

Measurement Condition

Live Time pulse
 Accum.Time pulse

Control the Streak Camera
 D-Sweep Range

MCP Gain %
 Delay ns
 Search pulse : cnt.

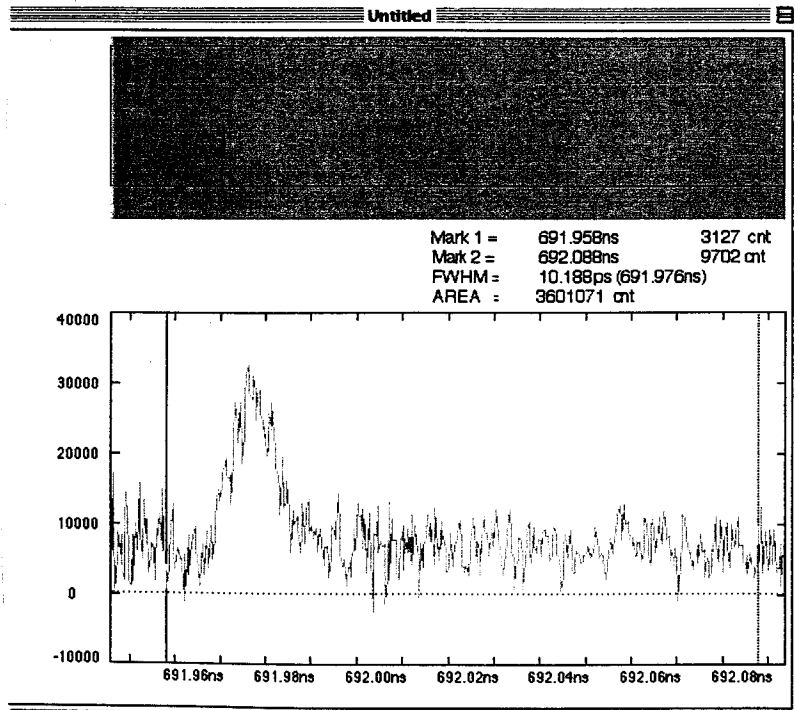
Input Optics
 Focus :
 Slit Width : um

Gravity Integ. Trig.Single

Table... Quit Do It

Image Status

<< Condition : BeamC6699_R1 >>
 Accum.Time 40 pulse
 Mcp Gain 100[%]
 Streak Mode 5[NS]
 Streak Trigger SINGLE
 X:-0.180 Y: 0.500 Z: 4.8980
 DC Calibration ON
 DATE 2003:09:19
 TIME 13:55:03
 << Comment >>



Measurement Condition

Live Time pulse
 Accum.Time pulse

Control the Streak Camera
 D-Sweep Range

MCP Gain %
 Delay ns
 Search pulse : cnt.

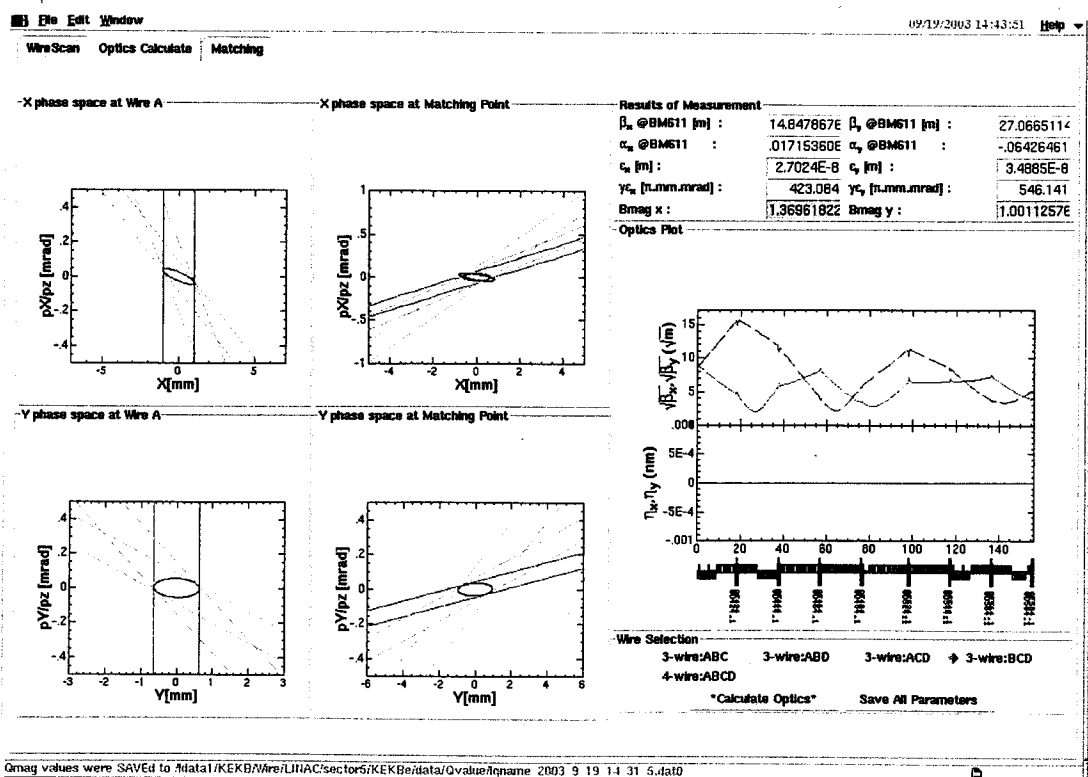
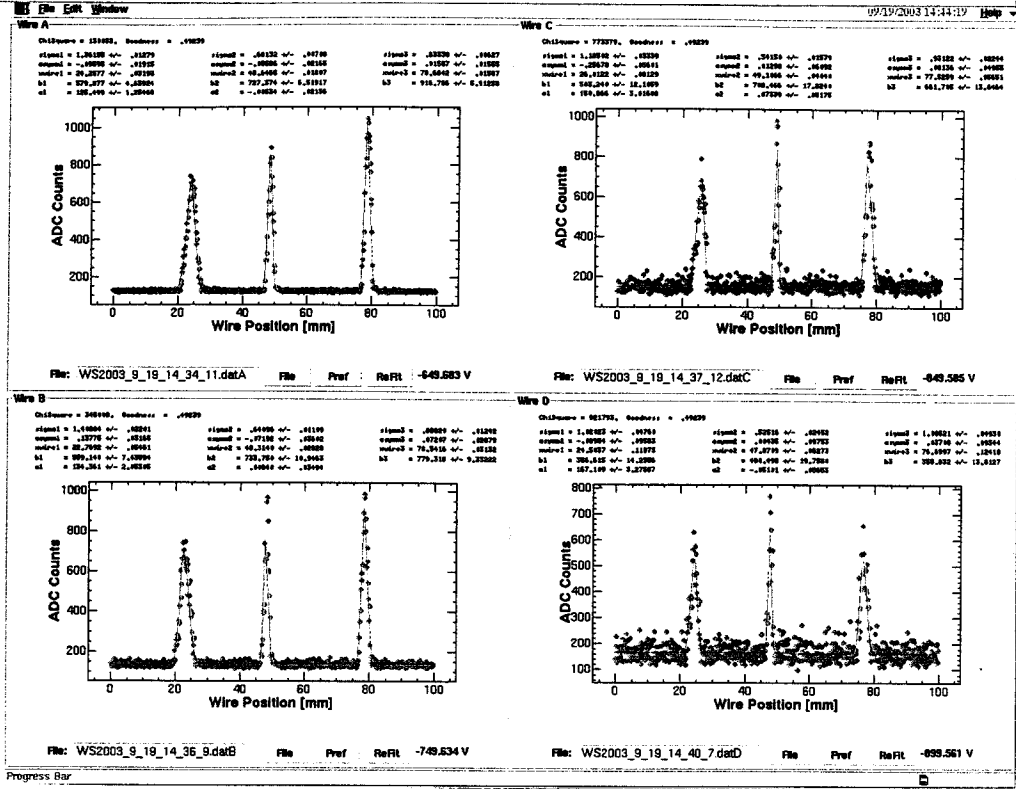
Input Optics
 Focus :
 Slit Width : um

Gravity Integ. Trig.Single

Table... Quit Do It

Image Status

<< Condition : BeamC6699_R1 >>
 Accum.Time 40 pulse
 Mcp Gain 100[%]
 Streak Mode 0.20[NS]
 Streak Trigger SINGLE
 X:-0.180 Y: 0.500 Z: 4.8980
 DC Calibration ON
 DATE 2003:09:19
 TIME 14:14:25
 << Comment >>



Omega values were SAVED to f:\data1\KEKB\Wire\LINAC\sector5\KEKBendata\Qvalue\qname_2003_9_19_14_31_5.dat0

(03/10/7(火) 準夜 LCG ビーム調整) (佐藤)

• Phasing (Es 変えた所在)

~~B2, 15, 16, 51, 52, 28, 55, 46~~

B2, 18, 21, 46, (51), (55) (ARE-beam)

kek Be-10 部分換え.

46, B2, 51, 52, 55,
至右側

- 軌道が出てるかい?

~~3 sector 以降 軌道補正終了.~~

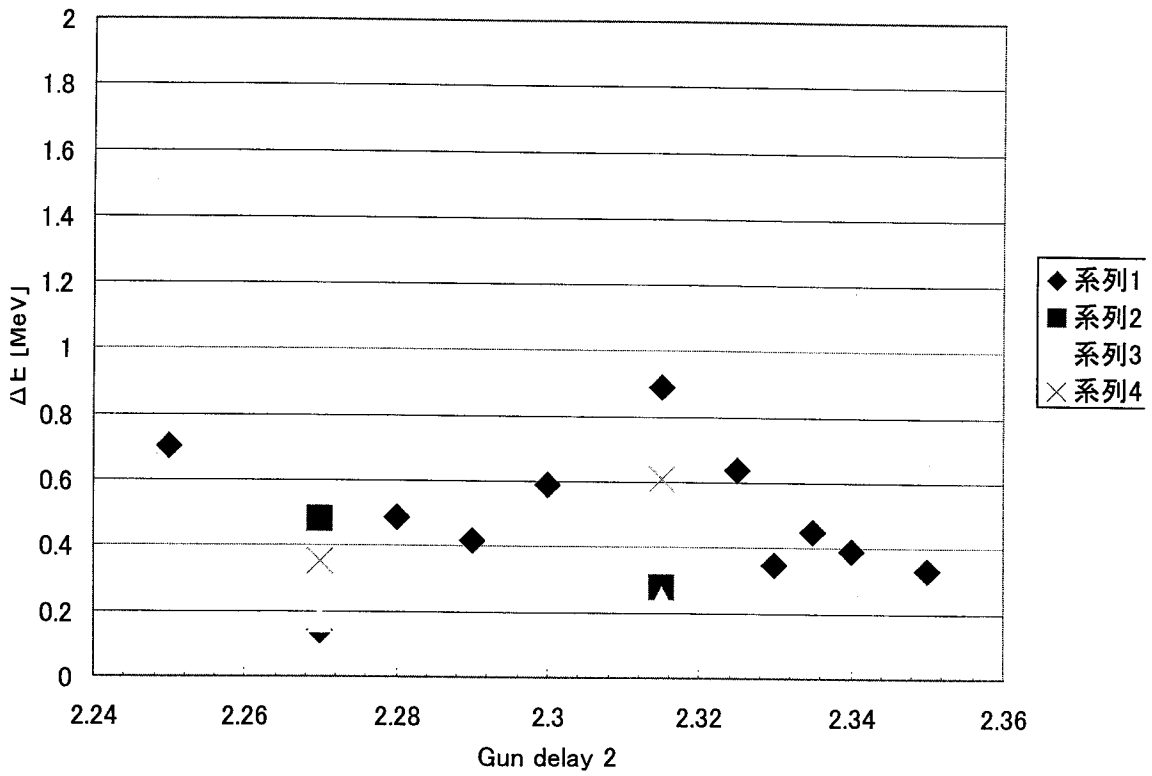
1-4 以降, 2-7 以降 軌道補正した.

(03/10/8(水) 準夜) 佐藤

Buncher 出口の energy 確認 (Gun delay 1 = 1.326)

- (Gun delay 2 の設定値)
- ① 2.3 ($\Delta E = 0.59$)
 - ② 2.315 ($\Delta E = 0.89$). 2回目 ($\Delta E = 0.28$). 3回目 ($\Delta E = 0.24$)
 - ③ 2.325 ($\Delta E = 0.64$) x 2回
 - ④ 2.33 ($\Delta E = 0.35$)
 - ⑤ 2.335 ($\Delta E = 0.45$) x 2回
 - ⑥ 2.34 ($\Delta E = 0.39$)
 - ⑦ 2.35 ($\Delta E = 0.33$)
 - ⑧ 2.25 ($\Delta E = 0.7$)
 - ⑨ 2.27 ($\Delta E = 0.14$) 2回目 ($\Delta E = 0.48$) 3回目 ($\Delta E = 0.17$)
 - ⑩ 2.28 ($\Delta E = 0.49$) 4回目 ($\Delta E = 0.354$)
 - ⑪ 2.29 ($\Delta E = 0.42$)

Buncher (Q20) 1st, 2nd Bunch Energy 差



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2003.10.9

23:28

SC-6L-H z' E-4位置確認

Energy FB Off.

BM6L1 133.598A 3.0181 GeV

$\phi 41 = 351^\circ \rightarrow 171^\circ$ 118 A 2.676 GeV

$\phi 43 = 188.5^\circ \rightarrow 85^\circ$ 103.9 A 2.3648 GeV

($\phi 48 = \cancel{244.8^\circ} \rightarrow \pi$ の値 STBに有る)

$\phi 51 = 151.5^\circ \rightarrow 331.5^\circ$ 90.394 A 2.0651 GeV

$\phi 55 = 245.5^\circ \rightarrow 65.5^\circ$ 83.639 A 1.9157 GeV

$\phi 56 = 167.0^\circ \rightarrow 347.0^\circ$ 78.266 A 1.7955 GeV

$\phi 57 = 153.5^\circ \rightarrow 333.5^\circ$ 71.917 A 1.6526 GeV

AR BM611

132.845A

AR 1射のための 125X-9 復帰

0:10

BM6L1 71.917A \rightarrow $\phi A \rightarrow 450A \rightarrow$ 132.845A

2:17

再開

$\phi 58 = 212.5^\circ \rightarrow 32.5^\circ$ 69.109 1.5890 GeV

WD-58-4 5.128 \rightarrow 6.037

WF " 5.319 \rightarrow 6.227

$E_s = 43.5$ kV Power = 40.3 MW

KL-44 ① ϕ -scan { phase set z' Error発生.
Energy FeedBack 非対応

Energy 変化 z' 軌道も変化するか?

-3mm +11mm \rightarrow 4mm

Central Energy 1.589 GeV

Dispersion = 331 mm @ SC-61-h.

$$\Delta x = \frac{\Delta E}{E} \times D \rightarrow \Delta E = \frac{\Delta x}{D} \times E$$

$$= \frac{7 \text{ mm}}{331 \text{ mm}} \times 1589 \text{ MeV} = \underline{\underline{33.60 \text{ MeV}}}$$

② Delay Scan.

3:21

系終3

2003:10.10
9:33

昨夜のKIX-9をセト

タリ-の 程度が高めの E_s ε 43.5 → 42 → 41 → 38 → 35 kV (= FITTE.)

① Data

10:52

E_s = 38.500 kV Power = 29.6 MW

AR射 (時間外)

KL-51 Down 程度 E_s = 40 → 36 kV I-3=3'

KL-51.52 と STB に.

BM-61-1 64.957 A → 1.4946 GeV

$$\frac{\Delta E}{\Delta x} = \frac{E}{D} = \frac{1495 \text{ MeV}}{\frac{331 \text{ mm}}{307.5}} = \frac{4.86}{4.52} \frac{\text{MeV}}{\text{mm}}$$

$$\Delta x \sim 7 \text{ mm} \rightarrow \Delta E = 31.64 \text{ MeV}$$

$$G = 7.215 \quad 32.54 \text{ MeV}$$

$$\frac{33.8 \text{ MeV}}{36.45 \text{ MeV}}$$

$$0.962 \text{ mm}$$

$$\phi_s = 101.808$$

$$\phi_{\text{or}} = 146.8^\circ$$

(1) $\phi = 101.8^\circ$

(2) $\phi = 146.8^\circ$

SX-45-1 etc 調整 X-61-h1 = 0.7 ± 0.3

π-6
orbital
↓
0.2 ~ 後
↓
π-2

Data ② $E_s = 45.0 \text{ kV}$ Power = 43.7 MW $\frac{\Delta E}{\Delta x} = 37.33 \text{ MV/mm}$
 \downarrow
 40.12 MV/mm

Data ③ $E_s = 30.0 \text{ kV}$ Power = 14.5 MW $\frac{\Delta E}{\Delta x} = 24.43 \text{ MV/mm}$

Data ④ $E_s = 45.0 \text{ kV}$

- SP-61-H1 = -7.454
- 7.651
- 7.336
- 7.749
- 7.491

@ $\phi = 69.5^\circ$ (On Crest)

~~7.536~~

Acc

- SP-61-H1 = -0.343
- 0.290
- 0.682
- 0.420
- 0.439

STB

-0.435

Beam Energy
3 GeV/c

7.101

Data ⑤ $E_s = 38.5 \text{ kV}$ Power = 29.6 MW

$\frac{\Delta E}{\Delta x} = \frac{3000 \text{ MeV}}{307.5 \text{ mm}} = 9.763 \frac{\text{MeV}}{\text{mm}}$

$L_{acc} = 0.962 \text{ m}$

$a = 3.34 \text{ mm} \times 9.763 \times \frac{1}{0.962} = 33.89 \text{ MV/mm}$

Data ⑥ $E_s = 40.00 \text{ kV}$ Power = 32.6 MW

$a = 3.468 \text{ mm} \rightarrow j = 35.20 \text{ MV/mm}$

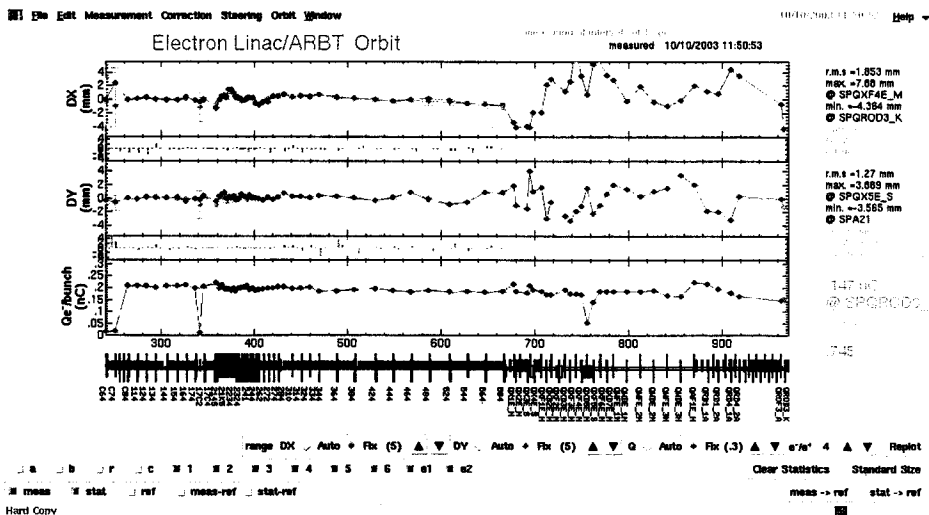
Data ⑦ $E_s = 42.00 \text{ kV}$ Power = 36.9 MW

$a = 3.549 \text{ mm}$ 36.02 MV/mm

Data ⑧ $E_s = 43.50 \text{ kV}$ Power = 40.3 MW

$a = 3.736 \text{ mm}$ 37.91 MV/mm

3.736 mm



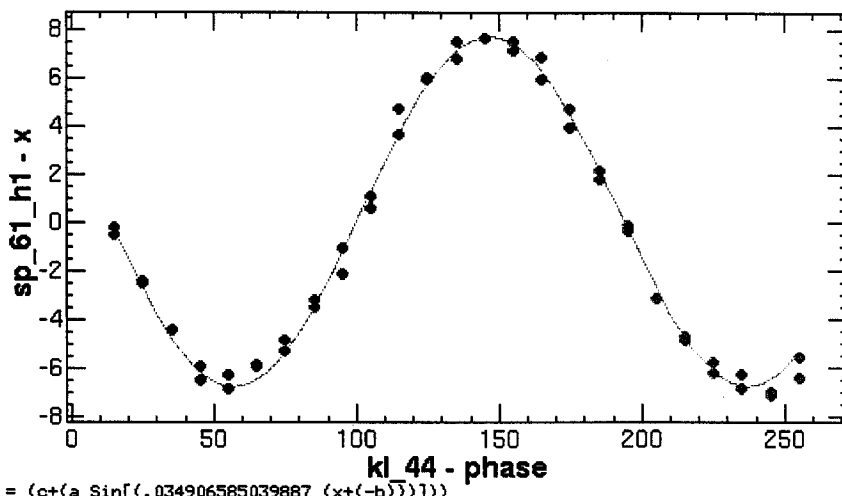
File Edit Window 10/10/2003 11:35:22 Help

ChiSquare = 8.45368 Goodness = .47256

a = 7.21527 +/- .08604 b = 101.858 +/- .34856 c = .48535 +/- .06278

① $E_s = 38.50 \text{ kJ}$ Power = 29.6 MW $\Delta E = 32.54 \text{ MeV}$ $\rightarrow \frac{\Delta E}{\Delta t} = 33.8 \text{ MV/m}$

\downarrow
36.95 MV/m



Hard Copy

Data ② $E_s = 45.00 \text{ kJ}$ Power = 43.8 MW 6.27
61

$\alpha = 4.062 \text{ mm}$ $g = 41.23 \text{ MV/m}$

③ $\alpha = 3.888 \text{ mm}$ $g = 39.36 \text{ MV/m}$

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File Edit Window

10/10/2003 14:05:36 Help

ChiSquare = 14.2784 Goodness = .46077

a = 7.94494 +/- .22359

b = 64.5108 +/- .80989

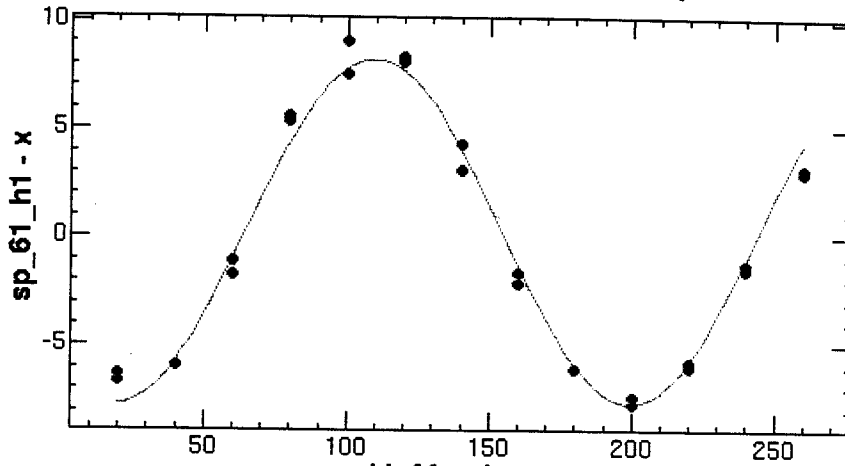
c = .24145 +/- .16236

(2) $E_s = 45.00 \text{ kJ}$

Power = 43.7 MW

$\frac{\Delta E}{\Delta z} = 37.73 \text{ MeV/m}$

40.12 MeV/m



Function = (c+(a Sin[({.034906585039887 (x+(-b))}])))

Hard Copy

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10/10/2003 14:12:15 Hel

ChiSquare = 5.88393 Goodness = .46077

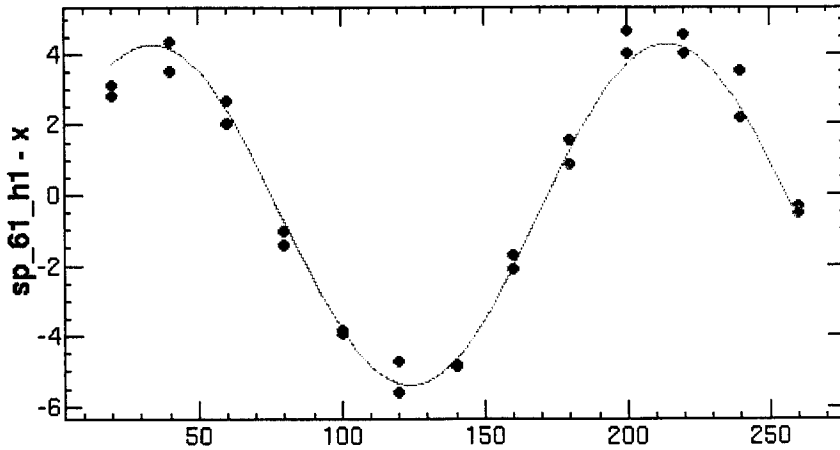
a = -4.8372 +/- .14413

b = 79.1022 +/- .85409

c = -.58124 +/- .10423

(3) $E_s = 30.00 \text{ kJ}$ Power = 17.5 MW

$\frac{\Delta E}{\Delta z} = 27.43 \text{ MeV/m}$



Function = (c+(a Sin[({.034906585039887 (x+(-b))}])))

