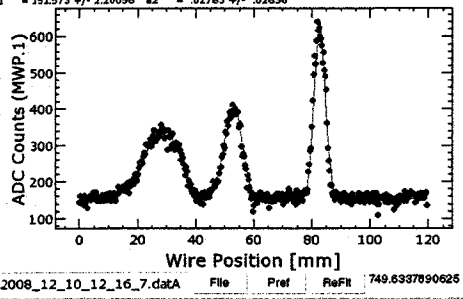
201

et

File Edit Control Window

Wire A

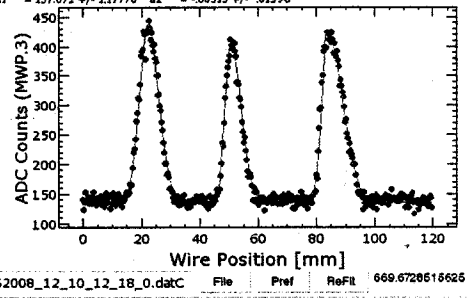
ChiSquare = 74616.7 Goodness = .49043
sigma1 = 6.10768 +/- .12951 sigma2 = 2.97133 +/- .05790 sigma3 = 1.93047 +/- .02381
asymm1 = -.15577 +/- .03665 asymm2 = -.15526 +/- .03844 asymm3 = .05364 +/- .02516
xwire1 = 29.2048 +/- .27172 xwire2 = 53.3166 +/- .13968 xwire3 = 82.4736 +/- .05946
b1 = 188.066 +/- 3.04015 b2 = 254.055 +/- 4.14804 b3 = 485.476 +/- 5.08990
a1 = 151.573 +/- 2.20056 a2 = .02783 +/- .02630



File: WS2008_12_10_12_16_7.datA File Pref ReFit 749.6337890625 V 4569

Wire C

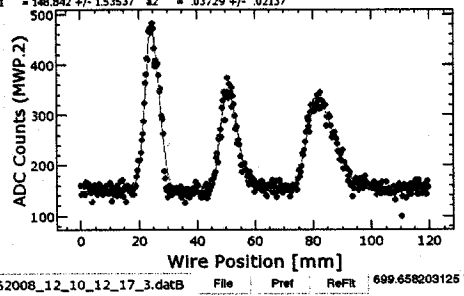
ChiSquare = 33906.0 Goodness = .49043
sigma1 = 3.26804 +/- .03528 sigma2 = 2.64923 +/- .03380 sigma3 = 3.47003 +/- .03719
asymm1 = .13795 +/- .02081 asymm2 = .27541 +/- .02490 asymm3 = .44995 +/- .01889
xwire1 = 22.0625 +/- .08322 xwire2 = 50.6123 +/- .08077 xwire3 = 83.6932 +/- .08020
b1 = 301.829 +/- 2.68945 b2 = 271.678 +/- 2.93766 b3 = 290.976 +/- 2.58014
a1 = 137.072 +/- 1.17770 a2 = -.00513 +/- .01596



File: WS2008_12_10_12_18_0.datC File Pref ReFit 669.6728515625 V 4013

Wire B

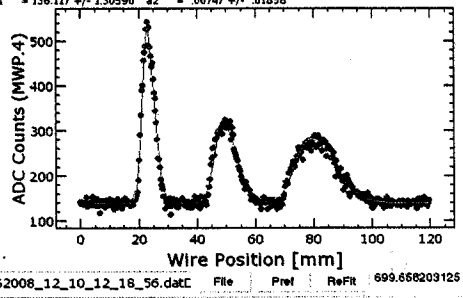
ChiSquare = 64948.0 Goodness = .49043
sigma1 = 2.41157 +/- .03799 sigma2 = 2.81192 +/- .06516 sigma3 = 4.57847 +/- .09744
asymm1 = .04507 +/- .03139 asymm2 = .14800 +/- .04644 asymm3 = .27927 +/- .03968
xwire1 = 24.4769 +/- .05270 xwire2 = 50.4926 +/- .15986 xwire3 = 81.1127 +/- .22206
b1 = 324.881 +/- 4.28576 b2 = 201.422 +/- 3.94774 b3 = 179.735 +/- 3.12889
a1 = 148.842 +/- 1.53537 a2 = .03729 +/- .02137



File: WS2008_12_10_12_17_3.datB File Pref ReFit 699.658203125 V 4180

Wire D

ChiSquare = 45543.6 Goodness = .49043
sigma1 = 2.09131 +/- .02450 sigma2 = 3.70478 +/- .06890 sigma3 = 6.79996 +/- .13227
asymm1 = .25096 +/- .02270 asymm2 = .24902 +/- .03582 asymm3 = .21714 +/- .03467
xwire1 = 22.6540 +/- .05813 xwire2 = 48.6227 +/- .16231 xwire3 = 79.0017 +/- .28825
b1 = 391.454 +/- 3.85296 b2 = 186.813 +/- 2.90503 b3 = 143.994 +/- 2.19675
a1 = 136.117 +/- 1.30590 a2 = .00747 +/- .01858



File: WS2008_12_10_12_18_56.datD File Pref ReFit 699.658203125 V 4104

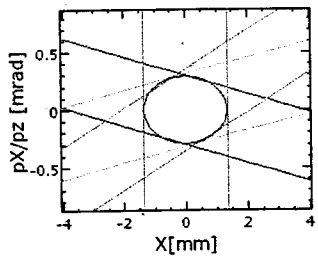
Select Matching zone on localhost:12.0

File Edit Window

12/10 2008 12:25:59 Help

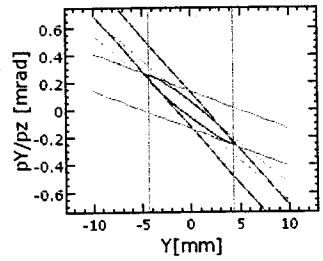
Wire Scan | Optics Calculate | Matching

X phase space at Wire A



X phase space at Matching Point

Y phase space at Wire A

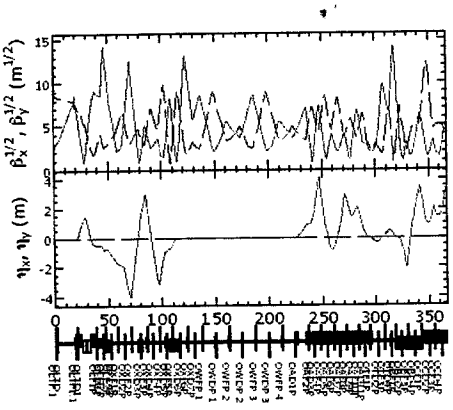


Y phase space at Matching Point

Results of Measurement

β_x @MWP.1 [m] :	4.636	β_y @MWP.1 [m] :	73.391
α_x @MWP.1 :	.008	α_y @MWP.1 :	4.102
ε_x [m] :	3.9320E-7	ε_y [m] :	2.5163E-7
$\gamma\varepsilon_x$ [π.mm.mrad] :	2550.334	$\gamma\varepsilon_y$ [π.mm.mrad] :	1632.072
Bmag x :	1.269	Bmag y :	1.255
εBmag x :	4.9900E-7	εBmag y :	3.1574E-7
γεBmag x :	3236.568	γεBmag y :	2047.944

Optics Plot



Wire Selection

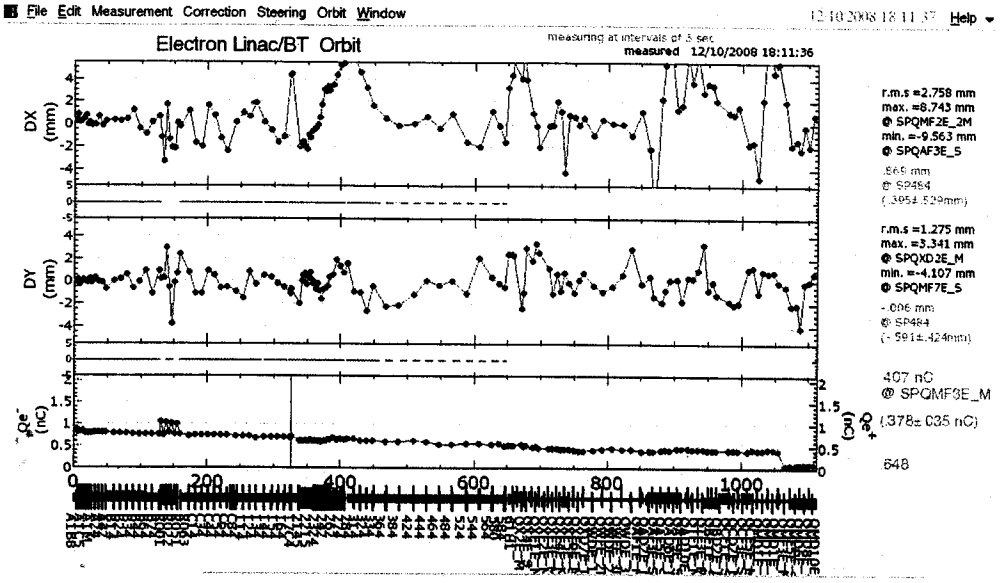
3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD

• 4-wire:ABCD

✓ NonLinearFit Err(meas), nσ n: 0 Err(opt) (%): 0

Calculate Optics Save All Parameters

Qmag values were SAVEd to '/data1/KEKB/Wire/BTin/positron/data/Qvalue/lqname_2008_12_10_12_15_14.dat0



BT Study save

Q
S
BTe12_10-2008_18:19:05
19:06

BT_S >95 で Alarm
Wire Scanner 測定時 (25Hz)

203

e⁻ | QM 54

20:00:59
19:59:33

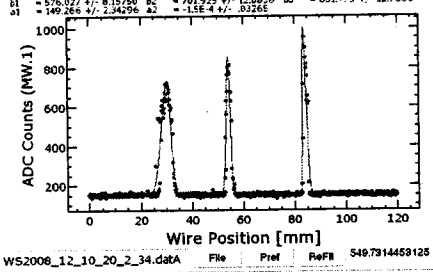
1-Save Matching

File Edit Control Window

12/10/2008 20:07:18 Help

Wire A

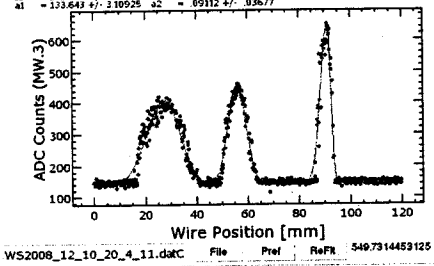
ChiSquare = 646463. Goodness = .49307
sigma1 = 3.82011 +/- .03035 sigma2 = .81862 +/- .01635 sigma3 = .73538 +/- .01280
asymm1 = -.22239 +/- .03310 asymm2 = .06986 +/- .04156 asymm3 = .60648 +/- .02839
xwire1 = 30.4570 +/- .07378 xwire2 = 54.2177 +/- .04167 xwire3 = 83.4779 +/- .02549
b1 = 576.027 +/- 8.15750 b2 = 701.935 +/- 15.0836 b3 = 851.779 +/- 12.7666
a1 = 149.266 +/- 2.34296 a2 = -.15E-4 +/- .03265



File: WS2008_12_10_20_2_34.datA File Pref ReFit 549.7314453125 V 406

Wire C

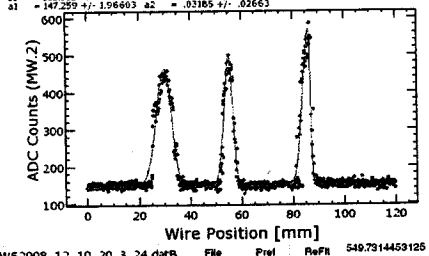
ChiSquare = 473603. Goodness = .49307
sigma1 = 6.54946 +/- .12742 sigma2 = 1.50216 +/- .06794 sigma3 = 1.98260 +/- .03655
asymm1 = -.08057 +/- .03285 asymm2 = -3.7E-4 +/- .03832 asymm3 = -.18471 +/- .02691
xwire1 = 27.8467 +/- .26088 xwire2 = 58.0733 +/- .15413 xwire3 = 91.4742 +/- .07019
b1 = 272.290 +/- 3.97635 b2 = 316.368 +/- 5.11104 b3 = 513.461 +/- 6.71135
a1 = 133.643 +/- 3.10925 a2 = .09112 +/- .03677



File: WS2008_12_10_20_4_11.datC File Pref ReFit 549.7314453125 V 3395

Wire B

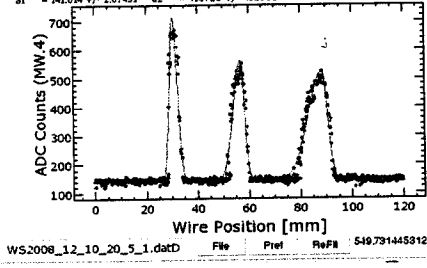
ChiSquare = 400876. Goodness = .49307
sigma1 = 2.91928 +/- .05661 sigma2 = 1.69728 +/- .03795 sigma3 = 1.52110 +/- .02990
asymm1 = -.10135 +/- .03848 asymm2 = -.12538 +/- .04677 asymm3 = -.46974 +/- .03577
xwire1 = 30.2601 +/- .13251 xwire2 = 55.3702 +/- .09512 xwire3 = 86.3627 +/- .06665
b1 = 215.312 +/- 5.11321 b2 = 346.544 +/- 6.66314 b3 = 416.939 +/- 7.01297
a1 = 147.259 +/- 1.96603 a2 = .03185 +/- .02663



File: WS2008_12_10_20_3_24.datB File Pref ReFit 549.7314453125 V 3788

Wire D

ChiSquare = 505265. Goodness = .49307
sigma1 = 1.54006 +/- .02473 sigma2 = 2.23467 +/- .04021 sigma3 = 3.81668 +/- .06049
asymm1 = -.18564 +/- .02236 asymm2 = -.27062 +/- .02584 asymm3 = -.40137 +/- .02889
xwire1 = 30.4757 +/- .06103 xwire2 = 56.9048 +/- .05720 xwire3 = 88.5661 +/- .13491
b1 = 572.200 +/- 7.83448 b2 = 422.985 +/- 6.53156 b3 = 379.903 +/- 5.05476
a1 = 141.014 +/- 2.07431 a2 = .09726 +/- .02585



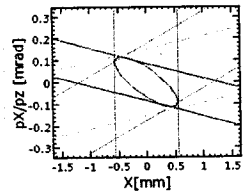
File: WS2008_12_10_20_5_1.datD File Pref ReFit 549.7314453125 V 3223

File Edit Window

12/10/2008 20:06:39 Help

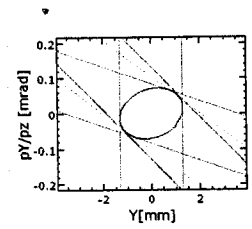
Wire Scan | Optics Calculate | Matching

X phase space at Wire A



X phase space at Matching Point

Y phase space at Wire A

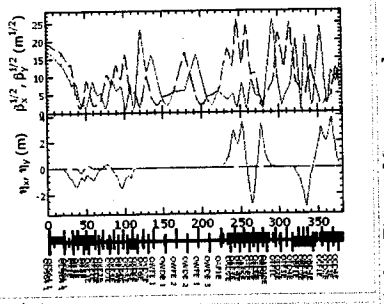


Y phase space at Matching Point

Results of Measurement

β, @MW.1 [m] :	7.937	β, @MW.1 [m] :	18.611
α, @MW.1 :	1.316	α, @MW.1 :	-.204
ε, [m] :	3.8319E-8	ε, [m] :	9.1691E-8
γε, [x.mm.mrad] :	568.094	γε, [y.mm.mrad] :	1359.354
Bmag x :	2.936	Bmag y :	3.021
εBmag x :	1.1250E-7	εBmag y :	2.7703E-7
γεBmag x :	1667.898	γεBmag y :	4107.049

Optics Plot

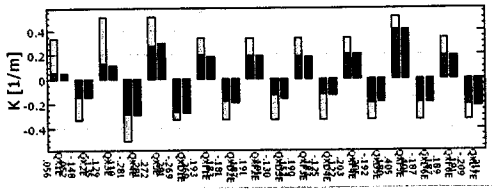


Wire Selection
3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
4-wire:ABCD

Matching Conditions

QX2E: β, <	100.00	59.73194
: β, <	200.00	184.84707
QX3E: β, <	100.00	68.20542
QX5E: β, <	60.00	11.42453
QXF1E: β, <	50.00	50.00241
QXD2E: β, <	60.00	8.16602
QXF2E: β, <	60.00	52.94362
QXD9E: β, <	80.00	64.83101
QXF3E: β, <	62.00	33.61065
QXD4E: β, <	110.00	73.49631
QXF4E: β, <	80.00	35.01035
QXD5E: β, <	100.00	99.96629
QXD6E: β, <	100.00	49.68257
: η, =	.00	4.60489E-5
: η', =	.00	1.92941E-5
: η, =	.00	6.34425E-6
: η', =	.00	6.11421E-7
QX1E QXD6E: η, <	-1.50	1.50164

Strength of Free Qmag (QX*)



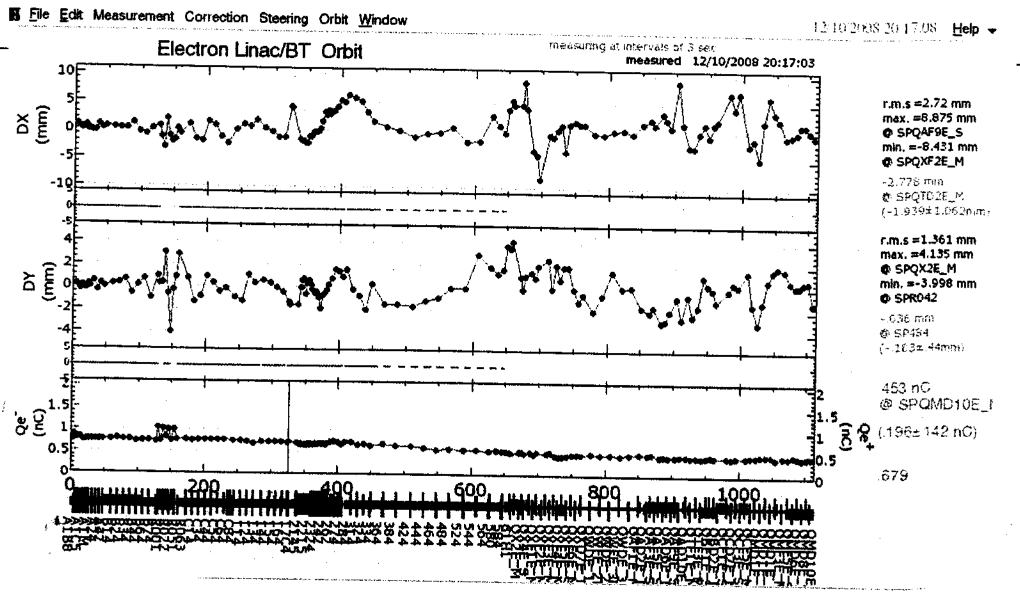
Matching Calculation
Calc Matching
Recover Calculation
Reset Calculation
Q-mag Set
Q-mag Read&Write
Read Q-Mag from File
Save Q-Mag to File

Set する

Screenでは割と良いが
MSE 20で少し太い

Matching後 軌道補正 (QM 5本 12-10-2008-20:11:~~22~~ 21
12-10-2008-20:11:22

(e⁻)



e+ を Loadしてみるが LINAC end で軌道がぶれて時間切れ
(P.199 BTp 12-10-2008-12:16:14
15:19)

運転パラメーター BT
e⁻ Q: BTe 12-10-2008-22:20:~~20~~ 19
S: 〃 -22:20:20

e⁺ Q BTp 12-10-2008-22:22:30
Q 〃 -22:22:31

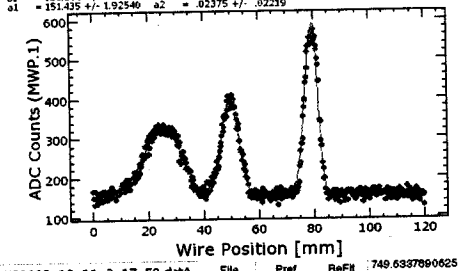
(e+) 軌道通らない 第0アーク 調整するが ×
エネルギーが +1% 高い 一応save 23:02:26
23:02:27

KEKBへ

File Edit Control Window

Wire A

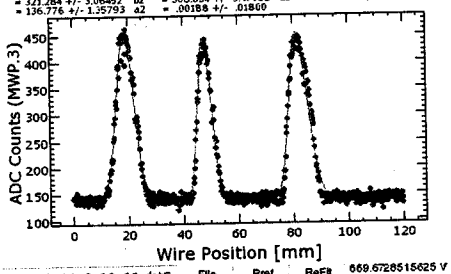
ChiSquare = 76823.8 Goodness = .49177
sigma1 = 6.47476 +/- .11162 sigma2 = 3.15711 +/- .04769 sigma3 = 2.33758 +/- .02219
asymm1 = -.14073 +/- .02826 asymm2 = -.09308 +/- .02958 asymm3 = -.19189 +/- .01891
xwire1 = 26.3566 +/- .22034 xwire2 = 50.1194 +/- .11383 xwire3 = 79.8806 +/- .05417
b1 = 181.936 +/- 2.31422 b2 = 244.790 +/- 3.06894 b3 = 435.057 +/- 3.49566
a1 = 151.435 +/- 1.92540 a2 = .02375 +/- .02239



File: WS2008_12_11_2_17_50.datA File Pref ReFit 749.6337890625 V 4572

Wire C

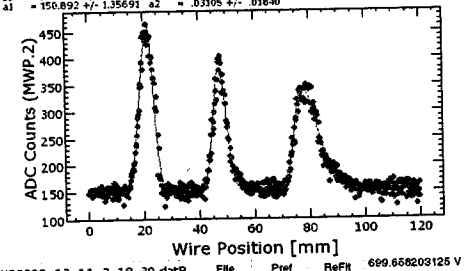
ChiSquare = 76783.7 Goodness = .49177
sigma1 = 3.16769 +/- .03686 sigma2 = 2.47230 +/- .03242 sigma3 = 3.37046 +/- .03715
asymm1 = .09475 +/- .02232 asymm2 = .23673 +/- .02557 asymm3 = .28898 +/- .02108
xwire1 = 18.7674 +/- .08651 xwire2 = 47.3677 +/- .07829 xwire3 = 81.0657 +/- .08696
b1 = 321.284 +/- 3.06452 b2 = 306.034 +/- 3.40083 b3 = 317.059 +/- 2.92128
a1 = 136.776 +/- 1.35793 a2 = .00188 +/- .01800



File: WS2008_12_11_2_19_11.datC File Pref ReFit 669.6728515625 V 4015

Wire B

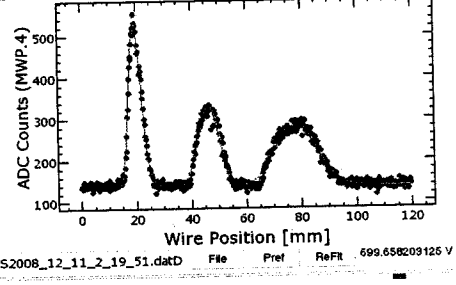
ChiSquare = 87175.6 Goodness = .49177
sigma1 = 2.48310 +/- .03521 sigma2 = 2.34321 +/- .04511 sigma3 = 4.11552 +/- .07417
asymm1 = -.11270 +/- .02783 asymm2 = .08846 +/- .03904 asymm3 = .36439 +/- .03318
xwire1 = 21.7041 +/- .06461 xwire2 = 47.5278 +/- .11202 xwire3 = 77.3986 +/- .16700
b1 = 309.278 +/- 3.64472 b2 = 227.483 +/- 3.71598 b3 = 189.124 +/- 2.82429
a1 = 150.892 +/- 1.35691 a2 = .03105 +/- .01840



File: WS2008_12_11_2_18_30.datB File Pref ReFit 699.658203125 V 4183

Wire D

ChiSquare = 66976.0 Goodness = .49177
sigma1 = 2.24447 +/- .02320 sigma2 = 3.84338 +/- .06072 sigma3 = 7.23802 +/- .11311
asymm1 = .25702 +/- .01969 asymm2 = .08953 +/- .03108 asymm3 = .06714 +/- .02917
xwire1 = 19.1039 +/- .05431 xwire2 = 46.0521 +/- .14600 xwire3 = 77.5668 +/- .25616
b1 = 391.961 +/- 3.37185 b2 = 196.163 +/- 2.58189 b3 = 154.242 +/- 1.92412
a1 = 137.602 +/- 1.25904 a2 = -.01635 +/- .01676

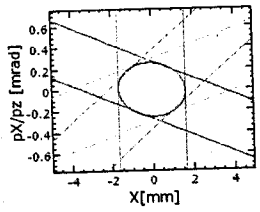


File: WS2008_12_11_2_19_51.datD File Pref ReFit 699.658203125 V 4106

File Edit Window

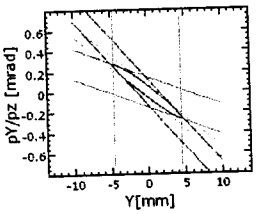
Wire Scan | Optics Calculate | Matching

X phase space at Wire A



X phase space at Matching Point

Y phase space at Wire A

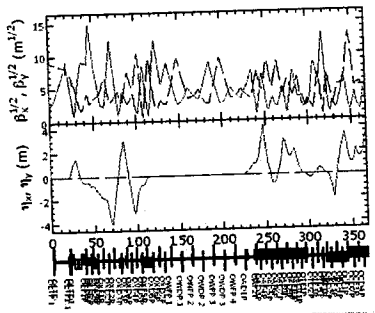


Y phase space at Matching Point

Results of Measurement

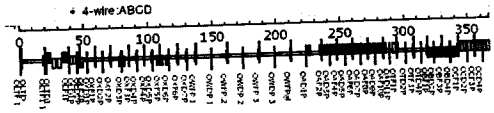
β_x @MWP.1 [m] :	6.499	β_y @MWP.1 [m] :	80.748
α_x @MWP.1 :	.066	α_y @MWP.1 :	4.564
ε_x [m] :	4.1929E-7	ε_y [m] :	2.6201E-7
$\pi\varepsilon_x$ [π.mm.mrad] :	2719.537	$\pi\varepsilon_y$ [π.mm.mrad] :	1699.438
Bmag x :	1.204	Bmag y :	1.324
εBmag x :	5.0475E-7	εBmag y :	3.4679E-7
$\pi\varepsilon$Bmag x :	3273.867	$\pi\varepsilon$Bmag y :	2249.315

Optics Plot



Wire Selection

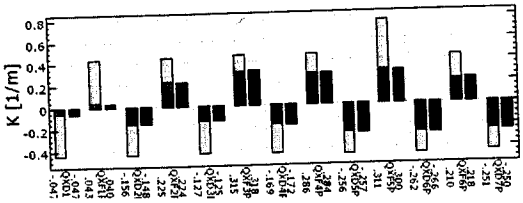
3-wire:ABC 3-wire:ABD 3-wire:ACD 3-wire:BCD
4-wire:ABCD



Matching Conditions

QXF1P: β_x <	100.00	10.46505
QXD2P: β_x <	100.00	43.01998
QXF2P: β_x <	150.00	142.27657
QXF2P: η_x =	-4.00	-4
QXD3P: β_x <	100.00	27.45498
QXF3P: β_x <	100.00	18.04822
QXF3P: η_x <	3.00	3
QXD4P: β_y <	100.00	58.11975
QXF4P: β_y <	20.00	19.35777
QXD5P: β_y <	100.00	91.14878
QXD6P: β_y <	100.00	96.67681
QXD6P: η_x =	.00	2.5444E-15
QXD6P: η'_x =	.00	1.9429E-16

Strength of Free Qmag (QX*)



Matching Calculation
Calc Matching
Recover Calculation
Reset Calculation
Q-mag Set
Q-mag Read&Write
Read Q-Mag from File
Save Q-Mag to File

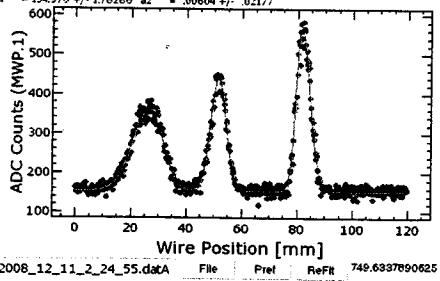
1回目Matching 2008_02_2:35

File Edit Control Window

Wire A

ChiSquare = 96540.7 Goodness = .49177

sigma1 = 5.43495 +/- .09075 sigma2 = 2.77115 +/- .04209 sigma3 = 2.48455 +/- .02723
asymm1 = -.12168 +/- .02941asymm2 = -.63377 +/- .03038asymm3 = .20453 +/- .02174
xwire1 = 26.7572 +/- .19498 xwire2 = 51.7546 +/- .16306 xwire3 = 81.5955 +/- .06512
b1 = 209.168 +/- 2.69572 b2 = 283.933 +/- 3.61799 b3 = 410.437 +/- 3.80161
a1 = 154.976 +/- 1.78286 a2 = .00604 +/- .02177

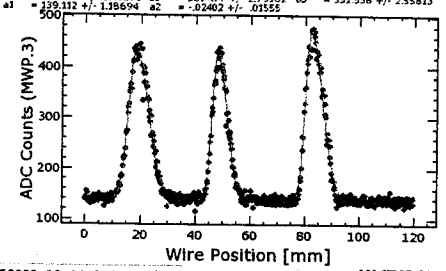


File: WS2008_12_11_2_24_55.datA File Pref ReFit 749.6337890625 V 4573

Wire C

ChiSquare = 55313.3 Goodness = .49177

sigma1 = 3.58560 +/- .03622sigma2 = 2.65053 +/- .03043sigma3 = 3.16325 +/- .02910
asymm1 = .15931 +/- .01886asymm2 = .25086 +/- .02245asymm3 = .33297 +/- .01734
xwire1 = 18.6826 +/- .08275 xwire2 = 48.2761 +/- .07298 xwire3 = 82.3995 +/- .06714
b1 = 298.613 +/- 2.46208 b2 = 287.477 +/- 2.79162 b3 = 332.538 +/- 2.55813
a1 = 139.112 +/- 1.38694 a2 = -.02402 +/- .01555

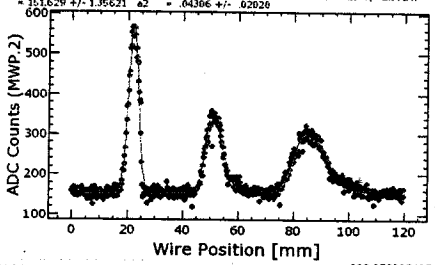


File: WS2008_12_11_2_26_34.datC File Pref ReFit 669.6726515625 V 4017

Wire B

ChiSquare = 95770.3 Goodness = .49177

sigma1 = 1.79512 +/- .02266 sigma2 = 3.01433 +/- .06431 sigma3 = 5.66636 +/- .12485
asymm1 = -.10787 +/- .02533asymm2 = .25568 +/- .04166asymm3 = .23573 +/- .03983
xwire1 = 22.3840 +/- .05567 xwire2 = 50.4924 +/- .15369 xwire3 = 84.4362 +/- .27527
b1 = 419.101 +/- 4.46058 b2 = 191.325 +/- 3.44419 b3 = 147.425 +/- 2.57247
a1 = 151.629 +/- 1.35621 a2 = .04306 +/- .02026

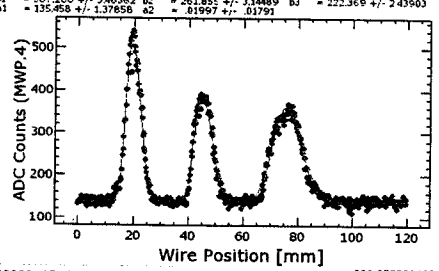


File: WS2008_12_11_2_25_33.datB File Pref ReFit 699.658203125 V 4184

Wire D

ChiSquare = 80978.9 Goodness = .49177

sigma1 = 2.58476 +/- .02789sigma2 = 3.08231 +/- .04408 sigma3 = 5.20184 +/- .06924
asymm1 = .15104 +/- .02674asymm2 = .19315 +/- .02809asymm3 = .08655 +/- .02594
xwire1 = 19.4338 +/- .05563 xwire2 = 44.7640 +/- .10597 xwire3 = 75.4792 +/- .16476
b1 = 387.286 +/- 3.46362 b2 = 261.855 +/- 3.14489 b3 = 222.369 +/- 2.43903
a1 = 135.458 +/- 1.37658 a2 = .01997 +/- .01791



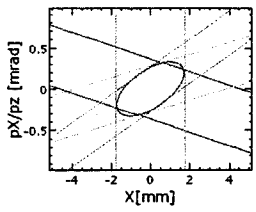
File: WS2008_12_11_2_27_16.datD File Pref ReFit 699.658203125 V 4107

Select Matching zone on localhost:12.0

File Edit Window

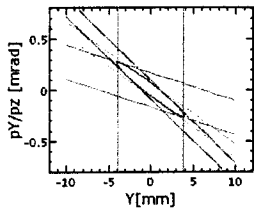
Wire Scan Optics Calculate Matching

X phase space at Wire A



X phase space at Matching Point

Y phase space at Wire A

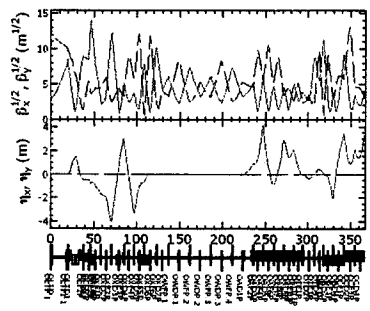


Y phase space at Matching Point

Results of Measurement

β_x @MWP.1 [m] :	6.518	β_y @MWP.1 [m] :	61.478
α_x @MWP.1 :	-.740	α_y @MWP.1 :	4.011
ε_x [m] :	4.4878E-7	ε_y [m] :	2.5904E-7
$\gamma\varepsilon_x$ [x.mm.mrad] :	2910.809	$\gamma\varepsilon_y$ [x.mm.mrad] :	1680.164
Bmag x :	1.075	Bmag y :	1.151
εBmag x :	4.8241E-7	εBmag y :	2.9804E-7
$\gamma\varepsilon$Bmag x :	3126.976	$\gamma\varepsilon$Bmag y :	1933.130

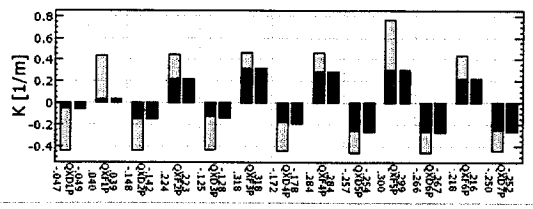
Optics Plot



Wire Selection

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

Strength of Free Qmag (QX*)



Matching Conditions

F1P: β_x <
D2P: β_x <
F2P: β_x <
F2P: η_x =
D3P: β_x <
F3P: β_x <
F3P: η_x <
D4P: β_x <
F4P: β_x <
D5P: β_x <
D6P: β_x <
D6P: η_x =
D6P: η'_x =

Matching Calcu
Recover Cal
Reset Calcu
Q-mag Set
Set Q-Mag
Q-mag Read&
Read Q-Mag f
Save Q-Mag

2回目Matching 02:28:37

同じ 02:28:38