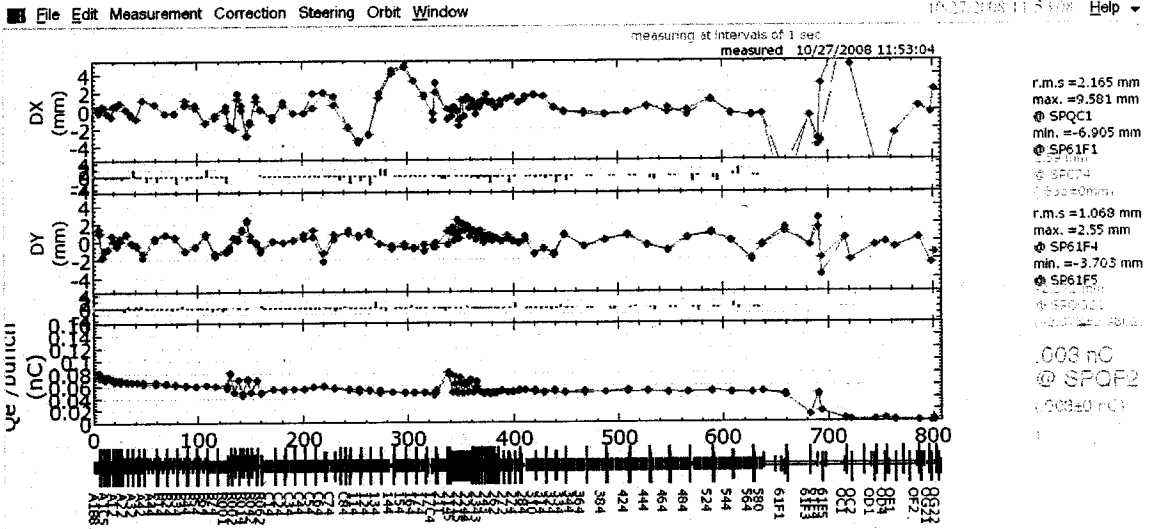


101

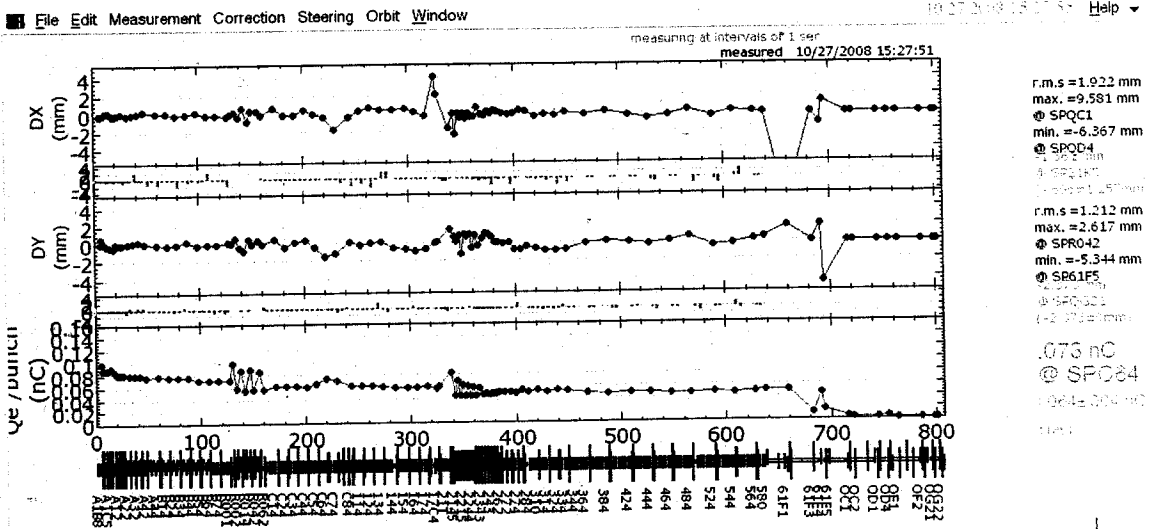
'08/10/27

11:30

Target  $\lambda/\lambda^0$  軌道調整

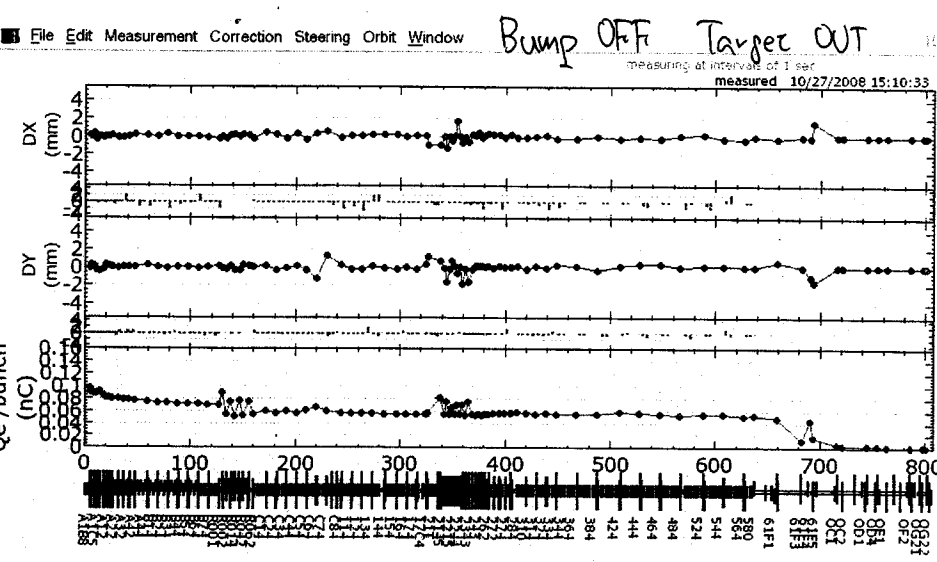
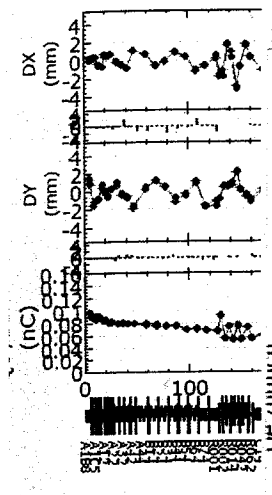


PH  $e^-$   $\tau$  Target bump  $\lambda/\lambda^0$   $\tau$



database 12  
 (5) SP-21-T  $\tau$  offset - 4 mm  $\lambda/\lambda^0$   $\tau$   
 (工藤 &)

File Edit Measurement Correction Steering Orbit Window **Bump OFF Target OUT** 10/27/2008 15:07:49 Help

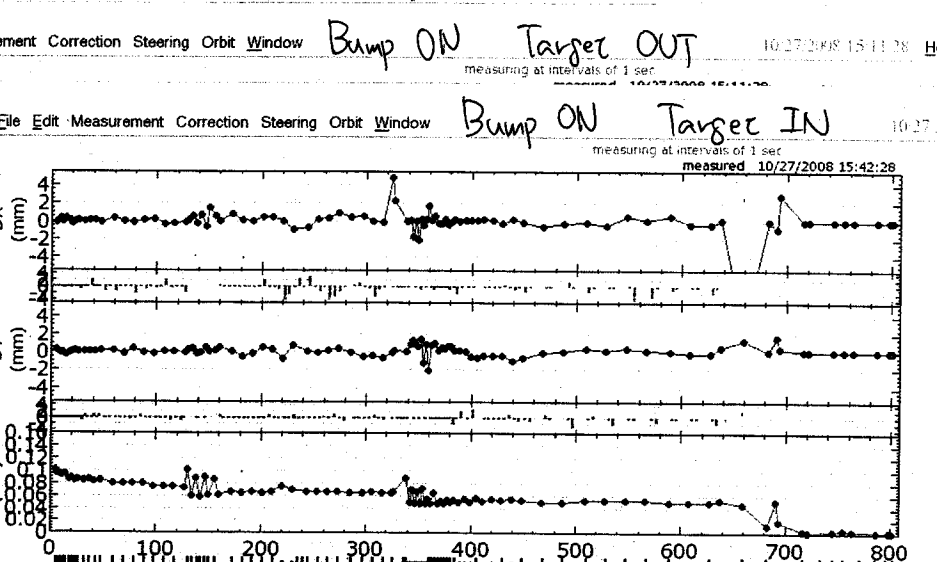
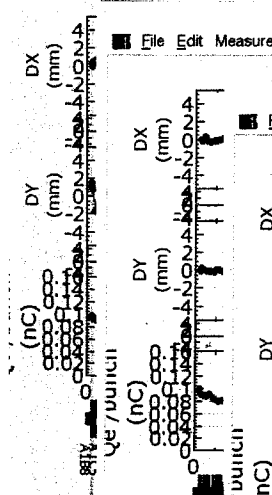


r.m.s = 2.114 mm  
 max. = 11.231 mm  
 @ SP61F1  
 min. = -6.367 mm  
 @ SPQ04  
 r.m.s = 689 mm  
 max. = 1.865 mm  
 @ SPR042  
 min. = -2.473 mm  
 @ SP61F5  
 @ SPQ321  
 0.66 nC  
 @ SPC64

mode e e  
 a b r c 1

mode e e range:DX Auto Fix (5) 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

File Edit Measurement Correction Steering Orbit Window **Bump ON Target OUT** 10/27/2008 15:09:05 Help

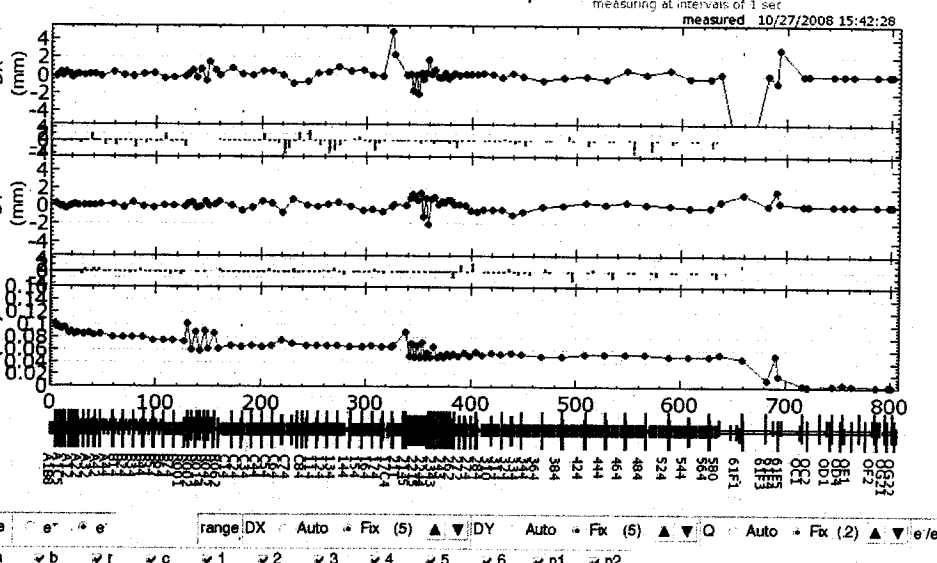
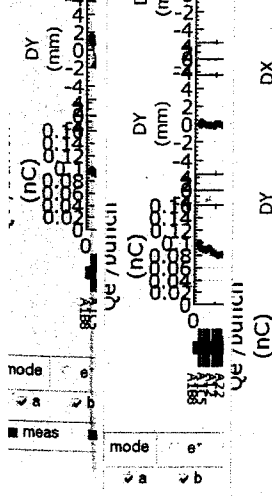


r.m.s = 1.956 mm  
 max. = 9.581 mm  
 @ SPQ01  
 min. = -6.367 mm  
 @ SPQ04  
 r.m.s = 1.045 mm  
 max. = 2.678 mm  
 @ SPR042  
 min. = -2.373 mm  
 @ SPQ321  
 @ SPC64  
 0.74 nC  
 @ SPC64

mode e  
 a b

mode e e range:DX Auto Fix (5) 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

File Edit Measurement Correction Steering Orbit Window **Bump ON Target IN** 10/27/2008 15:42:26 Help



r.m.s = 1.956 mm  
 max. = 9.581 mm  
 @ SPQ01  
 min. = -6.367 mm  
 @ SPQ04  
 r.m.s = 1.045 mm  
 max. = 2.678 mm  
 @ SPR042  
 min. = -2.373 mm  
 @ SPQ321  
 @ SPC64  
 0.74 nC  
 @ SPC64

mode e e

mode e e range:DX Auto Fix (5) 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

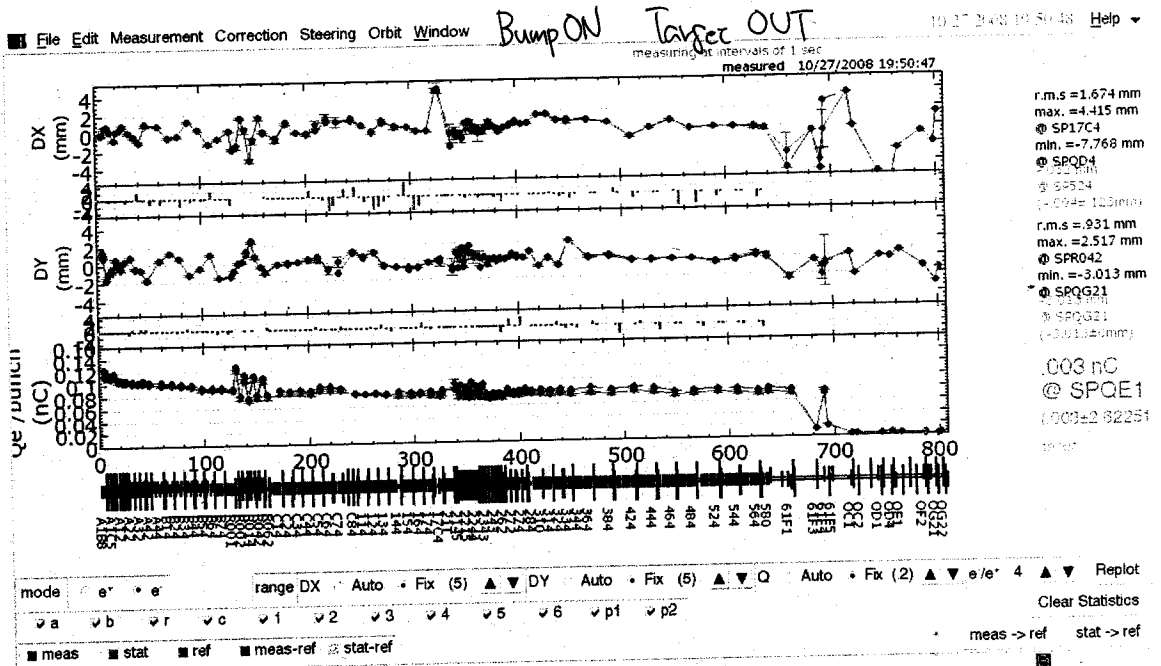
103

2008.10.27

KEKB 射2 中絶

19:50

PF-AE-a



Bump Height (PX-C1値) [A]

Q@2KS

6.6  
6.6  
6.8  
7.0  
7.2  
7.4  
7.6

電位変動 0.083 ~ 0.090

0.85  
0.85  
0.85  
0.85  
0.85  
0.83  
0.80

BPMエスケール  
之測定が  
よく変更

3.5  
4.0  
4.5  
5.0  
5.5  
6.0  
6.5  
7.0  
7.5  
8.0

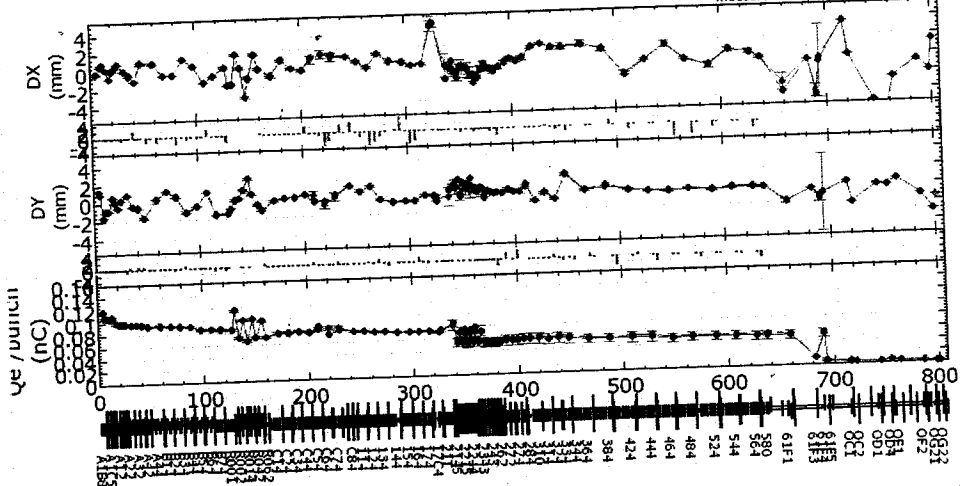
0.64  
0.72  
0.77  
0.83  
0.82  
0.84  
0.86  
0.85  
0.79  
0.68

6.5

電位

PX-17C1 6.5  
PX-17C5 4.672  
PX-21L45 4.469  
PL21L45 0.47

File Edit Measurement Correction Steering Orbit Window **Bump ON Target IN** measured 10/27/2008 20:32:47

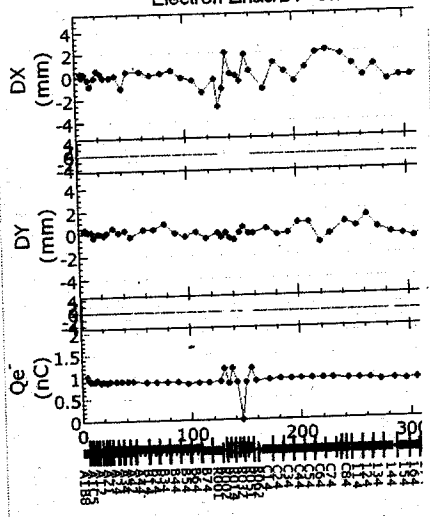


r.m.s = 1.712 mm  
max. = 4.436 mm  
@ SP21T  
min. = -7.768 mm  
@ SPQ04  
r.m.s = 908 mm  
max. = 2.479 mm  
@ SPR042  
min. = -3.013 mm  
@ SPQG21  
Qe = 0.003 nC  
@ SPQE1  
(-0.003 = 2.45644)

mode e- e- range DX Auto Fix (5) DY Auto Fix (5) Qe Auto Fix (2) e/e' 4 Replot  
Clear Statistics  
meas -> ref stat -> ref

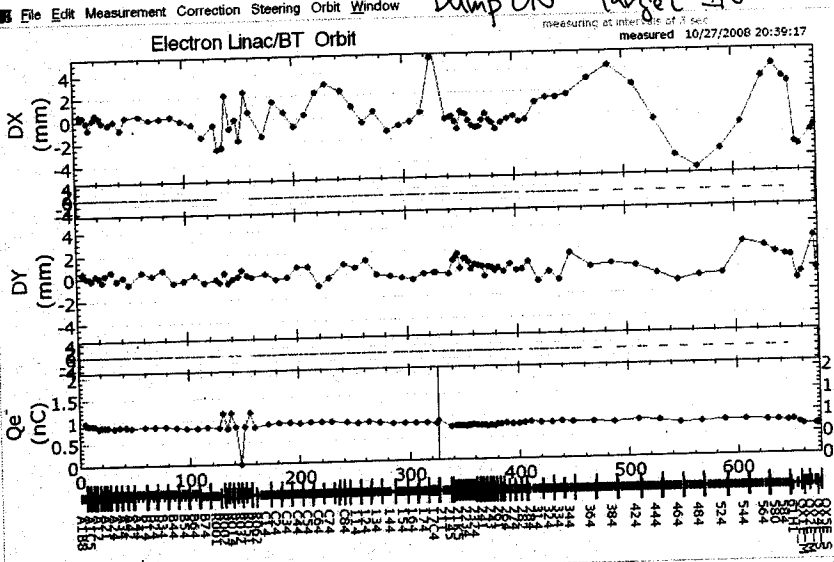
KEKB e- へくは修正 (Magnet は PR A1 と同じに付)

File Edit Measurement Correction Steering Orbit Window **Bump ON Target OUT**



goldfile range DX Auto Fix (5) /  
meas stat ref meas-ref stat-ref gold

File Edit Measurement Correction Steering Orbit Window **Bump ON Target IN** measured 10/27/2008 20:39:17



r.m.s = 2.72 mm  
max. = 6.16 mm  
@ SPQ4F3E  
min. = -10.0 mm  
@ SPQ4F7E  
r.m.s = 1.21 mm  
max. = 3.21 mm  
@ SPQXD6I  
min. = -4.05 mm  
@ SPQMDB  
Qe = 0.828 nC  
@ SPQ01  
0.828 = 4.814

goldfile range DX Auto Fix (5) DY Auto Fix (5) Qe Auto Fix (2) e/e' 1  
Clear Statistics Stand  
meas -> gold meas -> ref

Target Area Spot Profile



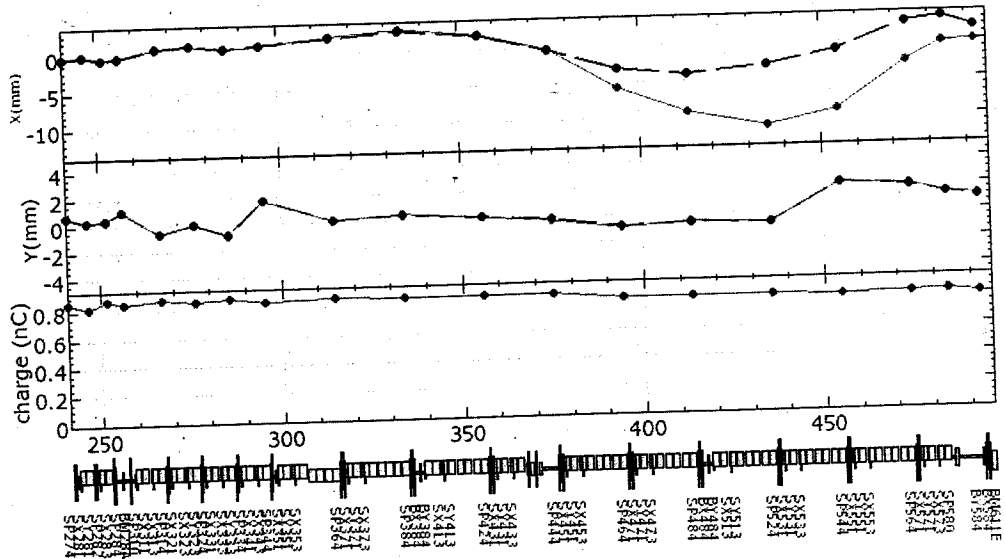
KEKB e<sup>-</sup> E-4

PF-A1 e<sup>-</sup> E-4

対 KEKB Bump E 調整

08/27/2008 20:42:18 Help

File Edit Window



KEKB(8 GeV)	BPM	PF	PF
PFA1 e-	Plot BPM	SP564 DX(mm) 0	SP564 DY(mm) 0
KEKB e-	Set Ref BPM	SP580 DX(mm) 0	SP580 DY(mm) 0
s1(m) 240.0	Clear Ref BPM	KEKB e-	KEKB e-
s2(m) 496.1	Steering	SP580 DX(mm) -3.5	SP580 DY(mm) 0
symbol B{XY}*S{XY}	Set Ref Steer	SP584 DX(mm) -2	SP584 DY(mm) 0
Start Stop	Set Steer	Correct	Correct
	Reset Steer	Calc	Calc
		Clear Plot	Clear Plot

Orbit Tuning(PF,C-5 sector) on localhost.12.0

計算上、生軌道が  $x = -10\text{mm}$  くらいまでいくことになるので、ここまではビーム入らねえのぞ、難しい。

21:03

DC steering だけ補正しようとしたが、KEKB 射撃要求があったので、ステイは、ここまでに終了とする。

(まとめ)

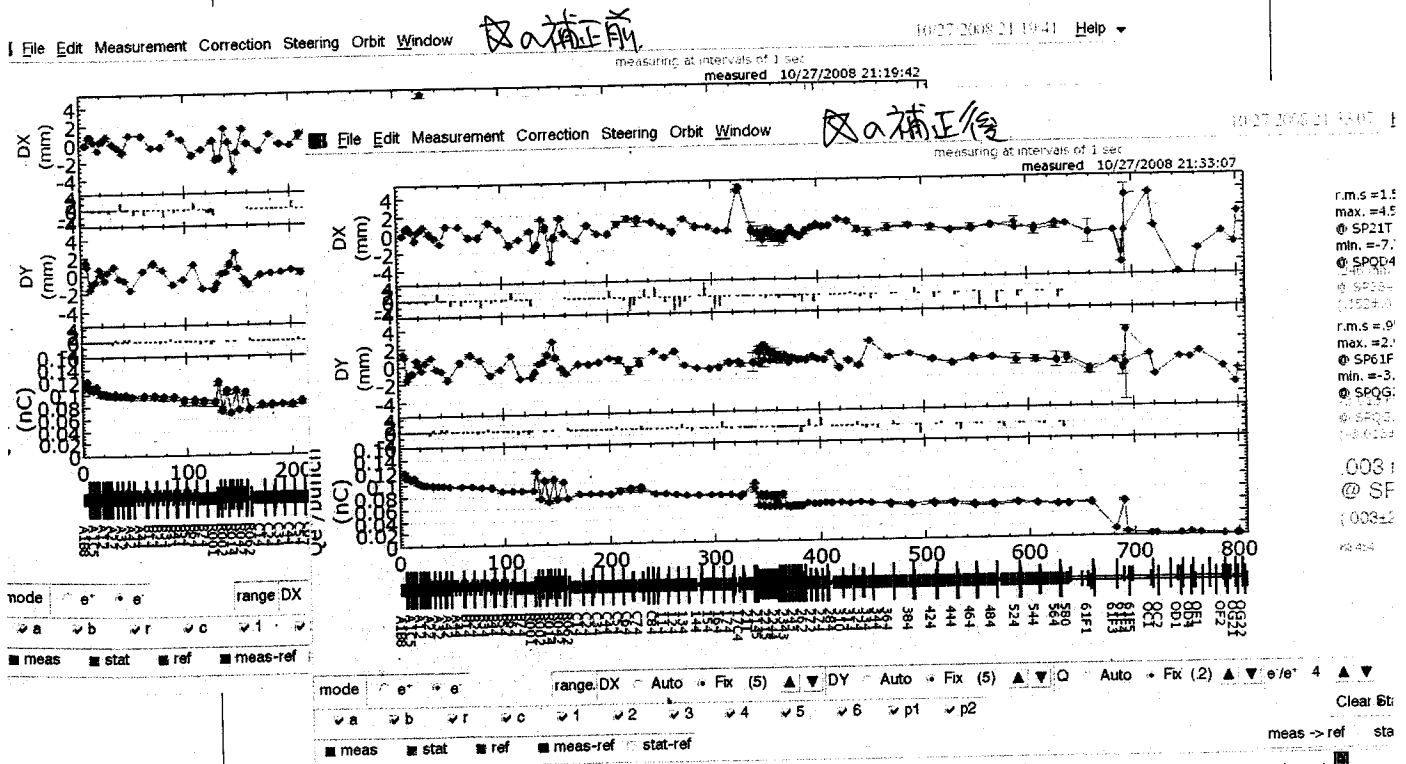
PF-AIビームをいい状態にして、(Target Bump ON の Target IN) KEKB e<sup>-</sup> に切り替えると、x方向に 28.4 あたりから軌道が曲がる。φが 20° が 4セクター後半より  $x < 0$  方向に曲がるので、大西 Bump を補正しようとするとき、生軌道がさらに反対方向に bump が立つため、ビーム入らねえと思われ。

PF-AIビームも 28.4 あたりから φ方向に軌道が少し曲がるので、これを補正しておいた方がいい。

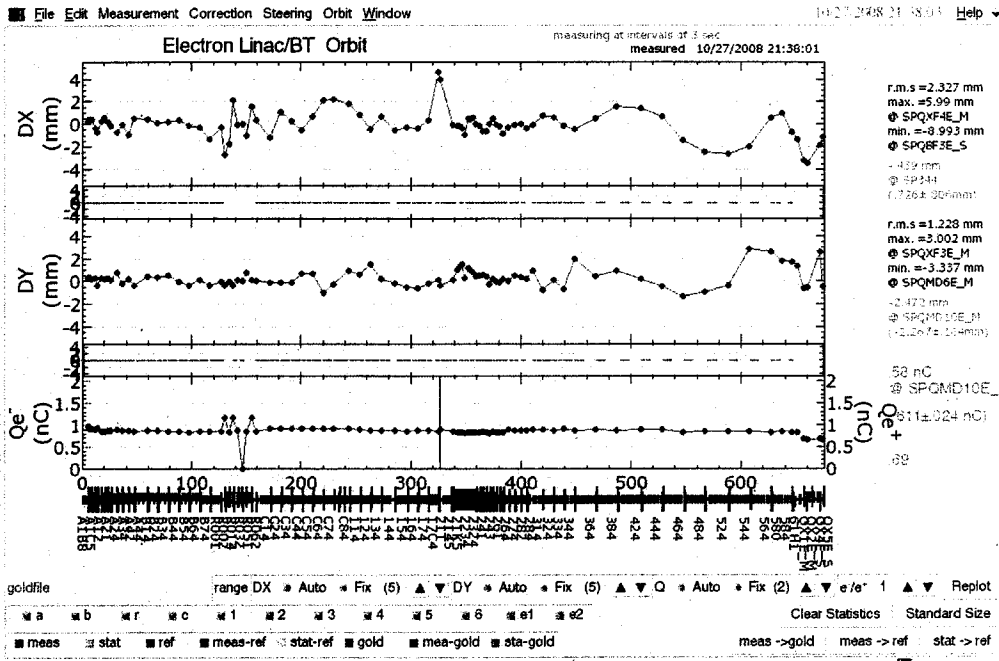
21:18

ビームタイム 15分も経たないうちに再開

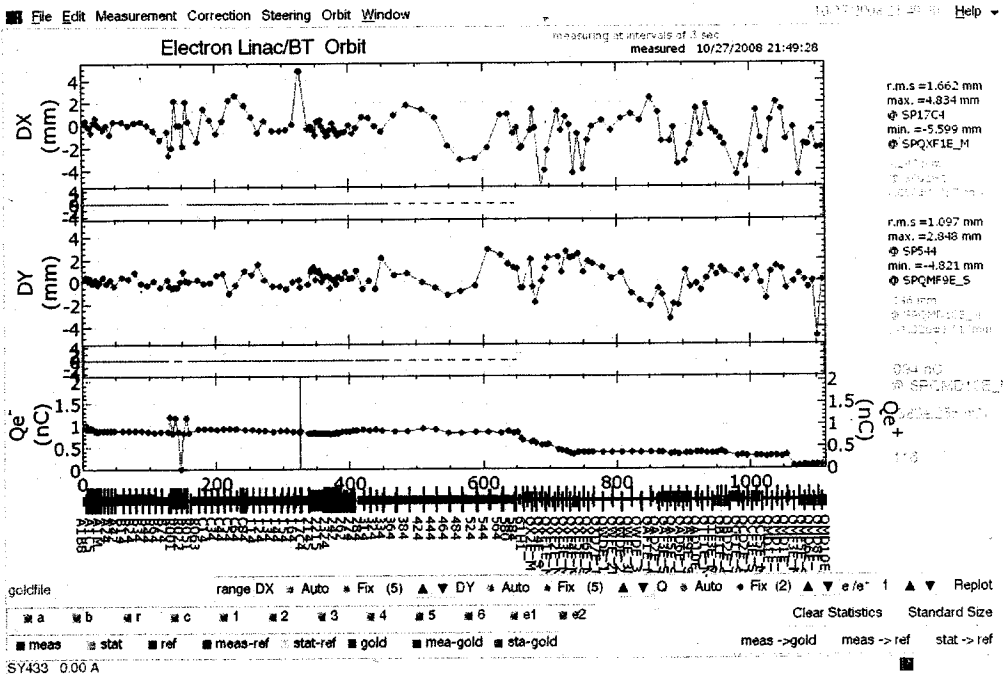
☆  $SX_{3L1} = -0.199 \rightarrow -2.199$   
 $SX_{4L1} = -0.299 \rightarrow -0.199$   
 大西プログラムの 564, 580 のビーム位置を今調整しようとしたが、計算はできるが ST セットに失敗する。"Write Error to file" (?)



KEKB  $e^-$  に切替



このまま Dumpモードに切替る。 Dumpの  $e^-$  が出た。  
 (注) PR用のマグネットのケルビ  $e^-$  状態を上書きしたとき  
 菊池スタリングの値も PR用に変更しようの注意ありて!



22:01

BTの  $e^-$  が入って  $e^-$  が取れにくい。菊池スタリングの値も PR用に変更しようの注意ありて。  
 AR 1 身す下になったので、こまめに

08/10/28

菊池小川. 大西. 飯田

KEKBの裏で. 1時間に1度入射

10:40~

昨日のつづき

IPF/AE. Target E入3

PF, KEKBE共に. dump mode.

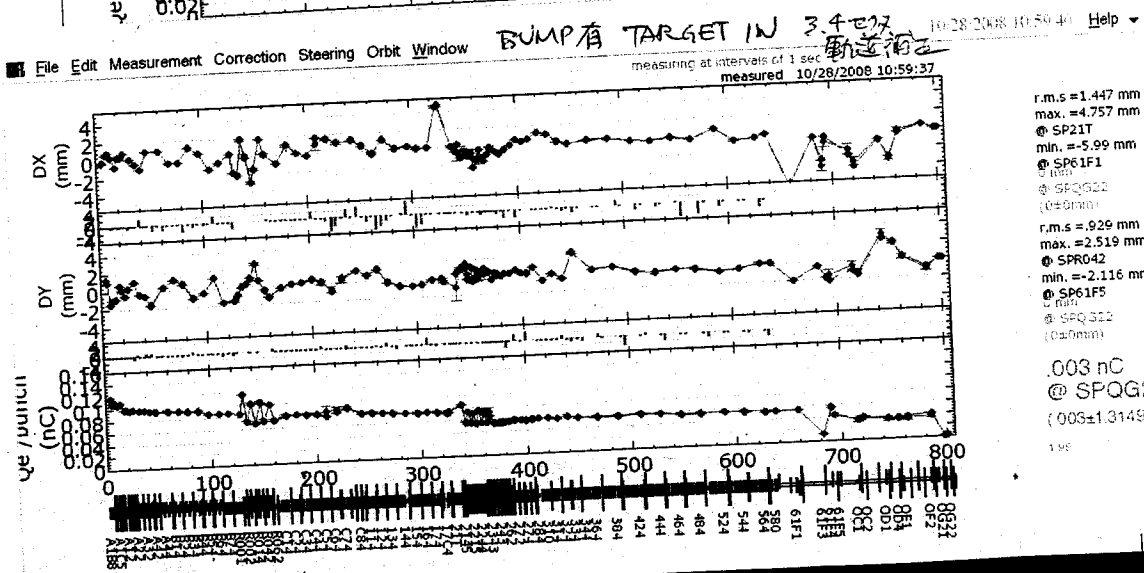
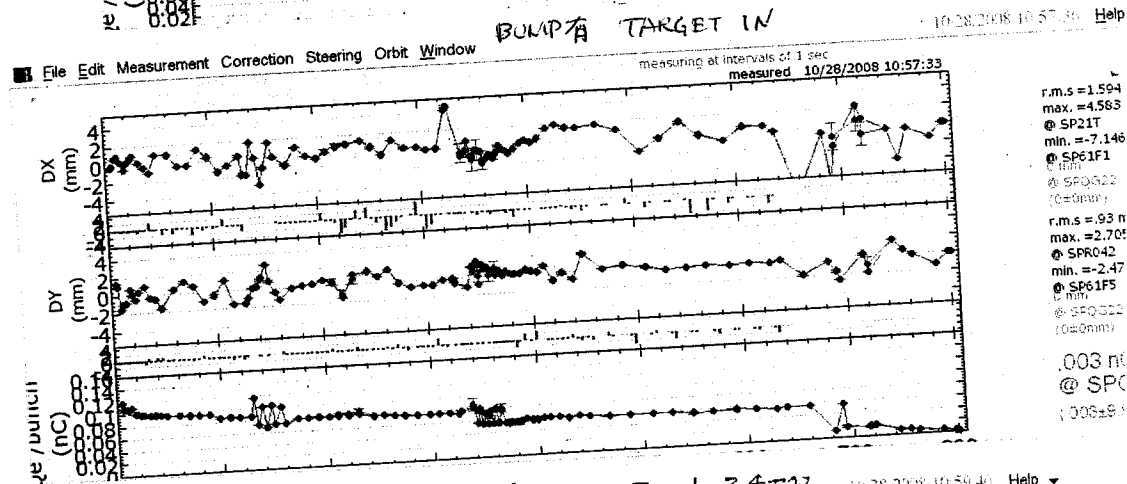
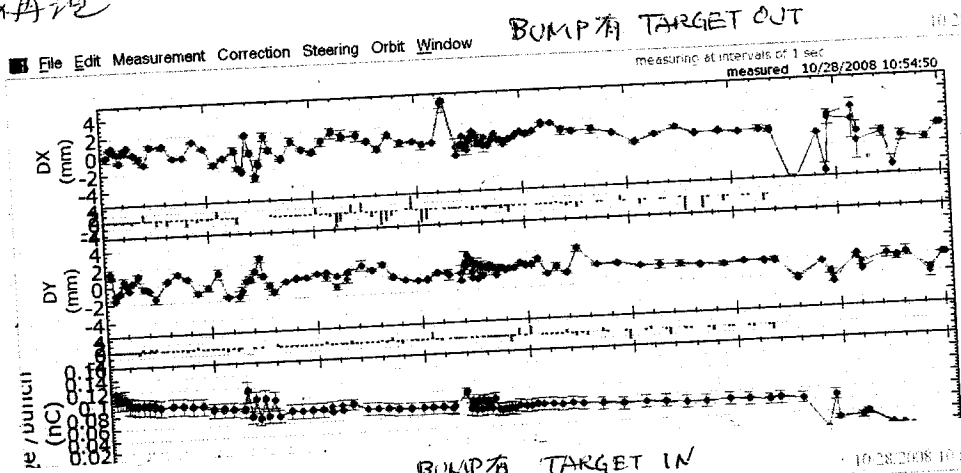
PT modeにて. 61-H1 (菊池ST) の電流値を

-3.45.11  
set

菊池STは. KEKBEと共通にする。

PF A1

データ再現





Quad	Read' (I/B')		File* (I/B')		Steering	Read (I)	File (I)
QD/D_A1_1	1.885	1.9971	.000	.0000	SX_16_3	-4.343	-4.189
QF_A1_1	1.971	2.0898	.000	.0000	SY_16_3	1.984	1.901
QD/D_A1_M	2.821	3.8696	.000	.0000	SX_17_1	-3.000	-3.000
QF_A1_M	3.260	4.3318	.000	.0000	SY_17_1	.001	.001
QD/D_A1_2	1.297	1.8615	.000	.0000	SX_17_3	.001	.001
QF_A1_C5	2.513	2.1723	.000	.0000	BY_17_C1	-.910	-.751
QF_A1_2	1.590	2.1681	.000	.0000	BX_17_41	1.000	1.000
QD/D_A1_B8	2.821	2.4294	.000	.0000	BX_17_42	.001	.001
QF_A1_B8	2.962	2.5477	.000	.0000	BX_17_C5	-.962	-.962
QD/A1_C5	2.860	2.4620	.000	.0000	BY_17_C5	-.630	-.630
QD/D_A2_1	10.747	7.6458	.000	.0000	SX_21_1	.001	.001
QF_A2_1	12.139	8.9917	.000	.0000	SY_21_1	.001	.001
QD/D_A2_2	15.179	10.7127	.000	.0000	SX_21_2	.001	.001
QF_A2_2	16.938	12.4714	.000	.0000	SY_21_2	.001	.001
QD/D_A2_3	21.363	14.7444	.000	.0000	SX_21_31	.001	.001
QF_A2_3	21.370	15.5900	.000	.0000	SY_21_31	.001	.001
QD/D_A2_4	13.993	8.5823	.000	.0000	SX_21_41	.001	.001
QF_A2_4	13.619	8.2548	.000	.0000	SY_21_41	.001	.001
QD/D_A3_2	15.062	9.2290	.000	.0000	BX_21_K5	.001	.001
QF_A3_2	15.890	9.6169	.000	.0000	BY_21_K5	-.001	-.001
QD/D_A3_4	15.853	9.7062	.000	.0000	BX_22_32	.001	.001
QF_A3_4	20.044	12.0960	.000	.0000	BY_22_31	.001	.001
QD/D_A4_2	9.560	5.8918	.000	.0000	BX_23_12	.001	.001
QF_A4_2	11.729	7.1198	.000	.0000	BY_23_11	.001	.001
QD/D_A4_4	18.425	11.2490	.000	.0000	BX_23_31	.001	.001
QF_A4_4	19.751	11.9219	.000	.0000	BY_23_31	.001	.001
QD/D_B1_4	4.005	13.8204	.000	.0000	BX_23_4	-1.000	-1.000
QF_B1_4	4.151	14.1191	.000	.0000	BY_23_4	.001	.001
QD/D_B2_4	4.830	16.7241	.000	.0000	SX_24_2	.001	.001
QF_B2_4	4.962	16.9022	.000	.0000	SY_24_2	.001	.001

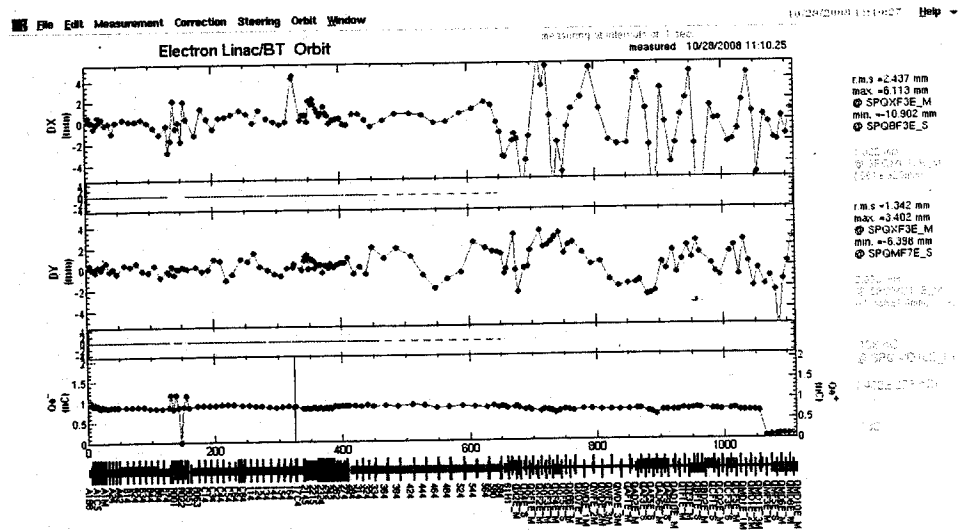
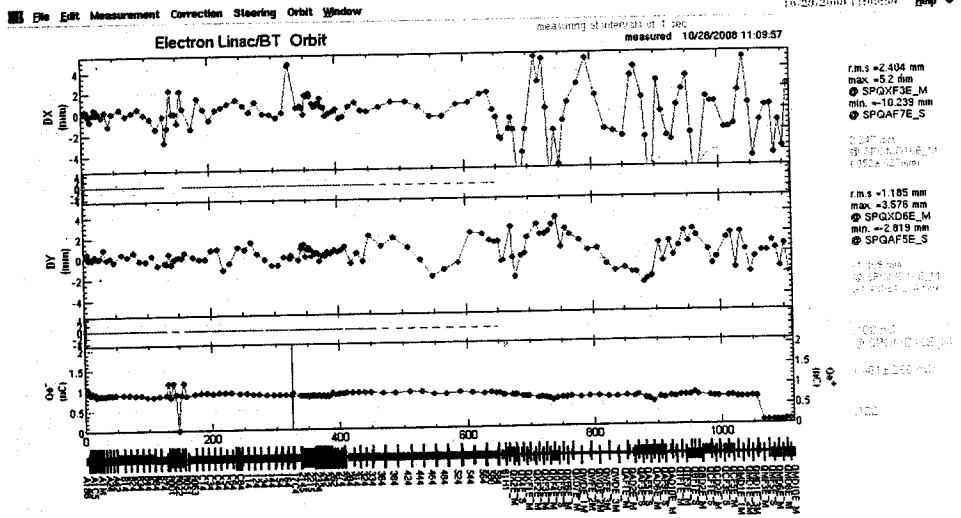
Read Save File Diff Read Save File Diff  
 Select Clear Set Magnet Select Clear Set Magnet

Save file to /data/LINAC/LCG/magnet/2008/10/spfa120081028-11:00:21

最終  
St 1区

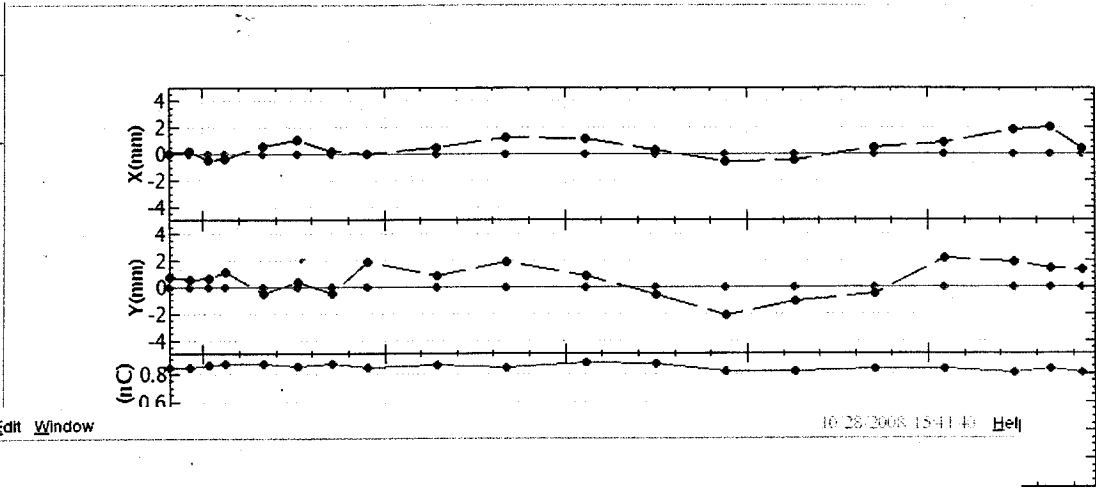
KEKB e- mode  
ye ON  
Target out

Bump ON  
Target IN

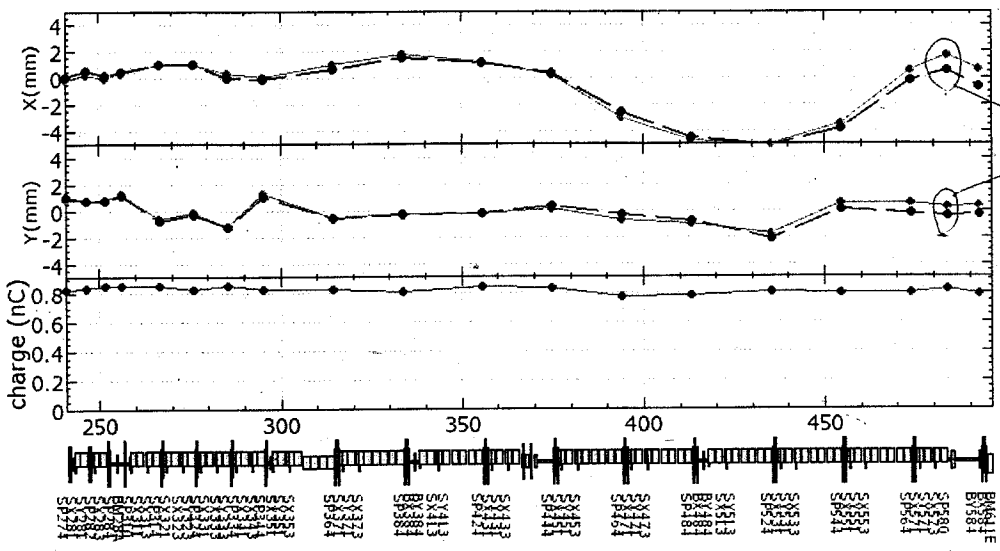


軌道  
補正前

110

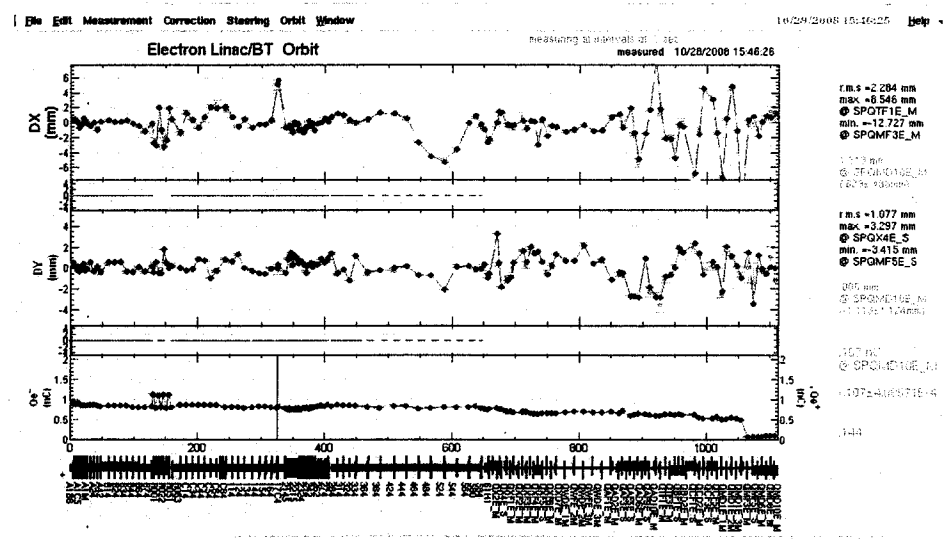


補正後



SP580F  
offsetがある  
(1mm) ある  
↓  
SP564  
SP584  
が 0 になる?  
調整

KEKB(8 GeV)		PF		PF	
PFA1 e-		SP544 DX(mm)	0	SP544 DY(mm)	0
KEKB e-		SP564 DX(mm)	0	SP564 DY(mm)	0
s1(m)	240.0	KEKB e-		KEKB e-	
s2(m)	496.1	SP564 DX(mm)	-1.5	SP564 DY(mm)	-0.5
symbol	B{XY}* S{XY}	SP584 DX(mm)	0	SP584 DY(mm)	0
Start		Correct		Correct	
Stop		Calc		Calc	
		Clear	Plot	Clear	Plot



BX584  
-2.095  
→ -3.492  
BY584  
-1.499  
→ -0.952