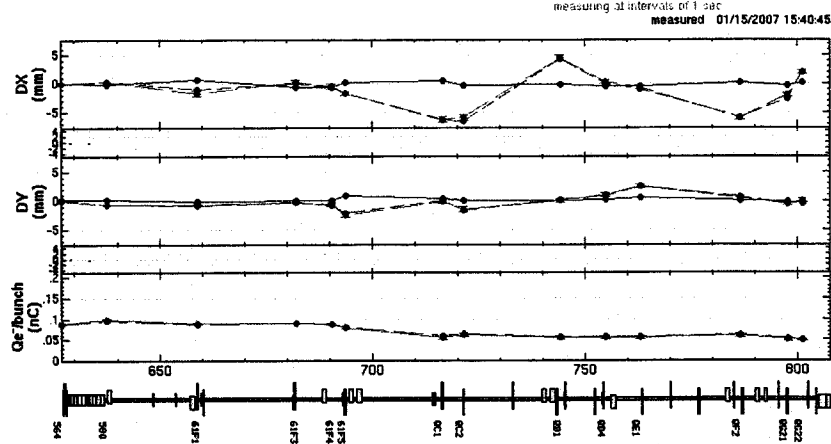


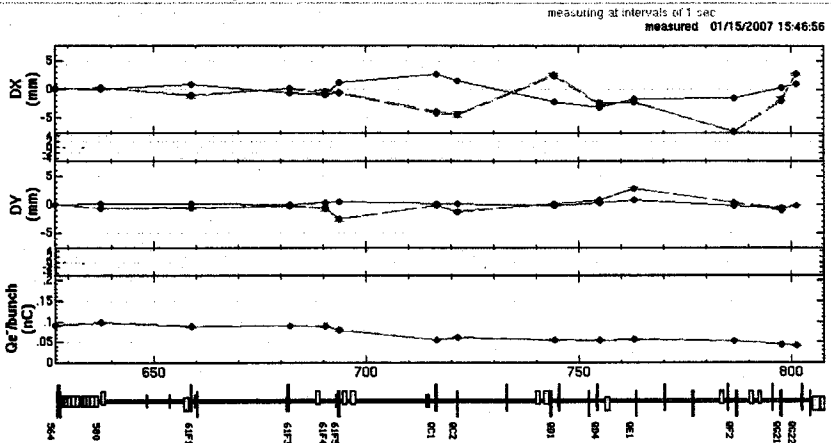
15:40

~~BS-58-0 = +0.702~~  
 BS-61-F4 = 0 → +0.301 → +0.501 → +0.601

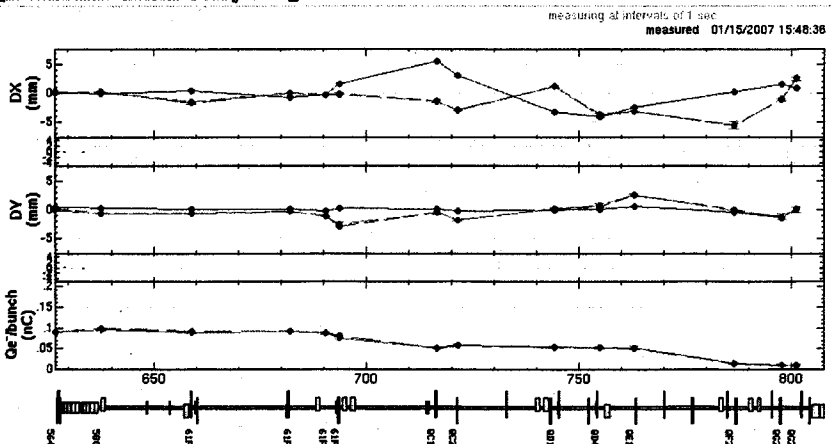
File Edit Measurement Correction Steering Orbit Window 01/15/2007 15:40:44 Help



File Edit Measurement Correction Steering Orbit Window 01/15/2007 15:46:37 Help



File Edit Measurement Correction Steering Orbit Window 01/15/2007 15:48:37 Help



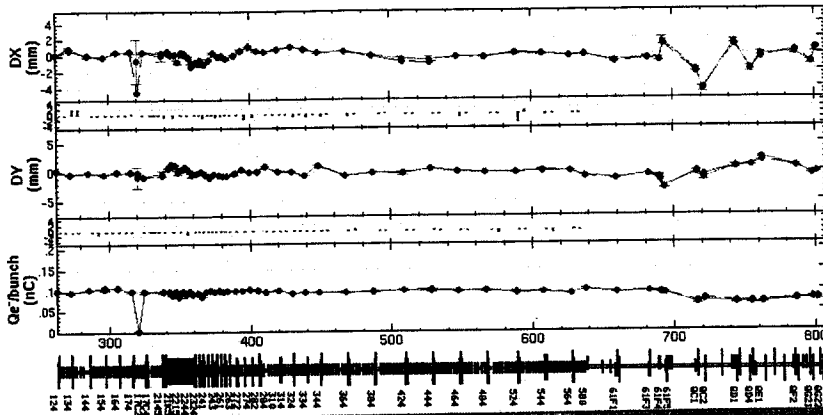
PF側のBTで軌道を補正して  
その後5019-Wire ScannerでMatching 2回実施。

Edit Measurement Correction Steering Orbit Window

01/15/2007 18:03:11 Help

measuring at intervals of 1 sec

measured 01/15/2007 18:03:11



r.m.s = 1.834 mm  
max = 2.841 mm  
@ SPC04  
min. = -9.039 mm  
@ SPR062  
- 931 nm  
@ SP61F1  
(- 802 ± 201 nm)

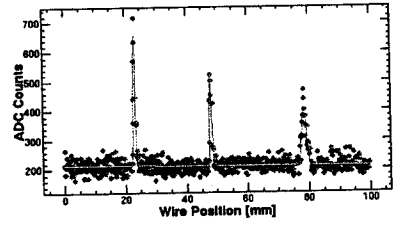
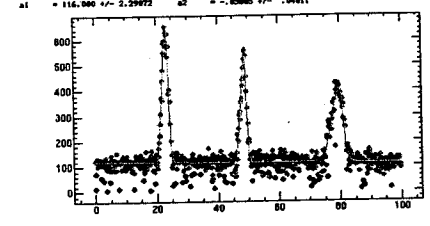
r.m.s = 1.712 mm  
max = 2.604 mm  
@ SPB34  
min. = -9.205 mm  
@ SPR062  
- 622 nm  
@ SP564  
(- 613 ± 155 nm)

.079 nC  
@ SPQG22  
(.075 ± 0.03 nC)

14.854

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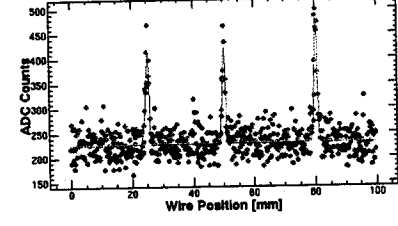
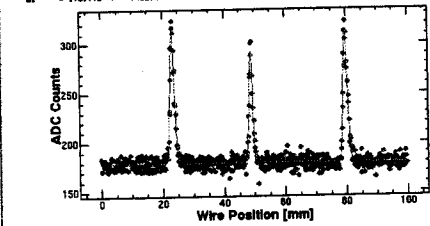
Wire A: ChiSquare = 346477, Goodness = -.4974  
Wire C: ChiSquare = 258416, Goodness = -.49239



File: WS2007\_1\_15\_17\_26\_16.datA File Pref ReFl 489.75888375 V 0702

File: WS2007\_1\_15\_17\_33\_17.datC File Pref ReFl 748.63789625 V 824

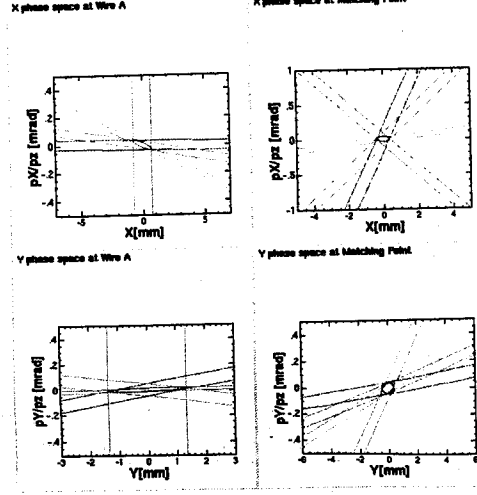
Wire B: ChiSquare = 18064, Goodness = -.49239  
Wire D: ChiSquare = 384993, Goodness = -.49239



File: WS2007\_1\_15\_17\_32\_7.datB File Pref ReFl 599.78703125 V 9082

File: WS2007\_1\_15\_17\_34\_25.datD File Pref ReFl 765.6246254375 V 8302

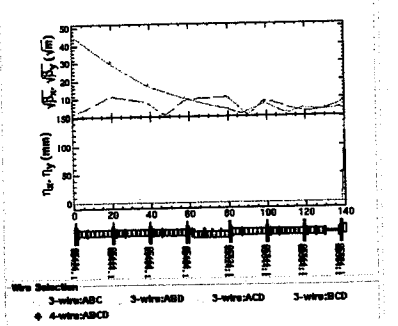
Wire Scan Optics Calculate Matching



Results of Measurement

$\beta_x$ @ACS74+1 [m]	11.886	$\beta_y$ @ACS74+1 [m]	12.653
$\alpha_x$ @ACS74+1	-.030	$\alpha_y$ @ACS74+1	-.826
$\sigma_x$ [m]	1.2859E-8	$\sigma_y$ [m]	1.7514E-8
$\gamma_x$ [1/mm.mrad]	62.808	$\gamma_y$ [1/mm.mrad]	65.686
Dring x	3.023	Dring y	1.367
cDring x	1.3056E-8	cDring y	2.3817E-8
yDring x	63.685	yDring y	116.521

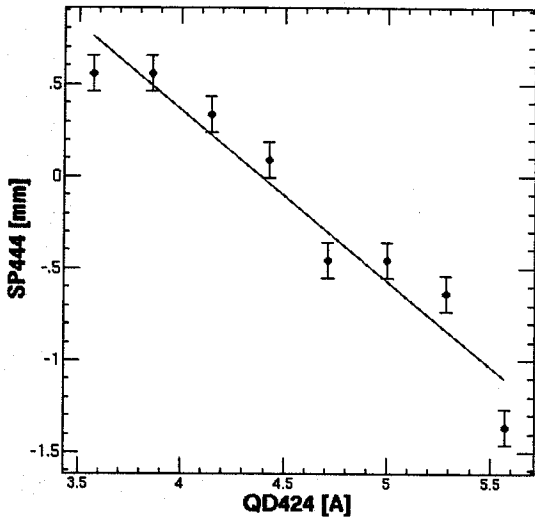
Optics Plot



Quad BPM 測定結果 (4,5セグ - 測定日 1/13)

File Edit Window

01/13/2007 08:20:58 Help



Condition  
BPM to be Calibrated : SP424

Direction :  Horizontal  Vertical

Used Components :

BPM : SP424  
Steering : {{("SX413",1)}}  
from : 5  
to : 1  
number : 4

Q magnet: QD424  
from : -1  
to : 1  
number : 8

next remem. save

GO STOP READ

Display  
BPM : SP444 Steering step : 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: .02018  
error [mm]: .00478

Last BPM taken into account : SP544  
rel. curr. thresh. : .7

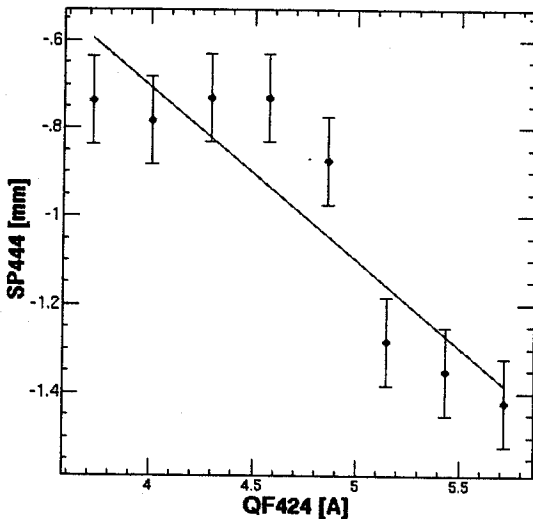
Fit Chk I Save

1	1	1	1	1	1
4	4	4	4	4	4
8	8	8	8	8	8
7	7	7	7	7	7

Hard Copy

File Edit Window

01/13/2007 09:58:44 Help



Condition  
BPM to be Calibrated : SP424

Direction :  Horizontal  Vertical

Used Components :

BPM : SP424  
Steering : {{("SY413",1)}}  
from : -6  
to : 4  
number : 4

Q magnet: QF424  
from : -1  
to : 1  
number : 8

next remem. save

GO STOP READ

Display  
BPM : SP444 Steering step : 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: -.0451  
error [mm]: .01267

Last BPM taken into account : SP544  
rel. curr. thresh. : .7

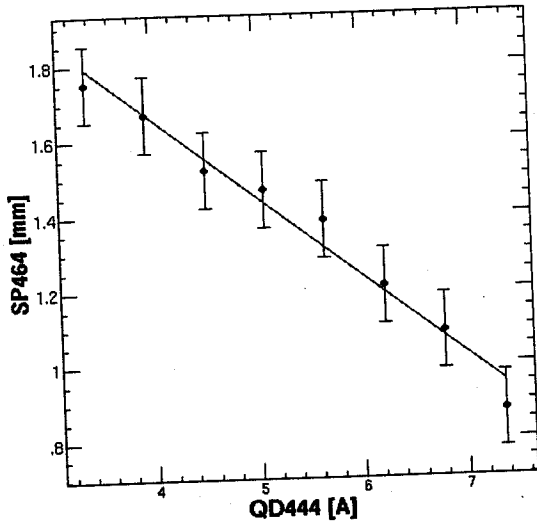
Fit Chk I Save

1	1	1	1	1	1
4	4	4	4	4	4
8	8	8	8	8	8
7	7	7	7	7	7

Hard Copy

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File Edit Window



Condition  
 BPM to be Calibrated :  
 SP444 -

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP444  
 Steering : {{"SX433",1}}  
 from 1 6  
 to 1 1  
 number 4 4  
 Q magnet: QD444  
 from -2 2  
 to 2 2  
 number 8 8

next remem. save  
 GO READ

Display  
 BPM : SP464 - Steering step : 1 -

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: .3423  
 error [mm]: .02118

Last BPM taken into account :  
 SP564 -  
 rel. curr. thresh. : .7

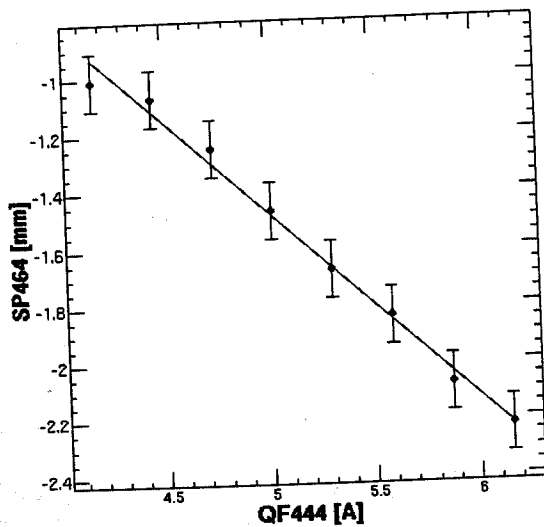
Fit Chk I Save

6	6	6	6	6
1	1	1	1	1
4	4	4	4	4
2	2	2	2	2
8	8	8	8	8
7	7	7	7	7
3	3	3	3	3
8	8	8	8	8
23	23	23	23	23
18	18	18	18	18
7	7	7	7	7

Hard Copy

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File Edit Window



Condition  
 BPM to be Calibrated :  
 SP444 -

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP444  
 Steering : {{"SY433",1}}  
 from -8 2  
 to 2 4  
 number 4 4  
 Q magnet: QF444  
 from -1 1  
 to 1 1  
 number 8 8

next remem. save  
 GO READ

Display  
 BPM : SP464 - Steering step : 1 -

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: .02391  
 error [mm]: .0057

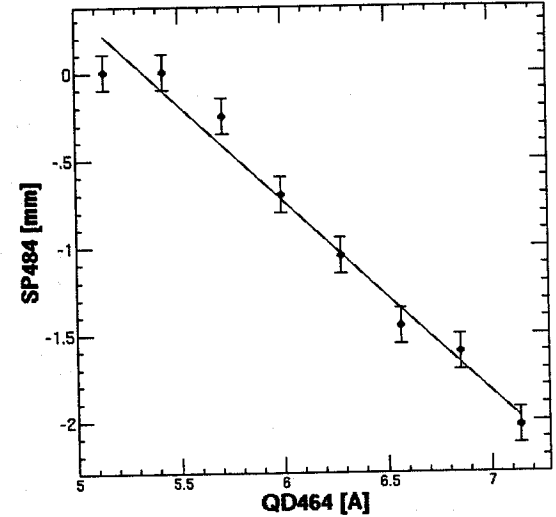
Last BPM taken into account :  
 SP564 -  
 rel. curr. thresh. : .7

Fit Chk I Save

8	8	8	8	8
4	4	4	4	4
2	2	2	2	2
4	4	4	4	4
1	1	1	1	1
7	7	7	7	7
1	1	1	1	1
8	8	8	8	8
0.02391	0.02391	0.02391	0.02391	0.02391
0.0057	0.0057	0.0057	0.0057	0.0057
7	7	7	7	7

01/13/2007 06:06:30 Help

File Edit Window



Condition  
BPM to be Calibrated : SP464  
Direction :  Horizontal  Vertical

Used Components :  
BPM : SP464  
Steering : {{("SX453",1)}  
from -5  
to 1.2  
number 4  
Q magnet: QD464  
from -1  
to 1  
number 8

next remem. save  
GO STOP READ

Display  
BPM : SP484 Steering step : 1

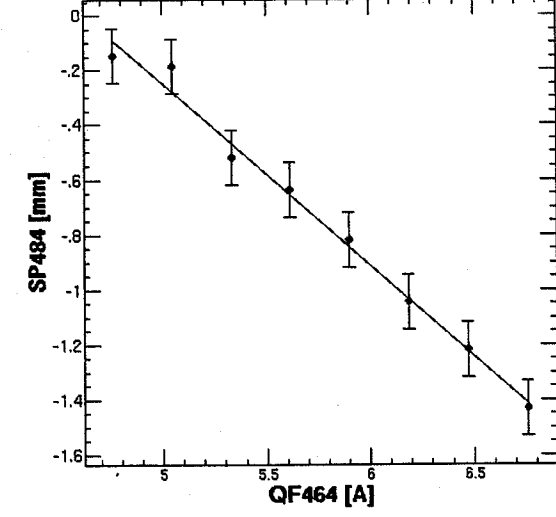
Result  
When the beam is at the Q center :  
BPM reading [mm]: .26919  
error [mm]: .00568  
Last BPM taken into account : SP584  
rel. curr. thresh. : .7

Fit Chk I Save

Progress Bar

01/13/2007 15:00:54 Help

File Edit Window



Condition  
BPM to be Calibrated : SP464  
Direction :  Horizontal  Vertical

Used Components :  
BPM : SP464  
Steering : {{("SY453",1)}  
from -8  
to 2  
number 4  
Q magnet: QF464  
from -1  
to 1  
number 8

next remem. save  
GO STOP READ

Display  
BPM : SP484 Steering step : 1

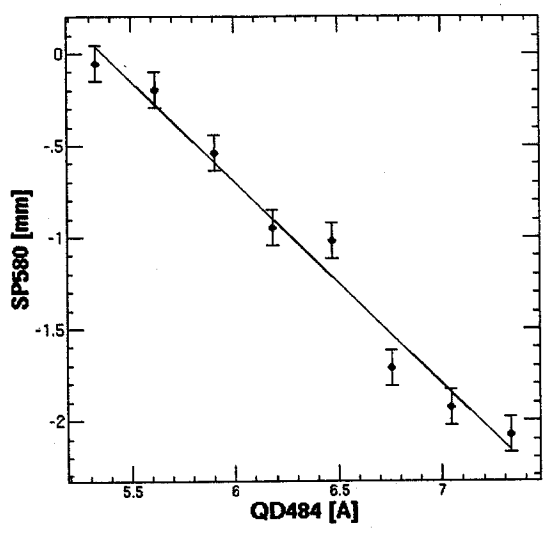
Result  
When the beam is at the Q center :  
BPM reading [mm]: -.1751  
error [mm]: .00391  
Last BPM taken into account : SP580  
rel. curr. thresh. : .7

Fit Chk I Save

Hard Copy

File Edit Window

01/13/2007 05:38:50 Help



Condition

BPM to be Calibrated :  
SP484

Direction :  
Horizontal Vertical

Used Components :

BPM : SP484

Steering : {"SX473",1}

from -1.3 1.3 -1.3 1.3

to -5 -5 -5 -5

number 4 4 4 4

Q magnet: QD484

from -1 -1 -1 -1

to 1 1 1 1

number 6 6 6 6

next remem. save

GO STOP READ

Display

BPM : Steering step :

SP580 1

Result

When the beam is at the Q center :

BPM reading [mm]: -33511 11 3511 511

error [mm]: .01717 17 1717 717

Last BPM taken into account :

SP584

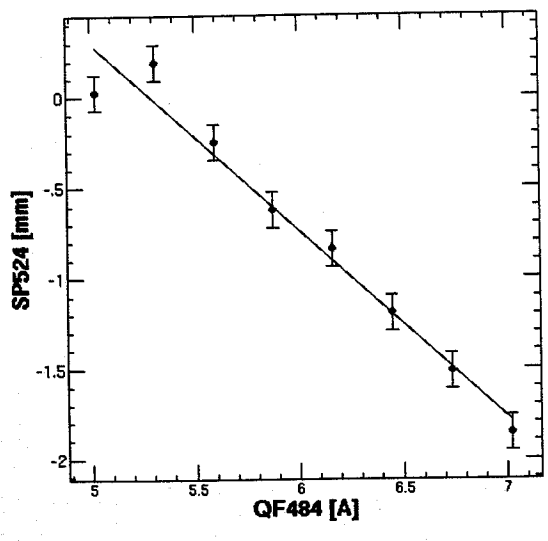
rel. curr. thresh. : .7 .7 .7 .7

Fit Chk I Save

Main Application Area

File Edit Window

01/13/2007 15:33:09 Help



Condition

BPM to be Calibrated :  
SP484

Direction :  
Horizontal Vertical

Used Components :

BPM : SP484

Steering : {"SY473",1}

from -4 -4 -4 -4

to .8 .8 .8 .8

number 4 4 4 4

Q magnet: QF484

from -1 -1 -1 -1

to 1 1 1 1

number 6 6 6 6

next remem. save

GO STOP READ

Display

BPM : Steering step :

SP524 1

Result

When the beam is at the Q center :

BPM reading [mm]: .34769 3 34769 7

error [mm]: .00787 7 7 7

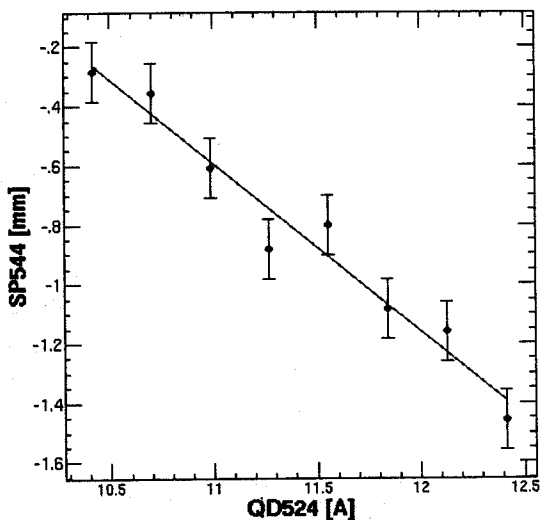
Last BPM taken into account :

SP584

rel. curr. thresh. : .7 .7 .7 .7

Fit Chk I Save

Hard Copy



Condition  
 BPM to be Calibrated :  
 SP524

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP524  
 Steering : {{("SX513",1)}}  
 from -5  
 to 8  
 number 4  
 Q magnet: QD524  
 from -1  
 to 1  
 number 8

next remem. save

GO STOP READ

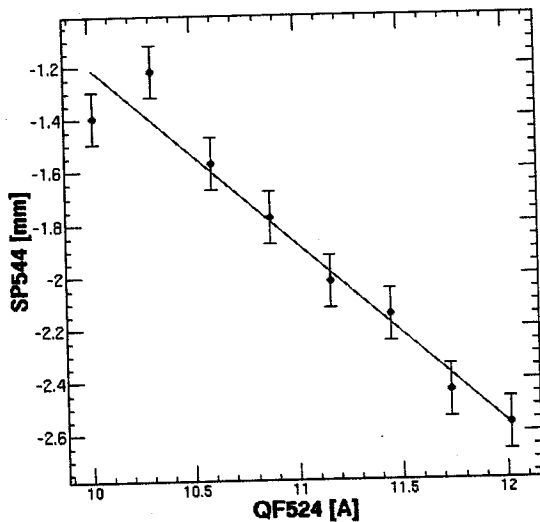
Display  
 BPM : SP544  
 Steering step : 1

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: .81585  
 error [mm]: .04184

Last BPM taken into account :  
 SP584  
 rel. curr. thresh. : .7

Fit Chk I Save

ard Copy



Condition  
 BPM to be Calibrated :  
 SP524

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP524  
 Steering : {{("SY513",1)}}  
 from -8  
 to 4  
 number 4  
 Q magnet: QF524  
 from -1  
 to 1  
 number 8

next remem. save

GO STOP READ

Display  
 BPM : SP544  
 Steering step : 1

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: -.23138  
 error [mm]: .01165

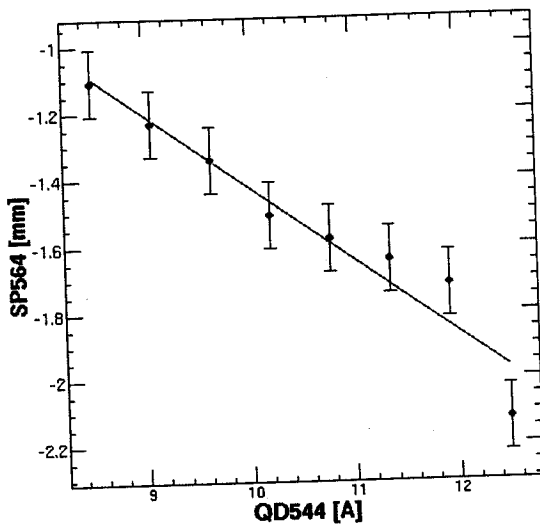
Last BPM taken into account :  
 SP584  
 rel. curr. thresh. : .7

Fit Chk I Save

ard Copy

File Edit Window

01/13/2007 04:25:50 Help



Condition  
 BPM to be Calibrated :  
 SP544

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP544  
 Steering : {{"SX533",1}}  
 from : -8  
 to : 0  
 number : 4  
 Q magnet: QD544  
 from : -2  
 to : 2  
 number : 8

next remem. save

GO STOP READ

Display  
 BPM : SP564 Steering step : 1

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: -2.0882  
 error [mm]: .00863  
 Last BPM taken into account :  
 SP564  
 rel. curr. thresh. : .7

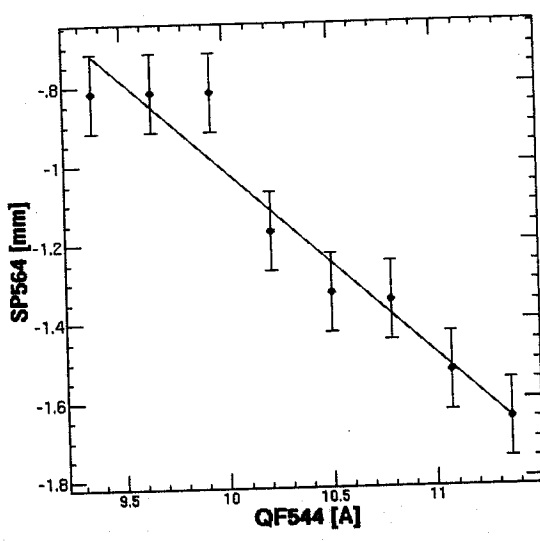
Fit Chk I Save

8	8	8	8
0	0	0	0
4	4	4	4
2	2	2	2
2	2	2	2
8	8	8	8
2	2	2	2
3	3	3	3
7	7	7	7

Hard Copy

File Edit Window

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Condition  
 BPM to be Calibrated :  
 SP544

Direction :  
 Horizontal  Vertical

Used Components :  
 BPM : SP544  
 Steering : {{"SY533",1}}  
 from : -4  
 to : 8  
 number : 4  
 Q magnet: QF544  
 from : -1  
 to : 1  
 number : 8

next remem. save

GO STOP READ

Display  
 BPM : SP564 Steering step : 1

Result  
 When the beam is at the Q center :  
 BPM reading [mm]: .20835  
 error [mm]: .01246  
 Last BPM taken into account :  
 SP564  
 rel. curr. thresh. : .7

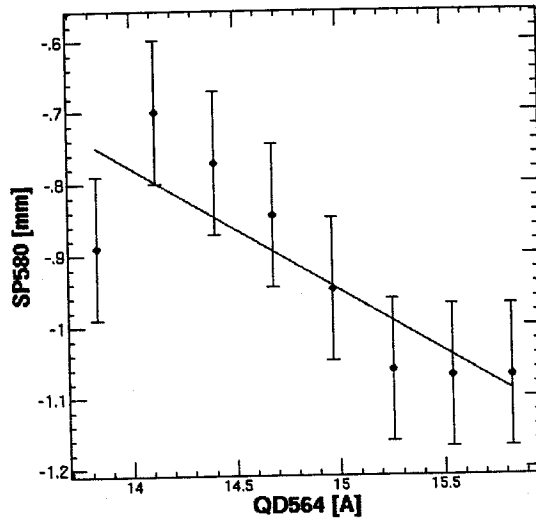
Fit Chk I Save

Hard Copy



File Edit Window

01/13/2007 03:43:46 Help



Condition  
BPM to be Calibrated :  
SP564

Direction :  
Horizontal Vertical

Used Components :  
BPM : SP564  
Steering : {"SX553",1}  
from -1  
to 5  
number 4  
Q magnet: QD564  
from -1  
to 1  
number 8

next remem. save

GO READ

Display  
BPM : SP580 Steering step : 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: 29694  
error [mm]: .0719

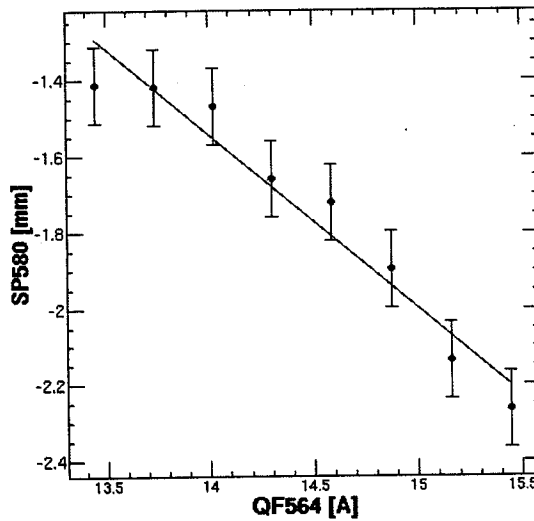
Last BPM taken into account :  
SP584  
rel. curr. thresh. : .7

Fit Chk I Save

Hard Copy

File Edit Window

01/13/2007 17:31:54 Help



Condition  
BPM to be Calibrated :  
SP564

Direction :  
Horizontal Vertical

Used Components :  
BPM : SP564  
Steering : {"SY553",1}  
from -0.8  
to 0.8  
number 4  
Q magnet: QF564  
from -1  
to 1  
number 8

next remem. save

GO READ

Display  
BPM : SP580 Steering step : 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: 22538  
error [mm]: .0177

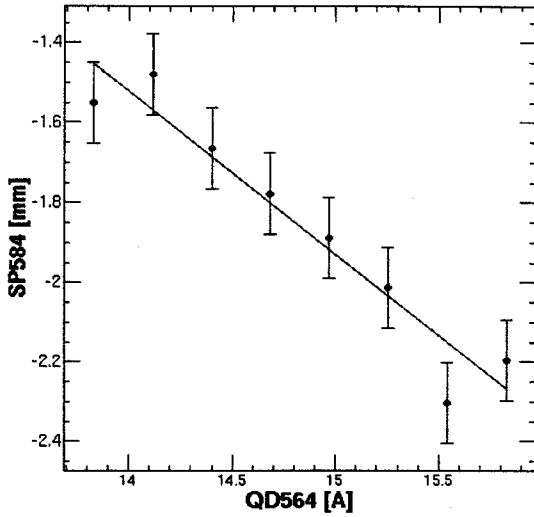
Last BPM taken into account :  
SP584  
rel. curr. thresh. : .7

Fit Chk I Save

Hard Copy

File Edit Window

01/13/2007 03:10:46 Help



Condition

BPM to be Calibrated :  
SP580

Direction :  
Horizontal Vertical

Used Components :  
BPM : SP580  
Steering : {"SX553",1}  
from -1 -1 -1 -1 -1  
to 0 0 0 0 0  
number 4 4 4 4 4

Q magnet: QD564  
from -1 -1 -1 -1 -1  
to 1 1 1 1 1  
number 8 8 8 8 8

next remem. save  
GO READ

Display  
BPM : Steering step :  
SP584 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: -1.11004 14 04 D4 04  
error [mm]: .05849 19 49 49 49

Last BPM taken into account :  
SP613

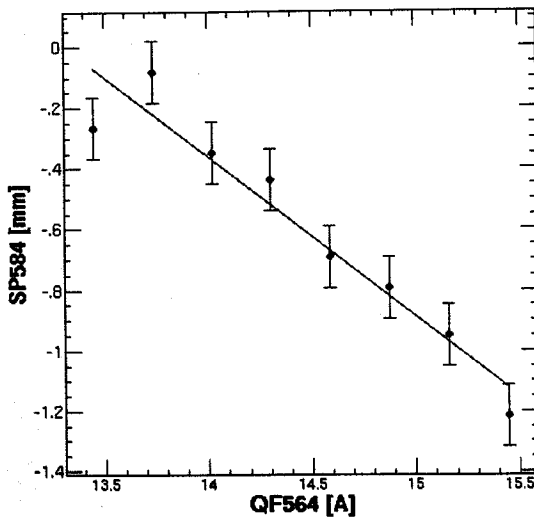
rel. curr. thresh. : .7 .7 .7 .7 .7

Fit Chk I Save

Hard Copy

File Edit Window

01/13/2007 17:42:22 Help



Condition

BPM to be Calibrated :  
SP580

Direction :  
Horizontal Vertical

Used Components :  
BPM : SP580  
Steering : {"SY553",1}  
from -4 -4 -4 -4 -4  
to .8 .8 .8 .8 .8  
number 4 4 4 4 4

Q magnet: QF564  
from -1 -1 -1 -1 -1  
to 1 1 1 1 1  
number 8 8 8 8 8

next remem. save  
GO READ

Display  
BPM : Steering step :  
SP584 1

Result  
When the beam is at the Q center :  
BPM reading [mm]: .26902 14 04 D4 04  
error [mm]: .06739 19 49 49 49

Last BPM taken into account :  
SP584

rel. curr. thresh. : .7 .7 .7 .7 .7

Fit Chk I Save

Hard Copy