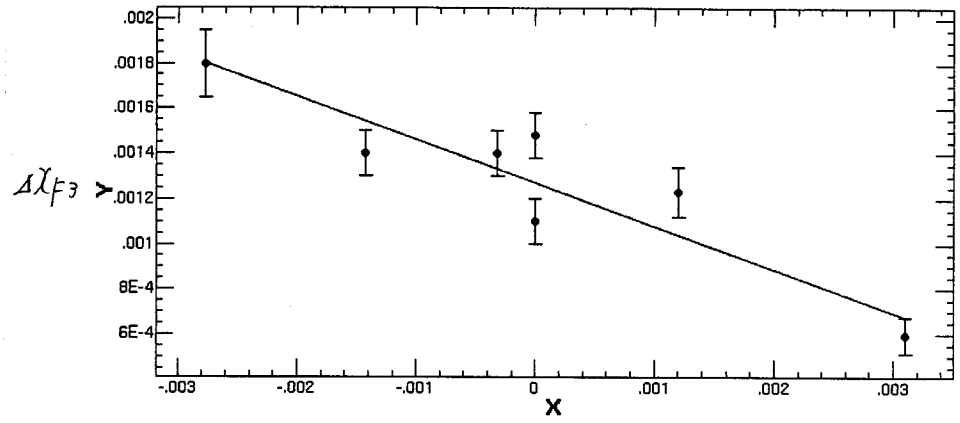
41

File Edit Window 10/24/2005 15:37:27 Help

hiSquare = 13.8866 Goodness = .01635

= -.19361 +/- .02207 b = .00127 +/- 3.93E-5



$\Delta\chi_{F3}$

unction = (b+(a x))

$\frac{\Delta P}{P} = \delta = \frac{\Delta\chi_{F1}}{\eta_{F1}}$

Menu Bar

QF_61_F1 13.291 A → 12.740 A

3.94254 T/m → 3.7830

Fudge Factor 0.959554

QD_61_F1 14.128 A → 13.550 A

4.24185 T/m → 4.0702

After QM set

15:55

Energy_knob	S8_61_F3	61_F1	61_F4
2.4704	1.5 (1.5~1.7)	2.1	−1.1
2.4756	1.1	3.0	−1.1

FeedBack が OK になるまで

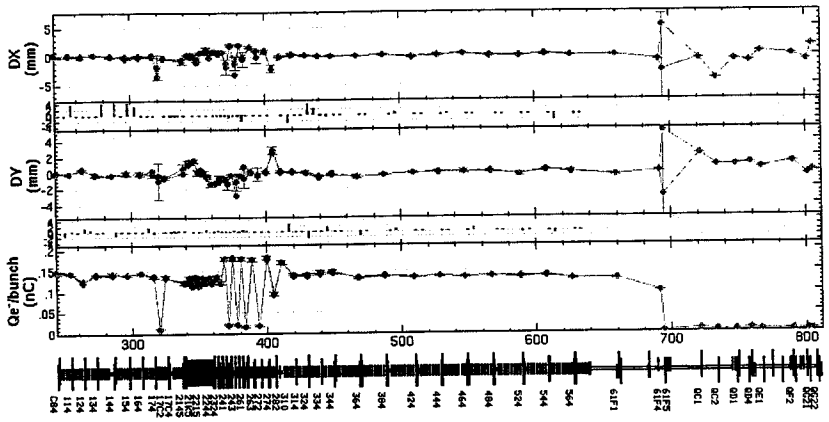
Energy_knob	61_F1	S8_61_F3	61_F4

File Edit Measurement Correction Steering Orbit Window

10/24/2005 15:16:08 Help

measuring at intervals of 1 sec

measured 10/24/2005 15:16:09



r.m.s =1.248 mm
max. =5.216 mm
@ SP61F5
min. =-4.249 mm
@ SPQC2
-.022 mm
@ SP61F1
(-.05±.145mm)

r.m.s =1.192 mm
max. =5.085 mm
@ SP61F5
min. =-3.536 mm
@ SPC44
-.309 mm
@ SP61F1
(-.266±.078mm)

.129 nC
@ SP61F1
(.129±.002 nC)

20:6:09

mode e⁺ e⁻ range DX Auto Fix (7) DY Auto Fix (5) Q Auto Fix (.2) e⁻/e⁺ 4 Replot

a b r c 1 2 3 4 5 6 p1 p2 Clear Statistics

meas stat ref meas-ref stat-ref meas -> ref stat -> ref

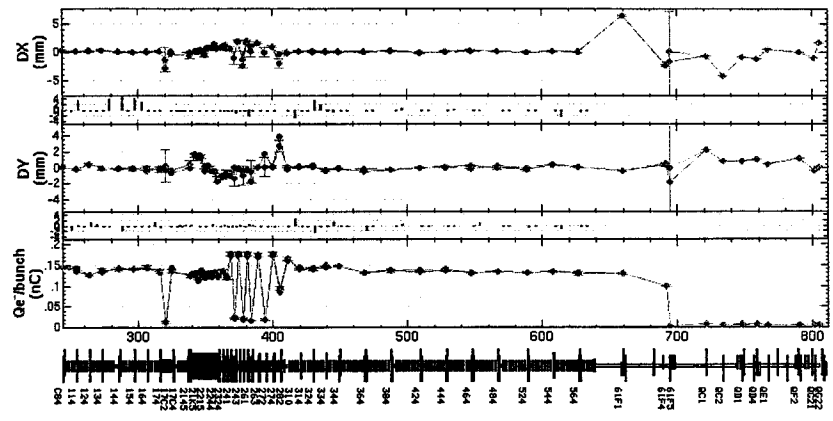
Hard Copy

File Edit Measurement Correction Steering Orbit Window

10/24/2005 15:14:31 Help

measuring at intervals of 1 sec

measured 10/24/2005 15:14:32



r.m.s =1.326 mm
max. =6.576 mm
@ SP61F1
min. =-4.249 mm
@ SPQC2
6.576 mm
@ SP61F1
(6.563±.16mm)

r.m.s =1.195 mm
max. =3.866 mm
@ SP284
min. =-4.289 mm
@ SPR014
-.371 mm
@ SP61F1
(-.402±.106mm)

.128 nC
@ SP61F1
(.128±.002 nC)

21:4:32

mode e⁺ e⁻ range DX Auto Fix (7) DY Auto Fix (5) Q Auto Fix (.2) e⁻/e⁺ 4 Replot

a b r c 1 2 3 4 5 6 p1 p2 Clear Statistics

meas stat ref meas-ref stat-ref meas -> ref stat -> ref

Hard Copy

Abort | Save&Quit | PGP... | More... | Text... | Help | Sign... | Send

To:
cc: Kazuro FURUKAWA <kazuro.furukawa@kek.jp>
From: Kazuro FURUKAWA <kazuro.furukawa@kek.jp>
Subject:
X-uri: <URL:http://www-linac.kek.jp/~furukawa/>
Mime-Version: 1.0
Content-Type: text/plain

こんにちは、さん、古川です。

sp-meas-loop-v27

% sp-meas-loop-v27 -help
Usage: sp-meas <option>
 option: -r <r> repetition in seconds (default:1)
         -f <file> sp names, '-' for stdin
         -g <file> mg names
         -k   check safety kb mode (default:no check)
         -p   check safety pf mode (default:no check)
         -h   help
 example: sp-meas-loop -r 2
          sp-meas-loop -r 2 -f spnames.dat
          sp-meas-loop -p

usage:
 sp-meas-loop-v27 -r1 -f bpmnamesb -g mgnames >& output3.log

example of a sp name file:
SP_61_F1
LIiS8:PFBT_1:XAVE
LIiS8:PFBT_1:YAVE
LIiS8:PFBT_1:IAVE
SP_61_F4
SP_61_F5
PFrBT:BPM:QC1_XPOS
PFrBT:BPM:QC1_YPOS
PFrBT:BPM:QC1_SUM

for linac bpm: bpm name
for epics bpm: each channel x, y, q

3 data (x, y, q) will be recorded

example of a mg name file:
BX_61_F3
BY_61_F5
BM_58_1
BS_58_1

3 data (current set, current read, field set) will be recorded

example of output line:

time {bpm data} {magnet data} Mon Oct 24 14:45:53 2005

1130132753.000 0.099 0.201 0.134 0.302 0.005 0.130 0.328 0.198 0.131 0.243 0.038

よろしくお願いします。

古川 和朗, Kazuro FURUKAWA <kazuro.furukawa@kek.jp>
 Linac, High Energy Accelerator Research Organization (KEK), Japan
 Telephone: +81-29-864-5200 x4316, Facsimile: +81-29-864-7529

Message saved

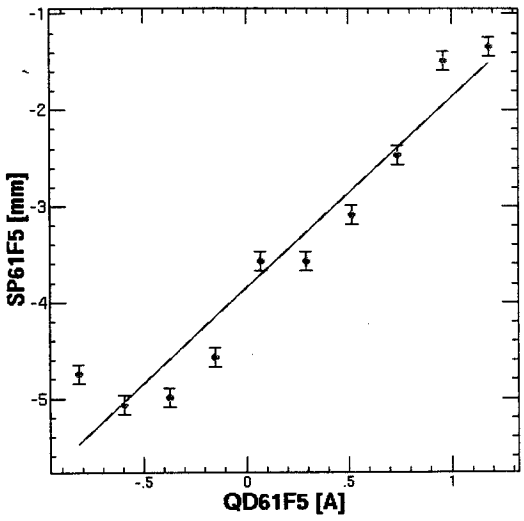
'05/10/24 (月) 18:30~19:45. M. Satoh Quad/BPM

(H)

・SP61F4 (PF-BT

File Edit Window

10/24/2005 19:09:39 Help

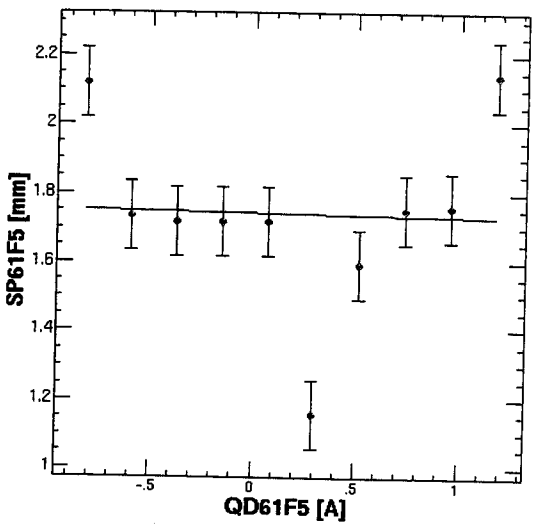


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 1
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:39:57 Help



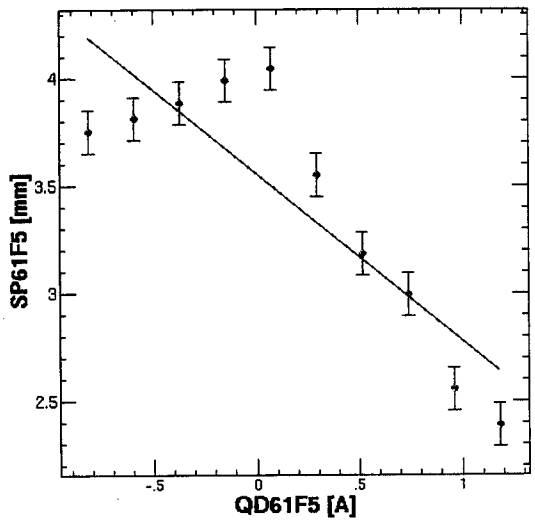
Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 2
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

45

File Edit Window

10/24/2005 19:10:04 Help

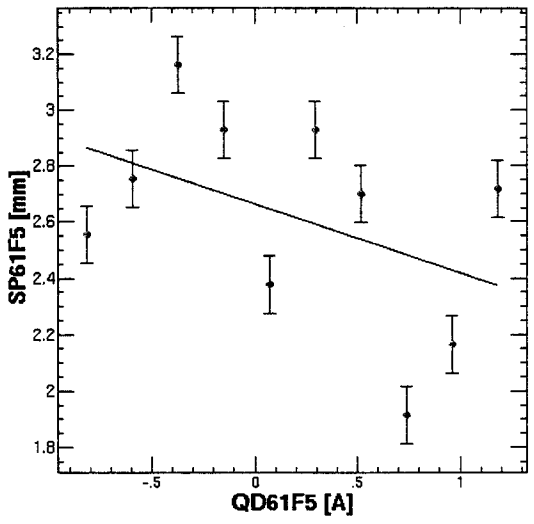


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 3
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:10:31 Help

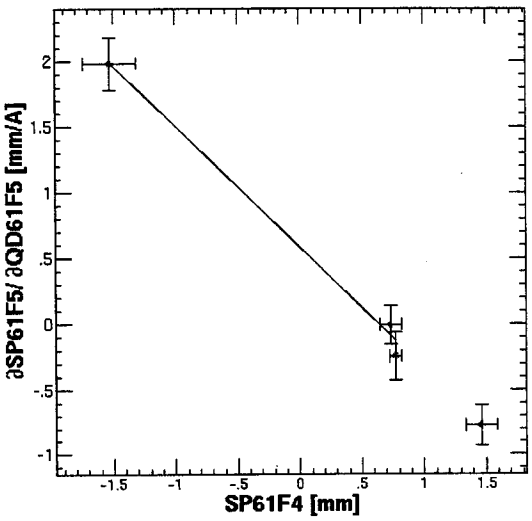


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 4
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:09:38 Help



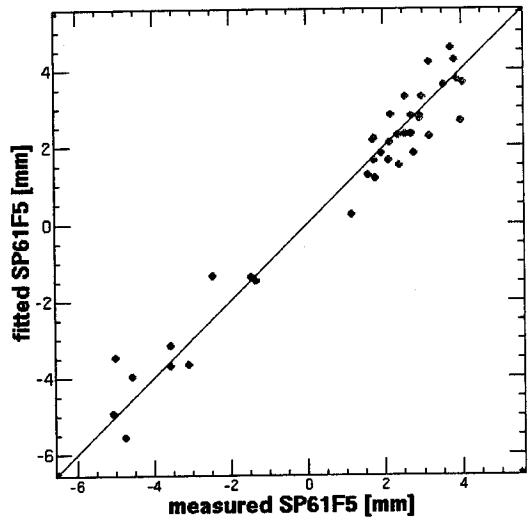
Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 Fit
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:09:42 Help

residual = .657 mm



Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BX61F3",1}}
from -.6
to .6
number 4
Q magnet: QD61F5
from -1
to 1
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 Fit0
Result
When the beam is at the Q center :
BPM reading [mm]: .79433
error [mm]: .80354
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

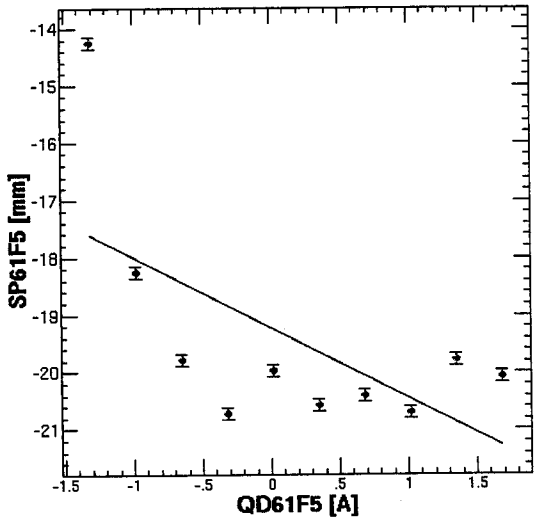
Hard Copy

47

(V)

File Edit Window

10/24/2005 19:39:09 Help

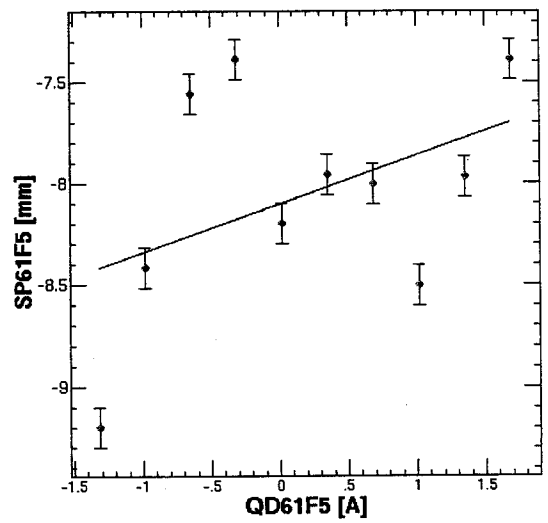


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal ◆ Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 1
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Save

Main Application Area

File Edit Window

10/24/2005 19:39:19 Help

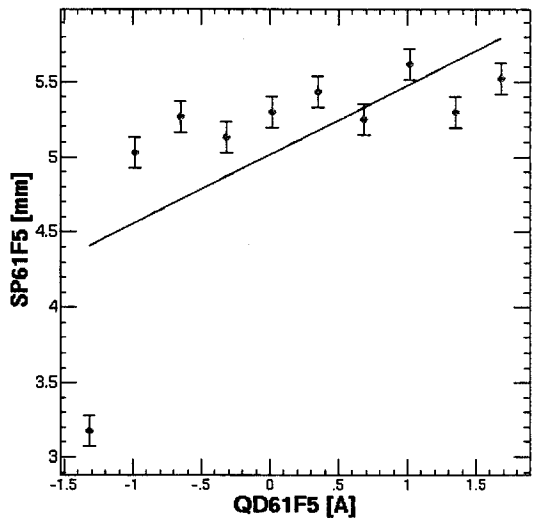


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal ◆ Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 2
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:39:29 Help

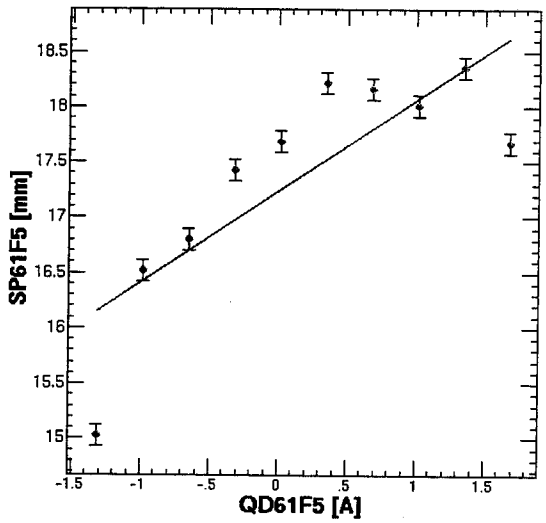


Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 3
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

File Edit Window

10/24/2005 19:39:37 Help



Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 4
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

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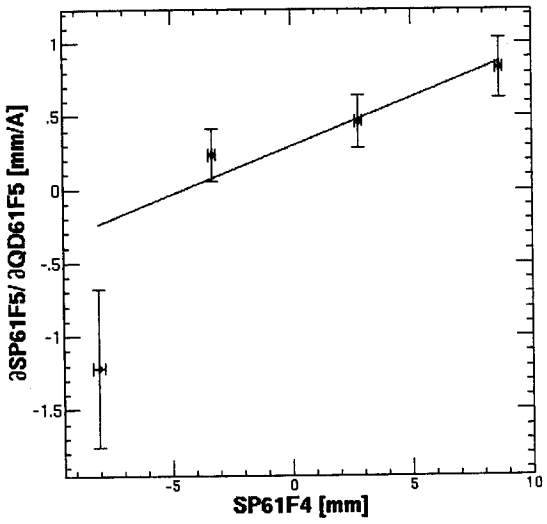
File Edit Window

10/24/2005 19:39:46 Help



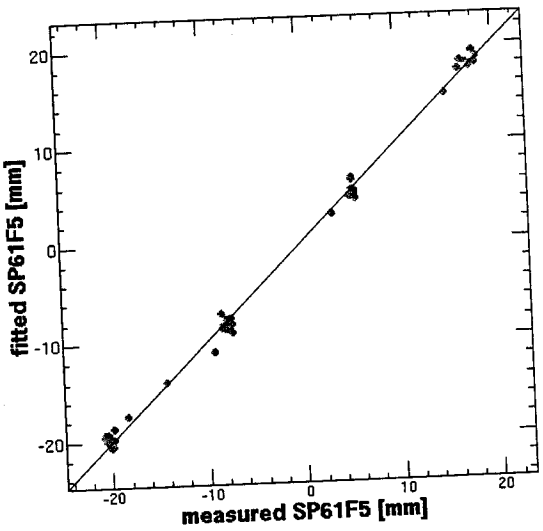
Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 Fit
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

Hard Copy

10/24/2005 19:39:52 Help

File Edit Window

residual = .888 mm



Condition
BPM to be Calibrated :
SP61F4
Direction :
Horizontal Vertical
Used Components :
BPM : SP61F4
Steering : {{"BY61F1 ",1}}
from -1
to 1
number 4
Q magnet: QD61F5
from -1.5
to 1.5
number 10
next remem. save
GO READ
Display
BPM : Steering step :
SP61F5 Fit0
Result
When the beam is at the Q center :
BPM reading [mm]: -1.94502
error [mm]: 1.43816
Last BPM taken into account :
SP61F5
rel. curr. thresh. : .7
Fit Chk I Save

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2005. 10. 24. Correlation 測定

① Energy Knob. 2.4640 2.4640

2.4743 2.4537 R₋ 0.095 nC

2.4846 2.4434 0.075 nC

R_+ 2.4949

Range = ~~[2.4537, 2.4949]~~ ΔE = 0.0412

[2.4537, 2.4846] ΔE = 0.0309

E_0 = 2.4640

~~Measurements Energy Scans~~
~~1st BS_61_FS~~

2nd BS_58_1 Range : I = [-1.7, 2.0] I_0 = 0

BS_58_1

0.00 -0.001 Rng = [-1.201, 1.999]
-1.501
0.099 -1.201
-2.001
0.199
0.399
0.499
0.799
0.999
1.199
1.399
1.599
1.799
1.999

Considering Hysteresis
change to -3.0
Use [ ] I

I = [-1.7, 2] ΔI = 3.7

BS_61_F1 Range I = [-0.699, 0.801] I_0 = ~~3.0~~ 0.0

ΔI = 1.50