

['05/1/26 (水)]
(準備)

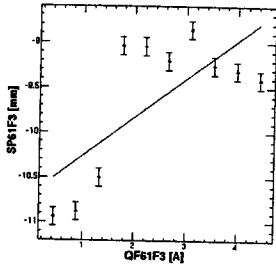
SP61-F3 (PR-BT 調整 BPM) の Quad BPM
(佐原)

(調整)

PF energy FB E OFF. 322!

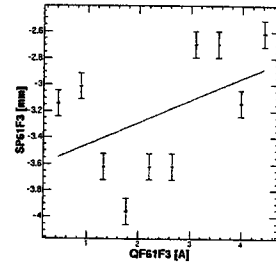
BS61F1
QF61F3

De Edit Window



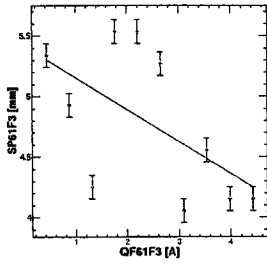
Condition
BPM to be Calibrated :
SP61F3
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F3
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F3 1
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

De Edit Window



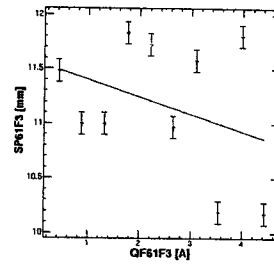
Condition
BPM to be Calibrated :
SP61F2
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F2
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F2 2
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

De Edit Window



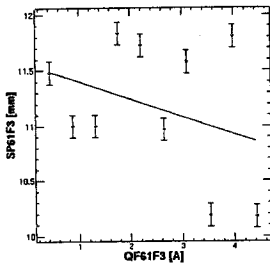
Condition
BPM to be Calibrated :
SP61F2
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F2
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F2 3
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

De Edit Window



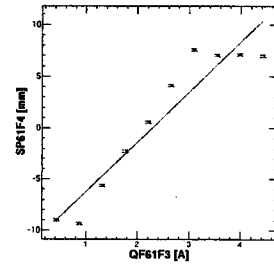
Condition
BPM to be Calibrated :
SP61F3
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F3
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F3 4
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

De Edit Window



Condition
BPM to be Calibrated :
SP61F3
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F3
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F3 4
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

De Edit Window



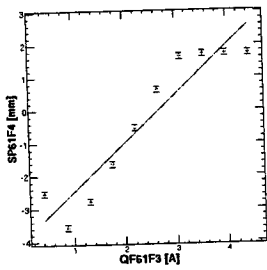
Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : ((BS61F1;1))
from to number
to 0 4
number 4
O magnet: QF61F3
from to number
to 0 4
number 10
GO READ
Display
BPM : Steering step :
SP61F4 1
Result
When the beam is at the O center :
BPM reading [mm]: .86715
error [mm]: .05619
Last BPM taken into account :
SP61F4
rel. corr. thresh.: 7
FR OK Save

Hard Copy

Hard Copy

5.008

Di Edit Window



Hard Copy

Condition: BPM to be Calibrated: SP61F3

Direction: Horizontal Vertical

Used Components: SP61F3

BPM: SP61F3

Steering: ((BSS1F1,1))

from: 1 to: 1

number: 4

G magnet: QF61F3

from: 0 to: 4

number: 10

next: return: save

GO READ

Display: BPM: Steering step: SP61F4 2

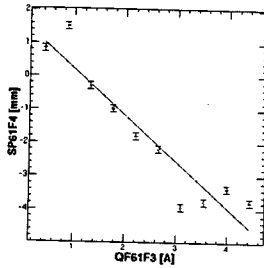
Result: When the beam is at the G center: BPM reading [mm]: .8715 error [mm]: .05619

Last BPM taken into account: SP61F4

rel. corr. thresh.: 7

OK Save

Di Edit Window



Hard Copy

Condition: BPM to be Calibrated: SP61F3

Direction: Horizontal Vertical

Used Components: SP61F3

BPM: SP61F3

Steering: ((BSS1F1,1))

from: 1 to: 1

number: 4

G magnet: QF61F3

from: 0 to: 4

number: 10

next: return: save

GO READ

Display: BPM: Steering step: SP61F4 3

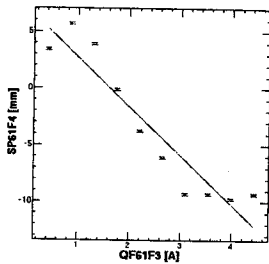
Result: When the beam is at the G center: BPM reading [mm]: .8715 error [mm]: .05619

Last BPM taken into account: SP61F4

rel. corr. thresh.: 7

OK Save

Di Edit Window



Hard Copy

Condition: BPM to be Calibrated: SP61F3

Direction: Horizontal Vertical

Used Components: SP61F3

BPM: SP61F3

Steering: ((BSS1F1,1))

from: 1 to: 1

number: 4

G magnet: QF61F3

from: 0 to: 4

number: 10

next: return: save

GO READ

Display: BPM: Steering step: SP61F4 4

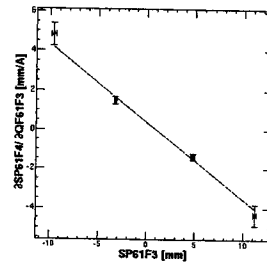
Result: When the beam is at the G center: BPM reading [mm]: .8715 error [mm]: .05619

Last BPM taken into account: SP61F4

rel. corr. thresh.: 7

OK Save

Di Edit Window



Hard Copy

Condition: BPM to be Calibrated: SP61F3

Direction: Horizontal Vertical

Used Components: SP61F3

BPM: SP61F3

Steering: ((BSS1F1,1))

from: 1 to: 1

number: 4

G magnet: QF61F3

from: 0 to: 4

number: 10

next: return: save

GO READ

Display: BPM: Steering step: SP61F4 0

Result: When the beam is at the G center: BPM reading [mm]: .8715 error [mm]: .05619

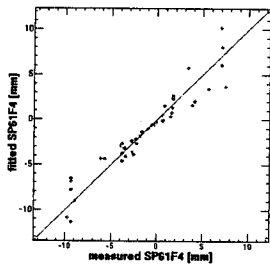
Last BPM taken into account: SP61F4

rel. corr. thresh.: 7

OK Save

Di Edit Window

residual = 1.557 mm



Hard Copy

Condition: BPM to be Calibrated: SP61F3

Direction: Horizontal Vertical

Used Components: SP61F3

BPM: SP61F3

Steering: ((BSS1F1,1))

from: 1 to: 1

number: 4

G magnet: QF61F3

from: 0 to: 4

number: 10

next: return: save

GO READ

Display: BPM: Steering step: SP61F4 0

Result: When the beam is at the G center: BPM reading [mm]: .8715 error [mm]: .05619

Last BPM taken into account: SP61F4

rel. corr. thresh.: 7

OK Save

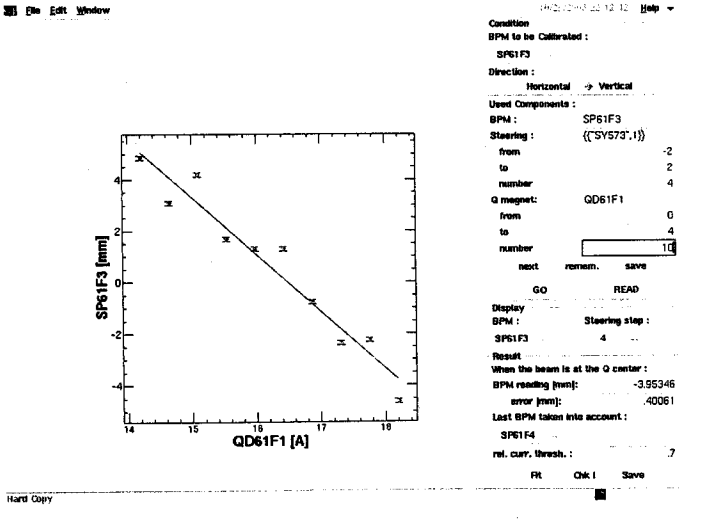
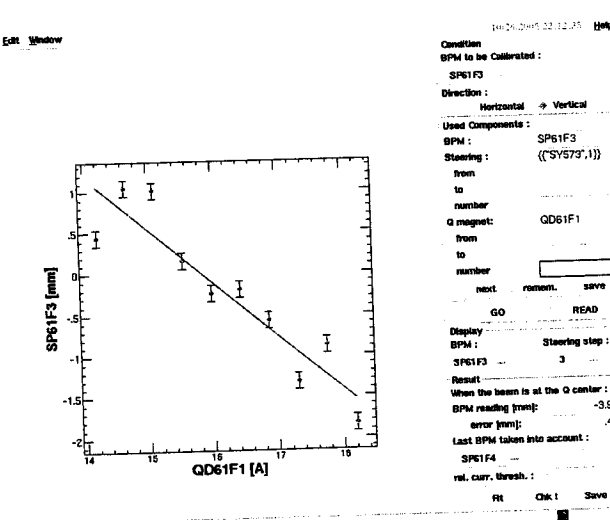
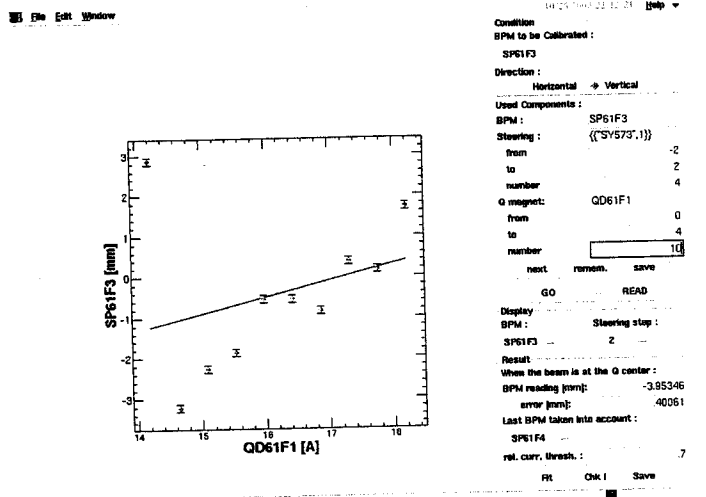
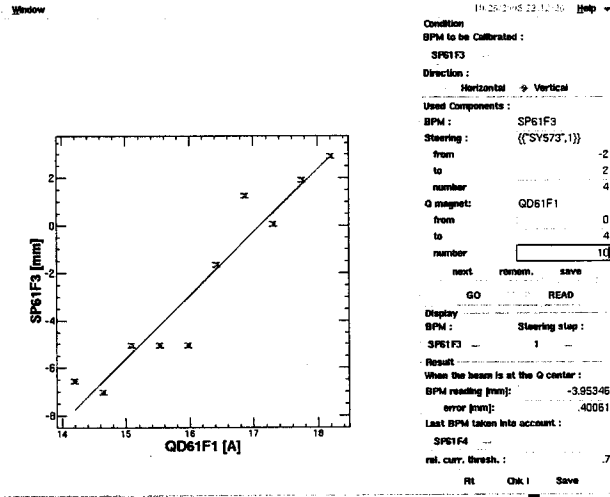
(V)

{SP61F3
QD61F1}

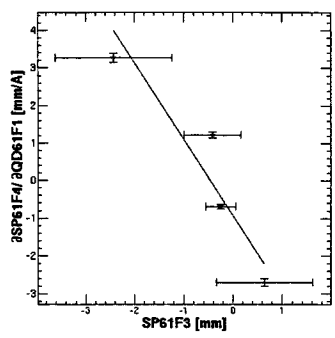


{QD61F3
QF61F3}

× {DY61F3} → 磁場の中心は
正と負の差がある



File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal + Vertical

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

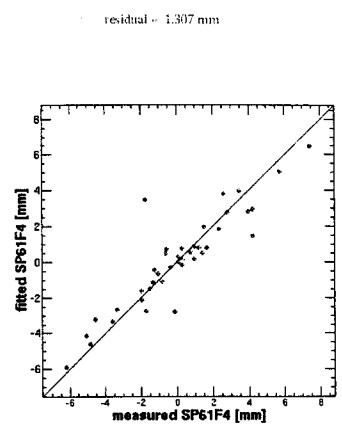
Display
BPM : SP61F4
Steering step : 10

Result:
When the beam is at the Q center :
BPM reading [mm]: -3.95346
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

Fit Ok Save

Hard Copy

File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

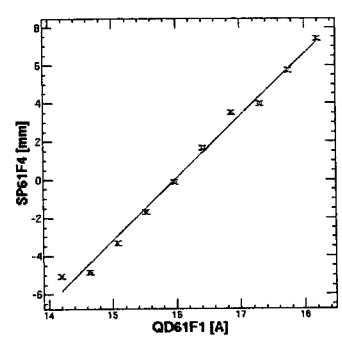
Display
BPM : SP61F4
Steering step : 10

Result:
When the beam is at a BPM reading [mm]: -6
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

Fit Ok Save

Hard Copy

File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal + Vertical

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

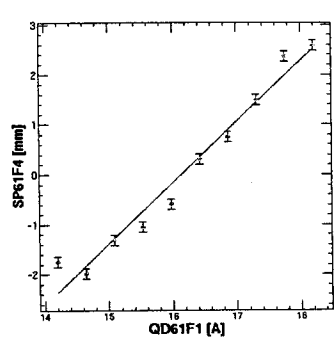
Display
BPM : SP61F4
Steering step : 1

Result:
When the beam is at the Q center :
BPM reading [mm]: -3.95346
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

Fit Ok Save

Hard Copy

File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

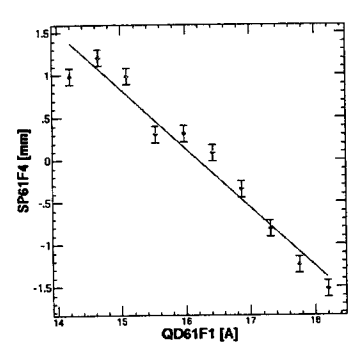
Display
BPM : SP61F4
Steering step : 1

Result:
When the beam is at a BPM reading [mm]: -6
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

Fit Ok Save

Hard Copy

File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal + Vertical

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

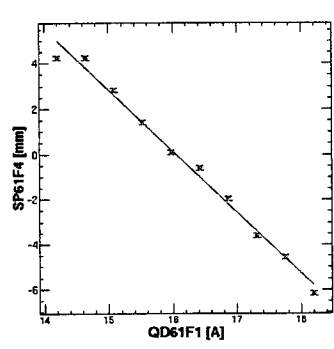
Display
BPM : SP61F4
Steering step : 3

Result:
When the beam is at the Q center :
BPM reading [mm]: -3.95346
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

Fit Ok Save

Hard Copy

File Edit Window



Condition
BPM to be Calibrated :
SP61F3

Direction :
Horizontal

Used Components :
BPM : SP61F3
Steering : ((SY573,1))
from -2
to 2
number 4
Q magnet: QD61F1
from 0
to 4
number 10

Display
BPM : SP61F4
Steering step : 10

Result:
When the beam is at a BPM reading [mm]: -6
error [mm]: 40061
Last BPM taken into account :
SP61F4
rel. curr. thresh. : 7

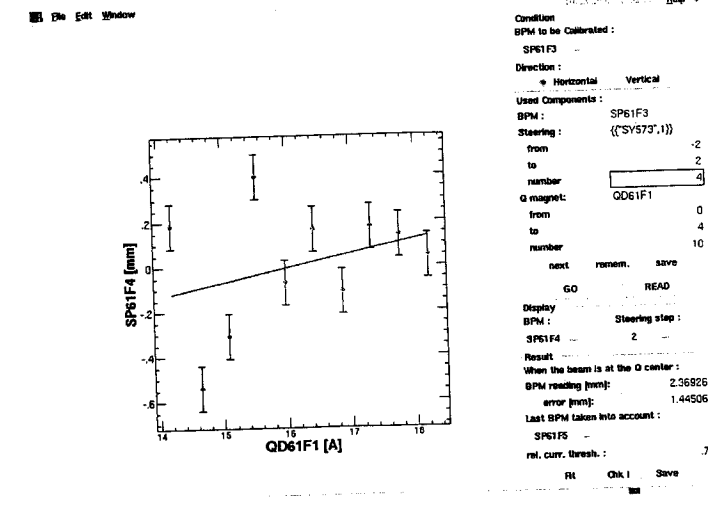
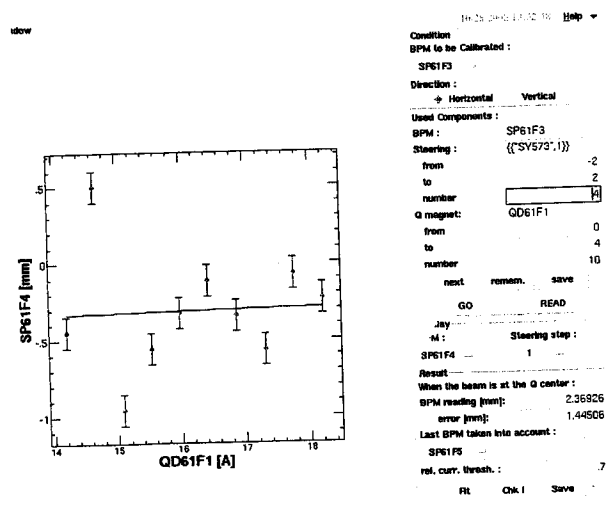
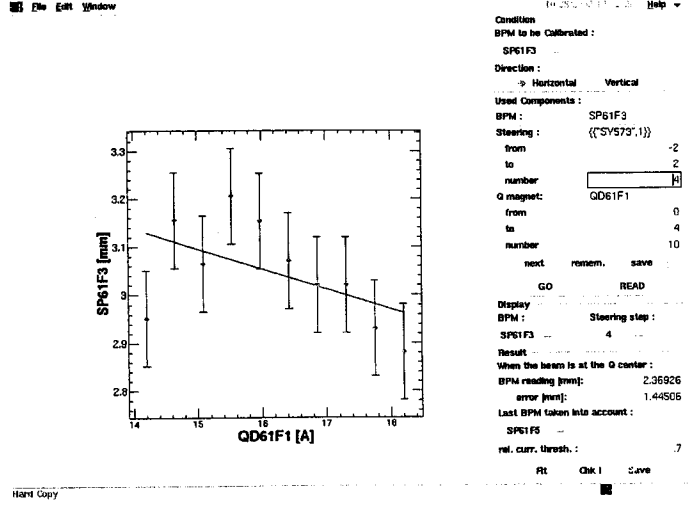
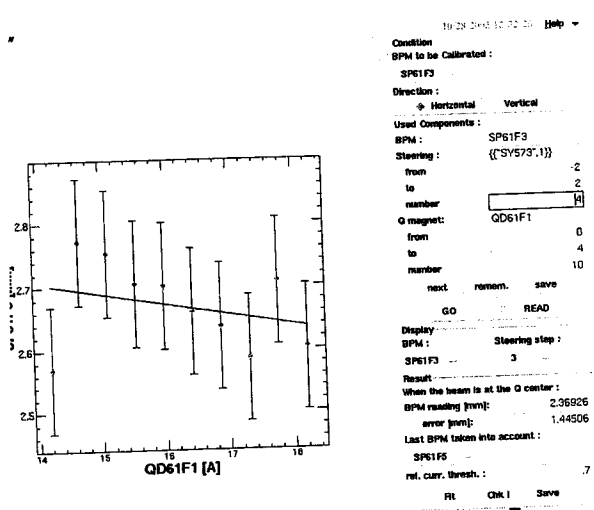
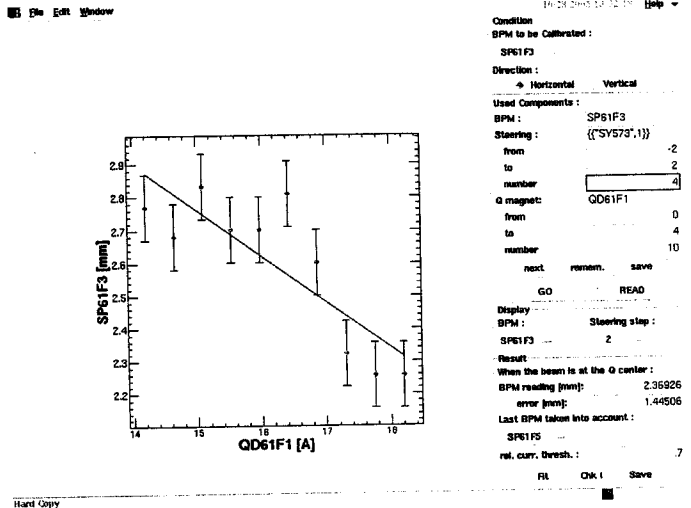
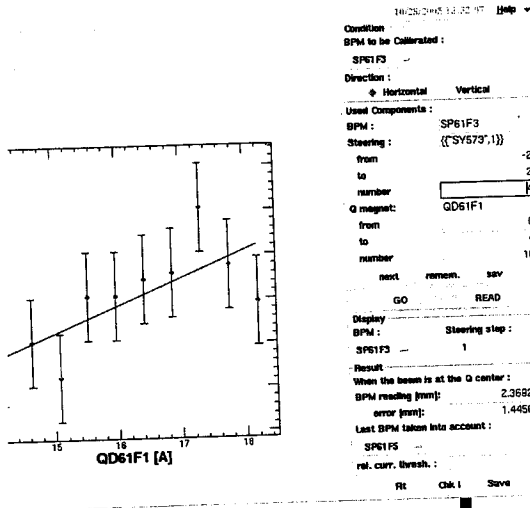
Fit Ok Save

Hard Copy

~~SP61F4 vs QD61F1~~ SP61F4 vs QD61F1 の関係

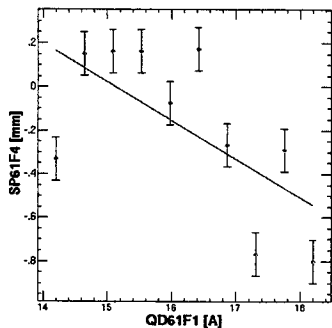
(105/10/28 (A)) M. Satoh

S8-61-F3 (PF-BT 8# BPM)
 0# Vertical Quad BPM



File Edit Window

16/26/2016 10:30:46 [Help]



Condition
BPM to be Calibrated:
SP61F3

Direction:
Horizontal Vertical

Used Components:
BPM: SP61F3
Steering: (('SY573',1))
from: -2
to: 2
number: 4

Q magnet: QD61F1
from: 0
to: 4
number: 10

next remem. save

GO READ

Display
BPM: Steering step:
SP61F4 3

Result
When the beam is at the Q center:
BPM reading [mm]: 2.36926
error [mm]: 1.44806

Last BPM taken into account:
SP61F5

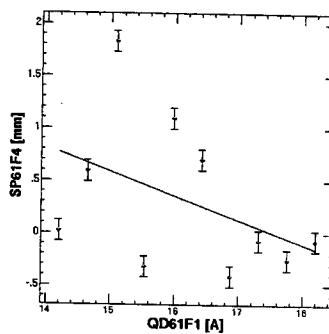
rel. curr. thresh.: 7

Fit Chk. I Save

Hard Copy

File Edit Window

16/26/2016



Condition
BPM to be Calibrated:
SP61F3

Direction:
Horizontal

Used Components:
BPM: S
Steering: (('SY573',1))
from: 0
to: 4
number: 4

Q magnet: Q
from: 0
to: 4
number: 10

next remem

GO

Display
BPM: S
SP61F4

Result
When the beam is at the
BPM reading [mm]:
error [mm]:

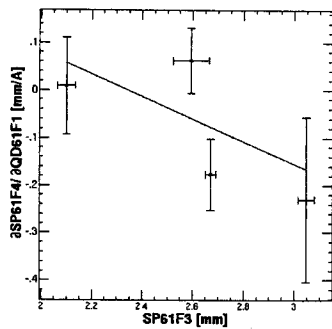
Last BPM taken into ac
SP61F5

rel. curr. thresh.:

Fit Chk. I

File Edit Window

16/26/2016 10:30:19 [Help]



Condition
BPM to be Calibrated:
SP61F3

Direction:
Horizontal Vertical

Used Components:
BPM: SP61F3
Steering: (('SY573',1))
from: -2
to: 2
number: 4

Q magnet: QD61F1
from: 0
to: 4
number: 10

next remem. save

GO READ

Display
BPM: Steering step:
SP61F4 Fit

Result
When the beam is at the Q center:
BPM reading [mm]: 2.36926
error [mm]: 1.44806

Last BPM taken into account:
SP61F5

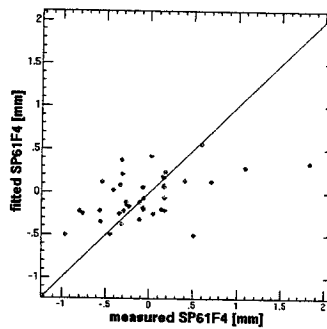
rel. curr. thresh.: 7

Fit Chk. I Save

Hard Copy

File Edit Window

residual = 465 nm



Condition
BPM to be Calib
SP61F3

Direction:
Horizontal

Used Componen
BPM:
Steering:
from:
to:
number:
Q magnet:
from:
to:
number:
next

GO

Display
BPM:
SP61F4

Result
When the beam is
BPM reading [mm]
error [mm]:

Last BPM taken i
SP61F5

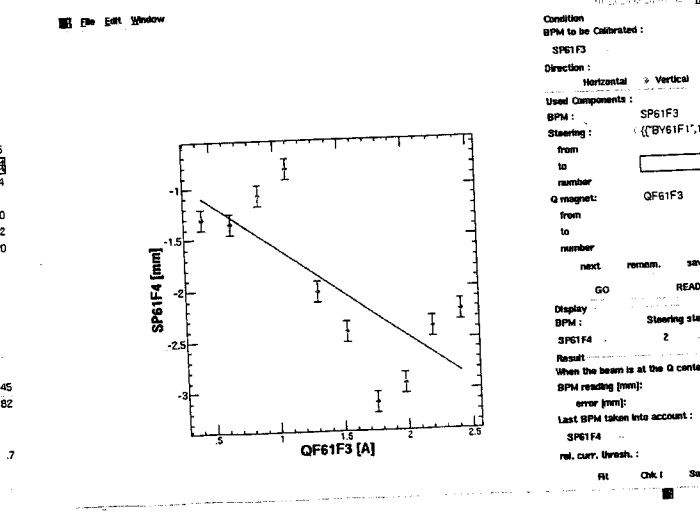
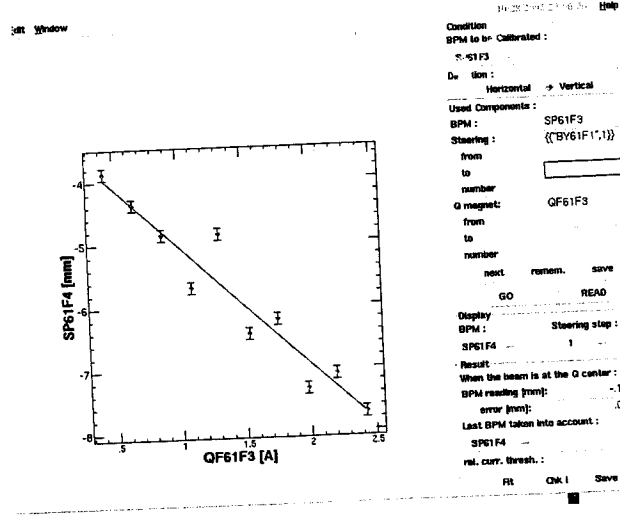
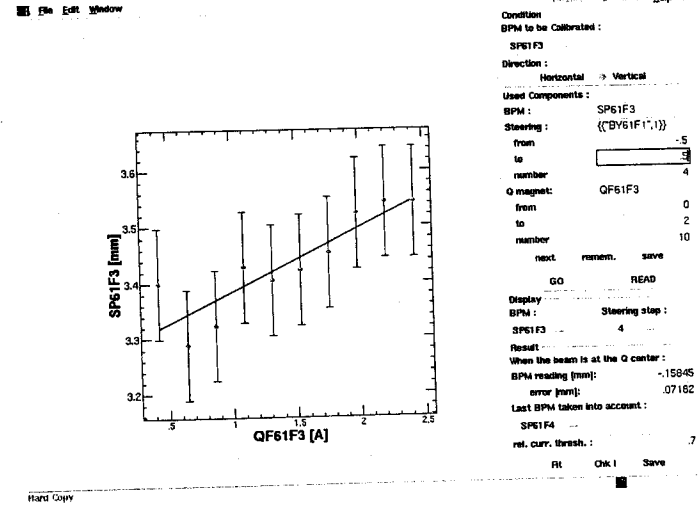
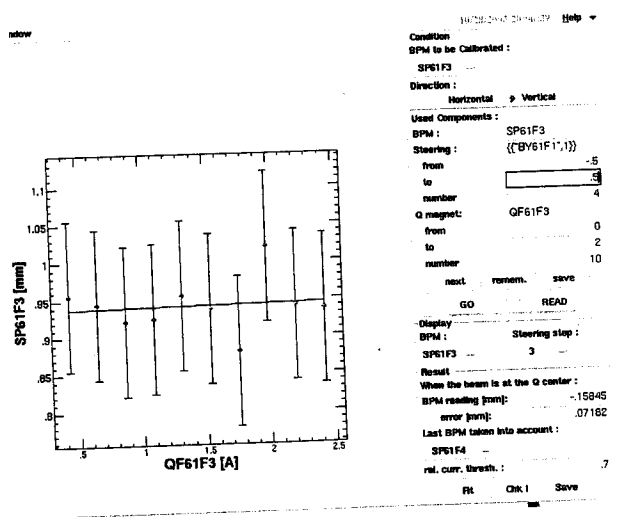
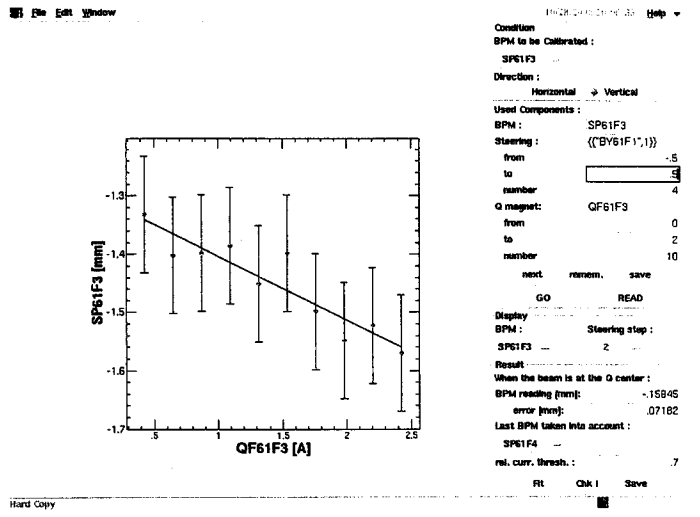
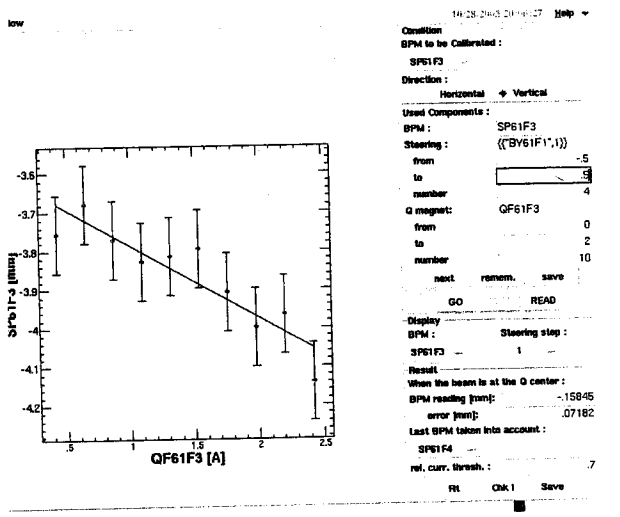
rel. curr. thresh.
Fit

Hard Copy

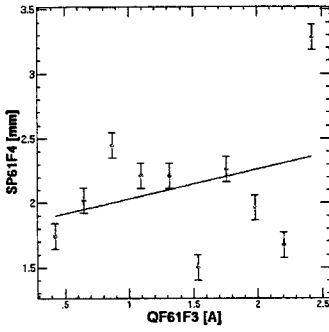
- この手の測定は、(正負) 途中で Charge が
落ちると、正しくなく。

~~BY-61F1~~

BY-61F1 と QF-61-F3 の 調整が でき ました
OK あります。



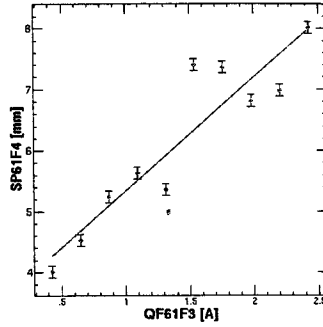
File Edit Window



Condition: BPM to be Calibrated: SP61F3
 Direction: Horizontal \leftrightarrow Vertical
 Used Components: BPM: SP61F3
 Steering: ((BY61F1,1))
 from: -5 to: 5 number: 4
 Q magnet: QF61F3
 from: 0 to: 2 number: 10
 next remem. save
 GO READ
 Display: BPM: Steering step: SP61F4 3
 Result: When the beam is at the Q center: BPM reading [mm]: -15845 error [mm]: .07182
 Last BPM taken into account: SP61F4
 rel. curr. thresh.: .7
 Rt Ok I Save

Hard Copy

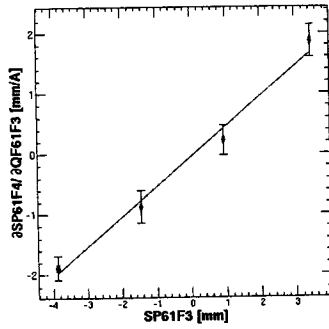
File Edit Window



Condition: BPM to be Calibrated: SP61F3
 Direction: Horizontal \leftrightarrow Vertical
 Used Components: BPM: SP61F3
 Steering: ((BY61F1,1))
 from: -5 to: 5 number: 4
 Q magnet: QF61F3
 from: 0 to: 2 number: 10
 next remem. save
 GO READ
 Display: BPM: Steering step: SP61F4 4
 Result: When the beam is at the Q center: BPM reading [mm]: -15845 error [mm]: .07182
 Last BPM taken into account: SP61F4
 rel. curr. thresh.: .7
 Rt Ok I Save

Hard Copy

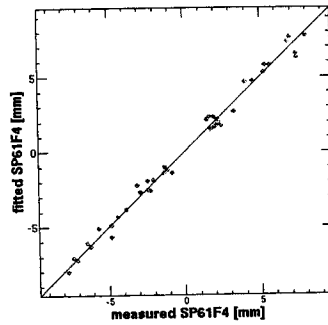
File Edit Window



Condition: BPM to be Calibrated: SP61F3
 Direction: Horizontal \leftrightarrow Vertical
 Used Components: BPM: SP61F3
 Steering: ((BY61F1,1))
 from: -5 to: 5 number: 4
 Q magnet: QF61F3
 from: 0 to: 2 number: 10
 next remem. save
 GO READ
 Display: BPM: Steering step: SP61F4 Rt
 Result: When the beam is at the Q center: BPM reading [mm]: -15845 error [mm]: .07182
 Last BPM taken into account: SP61F4
 rel. curr. thresh.: .7
 Rt Ok I Save

Hard Copy

File Edit Window



Condition: BPM to be Calibrated: SP61F3
 Direction: Horizontal \leftrightarrow Vertical
 Used Components: BPM: SP61F3
 Steering: ((BY61F1,1))
 from: -5 to: 5 number: 4
 Q magnet: QF61F3
 from: 0 to: 2 number: 10
 next remem. save
 GO READ
 Display: BPM: Steering step: SP61F4 FID
 Result: When the beam is at the Q center: BPM reading [mm]: -15845 error [mm]: .07182
 Last BPM taken into account: SP61F4
 rel. curr. thresh.: .7
 Rt Ok I Save

Hard Copy

0.4365
0.888

Oct. 31. 2005 Pre buncher 4.3 → 11.9°
 buncher 296 → 291.3° (小 5回)
 KL-CT 220.7 → 225.2° Core 小 (Tail あり?)
 223 Core 大
 SB-1 96° ~~96°~~ 96°

11-55

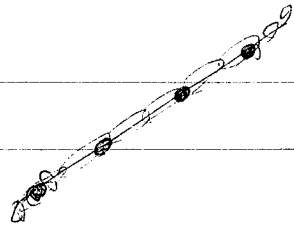
SP-61-F4 a 7 Quad BPM

(V)

BY-61-F1	QA-61-F5	SP-61-F4	PM2 子値
0.12	0.183 nominal	3.07 3.07 mm	
0.0		2.4	上昇
-0.1		1.4	上昇
+0.05		2.8	上昇 (4)
+0.14		3.1	変動なし
+0.15		3.7	下降
+0.12		<u>3.2</u>	変動なし

(H)

BX-61-F3			
-0.50 nominal		-0.5 mm	下降
-0.35		0.9 mm	?
-1.0		-1.2	下降
(0)		1.0 mm	変動なし
+0.5		2.2 mm	下降
+0.2		1.6 mm	下降
-0.2		0.4 mm	下降
0		<u>+0.8 mm</u>	



F4 X +1.6 mm $\phi 1'' \bar{u}$
 Y +1.3 mm $\phi 1'' \bar{u}$

<u>pf</u>			ref 0.085	SP-262	0.085	Cor factor	0.71	factor
}	SP24-3	0.120						1.27 → 0.90
	SP26-1							1.284 → 0.81
	26-3							1.354 → 0.826
	27-2							1.323 → 0.839
	28-2							1.313 → 0.832
	31-0							2.264 → 1.607
	28-4	0.110 / 0.08					1.325	1.526 → 2.09

14=30

SP 61 - F4 Quad BPM.

Horizontal.

1. 回 目

Bx61-3 ±0.6 A
 2x61-5 0 → 2 A, 0 → 1 A, 0 → +0.7 A,

⇒ a Sp 61 - F4 a offset 1.6. (x -1.6, y -1.3 mm)

Energy FB ON 2-20222 76 1.20

-1.11 ± 0.2361