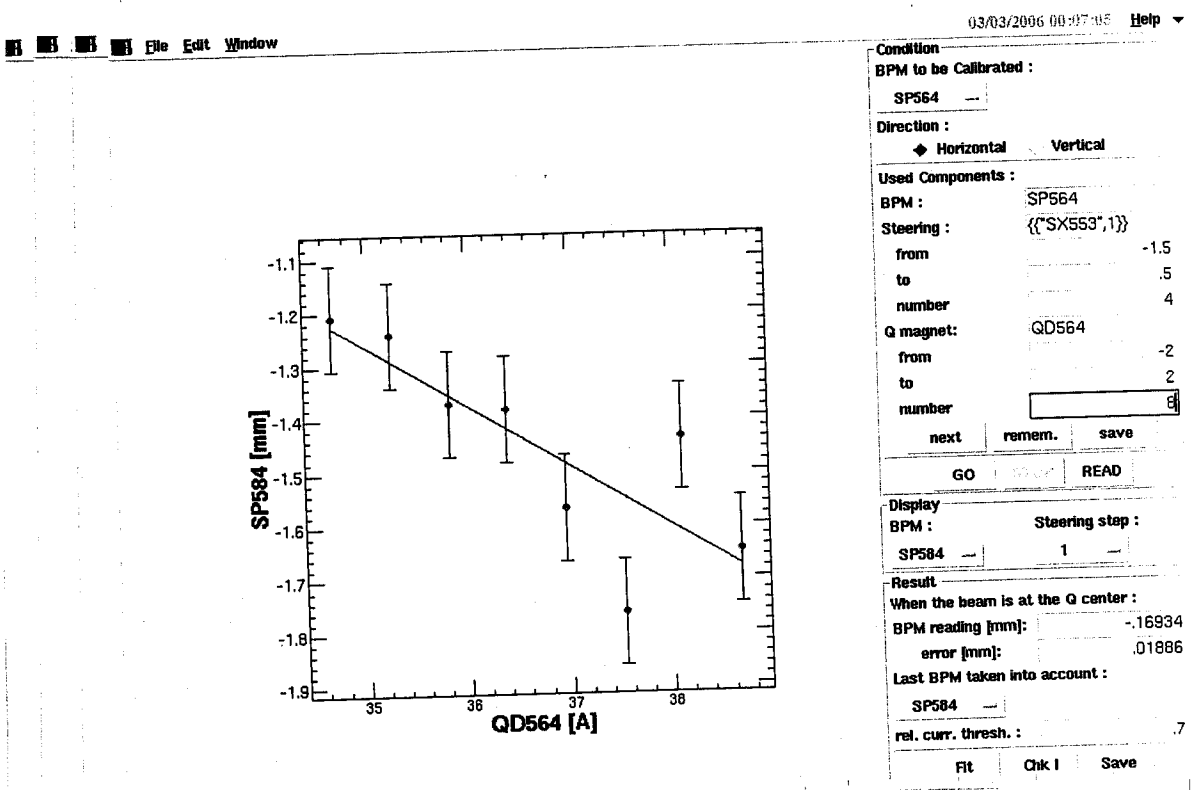
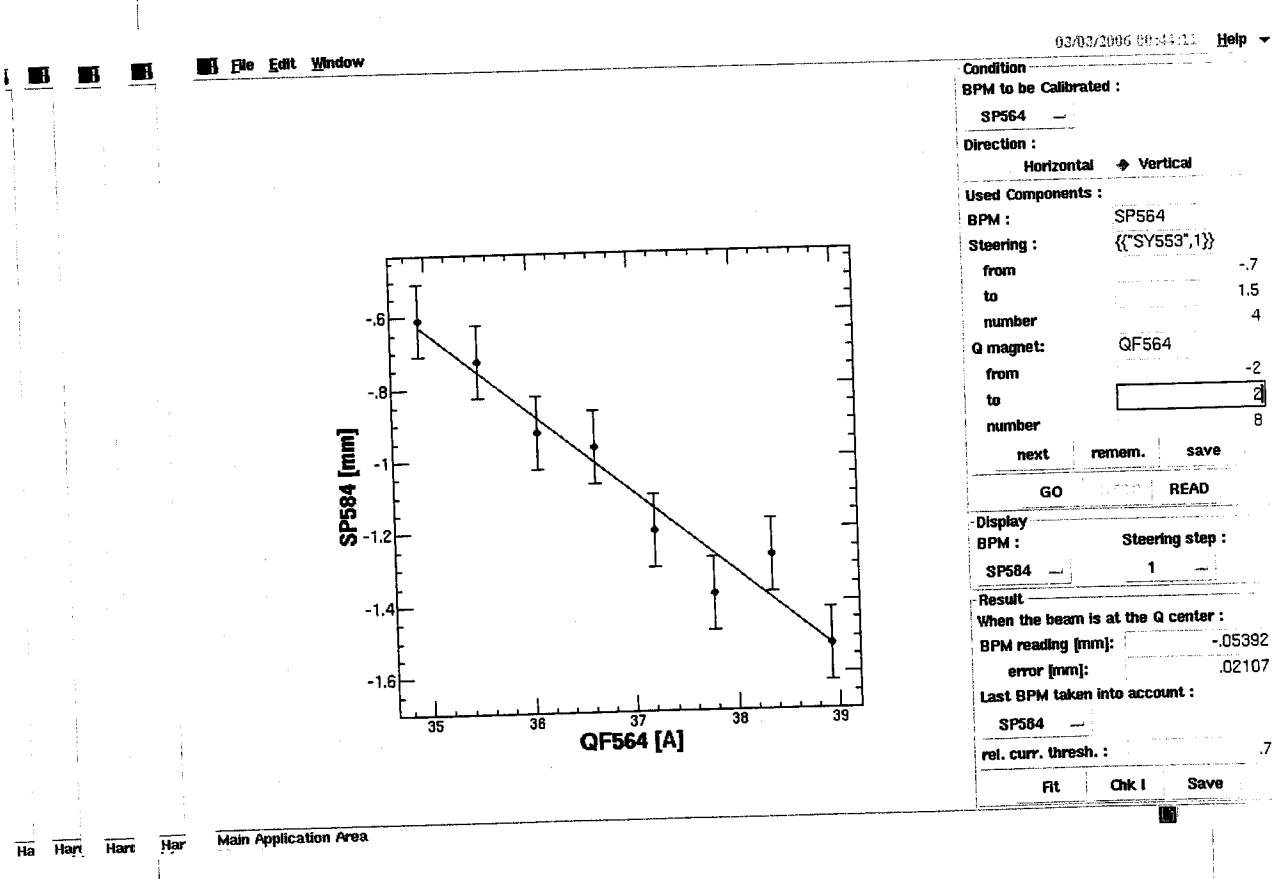
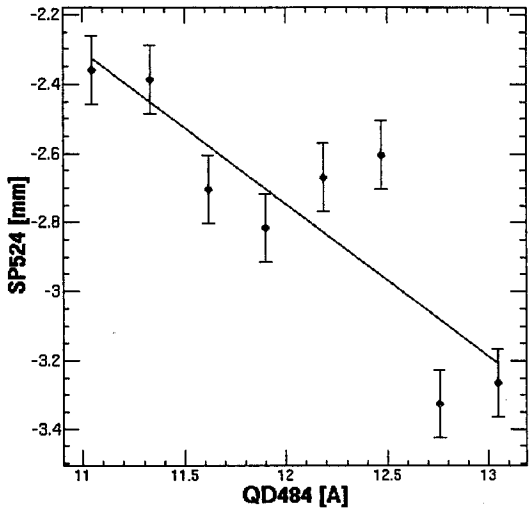

03/03/2006 00:07:05
Help
File Edit Window
Condition
BPM to be Calibrated :
SP564
Direction :
Horizontal
Vertical
Used Components :
BPM : SP564
Steering : {{"SX553",1}}
from -1.5
to .5
number 4
Q magnet: QD564
from -2
to 2
number 8
next
remem.
save
GO
READ
Display
BPM :
Steering step :
SP584
1
Result
When the beam is at the Q center :
BPM reading [mm]: -.16934
error [mm]: .01886
Last BPM taken into account :
SP584
rel. curr. thresh. : .7
Fit
Chk I
Save
SP584 [mm]
QD564 [A]


03/03/2006 00:43:12
Help
File Edit Window
Condition
BPM to be Calibrated :
SP564
Direction :
Horizontal
Vertical
Used Components :
BPM : SP564
Steering : {{"SY553",1}}
from -.7
to 1.5
number 4
Q magnet: QF564
from -2
to 2
number 8
next
remem.
save
GO
READ
Display
BPM :
Steering step :
SP584
1
Result
When the beam is at the Q center :
BPM reading [mm]: -.05392
error [mm]: .02107
Last BPM taken into account :
SP584
rel. curr. thresh. : .7
Fit
Chk I
Save
SP584 [mm]
QF564 [A]
Main Application Area

Quad BPM 4セクター

File Edit Window

SP524	-0.491	0.067 (	0.257)
SP544	-0.560	0.072 (	0.153)
SP564	-0.509	0.107 (	0.262)
SP584	-0.483	0.064 (	0.301)

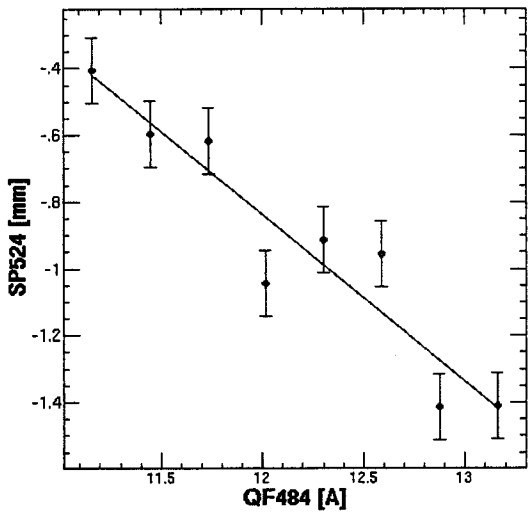


Condition
BPM to be Calibrated : SP484
Direction : ◆ Horizontal Vertical
Used Components :
BPM : SP484
Steering : {{"SX473",1}}
from
to
number
Q magnet: QD484
from
to
number
next remem. save
GO READ
Display
BPM : SP524
Steering step : 1
Result
When the beam is at the Q center :
BPM reading [mm]: -.5082
error [mm]: .0365
Last BPM taken into account : SP584
rel. curr. thresh. :
Fit Chk I Save

Hard Hard Hard Hard Hard Copy

File Edit Window

SP524	0.482	0.071 (	0.216)
SP544	0.433	0.041 (	0.237)
SP564	0.413	0.035 (	0.293)
SP584	0.390	0.028 (	0.167)

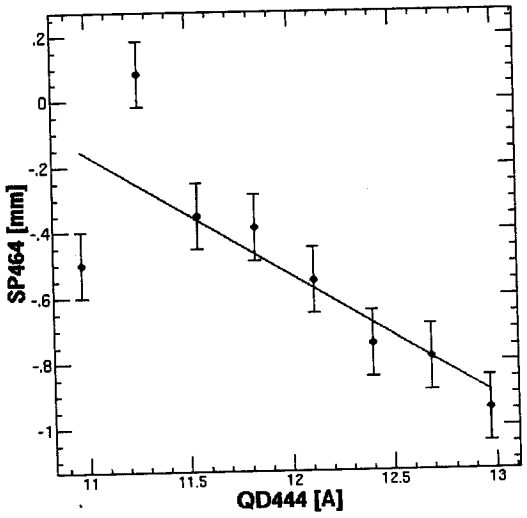


Condition
BPM to be Calibrated : SP484
Direction : Horizontal ◆ Vertical
Used Components :
BPM : SP484
Steering : {{"SY473",1}}
from
to
number
Q magnet: QF484
from
to
number
next remem. save
GO READ
Display
BPM : SP524
Steering step : 1
Result
When the beam is at the Q center :
BPM reading [mm]: .41
error [mm]: .01
Last BPM taken into account : SP584
rel. curr. thresh. :
Fit Chk I Save

Hard Hard Hard Hard Hard Copy

File Edit Window

03/03/2006 06:28:18 Help



Condition
BPM to be Calibrated :
SP444
Direction :
◆ Horizontal Vertical
Used Components :
BPM : SP444
Steering : {{"SX433",1}}
from -1
to 2
number 4
Q magnet: QD444
from -1
to 1
number 8
next remem. save
GO READ

Display
BPM : Steering step :
SP464 1

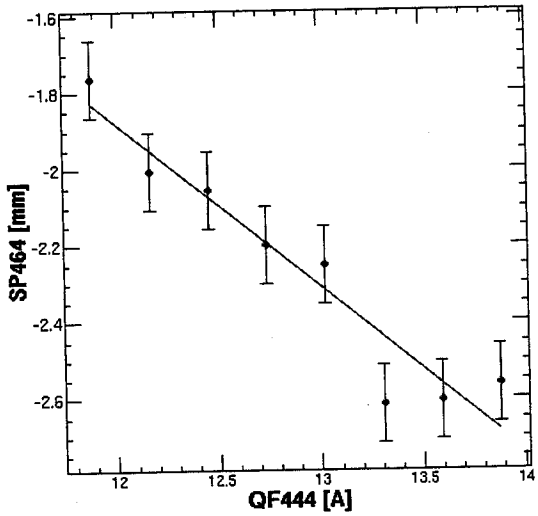
Result
When the beam is at the Q center :
BPM reading [mm]: .2162
error [mm]: .02307
Last BPM taken into account :
SP584
rel. curr. thresh. : .7
Fit Chk I Save

Hard Hard Hard Hard Copy

File Edit Window

03/03/2006 07:43:32 Help

SP464	-0.022	0.021 (0.176)
SP484	-0.072	0.018 (0.260)
SP524	-0.076	0.017 (0.341)
SP544	-0.112	0.014 (0.269)
SP564	-0.093	0.014 (0.200)



Condition
BPM to be Calibrated :
SP444
Direction :
Horizontal ◆ Vertical
Used Components :
BPM : SP444
Steering : {{"SY433",1}}
from -1.5
to 1.5
number 4
Q magnet: QF444
from -1
to 1
number 8
next remem. save
GO READ

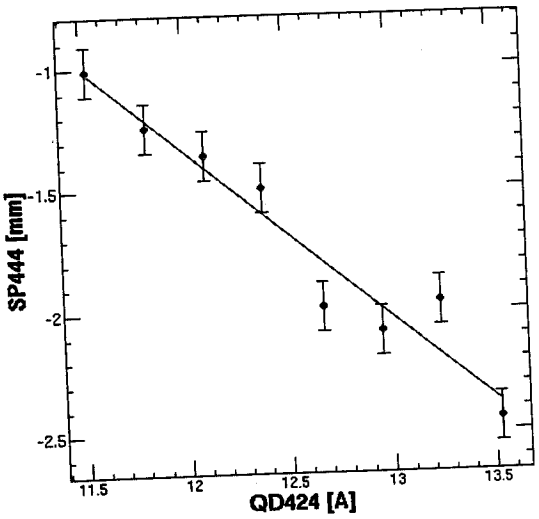
Display
BPM : Steering step :
SP464 1

Result
When the beam is at the Q center :
BPM reading [mm]: -.0829
error [mm]: .00728
Last BPM taken into account :
SP564
rel. curr. thresh. : .7
Fit Chk I Save

Hard Hard Hard Hard Main Application Area

File Edit Window

SP444	0.042	0.029 (	0.286)
SP464	0.125	0.029 (	0.255)
SP484	0.319	0.133 (	0.356)
SP524	0.194	0.050 (	0.342)
SP544	0.118	0.023 (	0.135)



Help

Condition
BPM to be Calibrated :
SP424
Direction :
Horizontal Vertical
Used Components :
BPM : SP424
Steering : {{"SX413",1}}
from -2
to 2
number 4
Q magnet: QD424
from -1
to 1
number 9
next remem. save
GO READ

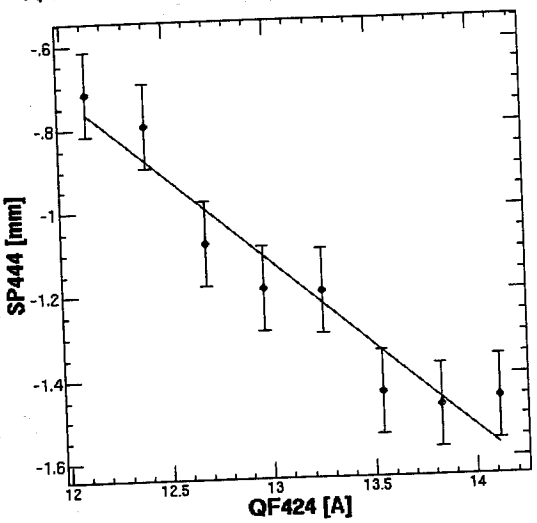
Display
BPM : Steering step :
SP444 1

Result
When the beam is at the Q center :
BPM reading [mm]: .10917
error [mm]: .01451
Last BPM taken into account :
SP544
rel. curr. thresh. : .7
Fit Chk I Save

Hart Hard Hard Han Hart Hard Copy

File Edit Window

SP444	0.076	0.022 (	0.167)
SP464	0.066	0.015 (	0.256)
SP484	0.028	0.012 (	0.281)
SP524	0.009	0.010 (	0.297)
SP544	0.019	0.011 (	0.248)



Help

Condition
BPM to be Calibrated :
SP424
Direction :
Horizontal Vertical
Used Components :
BPM : SP424
Steering : {{"SY413",1}}
from -1
to 1.5
number 4
Q magnet: QF424
from -1
to 1
number 9
next remem. save
GO READ

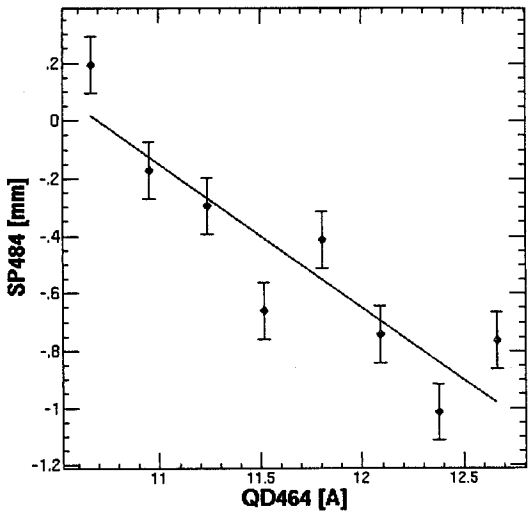
Display
BPM : Steering step :
SP444 1

Result
When the beam is at the Q center :
BPM reading [mm]: .02779
error [mm]: .00564
Last BPM taken into account :
SP544
rel. curr. thresh. : .7
Fit Chk I Save

HardHard HarHardHard Main Application Area

File Edit Window 03/03/2006 Help

SP484	0.258	0.021 (	0.127)
SP524	0.282	0.025 (	0.186)
SP544	-2.057	8.644 (	0.117)
SP564	0.306	0.029 (	0.240)
SP584	0.297	0.022 (	0.178)

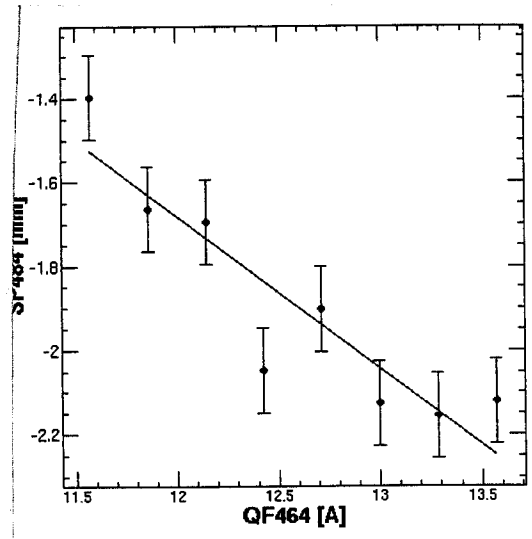


Condition
BPM to be Calibrated : SP464
Direction : Horizontal Vertical
Used Components :
BPM : SP464
Steering : {{"SX453",1}}
from -1
to 2
number 4
Q magnet: QD464
from -1
to 1
number 8
next remem. save
GO READ
Display
BPM : SP484
Steering step :
Result
When the beam is at the Q center :
BPM reading [mm]: .28257
error [mm]: .01198
Last BPM taken into account : SP584
rel. curr. thresh. : .7
Fit Chk I Save

Main Application Area

File Edit Vw 03/03/2006 Help

SP484	0.261	0.029 (	0.16
SP524	0.219	0.026 (	0.31
SP544	0.225	0.023 (	0.29
SP564	0.236	0.018 (	0.24
SP584	0.240	0.019 (	0.10



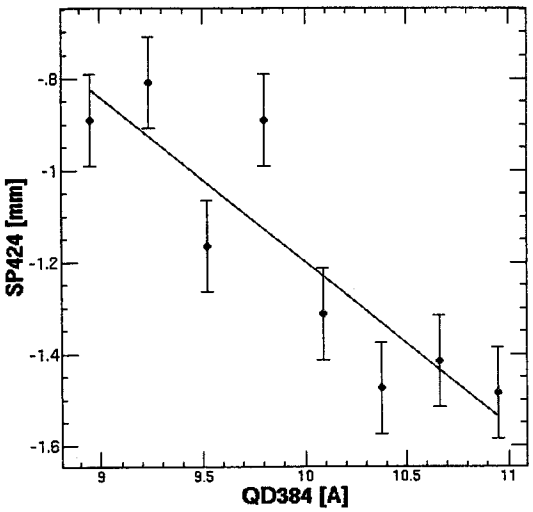
Condition
BPM to be Calibrated : SP464
Direction : Horizontal Vertical
Used Components :
BPM : SP464
Steering : {{"SY453",1}}
from -1.5
to 2
number 4
Q magnet: QF464
from -1
to 1
number 8
next remem. save
GO READ
Display
BPM : SP484
Steering step : 1
Result
When the beam is at the Q center :
BPM reading [mm]: -.2356
error [mm]: .00975
Last BPM taken into account : SP584
rel. curr. thresh. : .7
Fit Chk I Save

Main Applicatiea

Quad BPM 3 E19-

File Edit Window

SP424	-0.075	0.048 (	0.272)
SP444	-0.071	0.029 (	0.237)
SP464	0.022	0.057 (	0.120)
SP484	-0.234	0.094 (	0.358)
SP524	0.005	0.023 (	0.307)



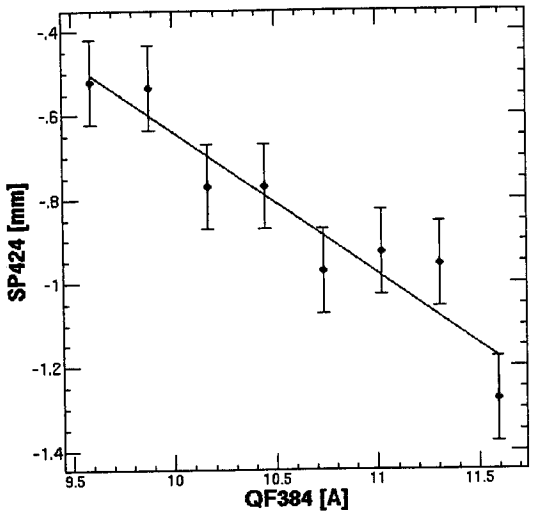
Help

Condition
BPM to be Calibrated :
SP384
Direction :
Horizontal Vertical
Used Components :
BPM : SP384
Steering : {{"SX373",1}}
from -2.5
to 1.5
number 4
Q magnet: QD384
from -1
to 1
number 8
next remem. save
GO READ
Display
BPM : Steering step :
SP424 1
Result
When the beam is at the Q center :
BPM reading [mm]: -.03319
error [mm]: .01585
Last BPM taken into account :
SP524
rel. curr. thresh. :
Fit Chk I Save

Hard Hard Han Hard Hard Hard Copy

File Edit Window

SP424	0.234	0.051 (	0.261)
SP444	0.259	0.043 (	0.299)
SP464	0.229	0.034 (	0.350)
SP484	0.220	0.030 (	0.365)
SP524	0.187	0.024 (	0.354)



Help

Condition
BPM to be Calibrated :
SP384
Direction :
Horizontal Vertical
Used Components :
BPM : SP384
Steering : {{"SY373",1}}
from -
to 2
number
Q magnet: QF384
from -
to
number
next remem. save
GO READ
Display
BPM : Steering step :
SP424 1
Result
When the beam is at the Q center :
BPM reading [mm]: .2153
error [mm]: .0146
Last BPM taken into account :
SP524
rel. curr. thresh. :
Fit Chk I Save

Han Hard Hard Hard Hard Hard Copy

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2006.03.03 J-arc Dispersion測定 & 同Optics補正, Energy変更

Linac Machine Study 放射線安全チェックシート

Study項目名	J-arc設定エネルギー変更試験		
日時	2006.03.03		
主催者	紙谷 琢哉		
運転モード	KEKB e-		
	最大繰り返し	最大パルス数	パルスあたり電荷量
	5	1	1
スタディの概要	J-arcの設定エネルギーを変更することが容易にできるようにしておくために、磁場変更ソフトの試験、Dispersion測定及びOptics補正の試験、Isochronisity測定のためのストリークカメラテスト、バンチタイミング測定、それに基づくOptics補正の試験エネルギー設定の変更範囲は1.0-1.7GeV。なお、Dispersion測定時やOptics変更後の調整時などでは一時的にJ-arc部でビームを全ロスすることも起りえる。		

使用する電子銃・加速器

機器名	使用の有無	最大許容出力			
A1電子銃	○	0.02	GeV	1438	nA
		パルスあたり許容電荷 [nC/pulse]			
		287.60			
電子加速器 (A-Cセクター)	○	3	GeV	1250	nA
		パルスあたり許容電荷 [nC/pulse]			
		250.00			
C7電子銃	×	0.02	GeV	2000	nA
		パルスあたり許容電荷 [nC/pulse]			
		400.00			
陽電子生成ターゲット	×	5	GeV	1250	nA
		パルスあたり許容電荷 [nC/pulse]			
		250.00			
電子陽電子加速器 (1-5セクター)	○	10	GeV	625	nA
		パルスあたり許容電荷 [nC/pulse]			
		125.00			

予想されるビーム損失場所

ビーム損失箇所	使用の有無	ビーム損失設計値			
電子加速器 (A-Cセクター)	○	3	GeV	50	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		10.00			
JARC Slit	◎	3	GeV	62.5	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		12.50			
ビームダンプ1 (B sector end.)	×	3	GeV	62.5	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		12.50			
電子陽電子ターゲット	×	5	GeV	1250	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		250.00			
電子陽電子加速器 (1-5セクター, 3SY,ECS)	○	10	GeV	25	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		5.00			
ビームダンプ2 (3SY 0-deg.)	×	10	GeV	625	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		125.00			
東側ビームラインダンプ	○	10	GeV	62.5	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		12.50			
PFBTストッパ	×	4	GeV	10	nA
		パルスあたり許容損失電荷 [nC/pulse]			
		2.00			

運転に関する注意

ビーム調整時に全ロスが予想される場合は繰り返しを5Hz以下として下さい

beam-onの際1バンチであることを確認して下さい

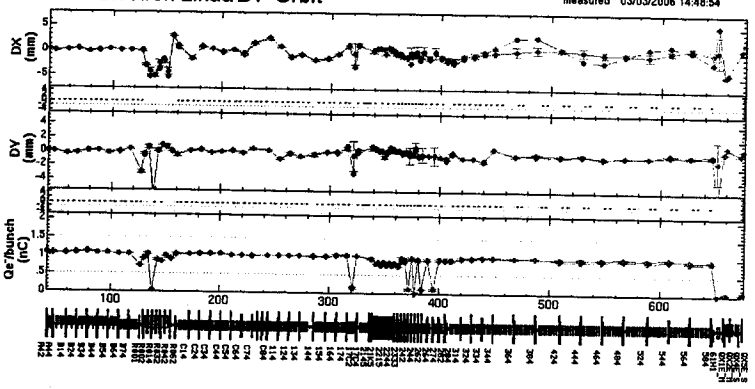
! SP_R0_22　断線でデータ読めない

File Edit Measurement Correction Steering Orbit Window

Help

Electron Linac/BT Orbit

measured 03/03/2006 14:48:54



r.m.s =2.058 mm
max. =9.735 mm
@ SPQMF9E_S
min. =-5.344 mm
@ SPR051
545 mm
@ SPR063
(.395±.205mm)

r.m.s =1.435 mm
max. =4.261 mm
@ SPQXF5E_S
min. =-8.503 mm
@ SPR022
-.502 mm
@ SPR002
(-.96±.116mm)

.009 nC
@ SP61H1
(.010±.001 nC)
.009

golda_01_09_2006_13:06:50.dat

range DX Auto Fix (7) DV Auto Fix (5) Q Auto Fix (2) s'/s' 4 Replot

a b r c 1 2 3 4 5 6 e1 e2

meas stat ref meas-ref stat-ref gold mea-gold sta-gold

Clear Statistics Standard Size

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

Hard Copy

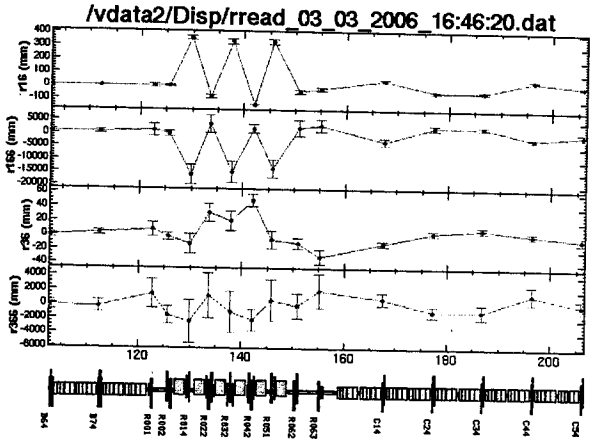
File Edit Window

Help

R16(6), R36(6) (BPMs) dE/E vs X (BPMs) dE/E vs Y (BPMs) dE/E vs Q (BPMs) R56(6) (Streak Camera) Fit

Energy knob から設定した値で決める。

/vdata2/Disp/rread_03_03_2006_16:46:20.dat



Measurement

Low energy: 1.4

High energy: 1.42

Delta energy: .002

Iterations/step: 5

Comments: <none>

No Streak Camera

Use Streak Camera

Debugging Mode

Execution Mode

Go

Abort

Files

Load Raw Data File

Dispersion file: /vdata2/Disp/rmeas_03_03_2006_

Write Dispersion File

Analysis

<none>

Drop streak points (1): 0

Drop streak points (2): 0

Energy Scale Factor (current): 1

Energy Scale Factor (replot): .1138416417558288

Energy Offsets (current): 0

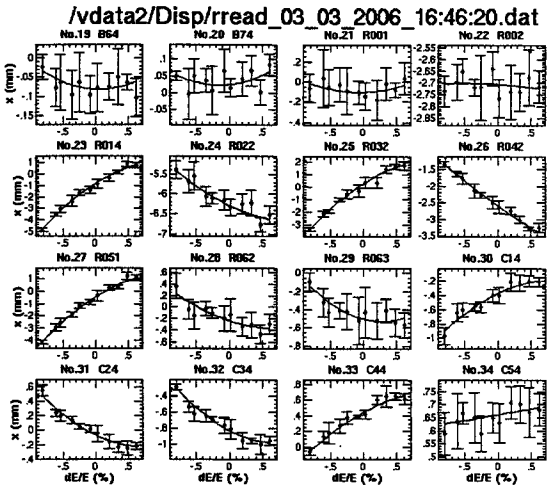
Energy Offsets (replot): 0

Replot

Sokuteichuu...done.

File Edit Window Help

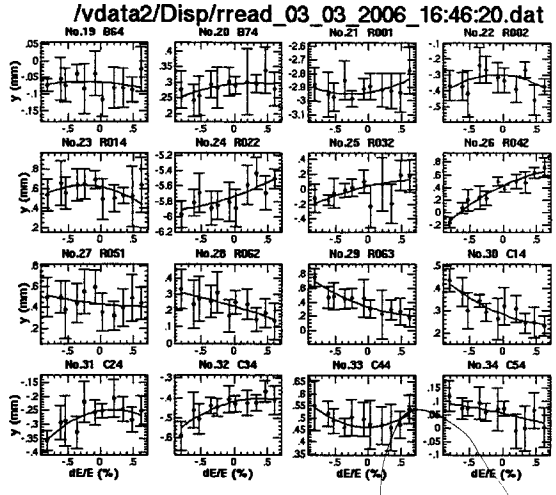
R16(6), R36(6) (BPMs) | dE/E vs X (BPMs) | dE/E vs Y (BPMs) | dE/E vs Q (BPMs) | R56(6) (Streak Camera) | Fit



Sokuteichuu...done.

File Edit Window Help

R16(6), R36(6) (BPMs) | dE/E vs X (BPMs) | dE/E vs Y (BPMs) | dE/E vs Q (BPMs) | R56(6) (Streak Camera) | Fit



Sokuteichuu...done.