

2005.6.28

e<sup>-</sup> 2 bunch

調整前.

File										Trigger Delays				12:38 v1.3.0	
Toggle AB-sled		Toggle C1-sled		Toggle 25-sled		Toggle Monitor									
		Reference		Current		Difference									
		Jun28 12:38:12		Jun28 12:38:44											
└	KL_A1_RF	93461 ns	93461 ns	0											
└	OVERALL_A	49083 ns	49083 ns	0											
└	OVERALL_B	49112 ns	49112 ns	0											
└	OVERALL_C	50914 ns	50914 ns	0											
└	OVERALL_1	72934 ns	72934 ns	0											
└	OVERALL_2	72789 ns	72789 ns	0											
└	OVERALL_3	72721 ns	72721 ns	0											
└	OVERALL_4	72840 ns	72840 ns	0											
└	OVERALL_5	72834 ns	72834 ns	0											
Read Ref.	Read Cur.	-96.3	-17.5	-8.8	-1.75	+1.75	+8.8	+17.5	+96.3						

-data249.  
delay.all  
E load.

File										Trigger Delays				12:41 v1.3.0	
Toggle AB-sled		Toggle C1-sled		Toggle 25-sled		Toggle Monitor									
		Reference		Current		Difference									
		Jun28 12:38:12		Jun28 12:41:03											
└	KL_A1_RF	93461 ns	93461 ns	0											
└	OVERALL_A	49083 ns	49053 ns	-30											
└	OVERALL_B	49112 ns	49083 ns	-29											
└	OVERALL_C	50914 ns	50896 ns	-18											
└	OVERALL_1	72934 ns	72917 ns	-17											
└	OVERALL_2	72789 ns	72801 ns	12											
└	OVERALL_3	72721 ns	72724 ns	3											
└	OVERALL_4	72840 ns	72843 ns	3											
└	OVERALL_5	72834 ns	72838 ns	4											
Read Ref.	Read Cur.	-96.3	-17.5	-8.8	-1.75	+1.75	+8.8	+17.5	+96.3						

- Gu-A1 Delay2 08C6 → 0A02
- Gu-A1-G e<sup>-</sup> Delay Feedback STOP.
- Jarc e<sup>-</sup> SP8 Energy spread Feedback STOP.
- Gu-A1 197x-9 050511-Inc 2 bunch 2 調整

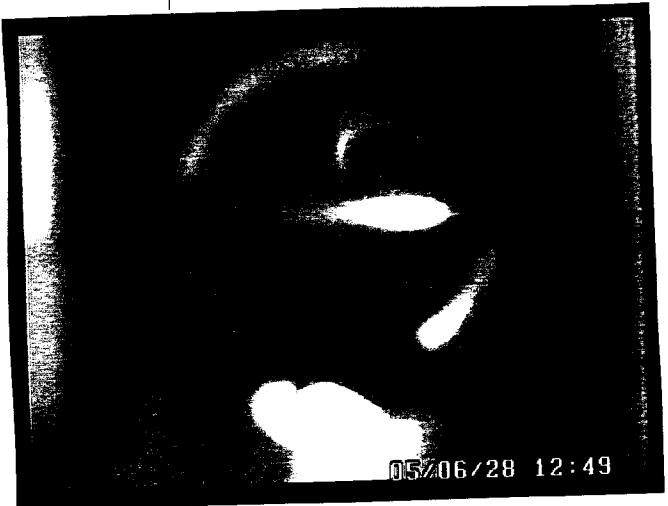
- MSE-12  
 三見調整

Trigger Delays			
File	Toggle AB-sled	Toggle C1-sled	Toggle 25-sled
	Reference	Current	Difference
	Jun28 12:47:52	Jun28 12:52:55	
└ KL_A1_RF	93461 ns	93461 ns	0
└ OVERALL_A	49053 ns	49053 ns	0
└ OVERALL_B	49083 ns	49083 ns	0
■ OVERALL_C	50896 ns	50898 ns	2
■ OVERALL_1	72917 ns	72918 ns	1
■ OVERALL_2	72801 ns	72803 ns	2
■ OVERALL_3	72724 ns	72726 ns	2
■ OVERALL_4	72843 ns	72845 ns	2
■ OVERALL_5	72838 ns	72840 ns	2

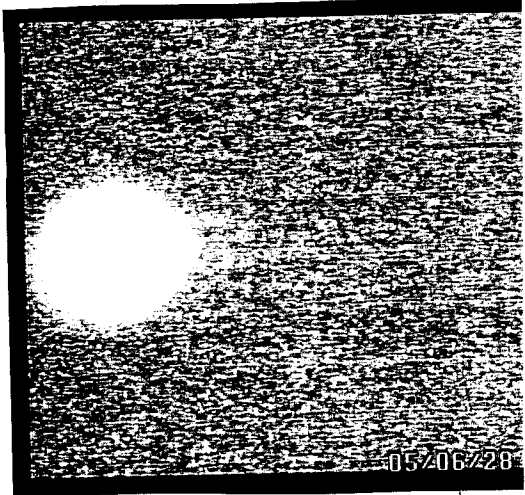
  

Read Ref.	Read Cur.	-96.3	-17.5	-8.8	-1.75	+1.75	+8.8	+17.5
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- SB-C~4 +4° (MSE-12 三見)

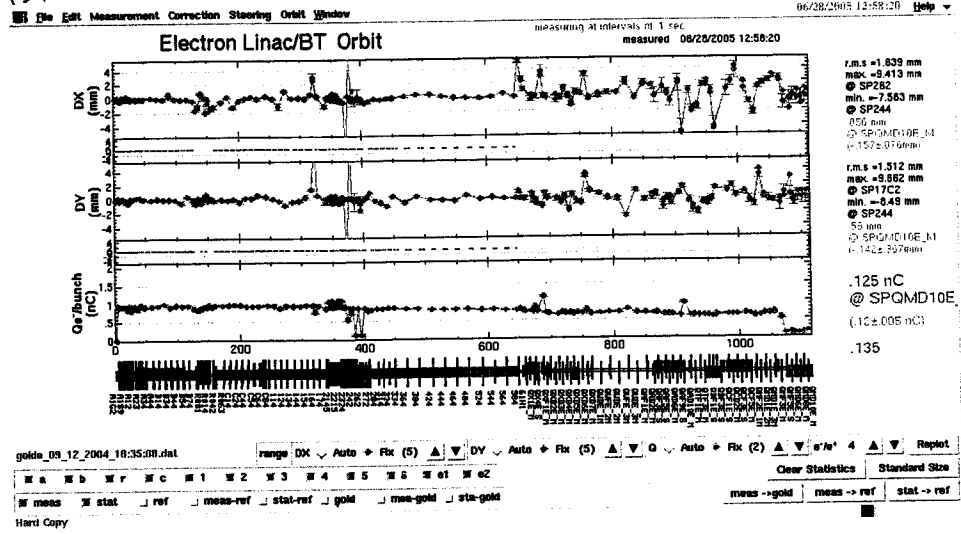


MSE-12 (調整後)

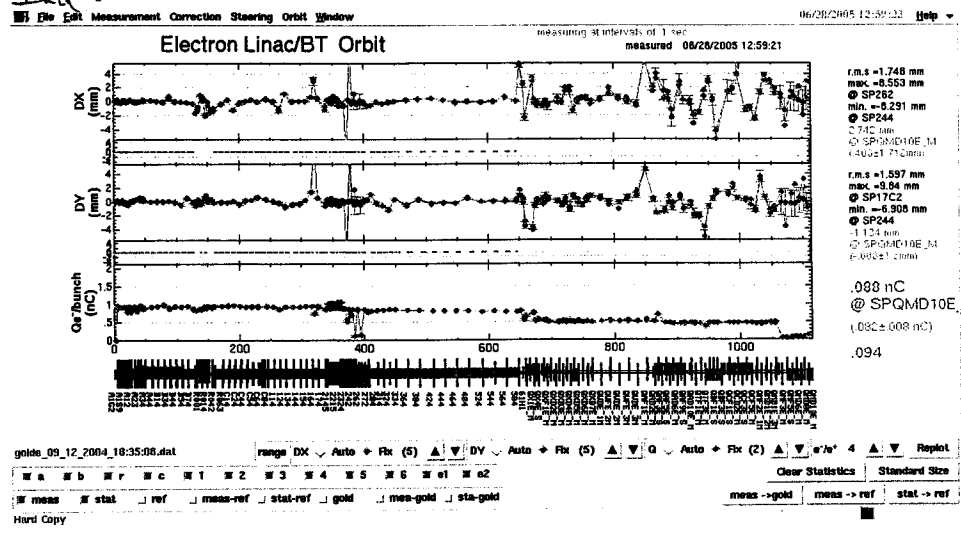


MSE-20 (調整後)

157

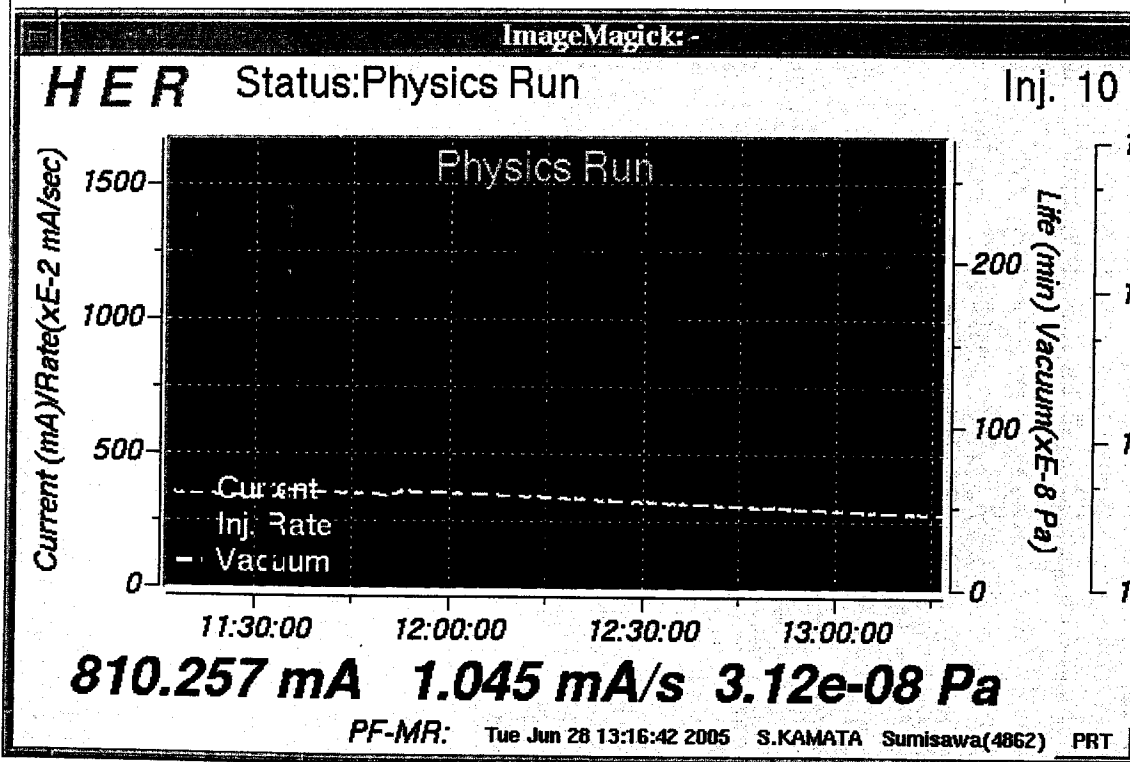
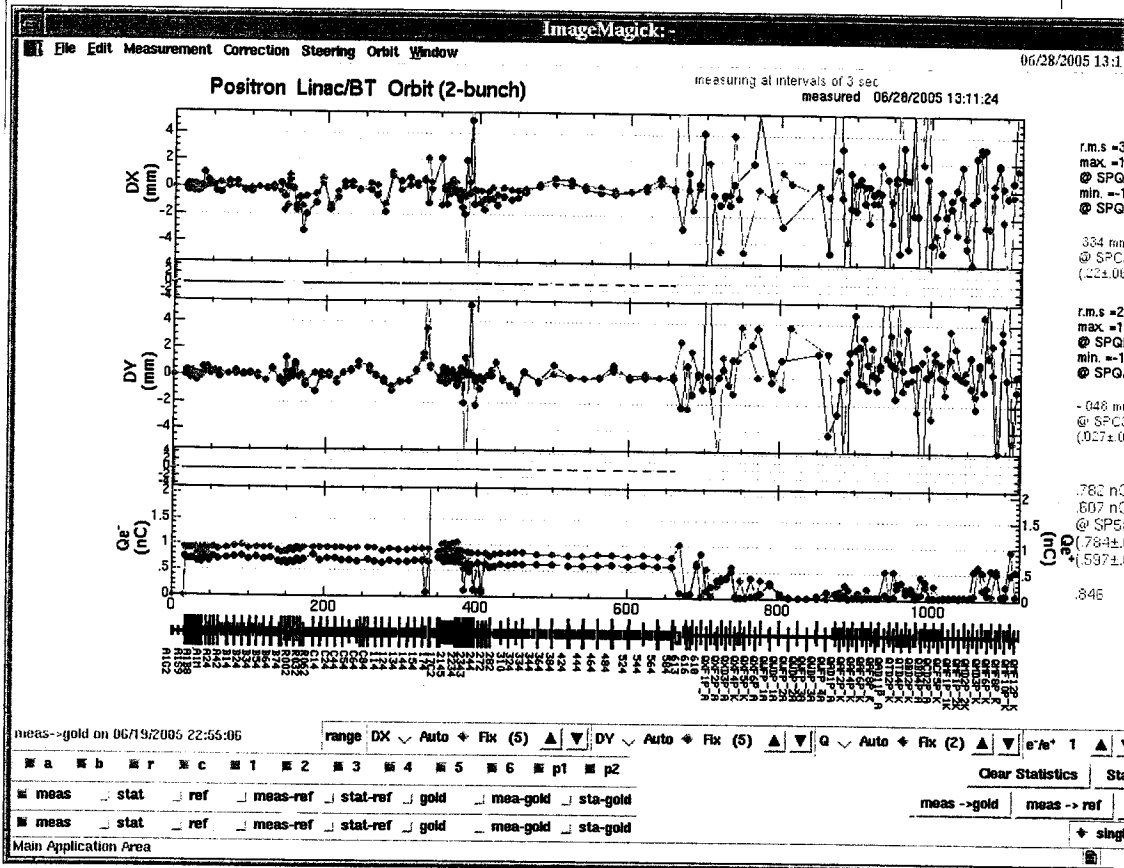


220



data 1518 - phase - all }  
data 250 - delay - all }  $t = e^{-T}$

入射元-7 (2 bunch)



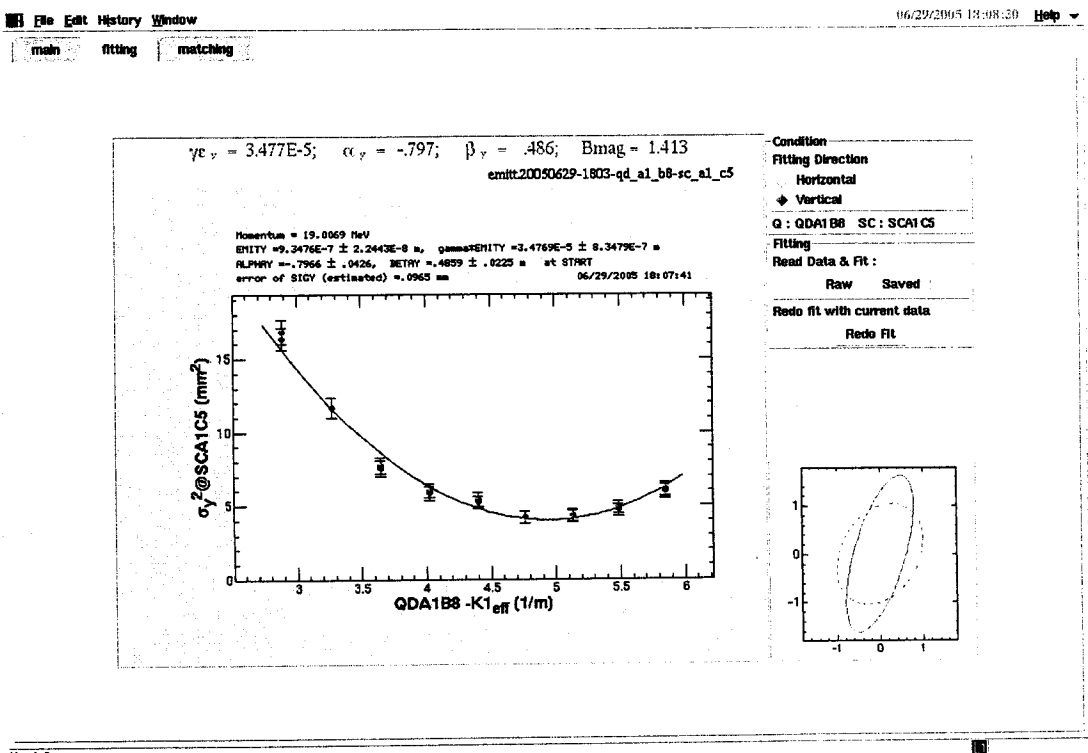
2005  
6/28

emittance 測定

ライティング ステージ (2) P69 参照

• A1. (SCA1C5)

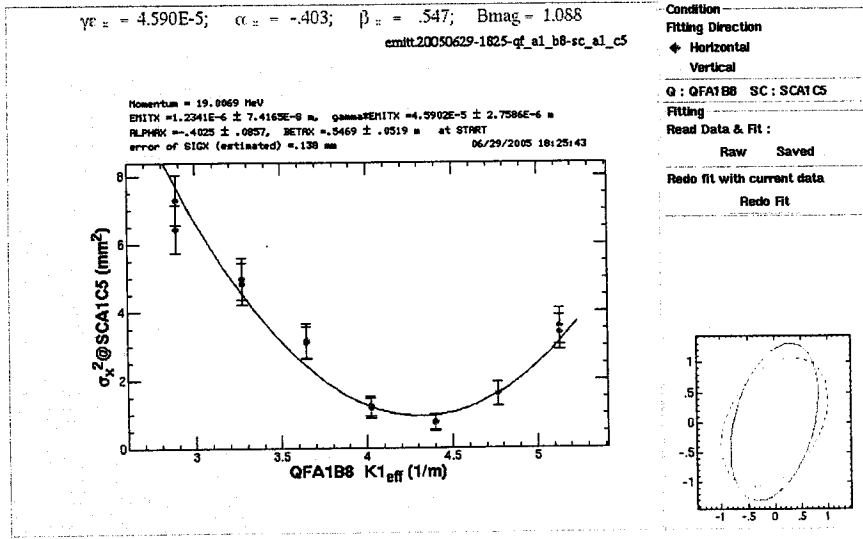
~~10nC~~ 10nC e<sup>-</sup> (大電流)



Hard Copy

QD-A1-B8 3A ↔ 6A .

QE	QF-A1-C5	0.0
	QD-A1-C5	0.0
	QD-A1-B8	4.3 (元値)
	QF-A1-B8	4.5

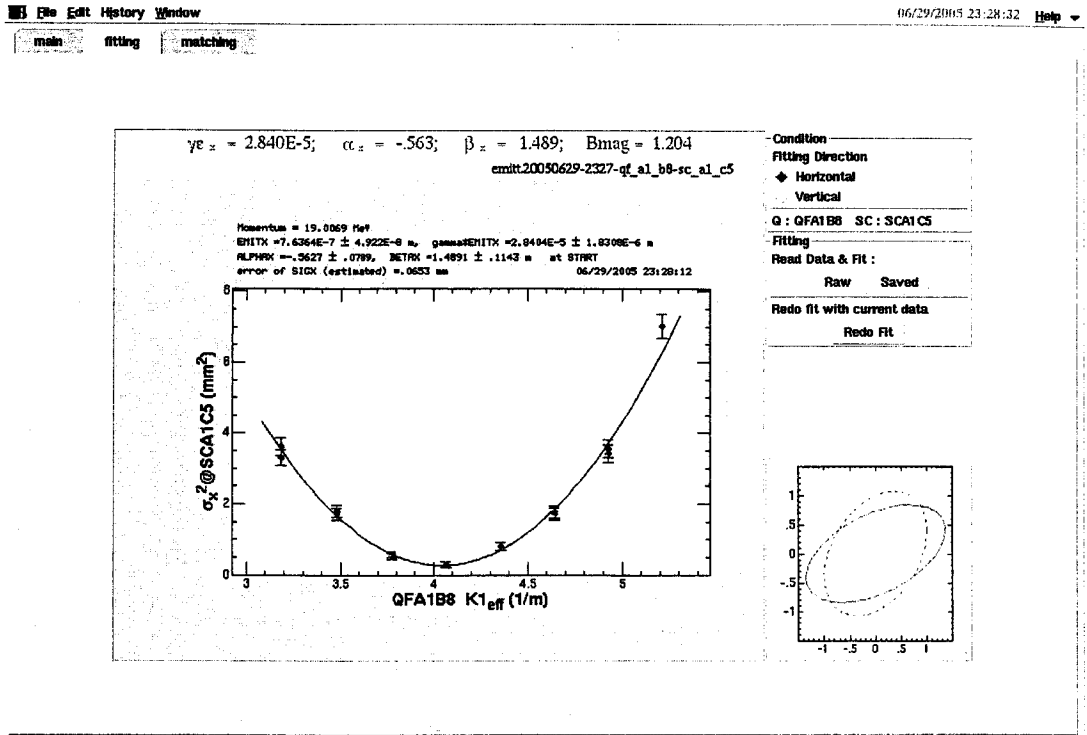


Hard Copy

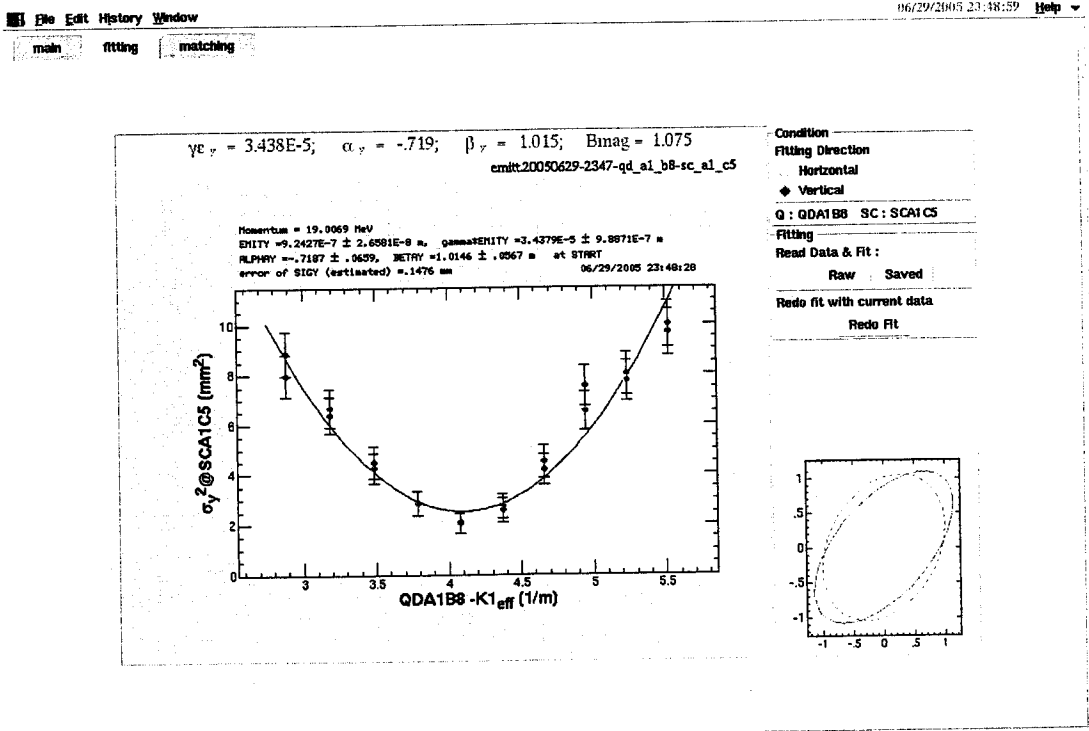
~~QFA1-B8~~ QFA1-B8 3A  $\leftrightarrow$  6A. (明らかに変データは消去:吉川氏)

Qは前ノジと同じセット747°

Inc e<sup>-</sup> (小電流)



Hard Copy



Hard Copy

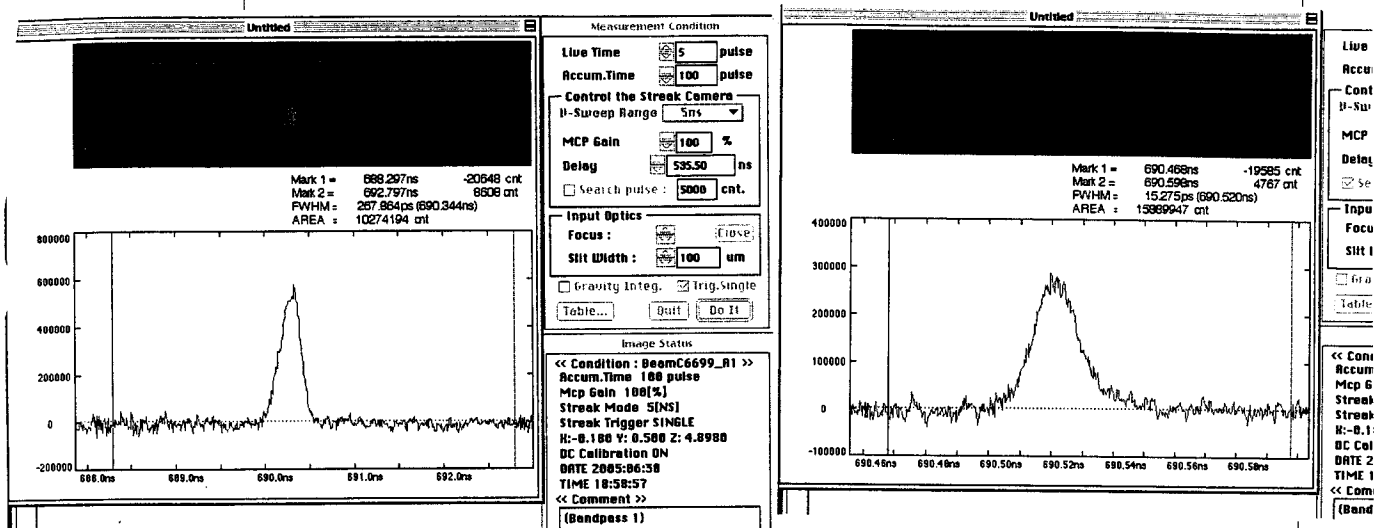
2005. 6. 30

# Channeling Beam 調整 (この1-1の7%に調整)

①  $e^-$  IncE-4 を出す。 KEKB  $e^-$  10% を出す。

18:52

② IncE-4 の ビン幅の測定。



③ 電子銃のバイアスを変化。  $Q = 1nc \rightarrow 0.1nc$

バイアス電圧	うけう 終端の電荷量
301.2V	0.813nc
↓	↓
350 V	0.267nc
↓	↓
360 V	0.035nc
↓	↓
358 V	0.035nc?
355 V	0.054nc
<del>353 V</del>	
<b>350 V (OAF8)</b>	<b>0.10 nc</b>

BPMのセンサー替え  
をすること!

④ 8 GeV  $\rightarrow$  4 GeV の 切り替えテスト

Magnet.	Phase.	StandBy	$\bar{v}$ -9e-j	8GeV (1)(2) $\rightarrow$ Channeling	20050630
BM-G1-1	366.3 A				8GeV
	177.778 A				
$\phi$ SB-4	100.5° $\rightarrow$ 280.5°				
5	100.0° $\rightarrow$ 280.0°				

$\rightarrow$  Channeling 20050630 4GeV  
Magnet Parameter Sec



4 GeV 付近 - 9

⑤ Energy Spread @ J-arc SC-R0-31

$$\begin{aligned} \phi_{SB-A} &= 103.1^\circ \rightarrow 107.1^\circ \\ \phi_B &= \text{"} \rightarrow \text{"} \end{aligned}$$

⑥ J-arc の軌道が 0 になり Orbit feedback

SC-R0-31 が 振付 2 回 終わった。

⑦ BM-6L-A1

$$193.309 \text{ A} @ 8.6 \text{ GeV} \rightarrow 98.657 \text{ A} @ 4.0 \text{ GeV 付近}$$

⑧ SP-6L-h1 z の position (Energy Feedback)

$$\begin{aligned} \text{target} &= \text{zero} \\ x &= -2.3 \text{ mm} \rightarrow \text{Energy Feedback} \end{aligned}$$

⑨ SC-6L-A1 上の energy spread

SC-6L-h1	$\phi_{SB-C.1.2.3.4}$	$\Delta\phi = -4.0^\circ$
SC-6L-A1		$\Delta\phi = -4.5^\circ$
SC-6L-A2		

⑩ SC-6L-A3 上の z 軸の調整

最初付 2.1 分

BS-6L-A1	= 0	→	2.894 A
" A2	= 0	→	-1.0 A
" A3	= 0	→	-1.0 A

⑪ Q を 0 に する

QD-6L-A1	= 0	→	4.000 A	→	3.752 A	スリットを 0.5 mm ほど 閉じる
QF-6L-A1	= 0	→	4.239 A	→	4.085 A	

⑫ KEKB Steering の調整を 直し

BX-6L-h1	= -7.504	→	0.002	A
BS-6L-A1	=	→	0.369	A
A2	=	→	-5.897	A
A3	=	→	0.012	A
BM-6L-A1	=	→	94.847	A

⑬ 10 月 9 日

Channeling  
20050630  
4GeV\_2

8 GeV用1.5X-9

21:32

0. Inc E-4 Bunch長 24-50x10<sup>-12</sup> s の測定 出来たか?

一旦 PF モードに切り替える。

但し BM-G1-A1 は変位 → 2.18 mm の 2. 95 A → 0 A → 200 A とお  
 こして 8 GeV用 1.5X-9 モードで。

⑭ Energy Spread

$$\phi_{SB-A} = 103.1 \rightarrow 106.1$$

B                      "                      "

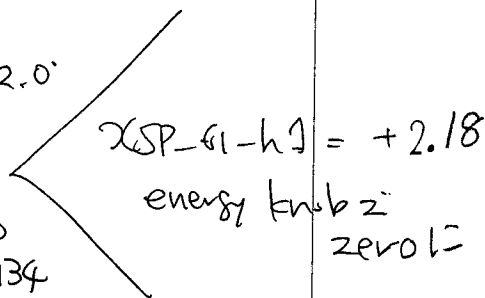
⑮ Screen 1.2.3.4 energy spread

$$\phi_{SP-C.1.2.3.4}$$

$$\Delta\phi = -2.0$$

⑯ Magnets

$$\begin{aligned} BX-G1-H1 &= -7.54 \rightarrow 0.0 \\ BM-G1-A1 &= 193.309 A \rightarrow 185.934 \\ BS-G1-A2 &= 0.002 \rightarrow 0.0 \\ AP-G1-A1 &= 0.0 + \cancel{8.00} 7.991 \\ QF \quad " &= 0.0 \quad 8.410 \end{aligned}$$



22:04

⑰ 1.5X-9 モード