

67

2002.11.26

Al エミタ測定.

コリX-480

QDAIB8

QFAIB8

ATB

AlB8 環状測定.

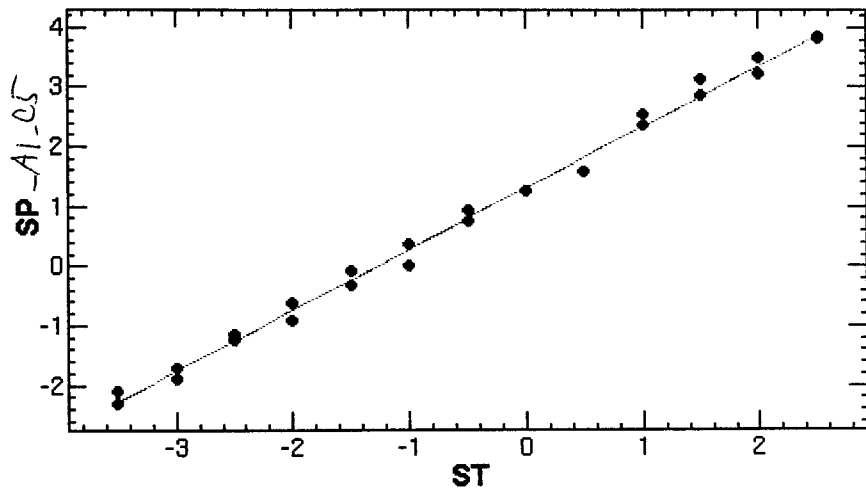
File Edit Window

11/26/2002 17:00:35

ChiSquare = .48903 Goodness = .46160

a = 1.02462 +/- .01495

b = 1.30673 +/- .02895



Function = (b+(a x))

ST
BX-ALB8

Energy at Al_B8 : 14.688438438438439 MeV

コリX-9 6

QFAIB8

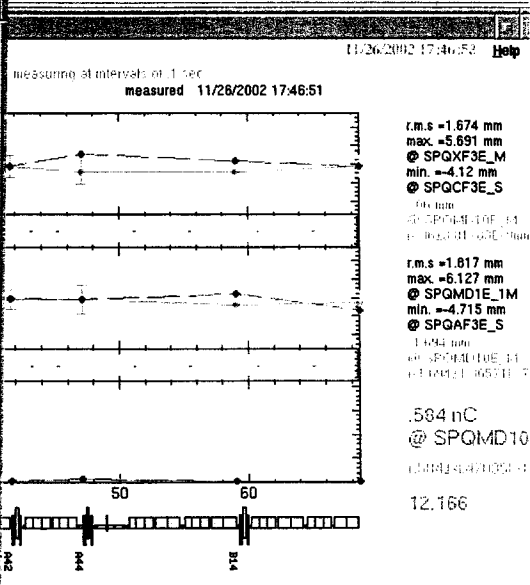
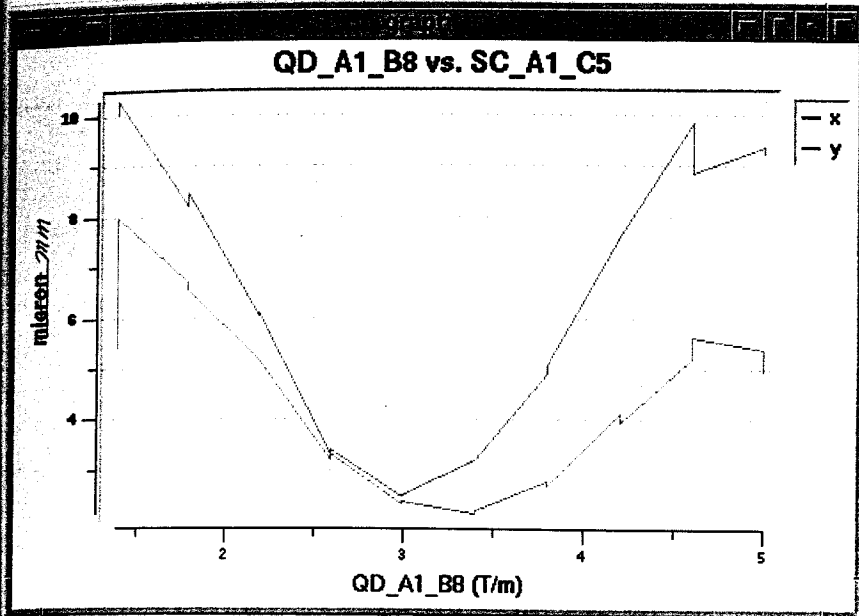
17:25

コリX-9 - 6mmφ 挿入して測定

QDAIB8

17:55

MS.69E



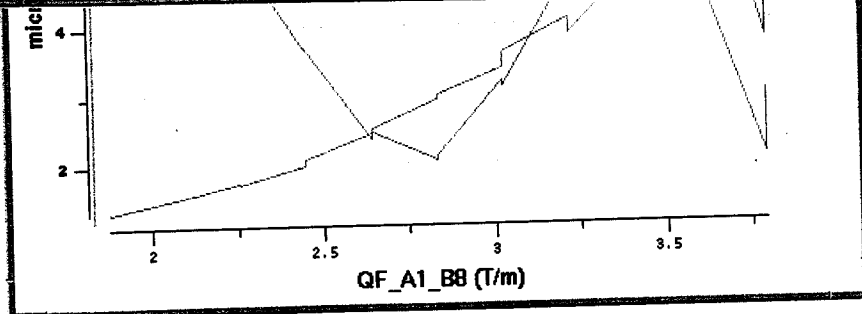
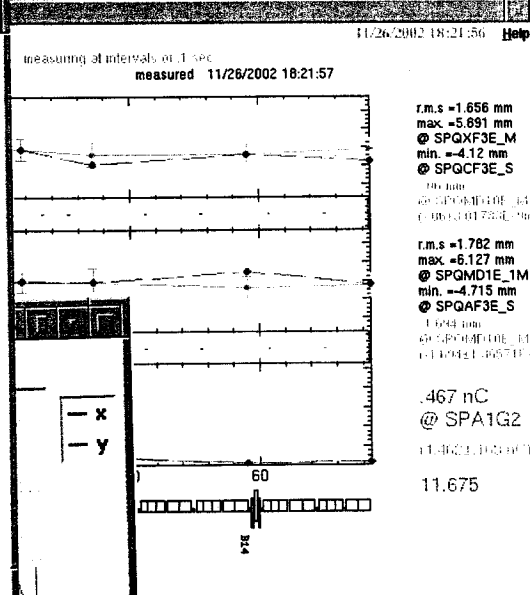
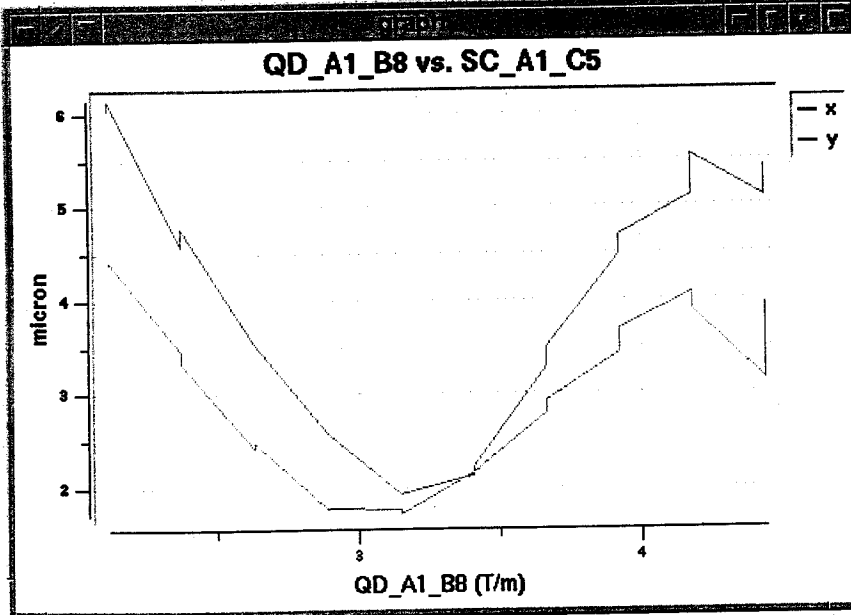
guide: 01_18_2002_20:17:13.dad range DX Auto + Fix (5) DY Auto + Fix (5) Q Auto + Fix (2) e/σ 4 Replot

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

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

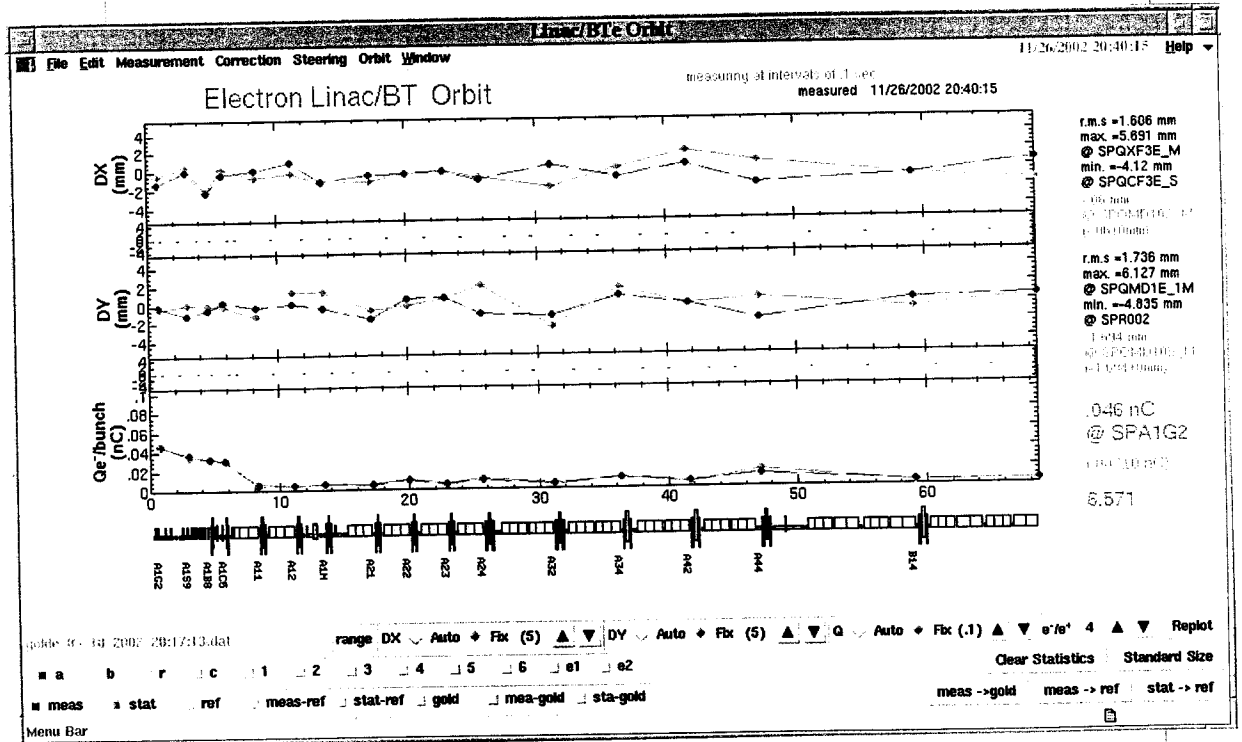
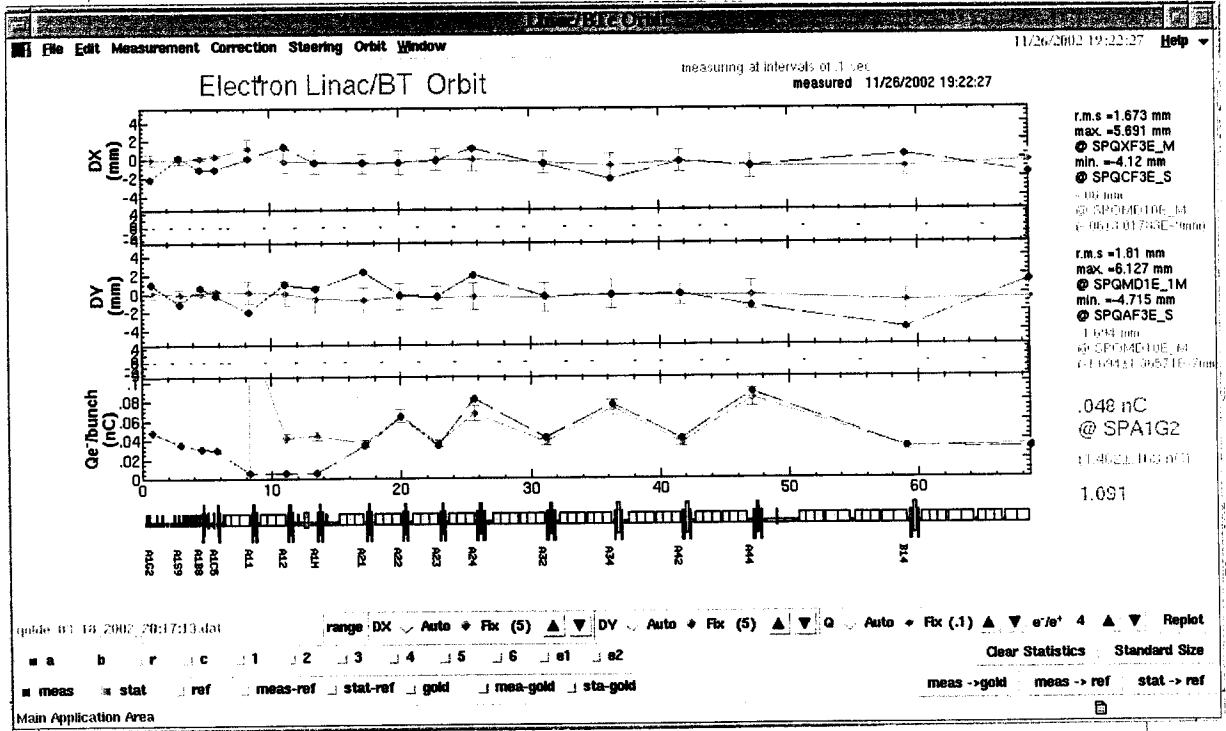
meas -> gold meas -> ref stat -> r

↑ ジット-A 6mmφ λ1) Q値不明



QFA1B8

J17-19 2mm ϕ
QFA1 B8



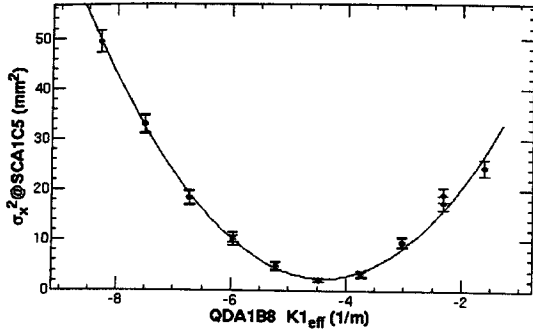
コリヤ-タなし

History Window
Fitting | matching

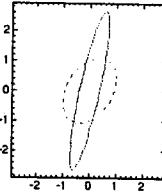
11/26/2002 19:11:59 Help

$\gamma_c = 8.087E-5$; $\alpha_{11} = -1.605$; $\beta_{11} = 416$; $\text{Bmag} = 8.122$
cmit:20021126-1613-qd_al_b0-sc_al_c5

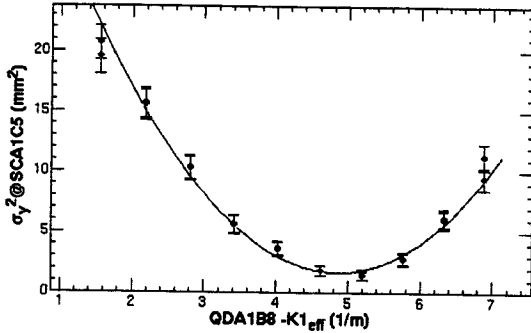
Momentum = 14.6989 MeV
EMITX = $2.9113E-6 \pm 1.3942E-7$ m, gammaEMITX = $8.0066E-5 \pm 4.0105E-6$ m
ALPHAX = $-1.605 \pm .1133$, BETRX = $4157 \pm .0238$ m at STRET
error of SIGX (estimated) = .1628 mm
11/26/2002 20:11:48



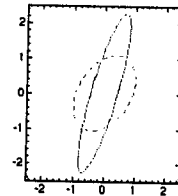
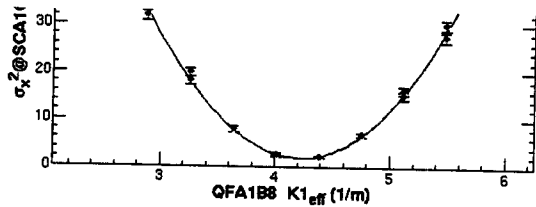
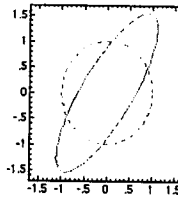
Condition
Fitting Direction
◆ Horizontal
Vertical
Q: QDA1B8 SC: SCA1C5
Fitting
Read Data & Fit:
Raw Saved
Redo fit with current data
Redo Fit



Momentum = 14.6989 MeV
EMITY = $2.7426E-6 \pm 1.3305E-7$ m, gammaEMITY = $7.989E-5 \pm 3.8273E-6$ m
ALPHAY = $-1.3981 \pm .0951$, BETRY = $9665 \pm .0667$ m at QDA1B8
error of SIGY (estimated) = .1564 mm
11/26/2002 19:37:49



Q: QDA1B8 SC: SCA1C5
Fitting
Read Data & Fit:
Raw Saved
Redo fit with current data
Redo Fit



Vertical fit

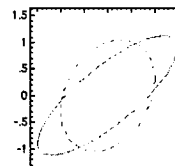
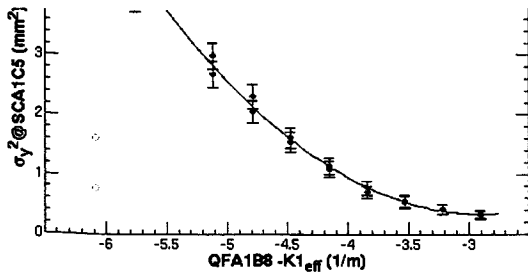
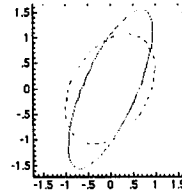
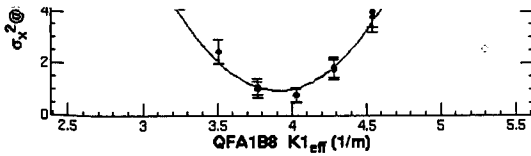
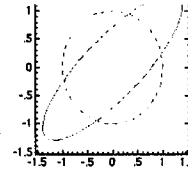
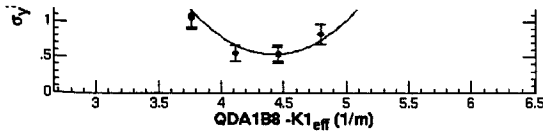
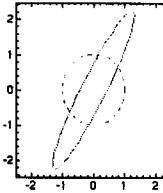
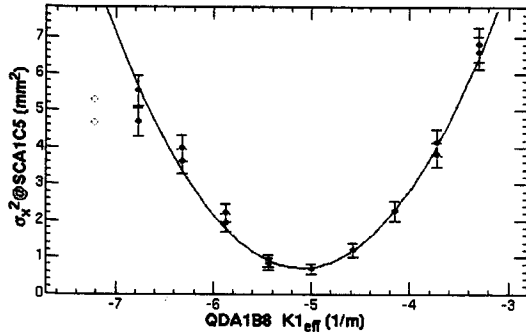
History Window
fitting | matching

11/26/2002 19:51:51 Help

$\gamma = 3.376E-5$; $\alpha = -2.756$; $\beta = 1.375$; $Bmag = 3.369$
emitt20021126-1848-qd_al_b8-sc_al_c5 (re-fit)

Momentum = 14.6989 MeV
EH1TX = $1.1735E-6 \pm 4.752E-8$ m, gammaEH1TX = $3.3756E-5 \pm 1.3669E-6$ m
ALPHAX = $-2.7563 \pm .2022$, BETHX = $1.375 \pm .0995$ m at QDA1B8
error of SIGX (estimated) = .0678 mm 11/26/2002 19:51:38

Condition
Fitting Direction
◆ Horizontal
Vertical
Q : QDA1B8 SC : SCA1C5
Fitting
Read Data & Fit :
Raw Saved
Redo fit with current data
Redo Fit



J11x-7 ~~6mm~~ 6mm

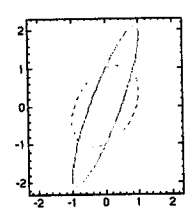
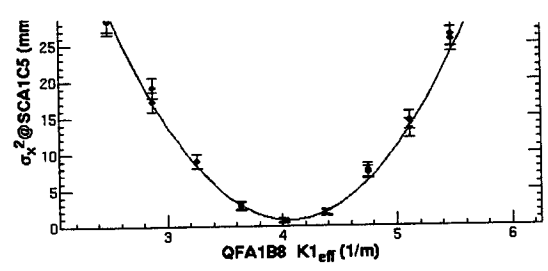
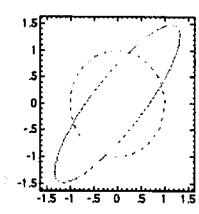
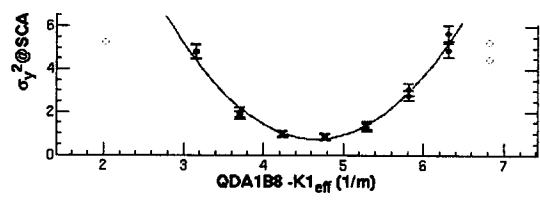
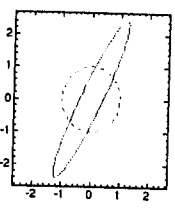
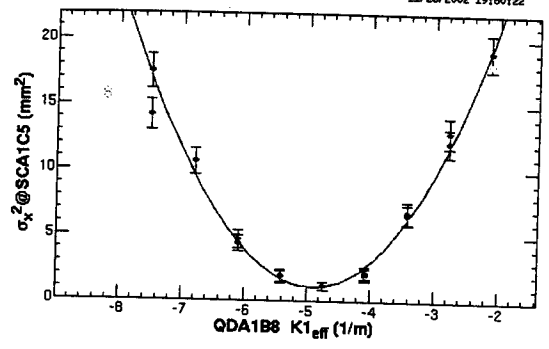
story Window
fitting | matching

11/26/2002 19:00:22 Help

$\gamma_1 = 4.7131 \times 10^{-5}$; $\alpha = -2.909$; $\beta = 1.299$; $\text{Bmag} = 3.736$
emit20021126-1815-qd_a1_b8-sc_a1_c5 (re-fit)

Momentum = 14.6989 MeV
EH1TX = $1.6385E-6 \pm 1.3104E-7$ m, gammaEH1TX = $4.7133E-5 \pm 3.7694E-6$ m
ALPHAX = $-2.9087 \pm .2879$, BETRX = $1.2988 \pm .1267$ m at QDA1B8
error of SIGX (estimated) = .1566 mm
11/26/2002 19:00:22

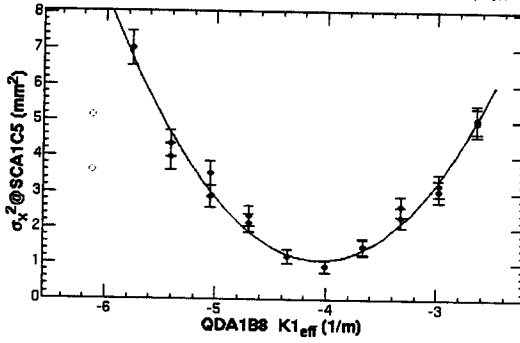
Condition
Fitting Direction
◆ Horizontal
Vertical
Q : QDA1B8 SC : SCA1C5
Fitting
Read Data & Fit :
Raw Saved
Redo fit with current data
Redo Fit



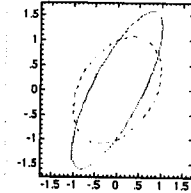
vertical fit

$\gamma_{\text{eff}} = 3.575E-5; \alpha_{\text{eff}} = -1.279; \beta_{\text{eff}} = .838; B_{\text{mag}} = 1.360$
emit20021126-2106-qa_al_b8-sc_al_c5 (re-fit)

Momentum = 14.6989 MeV
EMITX = $1.2427E-6 \pm 3.7221E-8$ m, gammaEMITX = $3.5747E-5 \pm 1.0707E-6$ m
ALPHAX = $-1.2787 \pm .0781$, BETAX = $.8383 \pm .0426$ m at STRUT
error of SIGX (estimated) = .09 mm 11/26/2002 21:07:00

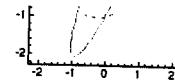


Condition
Fitting Direction
Horizontal
Vertical
Q : QDA1B8 SC : SCA1C5
Fitting
Read Data & Fit :
Raw Saved
Redo fit with current data
Redo Fit



Hard Copy

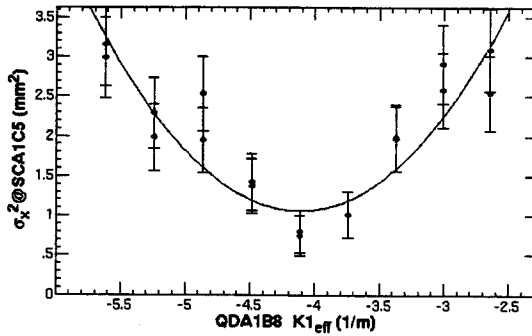
QDA1B8 - K1_eff (1/m)



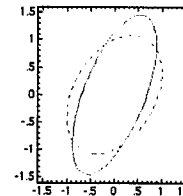
Hard Copy

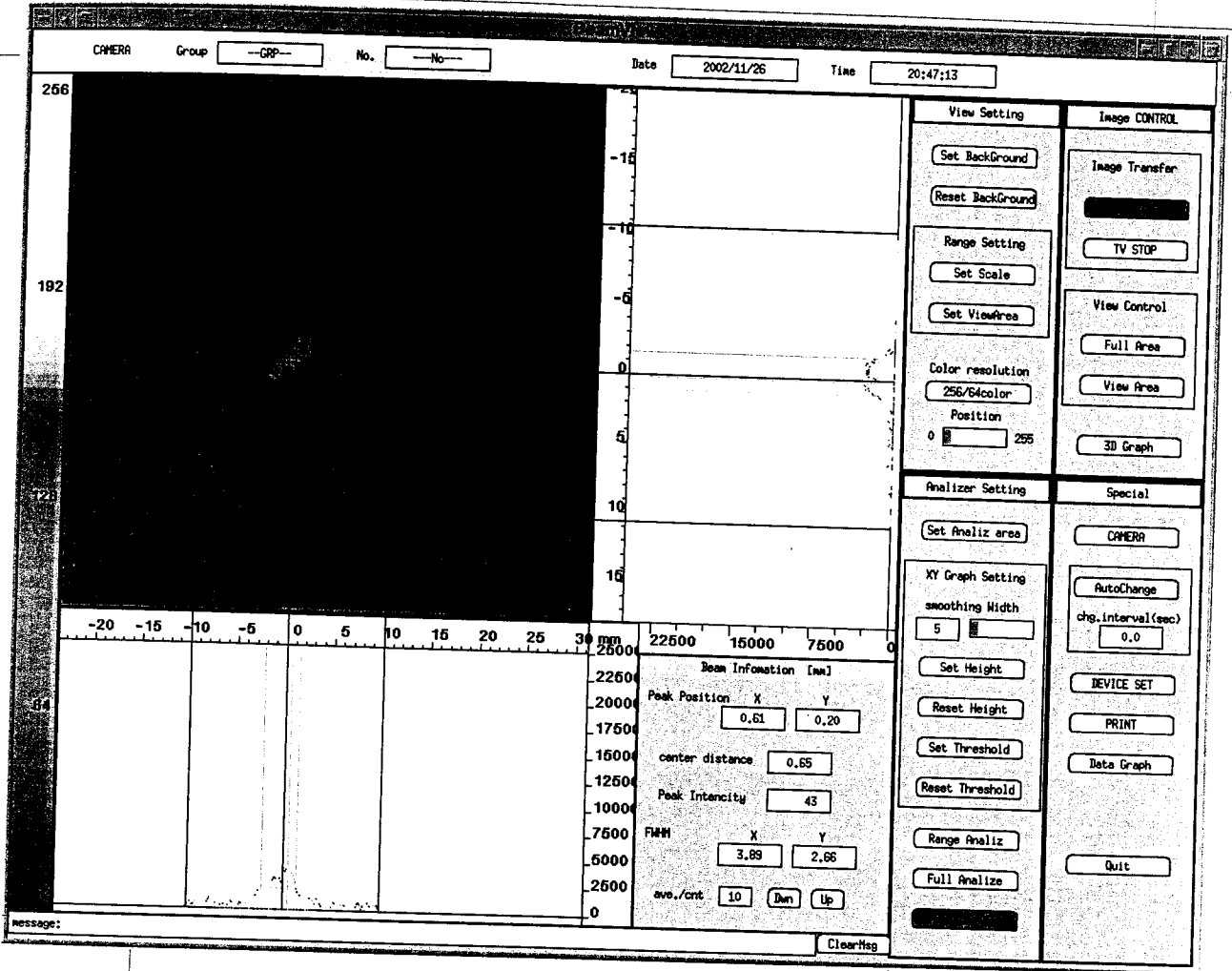
$\gamma_{\text{eff}} = 2.472E-5; \alpha_{\text{eff}} = -.794; \beta_{\text{eff}} = .624; B_{\text{mag}} = 1.165$
emit20021126-2151-qa_al_b8-sc_al_c5

Momentum = 14.6989 MeV
EMITX = $8.594E-7 \pm 4.3558E-8$ m, gammaEMITX = $2.4721E-5 \pm 1.2329E-6$ m
ALPHAX = $-.7943 \pm .1239$, BETAX = $.624 \pm .0629$ m at STRUT
error of SIGX (estimated) = .1473 mm 11/26/2002 21:02:41



Condition
Fitting Direction
Horizontal
Vertical
Q : QDA1B8 SC : SCA1C5
Fitting
Read Data & Fit :
Raw Saved
Redo fit with current data
Redo Fit





message:

ClearMsg

EKB Task launcher > Linac > Emittance Measurement

File Edit Window 11/26/2002 21:10:10 Help

select area :

- A1
- A1-A4
- A2-A4
- A4
- B8
- A4-B8
- A1-B8
- C1
- 2(e+)
- 5(e+)
- 5(e-)
- PF(e-)
- AR(e-)

OK Exit

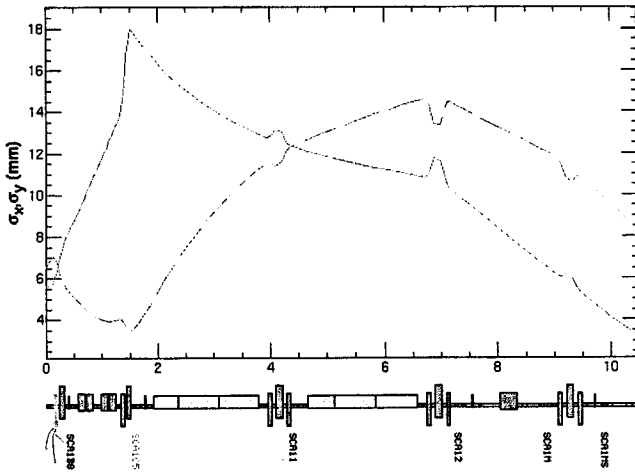
①

② OKボタン

rd Copy

Window
Using : matching

11/26/2002 21:10:26 Help



⑤ 10.5x-1.5の値を以てQE 値と見做す。

Fitting Option
Fitting Direction
Horizontal Vertical

Reference Point :
START
SPA1B8
QDA1B8
QFA1B8
SXA1B8

Set Twiss Parameters...

Measurement Condition
Click the lattice to select.
Adjusted Q : QDA1B8
Screen : SCA1C5

Apply the same setting on H & V

Line Parameters

Change Momentum (Shift-Click-Label):

Position : SCA1C5

Momentum [MeV] : 19.00687

Change Q magnets (Shift-Click-Fig.):

Q name : QDA1B8

Q [T/m] : -1.962279

Set Mom. Set Q Set α, β, ϵ

④ 実行

⑥ ⑤の値を以てQE 値と見做す

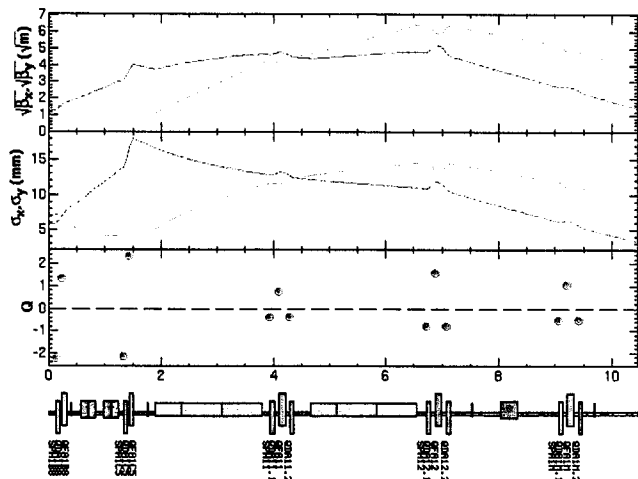
③ 実行

Analysis (SD) A1
QE 値と見做す。
P11 参照

File Edit Window
main fitting matching

11/26/2012 21:09:41 Help

Matching Residual = 0.000



Matching Condition
Target Parameters :
alpha : -0.3805
beta_x (m): 11.7961
alpha_y : -0.0788
beta_y (m): 12.0161
Current Value

Target Position :
QDA12
L200
QFA12
L203

Prev Next

Q's for matching :
QDA1B8
QFA1B8
QDA1C5
QFA1C5
QDA11
QFA11
QDA12

All None

Additional Matching Condition :

Control
Execution :

GO Set **Read**

History Buffer :
1 org 11/26 21:10

Restore only Q magnets

⑦ 測定に作用した
Optics 1105x-9 と実際に
Set UMG あり。

Hard Copy

File Edit Window
main fitting matching

11/26/2012 21:10:57 Help

alpha = 0.3805, beta_x = 11.7961, alpha_y = 0.0788, beta_y = 12.0161

Condition
Fitting Direction
Horizontal
Vertical

Q : QDA1B8 SC : SCATCS
Fitting

Read Data & Fit :

Raw Saved

Redo fit with current data

Redo Fit

⑧ 計算しない方を選択

⑨ 二つあり二つを無効

⑩ T-4E 変更した場合には
適当にあり

Hard Copy