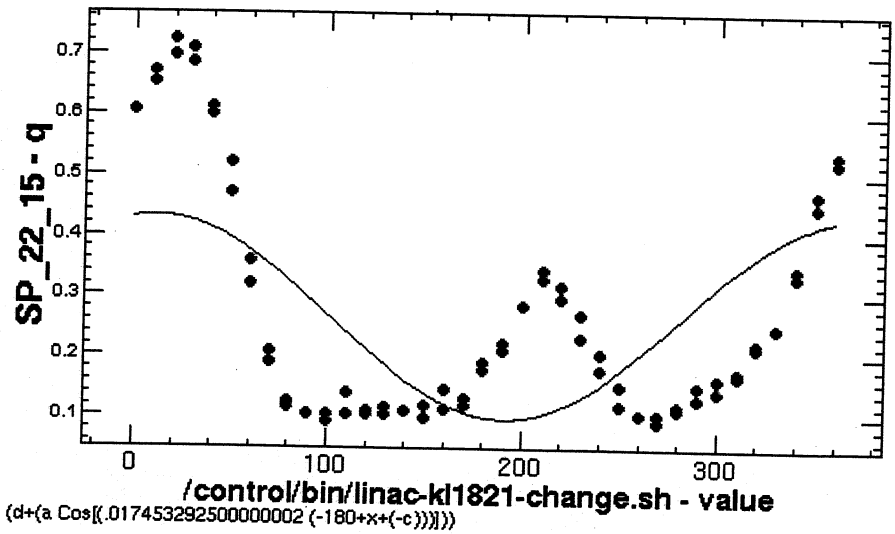
/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

File Edit Window 12/21/2010 23:49:00 Help

ChiSquare = 1.59972 Goodness = .47768

a = .16784 +/- .02439 c = 191.504 +/- 8.53161 d = .26368 +/- .01746

(6)



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

/control/bin/linac-kl1821-change.shvsSP_22_15 on 172.19.66.32:3.0

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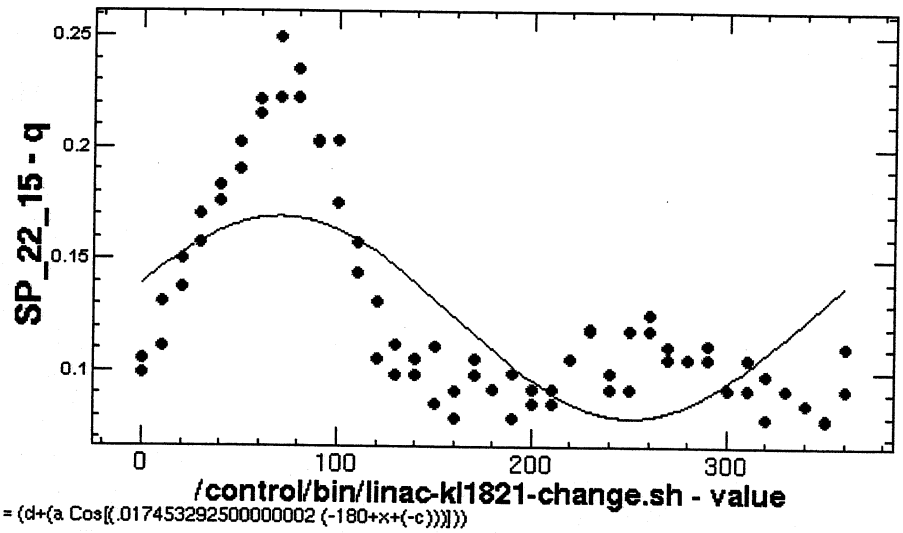
File Edit Window 12/21/2010 23:57:50 Help

ChiSquare = .07604 Goodness = .47768

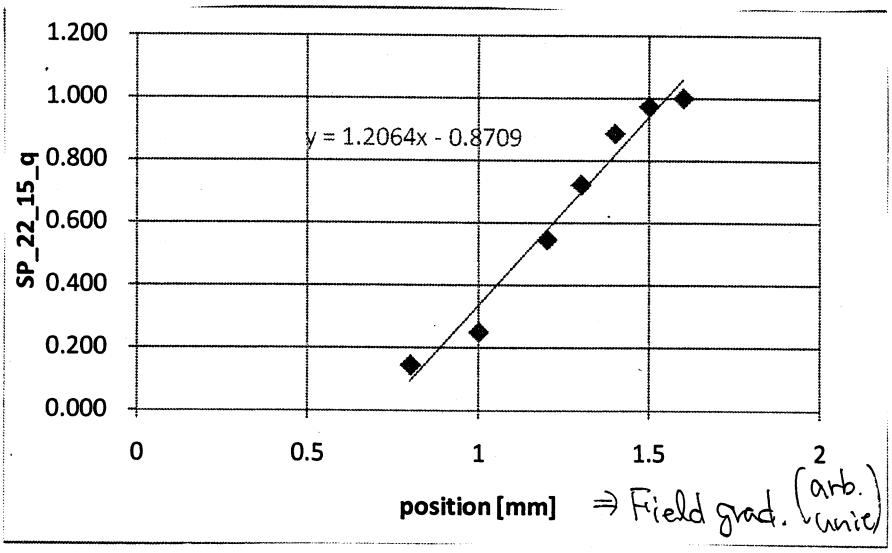
a = .04492 +/- .00544 c = 250.623 +/- 6.79640 d = .12391 +/- .00381

(7)



Function = (d+(a Cos[(.017453292500000002 (-180+x+(-c)))]))

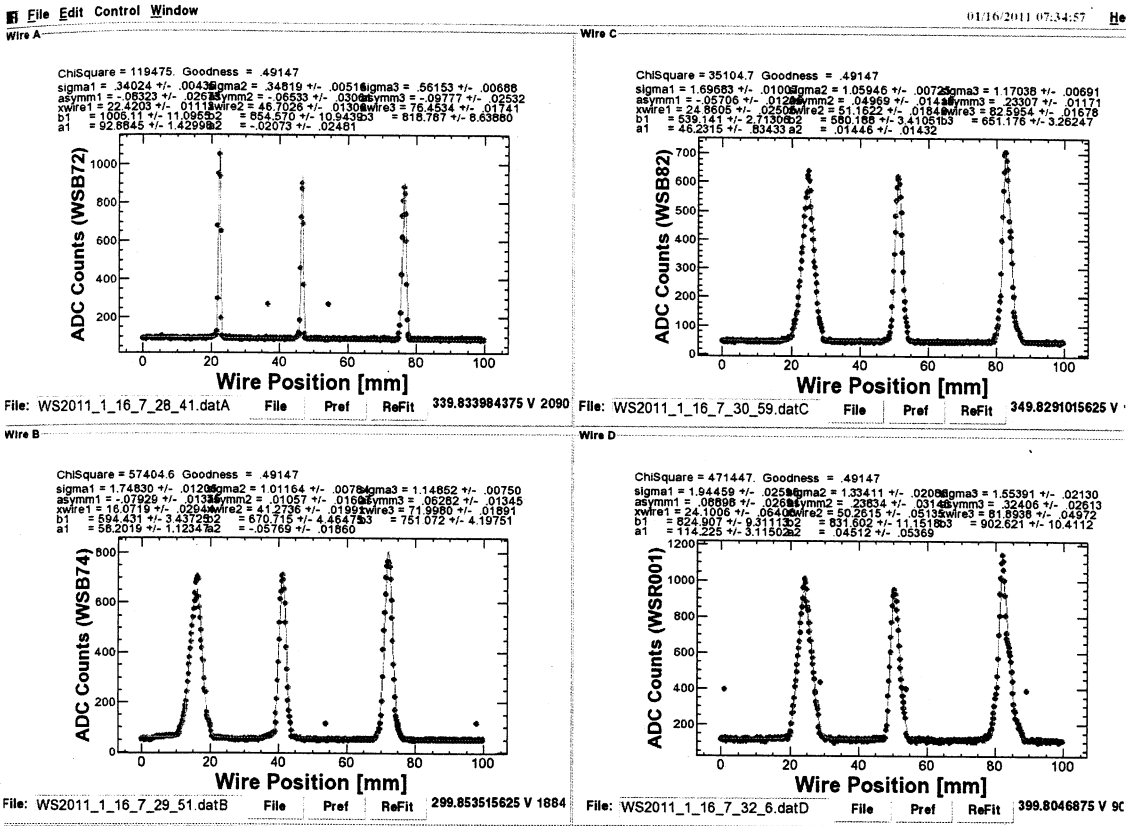
/control/bin/linac-kl1821-change.shvsSP 22 15 on 172.19.66.32:3.0



⇒ Field grad. (arb. units)

2011. 1. 16 Cミフト
8GeV ビーム 770
5nC でのエミッタンス測定

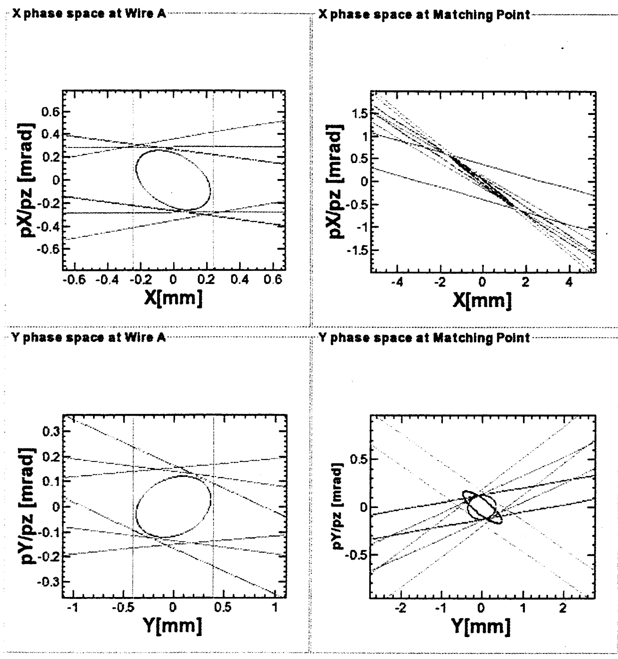
File Edit Control Window 01/16/2011 07:34:57 He



Main Application Area

File Edit Window 01/16/2011 07:35:11 Help

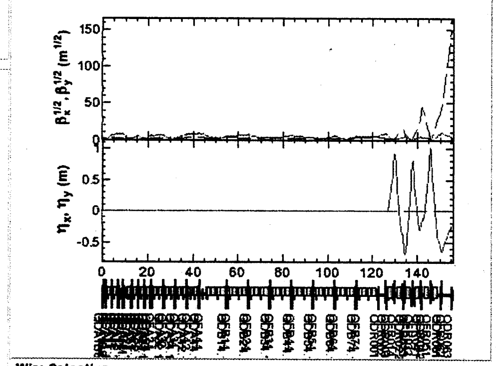
Wire Scan | Optics Calculate | Matching



Results of Measurement

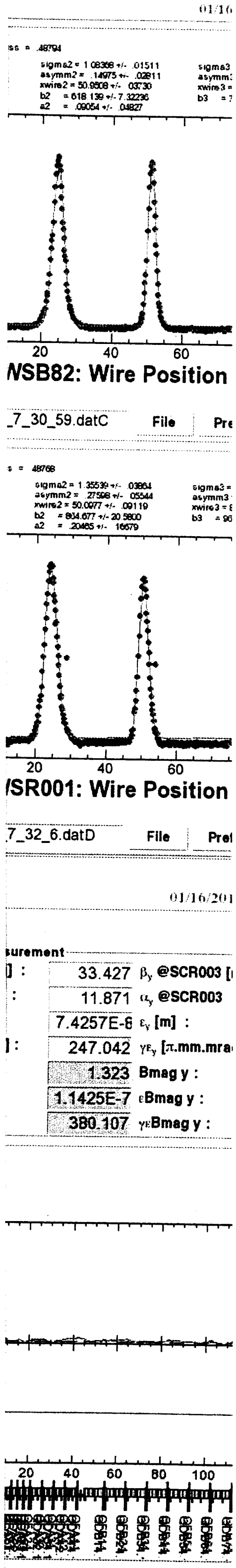
β_x @SCR003 [m] :	40.206	β_y @SCR003 [m] :	2.787
α_x @SCR003 :	14.731	α_y @SCR003 :	-.067
ε_x [m] :	5.3663E-8	ε_y [m] :	4.3392E-8
$\gamma\varepsilon_x$ [π.mm.mrad] :	178.526	$\gamma\varepsilon_y$ [π.mm.mrad] :	144.357
Bmag x :	1.111	Bmag y :	1.965
εBmag x :	5.9618E-8	εBmag y :	8.5243E-8
$\gamma\varepsilon$Bmag x :	198.339	$\gamma\varepsilon$Bmag y :	283.589

Optics Plot



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

All informations are SAVEd to /ldata1/KEKB/Wire/LINAC/sectorB/electron/data/MatchResult/WSLB_2011_1_16_7_34_6



	33.427	β_y @SCR003	
	11.871	α_y @SCR003	
	7.4257E-8	ε_y [m] :	
	247.042	$\gamma\varepsilon_y$ [π.mm.mrad]	
	1.323	Bmag y :	
	1.1425E-7	εBmag y :	
	380.107	$\gamma\varepsilon$Bmag y :	

3-wire:ABD 3-wire:ACD
Err(meas), nσ n: 0 Err(opt) (%
Calculate Optics* Save All Para

2011/01/16 C shift (B-Sec) e- 10Hz (1st) 熊野 (3nC)

All informations are SAVEd to /ldata1/KEKB/Wire/LINAC/sectorB/electron/data/MatchResul2/WSLB_2011_1_16_7_50_27

2011/01/16 C shift (B-Sec) e- 10Hz (2nd) 熊野 (3nC)

2011.1.16 Cシフト 8GeVビーム

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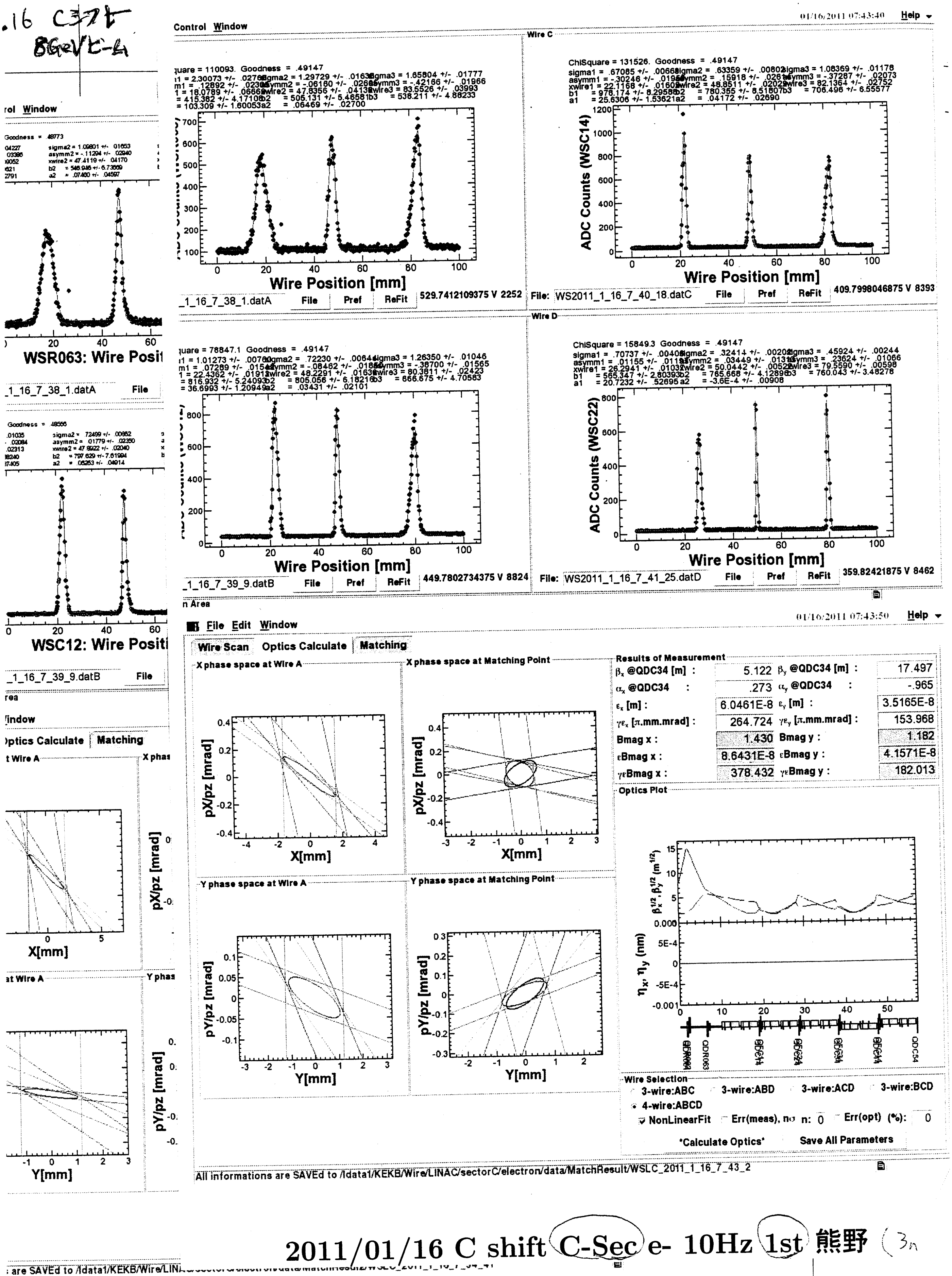
3nC



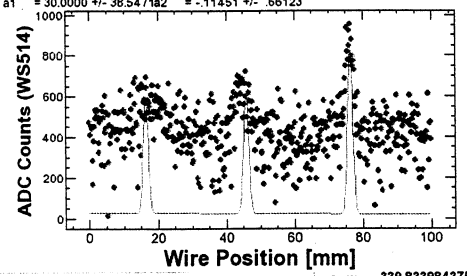
2011/01/16 C shift C-Sec e- 10Hz 1st 熊野 (3n

2011/01/16 C shift C-Sec e- 10Hz 2nd 熊野 (3nC)

File Edit Control Window 01/16/2011 06:01:56 He

re A

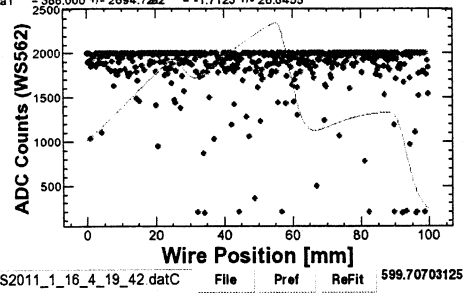
ChiSquare = 8.126E7 Goodness = .49147
sigma1 = .72210 +/- .24[illegible] sigma2 = .74302 +/- .23086 sigma3 = .74646 +/- .17540
asymm1 = .01114 +/- .71[illegible] asymm2 = -.03272 +/- .68[illegible] asymm3 = -.01360 +/- .52014
xwire1 = 16.3932 +/- .61[illegible] xwire2 = 45.8105 +/- .58[illegible] xwire3 = 76.2017 +/- .44592
b1 = 578.475 +/- 202.16 b2 = 596.264 +/- 201.54 b3 = 841.051 +/- 201.898
a1 = 30.0000 +/- 38.5471 a2 = -.11451 +/- .66123



ile: WS2011_1_16_3_54_16.datA File Pref ReFit 339.833984375 V 3121

Wire C

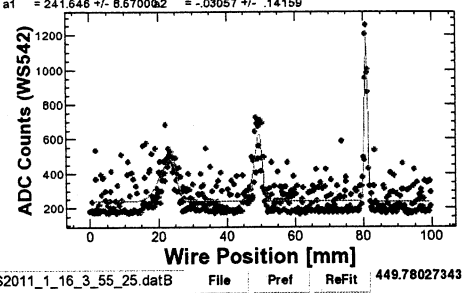
ChiSquare = 2.107E8 Goodness = .49147
sigma1 = 11.9506 +/- 21.93[illegible] sigma2 = 16.6221 +/- 24.15[illegible] sigma3 = 17.1407 +/- 20.2378
asymm1 = -.71640 +/- .62[illegible] asymm2 = -.77790 +/- .30[illegible] asymm3 = -.76421 +/- .27078
xwire1 = 24.4732 +/- 4.51[illegible] xwire2 = 54.8000 +/- 1.71[illegible] xwire3 = 89.0000 +/- 2.62519
b1 = 494.407 +/- 336.16 b2 = 1482.67 +/- 310.50 b3 = 1094.01 +/- 506.366
a1 = 386.000 +/- 2694.72 a2 = -1.7123 +/- 26.6455



File: WS2011_1_16_4_19_42.datC File Pref ReFit 599.70703125 V 27

re B

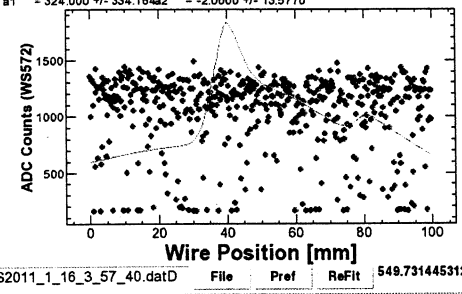
ChiSquare = 3386006 Goodness = .49147
sigma1 = 2.37061 +/- .271[illegible] sigma2 = 1.13351 +/- .1097[illegible] sigma3 = .46520 +/- .02739
asymm1 = -.35551 +/- .212[illegible] asymm2 = -.29952 +/- .191[illegible] asymm3 = .12568 +/- .12104
xwire1 = 23.7233 +/- .61532 xwire2 = 49.5086 +/- .26572 xwire3 = 80.7604 +/- .06890
b1 = 238.563 +/- 22.6810 b2 = 389.725 +/- 32.3949 b3 = 997.464 +/- 50.5463
a1 = 241.646 +/- 8.67000 a2 = -.03057 +/- .14159



e: WS2011_1_16_3_55_25.datB File Pref ReFit 449.7802734375 V 2811

Wire D

ChiSquare = 1.060E8 Goodness = .49147
sigma1 = 20.0000 +/- 17.92[illegible] sigma2 = 20.0000 +/- 11.60[illegible] sigma3 = 20.0000 +/- 67.7281
asymm1 = .80000 +/- .10[illegible] asymm2 = -.78954 +/- .385[illegible] asymm3 = .80000 +/- .67715
xwire1 = 40.4000 +/- 4.61[illegible] xwire2 = 39.2000 +/- 7.69[illegible] xwire3 = 82.2000 +/- 3.55833
b1 = 1099.91 +/- 700.46 b2 = 499.750 +/- 436.900 b3 = 282.042 +/- 214.619
a1 = 324.000 +/- 334.164 a2 = -2.0000 +/- 13.5770



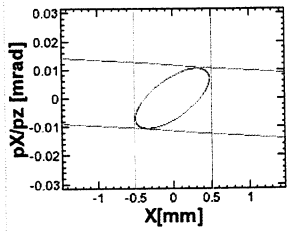
File: WS2011_1_16_3_57_40.datD File Pref ReFit 549.7314453125 V 2

tus Display

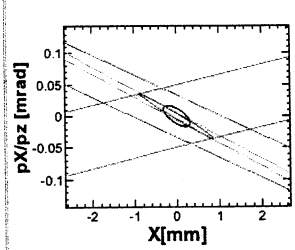
File Edit Window 01/16/2011 06:02:05 Help

Wire Scan | Optics Calculate | Matching

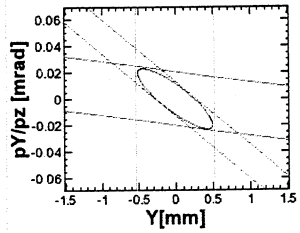
X phase space at Wire A



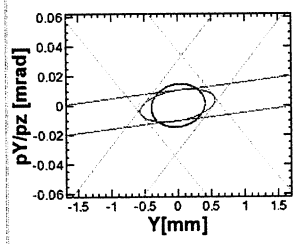
X phase space at Matching Point



Y phase space at Wire A



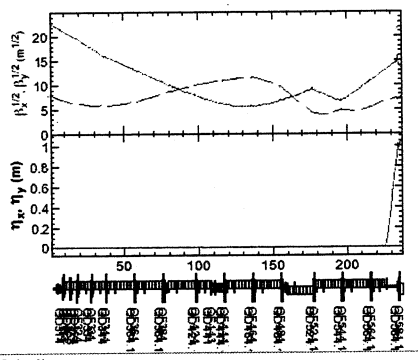
Y phase space at Matching Point



Results of Measurement

β_x @BM611E [m] :	201.481	β_y @BM611E [m] :	53.847
α_x @BM611E :	8.192	α_y @BM611E :	-.361
ε_x [m] :	3.8432E-9	ε_y [m] :	5.8576E-9
$\gamma\varepsilon_x$ [π.mm.mrad] :	60.167	$\gamma\varepsilon_y$ [π.mm.mrad] :	91.705
Bmag x :	4.126	Bmag y :	1.240
εBmag x :	1.5858E-8	εBmag y :	7.2642E-9
γεBmag x :	248.264	γεBmag y :	113.725

Optics Plot



Wire Selection
3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
4-wire:ABCD
NonLinearFit Err(meas), no n: 0 Err(opt) (%): 0
"Calculate Optics" Save All Parameters

Qmag values were SAVEd to /idata1/KEKB/Wire/LINAC/sector5/KEKBe/data/Qvalue/lqname_2011_1_16_3_53_54.dat0

2011/01/16 C shift (5-Sec) e- 10Hz (1st) 熊野 (3nC)