Multi energy linac
でのHER 入射

2006/12/12

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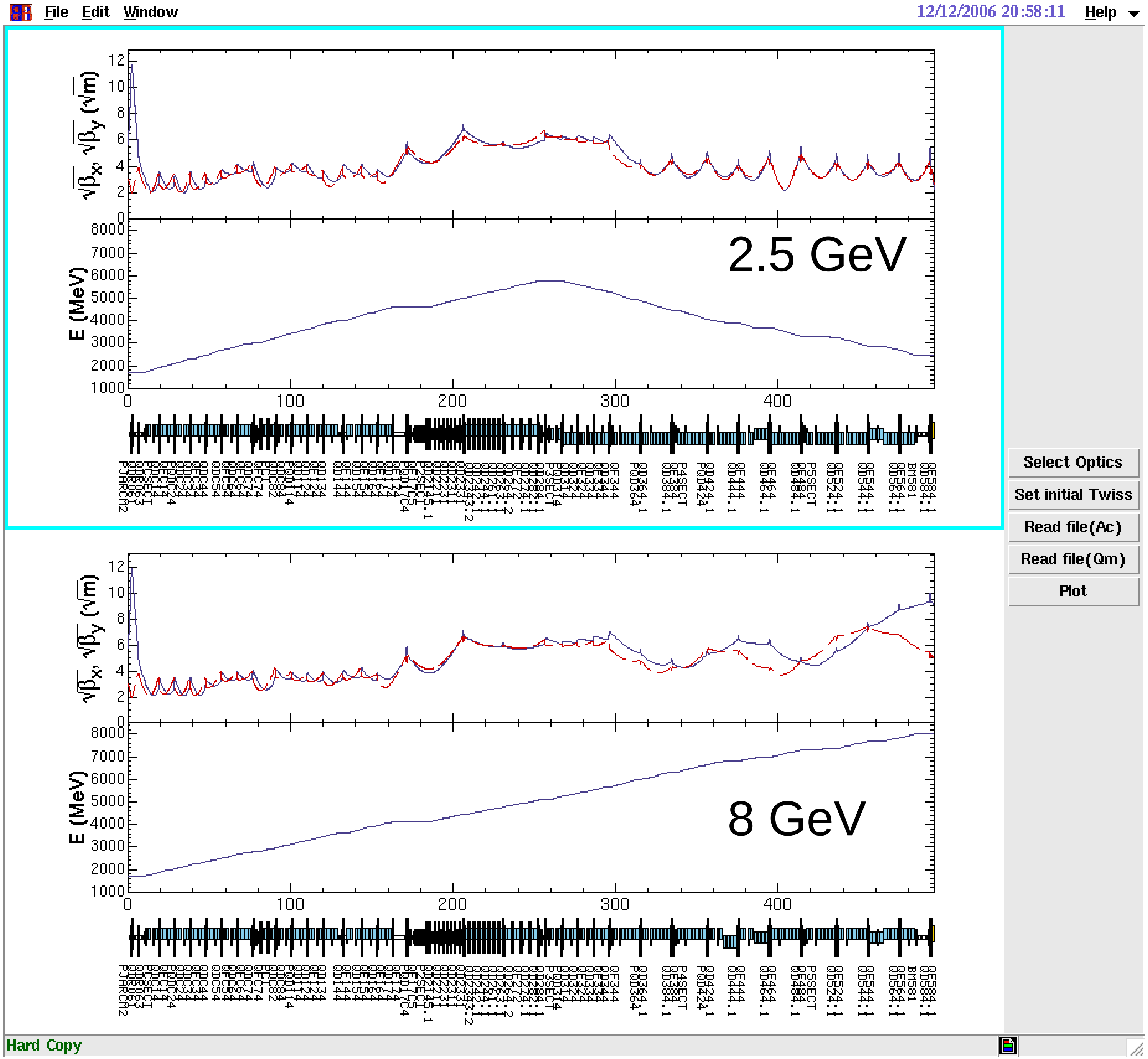
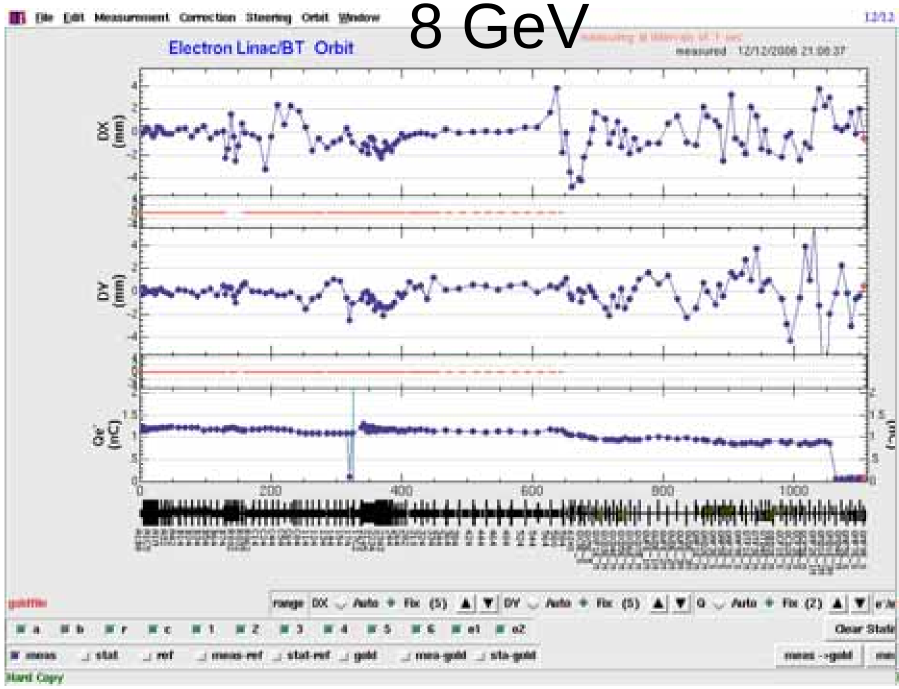
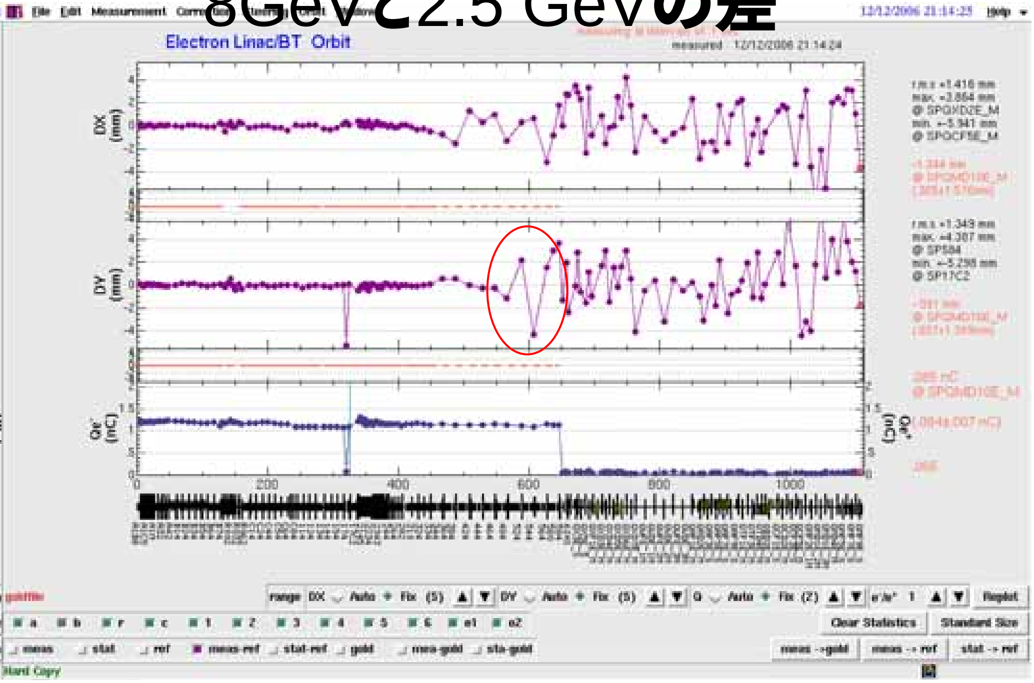

File
Edit
Window
12/12/2006 20:58:11
Help
√βx, √βy (√m)
E (MeV)
12
10
8
6
4
2
0
8000
7000
6000
5000
4000
3000
2000
1000
0
100
200
300
400
2.5 GeV
8 GeV
Select Optics
Set initial Twiss
Read file(Ac)
Read file(Qm)
Plot
Hard Copy

8 GeV


Electron Linac/BT Orbit
measured : 12/12/2006 21:06:37
DX (mm)
DY (mm)
Qe⁻ (nC)
200
400
600
800
1000
Hard Copy

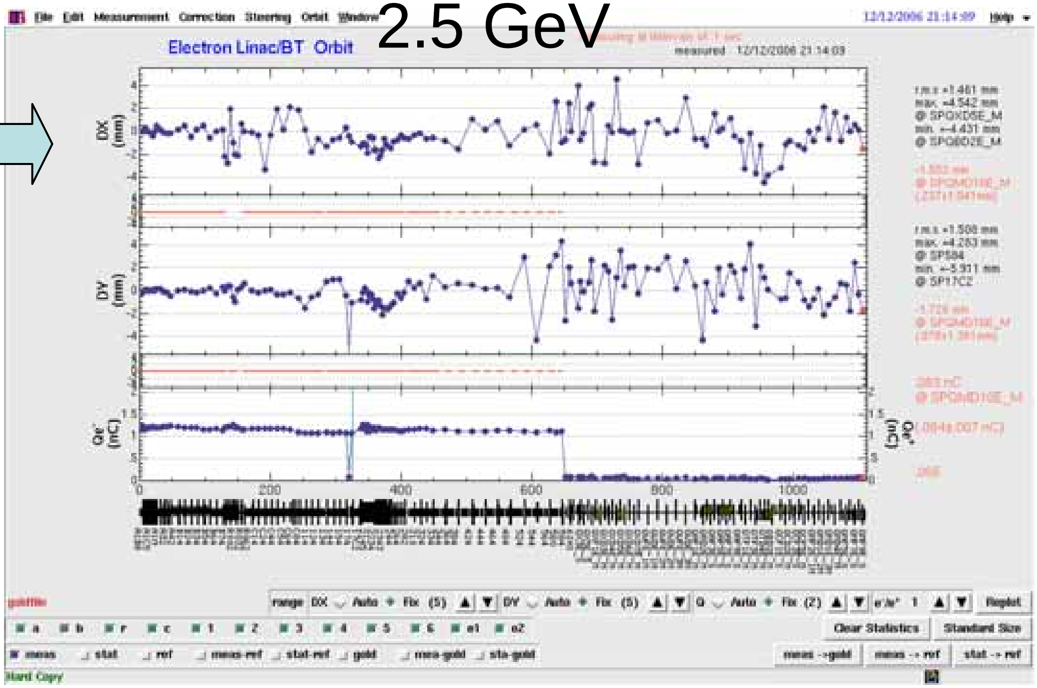
8GeVと2.5 GeVの差


Electron Linac/BT Orbit
measured : 12/12/2006 21:14:24
12/12/2006 21:14:25
DX (mm)
DY (mm)
Qe⁻ (nC)
200
400
600
800
1000
Clear Statistics
Standard Size
Hard Copy

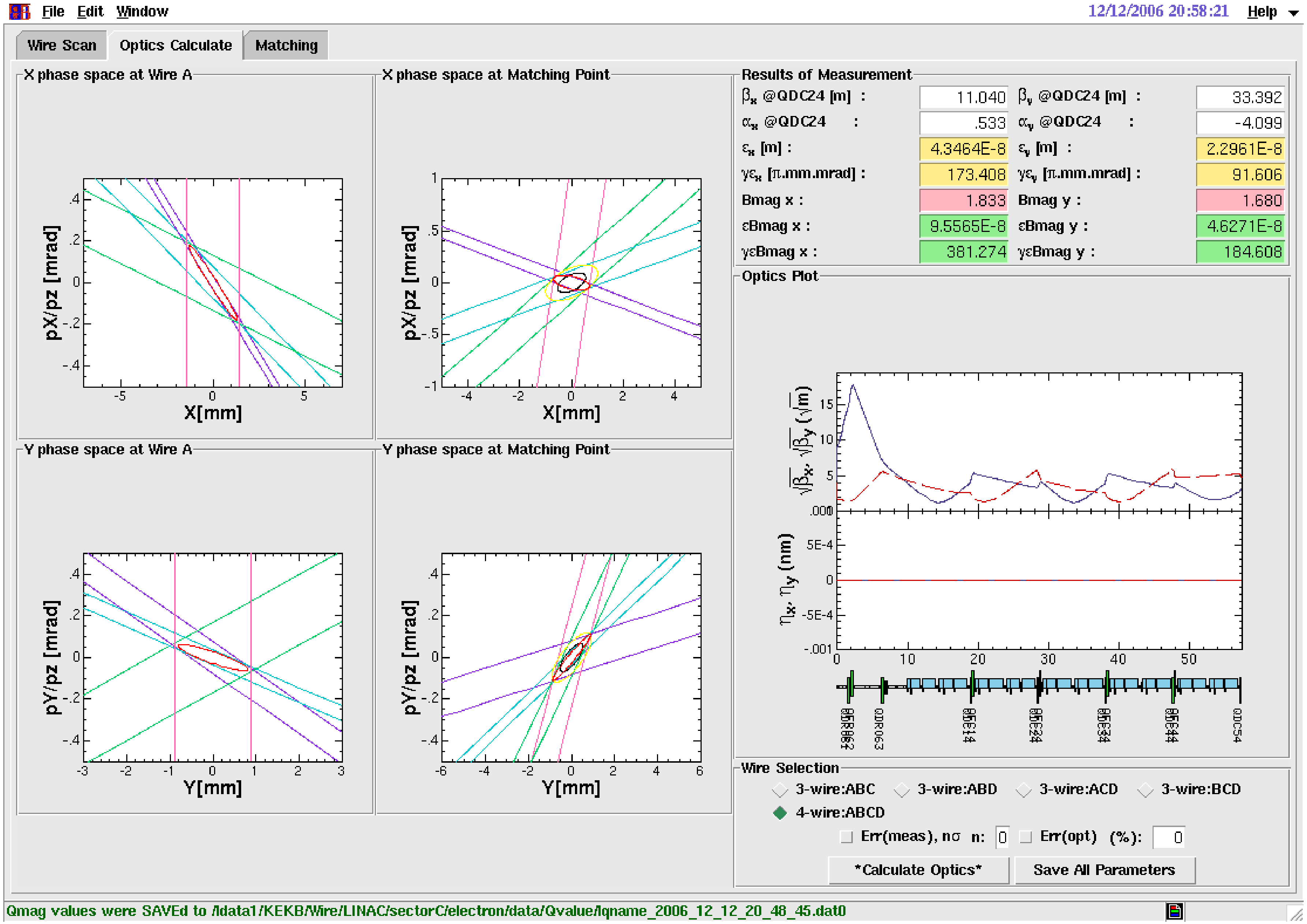
8 GeVで軌道補正して2.5 GeVにエネルギー変更したときの軌道。

軌道はエネルギー変更により’思ったほど乱れなかった。

2.5 GeV


Electron Linac/BT Orbit
measured : 12/12/2006 21:14:03
12/12/2006 21:14:09
DX (mm)
DY (mm)
Qe⁻ (nC)
200
400
600
800
1000
Clear Statistics
Standard Size
Hard Copy

4 mA/sのHER入射率を達成。


File
Edit
Window
Help
Wire Scan
Optics Calculate
Matching
X phase space at Wire A
pX/pz [mrad]
X[mm]
.4
.2
0
-.2
-.4
-5
0
5
X phase space at Matching Point
pX/pz [mrad]
X[mm]
1
.5
0
-.5
-1
-4
-2
0
2
4
Y phase space at Wire A
pY/pz [mrad]
Y[mm]
.4
.2
0
-.2
-.4
-3
-2
-1
0
1
2
3
Y phase space at Matching Point
pY/pz [mrad]
Y[mm]
.4
.2
0
-.2
-.4
-6
-4
-2
0
2
4
6
Results of Measurement
Optics Plot
$\sqrt{\beta_x}$, $\sqrt{\beta_y}$ ($\sqrt{m}$)
15
10
5
.000
η_x, η_y (nm)
5E-4
0
-5E-4
-.001
0
10
20
30
40
50
QDR062
QDR063
QDE14
QDE24
QDE34
QDE44
QDC54
Wire Selection
Calculate Optics
Save All Parameters

12/12/2006 20:58:21

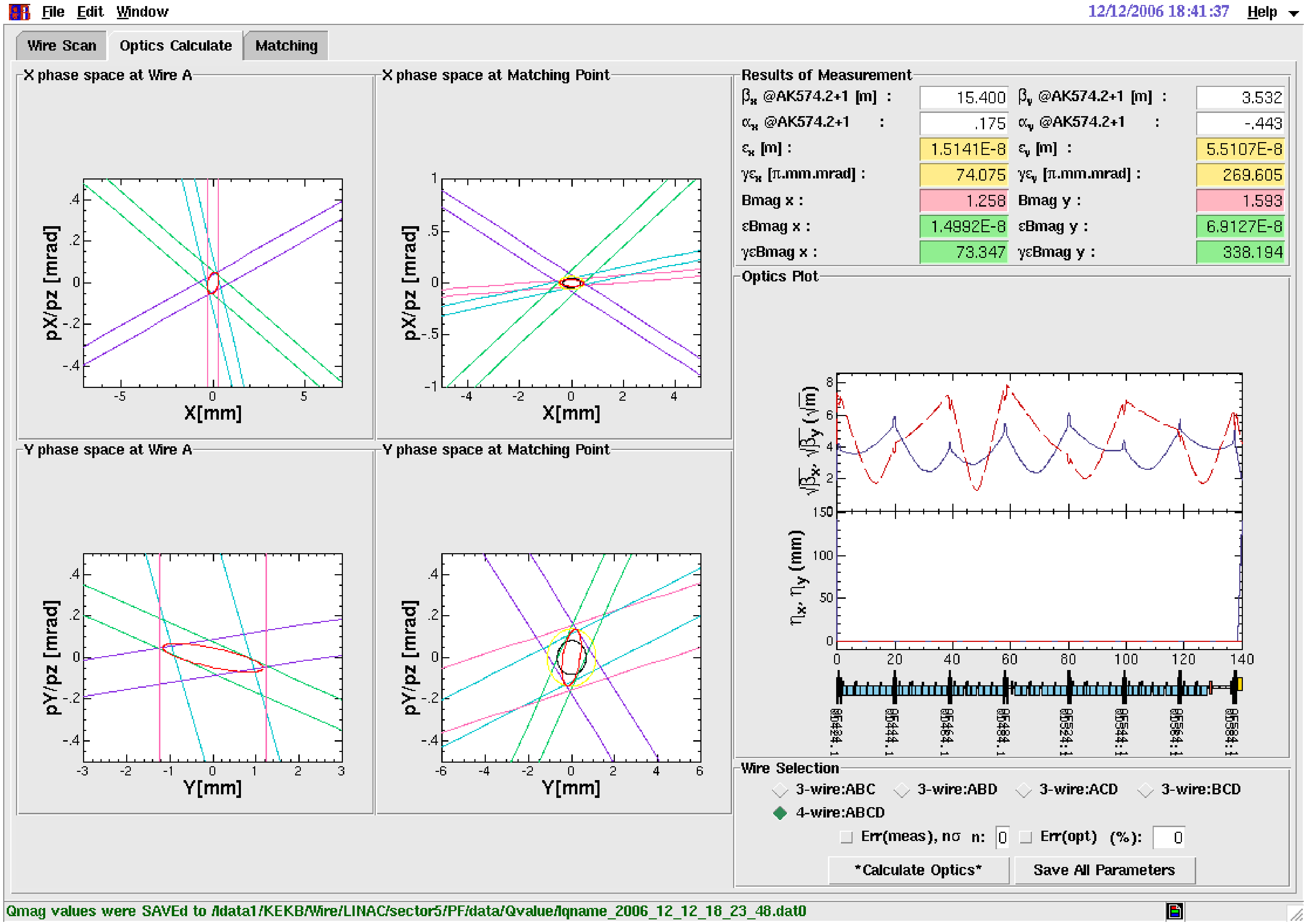
Results of Measurement

β_x @QDC24 [m] : 11.040
β_y @QDC24 [m] : 33.392
α_x @QDC24 : .533
α_y @QDC24 : -4.099
ε_x [m] : 4.3464E-8
ε_y [m] : 2.2961E-8
$\gamma\varepsilon_x$ [π.mm.mrad] : 173.408
$\gamma\varepsilon_y$ [π.mm.mrad] : 91.606
Bmag x : 1.833
Bmag y : 1.680
εBmag x : 9.5565E-8
εBmag y : 4.6271E-8
γεBmag x : 381.274
γεBmag y : 184.608

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

Qmag values were SAVEd to /data1/KEKB/Wire/LINAC/sectorC/electron/data/Qvalue/qname_2006_12_12_20_48_45.dat0


File
Edit
Window
12/12/2006 18:41:37
Help
Wire Scan
Optics Calculate
Matching
X phase space at Wire A
pX/pz [mrad]
X[mm]
X phase space at Matching Point
Y phase space at Wire A
pY/pz [mrad]
Y[mm]
Y phase space at Matching Point
Optics Plot
$\sqrt{\beta_x}$, $\sqrt{\beta_y}$ ($\sqrt{m}$)
η_x, η_y (mm)
0
20
40
60
80
100
120
140
Wire Selection
Calculate Optics
Save All Parameters

Results of Measurement

β_x @AK574.2+1 [m] :	15.400	β_y @AK574.2+1 [m] :	3.532
α_x @AK574.2+1 :	.175	α_y @AK574.2+1 :	-.443
ε_x [m] :	1.5141E-8	ε_y [m] :	5.5107E-8
$\gamma\varepsilon_x$ [π.mm.mrad] :	74.075	$\gamma\varepsilon_y$ [π.mm.mrad] :	269.605
Bmag x :	1.258	Bmag y :	1.593
εBmag x :	1.4992E-8	εBmag y :	6.9127E-8
γεBmag x :	73.347	γεBmag y :	338.194

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

Qmag values were SAVEd to /data1/KEKB/Wire/LINAC/sector5/PF/data/Qvalue/lqname_2006_12_12_18_23_48.dat0