2005-7-1 (金)　晴れ

～ 8:10

KEKB e⁻
KL-A1
Overall
} a timing と energy max にも, これと energy の
安定度をみる。 (SC-R0-31
SC-61-A3にて)

Save　trigger delay : data251-delay-all
mag. data3957.all
phase data1523.phase.all

SC-61-A3

※ J-arc SC-R0-31 でも check.

⇒ 安定度をみるためにはいかす
のは困った

(運転後)

Read ref. を走らせない。Current がずっと下にさ

File — Trigger Delays — 08:20 v1.3.0

	Toggle AB-sled	Toggle C1-sled	Toggle 25-sled	Toggle Monitor
		Reference	Current	Difference
		Jun28 12:47:52	Jul01 08:20:10	
KL_A1_RF		93461 ns	93461 ns	0
OVERALL_A		49053 ns	49083 ns	30
OVERALL_B		49083 ns	49112 ns	29
OVERALL_C		50896 ns	50914 ns	18
OVERALL_1		72917 ns	72934 ns	17
OVERALL_2		72801 ns	72789 ns	-12
OVERALL_3		72724 ns	72721 ns	-3
OVERALL_4		72843 ns	72840 ns	-3
OVERALL_5		72838 ns	72834 ns	-4

Read Ref. | Read Cur. | -96.3 | -17.5 | -8.8 | -1.75 | +1.75 | +8.8 | +17.5 | +96.3

↓ Energy matching

File — Trigger Delays — 08:42 v1.3.0

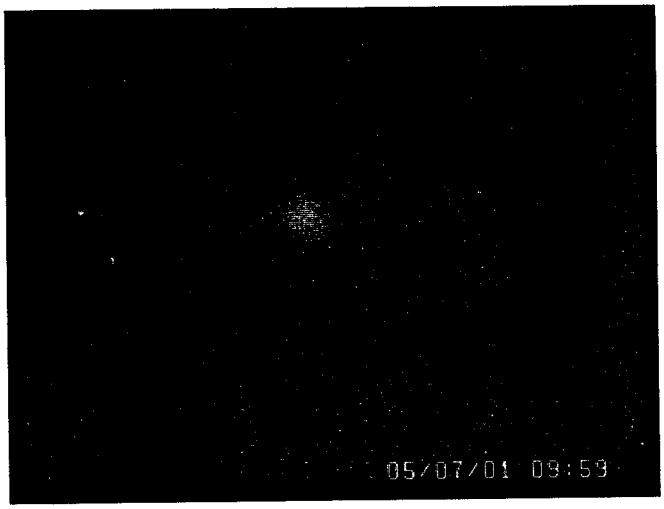
	Toggle AB-sled	Toggle C1-sled	Toggle 25-sled	Toggle Monitor
		Reference	Current	Difference
		Jun28 12:47:52	Jul01 08:42:13	
KL_A1_RF		93461 ns	93286 ns	-175
OVERALL_A		49053 ns	49004 ns	-49
OVERALL_B		49083 ns	49034 ns	-49
OVERALL_C		50896 ns	50853 ns	-43
OVERALL_1		72917 ns	72873 ns	-44
OVERALL_2		72801 ns	72792 ns	-9
OVERALL_3		72724 ns	72724 ns	0
OVERALL_4		72843 ns	72843 ns	0
OVERALL_5		72838 ns	72838 ns	0

Read Ref. | Read Cur. | -96.3 | -17.5 | -8.8 | -1.75 | +1.75 | +8.8 | +17.5 | +96.3

2005.7.1 C-band ビーム加速試験 紙谷、杉村、横山

⓪ 4-4 unit の Kly Es = 30.36 kV
Power = 15.1
Pf = 12.3

① ARモードの e⁻ ビームに切り替え。
ビーム調整 5 Hz
~~BM-61-H~~
BM-61-1 132.845 A 3.0019 GeV
BM-61-H ビームスポット確認。



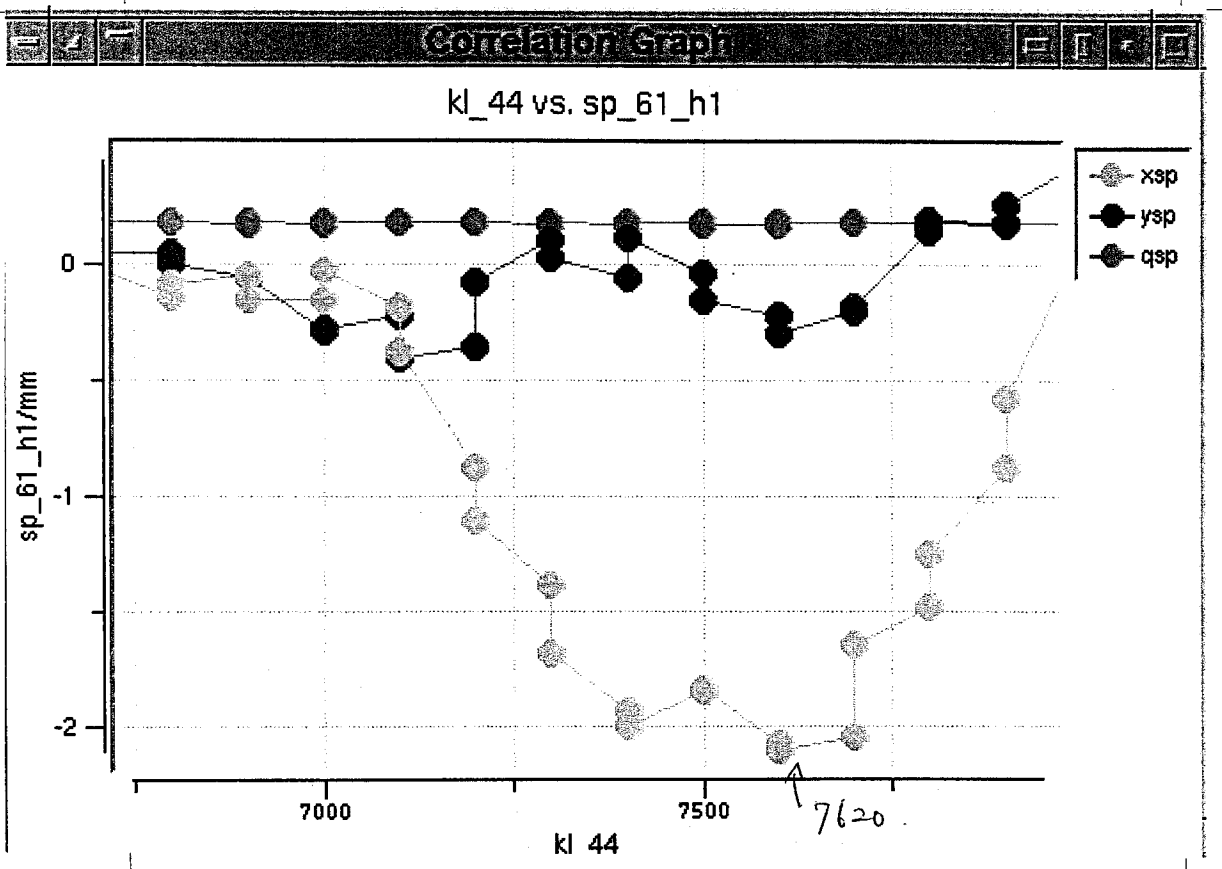
Sc 61-H

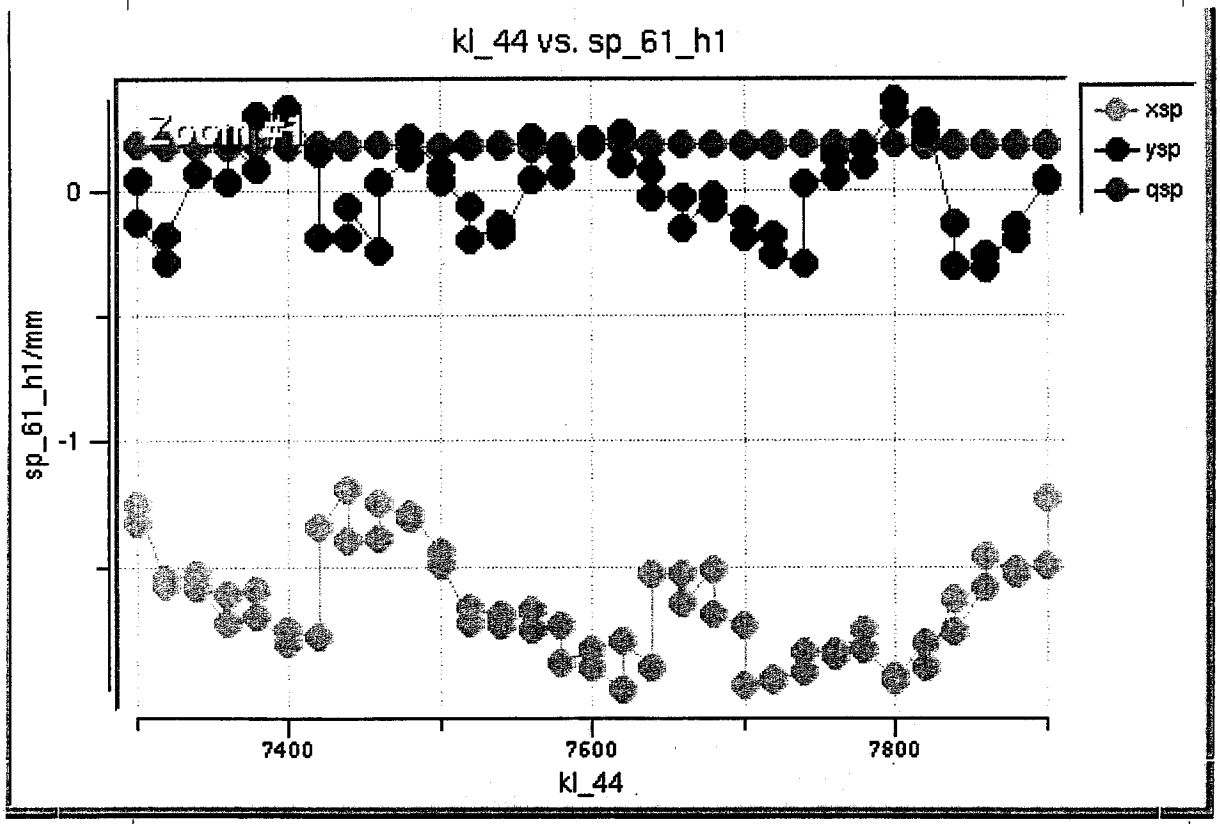
② 各Feedback OFF

③ BPM Average 5

④ SP-61-H1 Xposition. −1.676 ~~−2.14~~ → 0.014 ~ ±0.2 にセット
Energy knob 3.0954 3.0735

⑤ 4-4 kly Standby → ACC にセット
KL-44 Phase 220.5 deg → 215.5 deg
SP-61-H1 −0.8 ~ −1.0
最小にふれる値


Correlation Graph
kl_44 vs. sp_61_h1
xsp
ysp
qsp
0
-1
-2
sp_61_h1/mm
7000
7500
7620
kl_44


kl_44 vs. sp_61_h1
Zoom #1
xsp
ysp
qsp
0
-1
sp_61_h1/mm
7400
7600
7800
kl_44

fitting 3_995

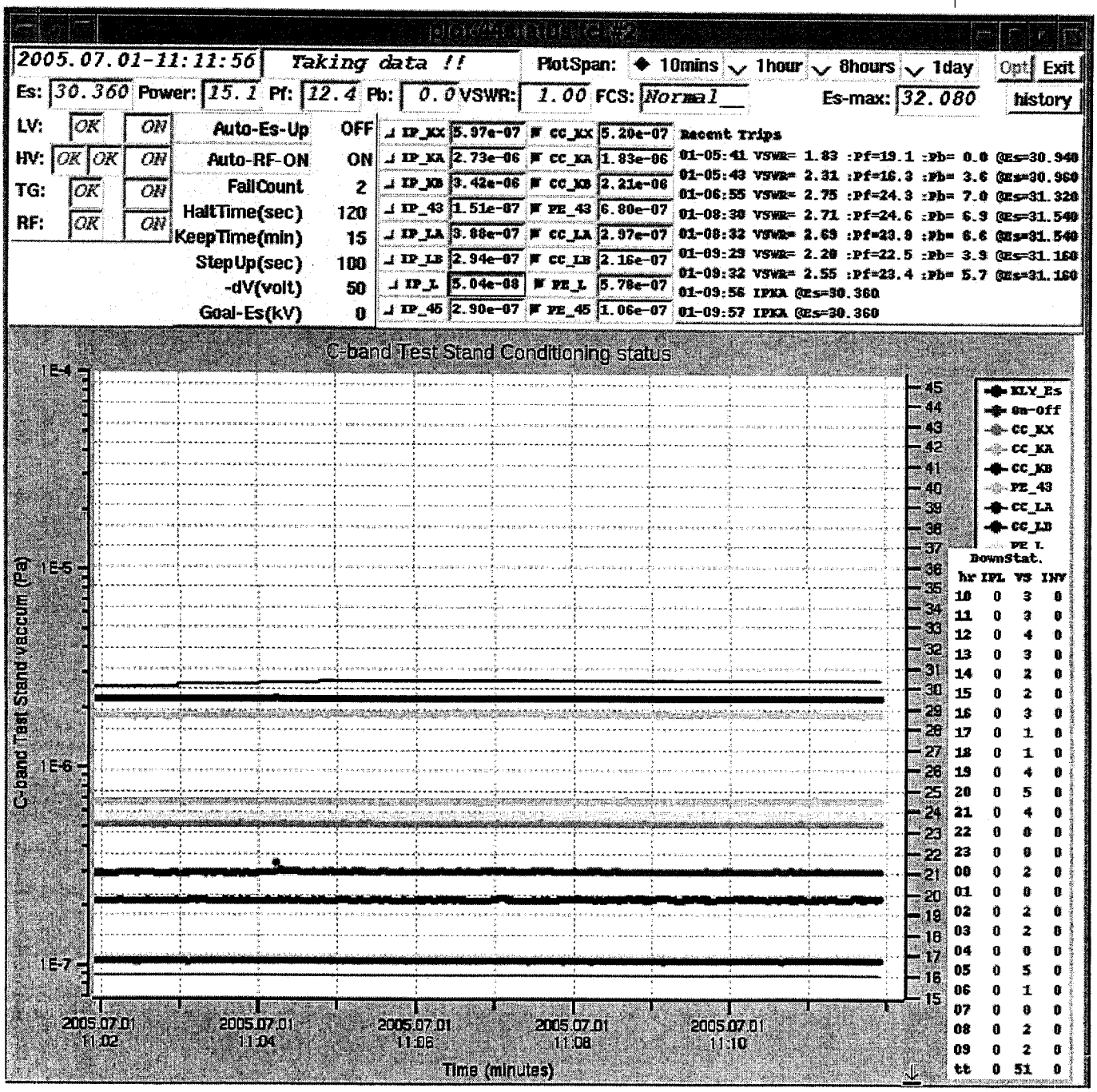
Es = 30.36 ; Egain = 38.98

9.14 mm
−3.7 mm.

3 GeV × 3.605 / 307.5 = 38.02

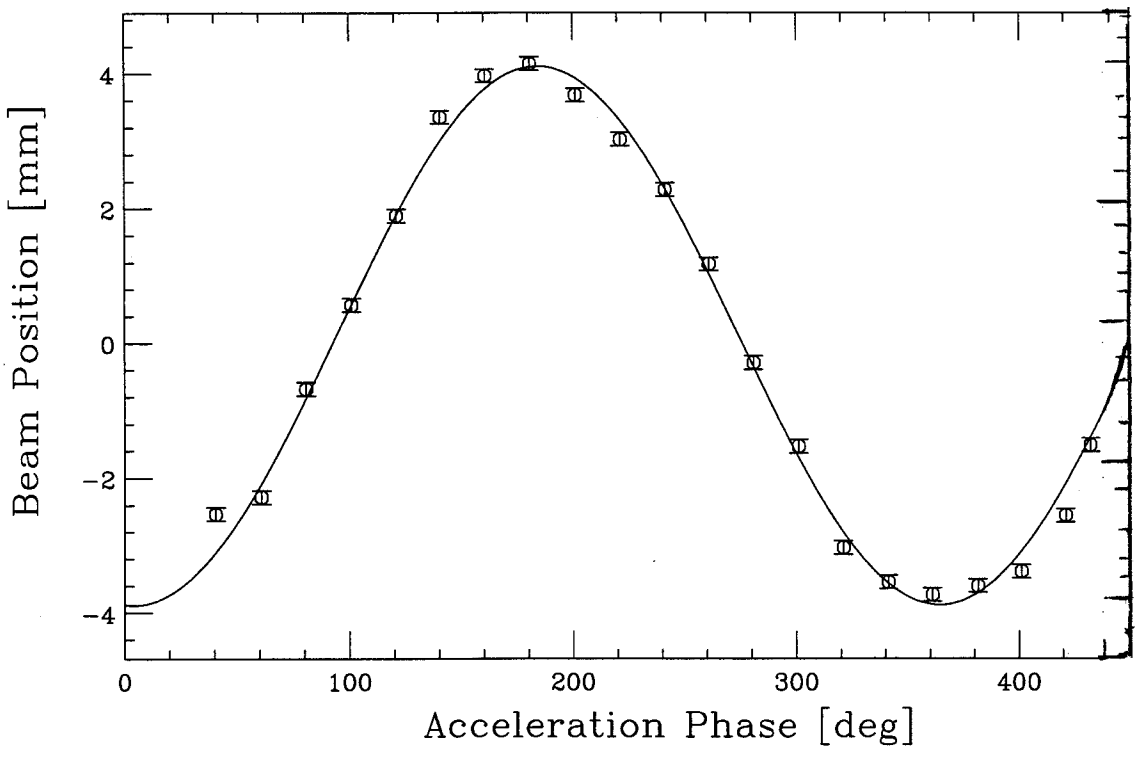
↳ 0.5 MeV/m

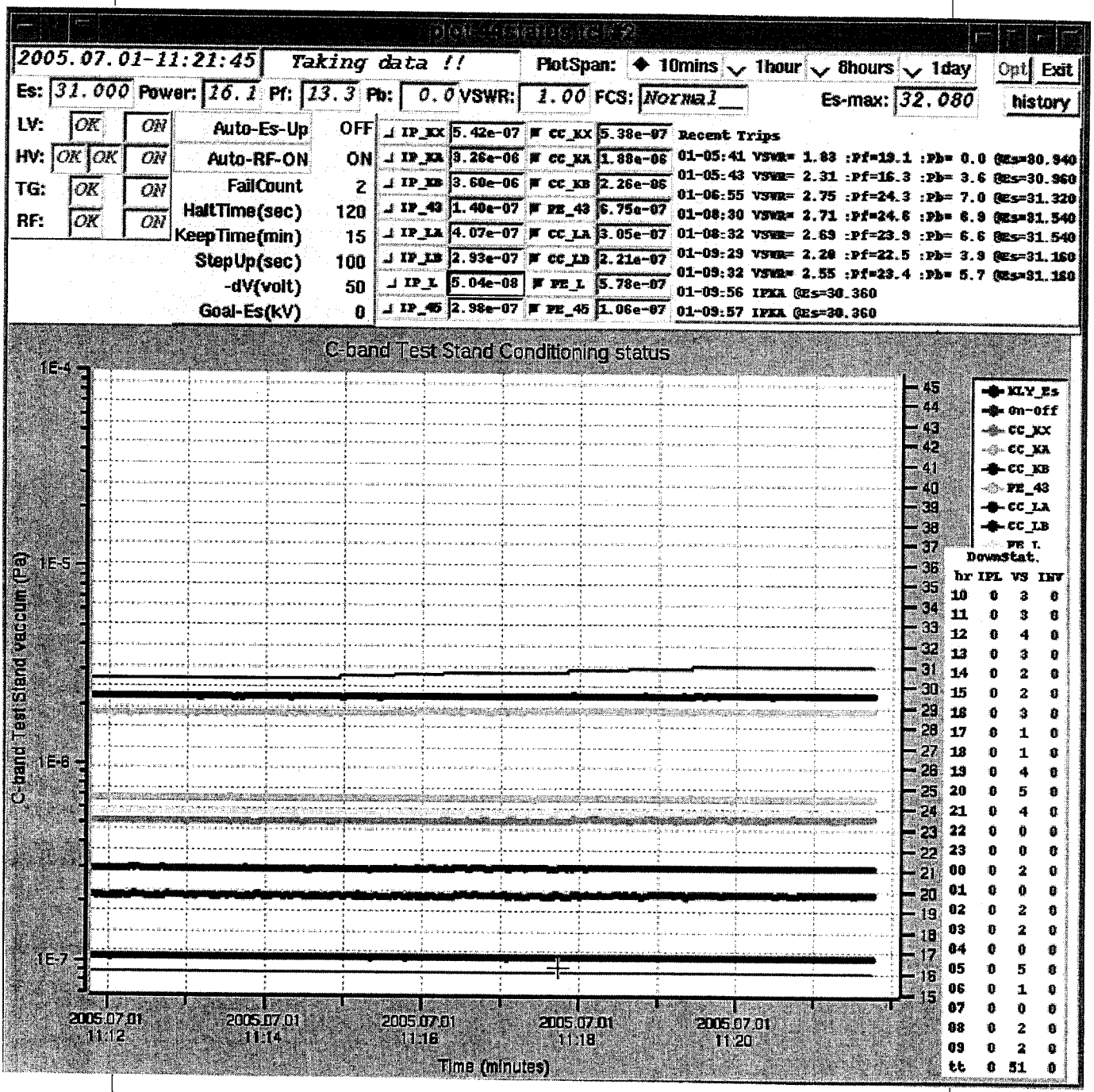
38.02 MeV / 0.96225 = 39.7 MV/m



C-band accelerator module: $E_s = 30.36$ ET @ 11:05

Amplitude =	3.995	Energy Gain =	38.980
PhaseOffset=	94.201	Accel Field =	40.509
BaseLine =	0.107		

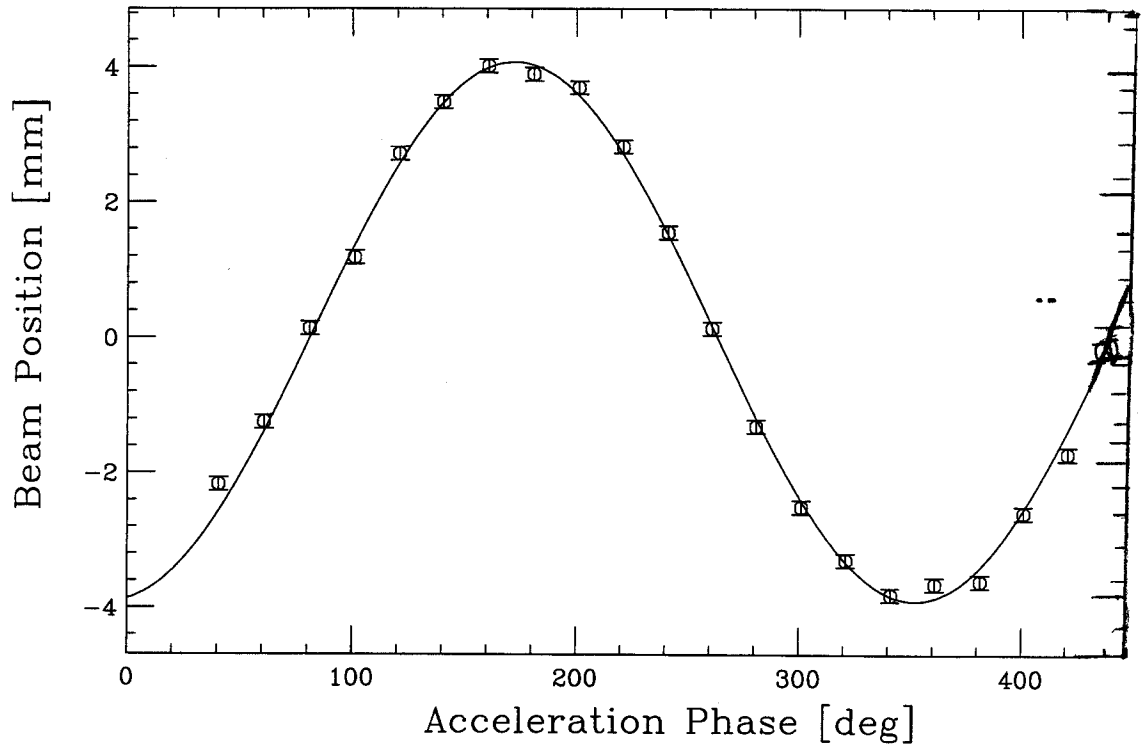



2005.07.01-11:21:45
Taking data !!
PlotSpan: 10mins 1hour 8hours 1day
Opt
Exit
Es: 31.000
Power: 16.1
Pf: 13.3
Pb: 0.0
VSWR: 1.00
FCS: Normal
Es-max: 32.080
history
LV: OK ON
HV: OK OK ON
TG: OK ON
RF: OK ON
Auto-Es-Up OFF
Auto-RF-ON ON
FailCount 2
HaltTime(sec) 120
KeepTime(min) 15
StepUp(sec) 100
-dV(volt) 50
Goal-Es(kV) 0
IP_KX 5.42e-07
CC_KX 5.38e-07
IP_KA 3.26e-06
CC_KA 1.88e-06
IP_KB 3.60e-06
CC_KB 2.26e-06
IP_43 1.40e-07
PE_43 6.75e-07
IP_LA 4.07e-07
CC_LA 3.05e-07
IP_LB 2.93e-07
CC_LB 2.21e-07
IP_L 5.04e-08
PE_L 5.78e-07
IP_45 2.98e-07
PE_45 1.06e-07
Recent Trips
01-05:41 VSWR= 1.83 :Pf=13.1 :Pb= 0.0 @Es=30.340
01-05:43 VSWR= 2.31 :Pf=16.3 :Pb= 3.6 @Es=30.960
01-06:55 VSWR= 2.75 :Pf=24.3 :Pb= 7.0 @Es=31.320
01-08:30 VSWR= 2.71 :Pf=24.6 :Pb= 6.9 @Es=31.540
01-08:32 VSWR= 2.69 :Pf=23.9 :Pb= 6.6 @Es=31.540
01-09:29 VSWR= 2.28 :Pf=22.5 :Pb= 3.9 @Es=31.160
01-09:32 VSWR= 2.55 :Pf=23.4 :Pb= 5.7 @Es=31.180
01-09:56 IPKA @Es=30.360
01-09:57 IPKA @Es=30.360
C-band Test Stand Conditioning status
C-band Test Stand vaccum (Pa)
1E-4
1E-5
1E-6
1E-7
45
44
43
42
41
40
39
38
37
36
35
34
33
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
KLY_Es
On-Off
CC_KX
CC_KA
CC_KB
PE_43
CC_LA
CC_LB
PE_L
Downstat.
hr IPL VS INV
10 0 3 0
11 0 3 0
12 0 4 0
13 0 3 0
14 0 2 0
15 0 2 0
16 0 3 0
17 0 1 0
18 0 1 0
19 0 4 0
20 0 5 0
21 0 4 0
22 0 0 0
23 0 0 0
00 0 2 0
01 0 0 0
02 0 2 0
03 0 2 0
04 0 0 0
05 0 5 0
06 0 1 0
07 0 0 0
08 0 2 0
09 0 2 0
tt 0 51 0
2005.07.01 11:12
2005.07.01 11:14
2005.07.01 11:16
2005.07.01 11:18
2005.07.01 11:20
Time (minutes)

C-band accelerator module: E_s = 31.0 kV @ 11:20

Amplitude = 3.986
PhaseOffset= 82.286
BaseLine = 0.082

Energy Gain = 38.889
Accel Field = 40.415

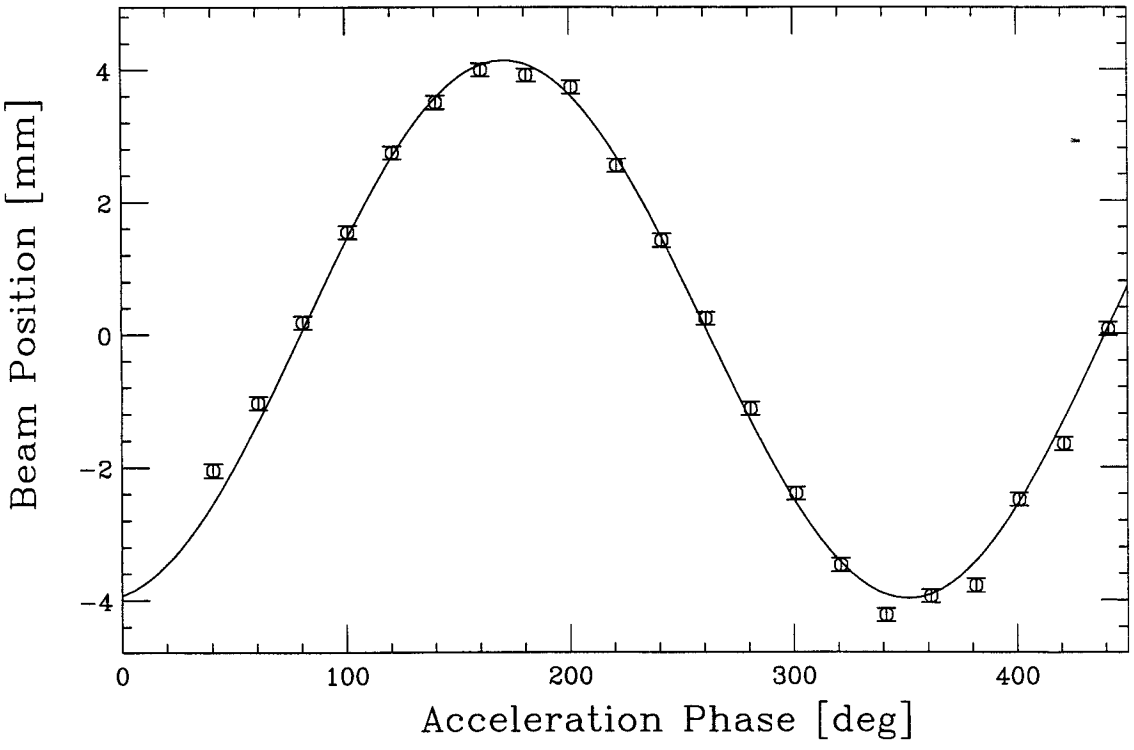


111

7201 にて 測定 E_s=31.0

C-band accelerator module: E_s = 31.00 KV @ 11:35

Amplitude =	4.057	Energy Gain =	39.581
PhaseOffset=	80.896	Accel Field =	41.134
BaseLine =	0.081		



7600 にして測定 Es = 31.0