Exp No.	Primary Beam:		Date	30.03.2014
MBS/file location	File (first)		Start	1.61 mm
	File (last)		Stop	5.55
Narval/file location	File (first)		Start	
	File (last)		Stop	
Merged(Narval+MBS)/file location	File (first)		Start	
	File (last)		Stop	

PURPOSE OF MEASUREMENT: (Centered Isotope) 88Br

☒ Production run ☐ Calibration run

COMMENTS:

shift-in-charge

FRS/BEAMLINE elements
- ☒ SEETRAM
- ☐ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- ☐ S4-degrader
- ☒ LYCCA-Start
- ☐ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
spill length: 9000 ms

period:

FRS setting No.

PRIMARY BEAM
Element: 86Kr 33+
SIS_energy [MeV/u]: 700
Intensity-SEETRAM: 1.84 10^8

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 85
element: Be
thickness:

S1 DEGRADER
TS3ED2...
Thickness:
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
Thickness:
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER
HFSED3...
Thickness:
O (Wedge Oben):
U (Wedge Unten):

S0 SLITS
☐ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
TS3DS2HL (left): -18
TS3DS2HR (right): +10

S2 SLITS
☐ beam plug out
TS4DS1HL (left): -30
TS4DS1HR (right): +30
TS4DS1VO (left): -20
TS4DS1VU (right): +20

S3 SLITS
TS4DS3HL (left): -20
TS4DS3HR (right): +20

S4 SLITS
HFSDS3H (left): -35.9
HFSDS3H (right): -35.5
Pb Brick (top): no
Pb Brick (bottom): —

MAGNETS
Field values from Hall probes:
TS3MU1: 0.919865
TS3MU2: 0.842274
TS4MU1: 0.06534
HFSMU1: 0.64485

FRS-RATES (counts/spill)
10 kHrtz:
10 kHrtz veto dT:
SC21L: 346k
SC21R: 346k
SC41L: 608k
SC41R: 595k

TA1
Element:
Thickness:
Position:

Exp No.		Primary Beam:		Date 30.03.2014	

MBS/file location
la/rsinap2/mbs - Ag_M/data/

File (first)	1196	**Start**	7-10
File (last)	1205	**Stop**	8:44

Narval/file location
70

File (first)		**Start**	
File (last)		**Stop**	

Merged(Narval+MBS)/file location

File (first)		**Start**	
File (last)		**Stop**	

☐ Calibration run ☐ Production run

PURPOSE OF MEASUREMENT: (Centered Isotope) 85 Br

COMMENTS:
(*) Switches between .90865 and .90875

shift-in-charge

FRS/BEAMLINE elements
- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ S2-degrader
- ☐ SCI-21
- ☐ S4-degrader
- ☐ LYCCA-Start
- ☐ LYCCA-TaStart
- ☐ TA1
- ☐ TaDSSD

SPILL
spill length: 9000 mS
period: ~ 3.3 sec

FRS setting No.

PRIMARY BEAM
Element: 86 Kr 33+
SIS energy [MeV/u]: 900
Intensity-SEETRAM: 2.3 × 10^8

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 35
element: Be
thickness:

S1 DEGRADER
TS3ED2...
Thickness:
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
Thickness:
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER
HFSED3...
Thickness:
O (Wedge Oben):
U (Wedge Unten):
Pb Brick (top):
Pb Brick (bottom):

S0 SLITS
☐ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
TS3DS2HL (left):
TS3DS2HR (right):

S2 SLITS
☐ beam plug out
TS4DS1HL (left):
TS4DS1HR (right):
TS4DS1VO (left):
TS4DS1VU (right):

S3 SLITS
TS4DS3HL (left):
TS4DS3HR (right):

S4 SLITS
HFSDS3H (left):
HFSDS3H (right):

MAGNETS
Field values from Hall probes:
TS3MU1: 0.90865 (*)
TS3MU2: .84274
TS4MU1: .64534
HFSMU1: .64485

FRS-RATES
(counts/spill)
10 kHrtz: 130k
10 kHrtz veto dT: 102k
SC21L: 120k (**)
SC21R: 120k (**)
SC41L: 60k
SC41R: 59k

PreSPEC-Trig/red.
- ☐ Pulser(1) /......
- ☐ LYCCA cal(2)/......
- ☐ AgataCal(3)/......
- ☐ HEC Cal(4)/......
- ☐ FRS from TB(5)/......
- ☐ p+HEC(6)/......
- ☐ p+Agata(7)/......
- ☐ p+HEC+Lyc(8)/......
- ☐ p+Agata+Lyc(9)/......
- ☐ Part-SC41(10)/......
- ☐ Spill-on(12)/......
- ☐ Spill-off(13)/......

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates
(Validated/Rejected)
AGATA: Average 300
FRS: 2800
Ta-ToF-LYCCA: 550k
HECTOR: 65k

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet
- ☐ uploaded on elog

LN2
LN2 Last Filling:
Tank1 Vol. (%): 83
Tank2 Vol. (%): 75

TA1
Element:
Thickness:
Position:

(**) In the previous shift, the numbers are most probably 1346 k instead of 346 k since the scaler has a 6 digit display only.

Check list

Name: Corina

Time: 9h05

Agata

- Run number: 91
- Agava requested: 2950
- Agava validated: 2750
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems:

General

- lmd file nr: 1195 (85Br - calor - AG 70 - 1155 lmd)
- Beam intensity: 2×10^8
- Scaler sc at S4: 90×10^3
- Scaler sc at S2: 180×10^3
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers:

Comments:

Check list

Name: Corinne

Time: 09h

Agata

- Run number: 72
- Agava requested: 2.900
- Agava validated: 2750
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓   → no 128
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems:

General

- lmd file nr: 126
- Beam intensity: 1.5 10⁸
- Scaler sc at S4: 60 10³
- Scaler sc at S2: 120 10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: ✓

Comments:

Check list

Name: Corinna

Time: 11h

Agata

- Run number: 72
- Agava requested: 2800
- Agava validated: 2650
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: 128 back - ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:
-
-
- Crystals with problems:

General

- lmd file nr: 1933
- Beam intensity: 8·10⁸
- Scaler sc at S4: 100 10³
- Scaler sc at S2: 700 10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: ✓

Comments:

Experiment Log Sheet

Exp No.	Primary Beam:	Date 30.03.2014

MBS/file location: d/ lisag02/mac_ NB_14/data/

	File (first) A24ρ	Start 9.40
	File (last)	Stop 9.40

Narval/file location: 72

	File (first)	Start
	File (last)	Stop 3op@ 11R 54

Merged(Narval+MBS)/file location:

	File (first)	Start
	File (last)	Stop

☐ Calibration run   ☒ Production run

PURPOSE OF MEASUREMENT: (Centered Isotope) 85Br

COMMENTS: After the break (8:30 → 8:50) the beam intensity is lower

shift-in-charge

FRS/BEAMLINE elements

- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ S2-degrader
- ☐ SCI-21
- ☐ S4-degrader
- ☐ LYCCA-Start
- ☐ LYCCA-TaStart
- ☐ TA1
- ☐ TaDSSD

SPILL
- spill length:
- period:

FRS setting No.

PRIMARY BEAM
- Element: 16Kr33+
- SiS energy [MeV/u]: 700
- Intensity-SEETRAM: 1.5 × 10⁸ → 1.5×10^8

PROD. TARGET
- TS1ET5HS, TS1ET5VS:
- number: 35
- element: Be
- thickness:

S0 SLITS
- ☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS
- ☐ beam plug out
- TS3DS2HL (left):
- TS3DS2HR (right):

S2 SLITS
- ☐ beam plug out
- TS4DS1HL (left):
- TS4DS1HR (right):
- TS4DS1VO (left):
- TS4DS1VU (right):

S3 SLITS
- TS4DS3HL (left):
- TS4DS3HR (right):

S4 SLITS
- HFSDS3H (left):
- HFSDS3H (right):
- Pb Brick (top):
- Pb Brick (bottom):

S1 DEGRADER
- TS3ED2...
- Thickness:
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER
- TS3ED7...
- Thickness:
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER
- HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

MAGNETS
Field values from Hall probes:

- TS3MU1: .90865
- TS3MU2: .84294
- TS4MU1: .64534
- HFSMU1: .64985

FRS-RATES (counts/spill)
- 10 kHrtz: 134
- 10 kHrtz veto dT: 110
- SC21L: 1000k
- SC21R: 1000k
- SC41L: 540k
- SC41R: 530k

TA1
- Element:
- Thickness:
- Position:

PreSPEC-Trig/red.
- ☐ Pulser(1)/......
- ☐ LYCCA cal(2)/......
- ☐ AgataCal(3)/......
- ☐ HEC Cal(4)/......
- ☐ FRS from TB(5)/......
- ☐ p+HEC(6)/......
- ☐ p+Agata(7)/......
- ☐ p+HEC+Lyc(8)/......
- ☐ p+Agata+Lyc(9)/......
- ☐ Part-SC41(10)/......
- ☐ Spill-on(12)/......
- ☐ Spill-off(13)/......

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA :
- FRS :
- Ta-ToF-LYCCA : 450k
- HECTOR : 48k

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling :
- Tank1 Vol. (%) : 73
- Tank2 Vol. (%) : 67

Check list

Name: Corinne

Time: 18:10

Agata

- Run number: 73
- Agava requested: 3240
- Agava validated: 3050
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals:
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
    - number of counts in 511 keV:
    - number of counts in 1460 keV K:
-
- Crystals with problems:

General

- lmd file nr: 1232
- Beam intensity: 1 380 000 (Scintillator 2)
- Scaler sc at S4: 110 10³
- Scaler sc at S2: 210 10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: ✓

Comments:

	Primary Beam:			Date 30.03.2014

Exp No.

MBS/file location	File (first) 1234	Start 12:01
	File (last) 1255	Stop 14:24
Narval/file location	File (first) 73	Start
	File (last)	Stop
Merged(Narval+MBS)/file location	File (first)	Start
	File (last)	Stop

[X] Production run
[ ] Calibration run

PURPOSE OF MEASUREMENT: (Centered Isotope)

shift-in-charge

COMMENTS:

FRS/BEAMLINE elements
- [ ] SEETRAM
- [ ] SCI-01
- [ ] FRS-TA0
- [ ] S1-degrader
- [ ] S2-degrader
- [ ] SCI-21
- [ ] S4-degrader
- [ ] LYCCA-Start
- [ ] LYCCA-TaStart
- [ ] TA1
- [ ] TaDSSD

SPILL
spill length:

period:

FRS setting No.

PRIMARY BEAM
Element:

SIS energy [MeV/u]

Intensity-SEETRAM

PROD. TARGET
TS1ET5HS,
TS1ET5VS:

number:

element:

thickness:

S1 DEGRADER
TS3ED2...

Thickness:

Wedge used:

O2 (Wedge Oben):

V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...

Thickness:

L (Ladder):

D (Disk):

VO (Wedge Oben):

VU (Wedge Unten):

S4 DEGRADER
HFSED3...

Thickness:

O (Wedge Oben):

U (Wedge Unten):

S0 SLITS
[ ] beam stop out

TS2DS3HL (left):

TS2DS3HR (right):

TS2DS3VO (top):

TS2DS3VU (bottom):

S1 SLITS
[ ] beam plug out

TS3DS2HL (left):

TS3DS2HR (right):

S2 SLITS
[ ] beam plug out

TS4DS1HL (left):

TS4DS1HR (right):

TS4DS1VO (left):

TS4DS1VU (right):

S3 SLITS
TS4DS3HL (left):

TS4DS3HR (right):

S4 SLITS
HFSDS3H (left):

HFSDS3H (right):

Pb Brick (top):

Pb Brick (bottom):

MAGNETS
Field values from Hall probes:

TS3MU1: 0.90895

TS3MU2: 0.84234

TS4MU1: 0.64534

HFSMU1: 0.64485

FRS-RATES
(counts/spill)

10 kHrtz:

10 kHrtz veto dT:

SC21L: 1.34·10^6

SC21R: 1.34·10^6

SC41L: 900k

SC41R: 200k

TA1
Element:

Thickness:

Position:

PreSPEC-Trig/red.
- [ ] Pulser(1)/....
- [ ] LYCCA cal(2)/....
- [ ] AgataCal(3)/....
- [ ] HEC Cal(4)/....
- [ ] FRS from TB(5)/....
- [ ] p+HEC(6)/......
- [ ] p+Agata(7)/.....
- [ ] p+HEC+Lyc(8)/...
- [ ] p+Agata+Lyc(9)/...
- [ ] Part-SC41(10)/...
- [ ] Spill-on(12)/.....
- [ ] Spill-off(13)/.....

FRS-TRIGGER
- [ ] SCI21
- [ ] SCI41
- [ ] Other:

PreSPEC-Rates
(Validated/Rejected)

AGATA:

FRS:

Ta-ToF-LYCCA:

HECTOR:

LYCCA / Pls. check
- [ ] Run-sheet filled
- [ ] Run-sheet uploaded on elog

LN2
LN2 Last Filling :

Tank1 Vol. (%) :

Tank2 Vol. (%) :

Exp No. S426   Primary Beam: 86 KY   Date 30/03/2014

MBS/file location
PreSPEC~Aria/4/data

Narval/file location

Merged(Narval+MBS)/file location

	File (first)	85Br~Cala~Aria	Start	8.10 P.m
	File (last)	~1256, 2 und	Stop	8.10 P.m
	File (first)	74	Start	
	File (last)		Stop	
	File (first)		Start	
	File (last)		Stop	

PURPOSE OF MEASUREMENT: (Centered Isotope)   □ Calibration run   ☒ Production run
Mi columberization of 85BY

COMMENTS: shift-in-charge 1.1.8m

FRS/BEAMLINE elements
- ☒ SEETRAM
- □ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- □ S4-degrader
- ☒ LYCCA-Start
- □ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
spill length: 10 S
period: 12 S

FRS setting No.
546-32

PRIMARY BEAM
Element: 86 KY
SIS energy [MeV/u]: 700
Intensity-SEETRAM: 1 x 66

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 35
element: Be
thickness: 2.59 /cm

S1 DEGRADER TS3ED2...
Thickness: 2.9 (cm
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER TS3ED7...
Thickness: 5 m (cm
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER HFSED3...
Thickness:
O (Wedge Oben):
U (Wedge Unten):

S0 SLITS green
□ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
□ beam plug out
TS3DS2HL (left): −10
TS3DS2HR (right): 10

S2 SLITS
□ beam plug out
TS4DS1HL (left): −30
TS4DS1HR (right): +30
TS4DS1VO (left): −20
TS4DS1VU (right): +20

S3 SLITS
TS4DS3HL (left): −20
TS4DS3HR (right): +20

S4 SLITS
HFSDS3H (left): −35
HFSDS3H (right): +35
Pb Brick (top):
Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
TS3MU1: 0.00865
TS3MU2: 0.86274
TS4MU1: 0.64534
HFSMU1: 0.64995

FRS-RATES (counts/spill)
10 kHrtz: 87 KHz
10 kHrtz veto dT: 70 KHz
SC21L: 1.4 x 106
SC21R: 1.7 x 106
SC41L: 744 KHz
SC41R: 697 KHz

TA1
Element: Au + Au
Thickness: 28 m + 16 m
Position: contra + down stream

PreSPEC-Trig/red.
- □ Pulser(1) /
- □ LYCCA cal(2)/
- ☒ AgataCal(3)/ 4
- □ HEC Cal(4)/
- □ FRS from TB(5)/
- □ p+HEC(6)/
- □ p+Agata(7)/
- □ p+HEC+Lyc(8)/
- ☒ p+Agata+Lyc(9)/ D
- ☒ Part-SC41(10)/ 8
- □ Spill-on(12)/
- □ Spill-off(13)/

FRS-TRIGGER
- □ SCI21
- ☒ SCI41
- □ Other:

PreSPEC-Rates (Validated/Rejected)
AGATA: 18/10
FRS:
Ta-ToF-LYCCA: 694 KHz
HECTOR: 1.3 KHz

LYCCA / Pls. check
- □ Run-sheet filled
- ☒ Run-sheet uploaded on elog

LN2
LN2 Last Filling: 8.48 P.m
Tank1 Vol. (%): 65
Tank2 Vol. (%): 60

S2 - RATE

Check list

Name: Rosa

Time: 21:14 , 30 - 03 - 2014

Agata

- Run number: 74
- Agava requested: 2692
- Agava validated: 2526
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals: ✓
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems: OOB stopped

General

- lmd file nr: 1264
- Beam intensity: 1,1.1.10⁵   S2 = NO INFO
- Scaler sc at S4: 4442 103 ,10³
- Scaler sc at S2: 123441533 10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1, 3, 9, 10

Comments:

Exp No. S426	Primary Beam: 86Kr	Date 31/03/2014		Start (1a 00:10)

MBS/file location M402/mom_AN-14/data
| File (first) 85Br-core-AN14 — 1284.lmd | Start 9,10, P, r C30/03/14/ |
| File (last) | Stop |

Narval/file location
| File (first) 74 | Start |
| File (last) | Stop |

Merged(Narval+MBS)/file location
| File (first) | Start |
| File (last) | Stop |

PURPOSE OF MEASUREMENT: (Centered Isotope)   ☐ Calibration run   ☑ Production run

M1 Coulomb excitation of 85Br

COMMENTS: shift-in-charge H. Pai

FRS/BEAMLINE elements
- ☑ SEETRAM
- ☐ SCI-01
- ☑ FRS-TA0
- ☑ S1-degrader
- ☑ S2-degrader
- ☑ SCI-21
- ☐ S4-degrader
- ☑ LYCCA-Start
- ☐ LYCCA-TaStart
- ☑ TA1
- ☑ TaDSSD

SPILL
spill length: 10 S
period: 12 S

FRS setting No. S426-32

PRIMARY BEAM
Element: 86Kr
SIS energy [MeV/u]: 700
Intensity-SEETRAM: 1 x10^6

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 36
element: Be
thickness: 2.5 g/cm^2

S1 DEGRADER TS3ED2...
- Thickness: 2 g/cm^2
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER TS3ED7...
- Thickness: 5 g/cm^2
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

S0 SLITS open
- ☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS
- ☐ beam plug out
- TS3DS2HL (left): −10
- TS3DS2HR (right): +10

S2 SLITS
- ☐ beam plug out
- TS4DS1HL (left): −20
- TS4DS1HR (right): +20
- TS4DS1VO (left): −20
- TS4DS1VU (right): +20

S3 SLITS
- TS4DS3HL (left): −20
- TS4DS3HR (right): +20

S4 SLITS
- HFSDS3H (left): −35
- HFSDS3H (right): −35
- Pb Brick (top):
- Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
- TS3MU1: 0.90815
- TS3MU2: 0.84274
- TS4MU1: 0.64534
- HFSMU1: 0.64535

FRS-RATES (counts/spill)
- 10 kHrtz: 104 kHz
- 10 kHrtz veto dT: 77 kHz
- SC21L: 1.2 x 10^6
- SC21R: 1.2 x 10^6
- SC41L: 676 x 10^3
- SC41R: 641 KHz

TA1
- Element: Au + Au
- Thickness: 2.0m + 1 gm
- Position: control down / stream

PreSPEC-Trig/red.
- ☐ Pulser(1) /
- ☐ LYCCA cal(2) /
- ☑ AgataCal(3)/4
- ☐ HEC Cal(4)/
- ☐ FRS from TB(5)/
- ☐ p+HEC(6)/
- ☐ p+Agata(7)/
- ☐ p+HEC+Lyc(8)/
- ☑ p+Agata+Lyc(9)/4
- ☑ Part-SC41(10)/8
- ☐ Spill-on(12)/
- ☐ Spill-off(13)/

FRS-TRIGGER
- ☐ SCI21
- ☑ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA: 1874/15C
- FRS:
- Ta-ToF-LYCCA: 58 x 10^3
- HECTOR: 1.4 kHz

LYCCA / Pls. check
- ☑ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling: 20:48
- Tank1 Vol. (%): 100.1
- Tank2 Vol. (%): 95

Check list

Name: Rose

Time: 00:00, 31 - 03 - 2014

Agata

- Run number: 34
- Agava requested: 3010
- Agava validated: 2898
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals: ✓
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:
-
- Crystals with problems:

General

- lmd file nr: 1284
- Beam intensity: 1,4 . 10⁶
  S2 MONITOR
- Scaler sc at S4: 595 . 10³
- Scaler sc at S2: 1138 . 10²
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1, 3, 9, 10

Comments:

Experiment Run Sheet

Exp No. 5426 **Primary Beam:** 96 Kr **Date** 31/03/24 (2.30)

	File (first)	85Br-cal-AGATA	**Start** 9.10 p.m (30/03/14)
MBS/file location (handwritten)	File (last)	-13 05.	**Stop**
Narval/file location (handwritten)	File (first)		**Start**
	File (last)	74	**Stop**
Merged(Narval+MBS)/file location	File (first)		**Start**
	File (last)		**Stop**

PURPOSE OF MEASUREMENT: (Centered isotope) 85Br

☐ Calibration run   ☒ Production run

COMMENTS: MBS location ridar2 H.Ran shift-in-charge H.Ran

FRS/BEAMLINE elements

- ☒ SEETRAM
- ☐ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- ☐ S4-degrader
- ☒ LYCCA-Start
- ☐ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
spill length: 10 S
period: 12 S

FRS setting No. S426-32

PRIMARY BEAM
Element: 96 Kr
SIS energy [MeV/u]: 760
Intensity-SEETRAM: 1.4×10⁶

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 35
element: Be
thickness: 2.5 g/cm²

S1 DEGRADER
TS3ED2...
Thickness: 2 g/cm²
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
Thickness: 5 g/cm²
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER
HFSED3...
Thickness:
O (Wedge Oben):
U (Wedge Unten):

S0 SLITS open
☐ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
TS3DS2HL (left): -10
TS3DS2HR (right): +10

S2 SLITS
☐ beam plug out
TS4DS1HL (left): -30
TS4DS1HR (right): +30
TS4DS1VO (left): -20
TS4DS1VU (right): +20

S3 SLITS
TS4DS3HL (left): -20
TS4DS3HR (right): +20

S4 SLITS
HFSDS3H (left): -35
HFSDS3H (right): +35
Pb Brick (top):
Pb Brick (bottom):

MAGNETS
Field values from Hall probes:

TS3MU1: 0.90875
TS3MU2: 0.8424
TS4MU1: 0.6453
HFSMU1: 0.6485

FRS-RATES (counts/spill)
10 kHrtz: 103 KHz
10 kHrtz veto dT: 77.4 kHz
SC21L: 1.2×10⁶
SC21R: 1.3×10⁶
SC41L: 724 KHz
SC41R: 665 KHz

TA1
Element: Au+Nb
Thickness: 2 g/cm² + 1 g/m
Position: compact down stream

PreSPEC-Trig/red.
- ☐ Pulser(1) /......
- ☐ LYCCA cal(2)/......
- ☒ AgataCal(3)/4......
- ☐ HEC Cal(4)/......
- ☐ FRS from TB(5)/......
- ☐ p+HEC(6)/......
- ☐ p+Agata(7)/......
- ☐ p+HEC+Lyc(8)/......
- ☒ p+Agata+Lyc(9)/......
- ☒ Part-SC41(10)/......
- ☐ Spill-on(12)/......
- ☐ Spill-off(13)/......

FRS-TRIGGER
- ☐ SCI21
- ☒ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
AGATA: 2540/100
FRS:
Ta-ToF-LYCCA: 615 KHz
HECTOR: 0L 180 KHz

LYCCA / Pls. check
- ☒ Run-sheet filled
- ☒ Run-sheet uploaded on elog

LN2
LN2 Last Filling: 20.48
Tank1 Vol. (%): 100%
Tank2 Vol. (%): 95%

Check list

Name: Rosa

Time: 2:33, 31-03-2014

Agata

- Run number: 74
- Agava requested: 2668
- Agava validated: 2678
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals: ✓
- Check at the sum spectra "Global level":
    - number of counts in 511 keV:
    - number of counts in 1460 keV K:
-
- Crystals with problems:

General

- lmd file nr: 1306
- Beam intensity: S2 Neuron 14.10⁶
- Scaler sc at S4: 667.10³
- Scaler sc at S2: 1292.10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1, 3, 9, 10

Comments:

Exp No.: S426   Primary Beam: 96 Kr   Date 31/03/2014

MBS/file location
/ri0003/prod-A62-14/data

| | File (first) | Start | 05:10 Pm(30/03/14) |
| | File (last) 130t.1mA | Stop | 05'40 am |

Narval/file location

| | File (first) ↑4 | Start |
| | File (last) | Stop |

Merged(Narval+MBS)/file location

| | File (first) | Start |
| | File (last) | Stop |

PURPOSE OF MEASUREMENT: (Centered Isotope)   ☐ Calibration run   ☒ Production run
85 Br

COMMENTS: Disk is full in rid002, we have started flowing data in rid003
we have started flowing data in rid003   shift-in-charge   44.8cm

---

FRS/BEAMLINE elements
- ☒ SEETRAM
- ☐ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- ☐ S4-degrader
- ☒ LYCCA-Start
- ☐ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
spill length: 10 S
period: 12 S

FRS setting No.
S426-32

PRIMARY BEAM
Element: 96 Kr
SIS energy [MeV/u]: 700
Intensity-SEETRAM: 1.4X10⁶

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 35
element: Be
thickness: 2.50 g/cm²

S1 DEGRADER TS3ED2...
Thickness: 2 gm/cm²
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER TS3ED7...
Thickness: 5 gm/cm²
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER HFSED3...
Thickness
O (Wedge Oben):
U (Wedge Unten):

S0 SLITS open
- ☐ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
- ☐ beam plug out
TS3DS2HL (left): -10
TS3DS2HR (right): -10

S2 SLITS
- ☐ beam plug out
TS4DS1HL (left): -30
TS4DS1HR (right): +30
TS4DS1VO (left): -20
TS4DS1VU (right): +10

S3 SLITS
TS4DS3HL (left): -20
TS4DS3HR (right): +20

S4 SLITS
HFSDS3H (left): -35
HFSDS3H (right): +35
Pb Brick (top):
Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
TS3MU1: 0.90855
TS3MU2: 0.8424
TS4MU1: 6.6453
HFSMU1: 0.64495

FRS-RATES (counts/spill)
10 kHrtz: 98 KHz
10 kHrtz veto dT: 72 KHz
SC21L: 1.2X10⁶
SC21R: 1.2X10⁶
SC41L: 684 KHz
SC41R: 664 KHz

TA1
Element: Aurum
Thickness: 2gmt1gm
Position: Control downstream

PreSPEC-Trig/red.
- ☐ Pulser(1) /........
- ☐ LYCCA cal(2)/........
- ☒ AgataCal(3)/...-4
- ☒ HEC Cal(4)/........
- ☐ FRS from TB(5)/........
- ☐ p+HEC(6)/........
- ☐ p+Agata(7)/........
- ☐ p+HEC+Lyc(8)/........
- ☐ p+Agata+Lyc(9)/8
- ☒ Part-SC41(10)/8
- ☐ Spill-on(12)/........
- ☐ Spill-off(13)/........

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
AGATA: 25k/105
FRS:
Ta-ToF-LYCCA: 64 kHz
HECTOR: (oR) (1.3 kHz)

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
LN2 Last Filling: 2:46 a.m
Tank1 Vol. (%): 92.n
Tank2 Vol. (%): 85/n

---

* Intensity, S2-RATE MONITOR, not Stream

Check list

Name: Rosa

Time: 5:35 , 31-03-2014

Agata

- Run number: 74
- Agava requested: 1752
- Agava validated: 1704
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems: OOB stopped , OFC stopped (≈6:10 a.m.)

General

- lmd file nr: 1307
- Beam intensity: 1, 5·10⁶ ~~2 neutron~~ 5·10⁶
- Scaler sc at S4: 668·10³
- Scaler sc at S2: 295·10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1, 3, 9,10

Comments:
We noticed that
5:00 lmd file 1306 was closed by itself due to the disk was full in rida 03
rida 02. Now we are opening the files in rida 03

5:5) Detector OFC lost synchronisation and had back-pressure
We tried to resynchronise without success, Then we stopped OFC
to be able to take data.

Exp No. S426 Primary Beam: 86 Kr 33 Date 31/03/2014

MBS/file location: ...
- File (first):
- File (last): 85Br_centr_AG74_1319

Narval/file location:
- File (first): 74
- File (last):

Merged(Narval+MBS)/file location:
- File (first):
- File (last):

PURPOSE OF MEASUREMENT: (Centered Isotope)

	Start	Stop
	6:43	

☐ Calibration run   ☒ Production run

shift-in-charge: Daniel

COMMENTS:

FRS/BEAMLINE elements

- ☒ SEETRAM
- ☐ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- ☐ S4-degrader
- ☒ LYCCA-Start
- ☐ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
- spill length:
- period:

FRS setting No.
S426 - 32

PRIMARY BEAM
- Element: 86Kr
- SIS energy [MeV/u]: 700

Intensity-SEETRAM
1.4 x10^6

PROD. TARGET
- TS1ET5HS, TS1ET5VS:
- number: 35
- element: Be
- thickness: 2.5 g/cm2

S1 DEGRADER
TS3ED2...
- Thickness: 2.8 g/cm2
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
- Thickness: 5.8 g/cm2
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER
HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

S0 SLITS
- ☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS
- ☐ beam plug out
- TS3DS2HL (left):
- TS3DS2HR (right):

S2 SLITS
- ☐ beam plug out
- TS4DS1HL (left):
- TS4DS1HR (right):
- TS4DS1VO (left):
- TS4DS1VU (right):

S3 SLITS
- TS4DS3HL (left):
- TS4DS3HR (right):

S4 SLITS
- HFSDS3H (left):
- HFSDS3H (right):
- Pb Brick (top):
- Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
- TS3MU1: .90855
- TS3MU2: .84274
- TS4MU1: .64534
- HFSMU1: .64485

FRS-RATES (counts/spill)
- 10 kHrtz: 97
- 10 kHrtz veto dT: 71
- SC21L: 226
- SC21R: 225
- SC41L: 648
- SC41R: 631

TA1
- Element:
- Thickness:
- Position:

PreSPEC-Trig/red.
- ☐ Pulser(1)/.....
- ☐ LYCCA cal(2)/.....
- ☐ AgataCal(3)/.....
- ☐ HEC Cal(4)/.....
- ☐ FRS from TB(5)/.....
- ☐ p+HEC(6)/.....
- ☐ p+Agata(7)/.....
- ☐ p+HEC+Lyc(8)/.....
- ☐ p+Agata+Lyc(9)/.....
- ☐ Part-SC41(10)/.....
- ☐ Spill-on(12)/.....
- ☐ Spill-off(13)/.....

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA: 500/3000
- FRS: 3100/2900
- Ta-ToF-LYCCA: 584
- HECTOR: 61

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling: 02:38
- Tank1 Vol. (%): 95
- Tank2 Vol. (%): 85

INTENSITY: monitor displays S2 - RATE...

Check list

Name: N. Lalow

Time:

Agata

- Run number: 74
- Agava requested: 2306
- Agava validated: 2278
- Screenshot trigger rate + spectrum of time coincidence :
- Check in Go4 that all Agata-TDC spectra are there:
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals:
- Copy and paste in a text file the GTS rate:
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems: 07C STOPPED (to be checked this afternoon ; probably due to the light)

General

- lmd file nr: 1321
  S2 - monitor
- Beam-intensity: 1.43 . 10^6
- Scaler sc at S4: ~~1.2 . 10^5~~ 0.7 . 10^6
- Scaler sc at S2: ~~6.8.10~~ 1.3 . 10^6
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: 1, 3, 9, 10

Comments:

FRS / PreSPEC Data Sheet

Exp No.	S426	Primary Beam:	86 Kr 334	Date	31/3/2014

MBS/file location: la/trisp03/user-AG-14data   1310

Narval/file location: 74

Merged(Narval+MBS)/file location:

	File (first)	Start	9:48
	File (last)	Stop	
	File (first)	Start	
	File (last)	Stop	
	File (first)	Start	
	File (last)	Stop	

PURPOSE OF MEASUREMENT: (Centered Isotope)
☐ Calibration run ☒ Production run

COMMENTS: shift-in-charge: David

FRS/BEAMLINE elements
- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ S2-degrader
- ☐ SCI-21
- ☐ S4-degrader
- ☐ LYCCA-Start
- ☐ LYCCA-TaStart
- ☐ TA1
- ☐ TaDSSD

SPILL
- spill length:
- period:

FRS setting No.
S426 - 32

PRIMARY BEAM
- Element: 86 Kr
- SIS energy [MeV/u]: 700
- Intensity-SEETRAM: 1200×10⁶ (1200x10^6)

PROD. TARGET
- TS1ET5HS:
- TS1ET5VS:
- number:
- element: Be
- thickness: 2.5g

S1 DEGRADER
TS3ED2...
- Thickness: 2g
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
- Thickness: 5g
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER
HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

S0 SLITS
☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
- TS3DS2HL (left):
- TS3DS2HR (right):

S2 SLITS
☐ beam plug out
- TS4DS1HL (left):
- TS4DS1HR (right):
- TS4DS1VO (left):
- TS4DS1VU (right):

S3 SLITS
- TS4DS3HL (left):
- TS4DS3HR (right):

S4 SLITS
- HFSDS3H (left):
- HFSDS3H (right):
- Pb Brick (top):
- Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
- TS3MU1: 0.90875
- TS3MU2: 0.84274
- TS4MU1: 0.64534
- HFSMU1: 0.6482

FRS-RATES (counts/spill)
- 10 kHrtz: 92 kHz
- 10 kHrtz veto dT: 67 kHz
- SC21L: 371 kHz
- SC21R: 369 kHz
- SC41L: 739 kHz
- SC41R: 714 kHz

TA1
- Element:
- Thickness:
- Position:

PreSPEC-Trig/red.
- ☐ Pulser(1) /....
- ☐ LYCCA cal(2) /....
- ☐ AgataCal(3) /....
- ☐ HEC Cal(4) /....
- ☐ FRS from TB(5) /....
- ☐ p+HEC(6) /....
- ☐ p+Agata(7) /....
- ☐ p+HEC+Lyc(8) /....
- ☐ p+Agata+Lyc(9) /....
- ☐ Part-SC41(10) /....
- ☐ Spil-on(12) /....
- ☐ Spil-off(13) /....

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA: 600/450
- FRS: 2900/300
- Ta-ToF-LYCCA: 67 kHz
- HECTOR: 66 kHz

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling: 10:50
- Tank1 Vol. (%): 92
- Tank2 Vol. (%): 85

Check list

Name: N Lalovic

Time: 09:20

Agata

- Run number: #4
- Agava requested: 3204
- Agava validated: 2916
- Screenshot trigger rate + spectrum of time coincidence :
- Check in Go4 that all Agata-TDC spectra are there:
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals:
- Copy and paste in a text file the GTS rate:
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
    - number of counts in 511 keV:
    - number of counts in 1460 keV K:
-
-
- Crystals with problems:

General

- lmd file nr: 1347
- Beam intensity: 0.6×10⁶
- Scaler sc at S4: 1.2×10⁶
- Scaler sc at S2:
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: 1,3,9,10

Comments:

Exp No. S426	Primary Beam: 86Kr33	Date 31/3/2014

MBS/file location

File (first)	1392
File (last)	75
	Start 13:38 *Willem*
	Stop

Narval/file location

File (first)	
File (last)	
	Start
	Stop

Merged(Narval+MBS)/file location

File (first)	
File (last)	
	Start
	Stop

PURPOSE OF MEASUREMENT: (Centered Isotope)

☐ Calibration run   ☒ Production run

shift-in-charge   *Daniel*

COMMENTS:

FRS/BEAMLINE elements
- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ S2-degrader
- ☐ SCI-21
- ☐ S4-degrader
- ☐ LYCCA-Start
- ☐ LYCCA-TaStart
- ☐ TA1
- ☐ TaDSSD

SPILL
- spill length:
- period:

FRS setting No. S426-32

PRIMARY BEAM
- Element: 86Kr
- SIS energy [MeV/u]: 700
- Intensity-SEETRAM: 1492 k

PROD. TARGET
- TS1ET5HS,
- TS1ET5VS:
- number:
- element: Be
- thickness: 2.5 g

S1 DEGRADER TS3ED2...
- Thickness: 2 g
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER TS3ED7...
- Thickness: 5 g
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

S0 SLITS ☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS ☐ beam plug out
- TS3DS2HL (left):
- TS3DS2HR (right):

S2 SLITS ☐ beam plug out
- TS4DS1HL (left):
- TS4DS1HR (right):
- TS4DS1VO (left):
- TS4DS1VU (right):

S3 SLITS
- TS4DS3HL (left):
- TS4DS3HR (right):

S4 SLITS
- HFSDS3H (left):
- HFSDS3H (right):
- Pb Brick (top):
- Pb Brick (bottom):

MAGNETS Field values from Hall probes:
- TS3MU1: 0.90855
- TS3MU2: 0.84224
- TS4MU1: 0.64534
- HFSMU1: 0.64465

FRS-RATES (counts/spill)
- 10 kHrtz: 102 k
- 10 kHrtz veto dT: 72 k
- SC21L: 410 k
- SC21R: 409 k
- SC41L: 748 k
- SC41R: 728 k

TA1
- Element:
- Thickness:
- Position:

PreSPEC-Trig/red.
- ☐ Pulser(1) /......
- ☐ LYCCA cal(2) /......
- ☐ AgataCal(3) /......
- ☐ HEC Cal(4) /......
- ☐ FRS from TB(5) /......
- ☐ p+HEC(6) /......
- ☐ p+Agata(7) /......
- ☐ p+HEC+Lyc(8) /......
- ☐ p+Agata+Lyc(9) /......
- ☐ Part-SC41(10) /......
- ☐ Spill-on(12) /......
- ☐ Spill-off(13) /......

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA: 500/5000
- FRS: 3200/200
- Ta-ToF-LYCCA: 672 k
- HECTOR: 69 k

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling: 8:54
- Tank1 Vol. (%): 82
- Tank2 Vol. (%): 78

There is a pb with the Table for Table.html with date and time (updated?)

Check list

Name:

Time:

Agata

- Run number: 75
- Agava requested: 2876
- Agava validated: 2678
- Screenshot trigger rate + spectrum of time coincidence :
- Check in Go4 that all Agata-TDC spectra are there:
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals:
- Copy and paste in a text file the GTS rate:
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems: 07C is back

General

- lmd file nr: 1372 (on Uhry 02 again)
- Beam intensity:
- Scaler sc at S4: 0.65×10^6
- Scaler sc at S2: 1.25×10^6
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers: 1,3,9,10

Comments:

Exp No. | **Primary Beam:** | **Date** 31 03 2014

MBS/file location
| File (first) | |
| File (last) | — 1413 md | Start 15:35 Stop |

Narval/file location
| File (first) | | Start Stop |
| File (last) | | |

Merged(Narval+MBS)/file location
| File (first) | | Start Stop |
| File (last) | | |

☐ Calibration run ☒ Production run

PURPOSE OF MEASUREMENT: (Centered Isotope)

COMMENTS:

shift-in-charge

FRS/BEAMLINE elements
- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ S2-degrader
- ☐ SCI-21
- ☐ S4-degrader
- ☐ LYCCA-Start
- ☐ LYCCA-TaStart
- ☐ TA1
- ☐ TaDSSD

SPILL
spill length: 1000 ms
period:

FRS setting No.

PRIMARY BEAM
Element: 86Kr 33+
SIS energy [MeV/u]:
Intensity-SEETRAM: 1.55 · 10^6

PROD. TARGET
TS1ET5HS, TS1ET5VS:
number: 35
element: Be
thickness:

S1 DEGRADER
TS3ED2...
Thickness:
Wedge used:
O2 (Wedge Oben):
V1 (Wedge Unten):

S2 DEGRADER
TS3ED7...
Thickness:
L (Ladder):
D (Disk):
VO (Wedge Oben):
VU (Wedge Unten):

S4 DEGRADER
HFSED3...
Thickness:
O (Wedge Oben):
U (Wedge Unten):

S0 SLITS
☐ beam stop out
TS2DS3HL (left):
TS2DS3HR (right):
TS2DS3VO (top):
TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
TS3DS2HL (left):
TS3DS2HR (right):

S2 SLITS
☐ beam plug out
TS4DS1HL (left):
TS4DS1HR (right):
TS4DS1VO (left):
TS4DS1VU (right):

S3 SLITS
TS4DS3HL (left):
TS4DS3HR (right):

S4 SLITS
HFSDS3H (left):
HFSDS3H (right):
Pb Brick (top):
Pb Brick (bottom):

MAGNETS
Field values from Hall probes:
- TS3MU1: .90855
- TS3MU2: .84274
- TS4MU1: .64534
- HFSMU1: .64985

FRS-RATES (counts/spill)
- 10 kHrtz :
- 10 kHrtz veto dT :
- SC21L: 1514 k
- SC21R: 1513 k
- SC41L: 813 k
- SC41R: 288 k

TA1
Element :
Thickness :
Position:

PreSPEC-Trig/red.
- ☐ Pulser(1) /......
- ☐ LYCCA cal(2)/......
- ☐ AgataCal(3)/......
- ☐ HEC Cal(4)/......
- ☐ FRS from TB(5)/......
- ☐ p+HEC(6)/......
- ☐ p+Agata(7)/......
- ☐ p+HEC+Lyc(8)/......
- ☐ p+Agata+Lyc(9)/......
- ☐ Part-SC41(10)/......
- ☐ Spil-on(12)/......
- ☐ Spil-off(13)/......

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA :
- FRS:
- Ta-ToF-LYCCA :
- HECTOR :

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling :
- Tank1 Vol. (%) :
- Tank2 Vol. (%) :

Check list

Name: Cesar

Time: 3:30

Agata

- Run number: 75
- Agava requested: 2300
- Agava validated: 2400
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals:
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:

- Crystals with problems:

General

- lmd file nr: 143
- Beam intensity: 1.6×10^{6}
- Scaler sc at S4: 8×10^{5}
- Scaler sc at S2: 1.5×10^{6}
- Check in Go4 all the spectra of the list* : ✓
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers:

Comments:

Exp No.

Primary Beam:

DISK/location	START	Shift-in-Charge

File (first)	~1457.lmd	STOP	DATE 31.03.14 19:32
File (last)			

PURPOSE OF MEASUREMENT: (Centered Isotope)

☐ Calibration run ☒ Production run

COMMENTS:

PRESPEC-TRIGGERS
- ☐ Pulser (pending)
- ☐ LYCCA calib
- ☐ AGATA calib SC41
- ☐ FRS (from TB)
- ☐ Part(p) SC41(red)
- ☐ pγ-HEC
- ☐ pγ-AGATA
- ☐ pγ-HEC+LYCCA
- ☐ pγ-AGATA+Lycca
- ☐ TCAL on demand
- ☐ Spill-on (pending)
- ☐ Spill-off (pending)

FRS-TRIGGER
- ☐ SCI21
- ☐ SCI41
- ☐ Other:

PRESPEC-RATES (Validated/Rejected)
- AGATA: 365/3420
- FRS:
- LYCCA:
- HECTOR:

LN2
- Last Filling:
- Status:

LYCCA
Please check
- ☐ Run-sheet filled
- ☐ Run-sheet
- ☐ uploaded on elog

MAGNETS
Field values from Hall probes:
- TS3MU1: 0,90855
- TS3MU2: 0,84274
- TS4MU1: 0,64534
- HFSMU1: 0,64485

FRS-RATES (counts/spill)
- free trigger:
- accepted trigger:
- SC21L: 1436 k
- SC21R: 1436 k
- SC41L: 252 k
- SC41R: 81 k

TA1
- Element:
- Thickness:
- Position:

S0 SLITS
☐ beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS
☐ beam plug out
- TS3DS2HL (left):
- TS3DS2HR (right):

S2 SLITS
☐ beam plug out
- TS4DS1HL (left):
- TS4DS1HR (right):

S3 SLITS
- TS4DS3HL (left):
- TS4DS3HR (right):

S4 SLITS
- HFSDS3H (left):
- HFSDS3H (right):
- Pb Brick (top):
- Pb Brick (bottom):

PRIMARY BEAM
- Element: ^{76}Kr 33+
- SIS energy [MeV/u]: 720
- Intensity-SEETRAM: 1x3·10^6

PROD. TARGET
- TS1ET5HS, TS1ET5VS:
- number: 35
- element: Be
- thickness:

S2 DEGRADER
TS3ED7...
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):
- Nb foil:
- SC21:

S4 DEGRADER
HFSED3...
- O (Wedge Oben):
- U (Wedge Unten):

FRS/BEAMLINE elements
- ☐ SEETRAM
- ☐ SCI-01
- ☐ FRS-TA0
- ☐ S1-degrader
- ☐ SCI-21
- ☐ TPC-21
- ☐ TPC-22
- ☐ S2-degrader
- ☐ TPC-41
- ☐ MUSIC-41
- ☐ MUSIC-42
- ☐ TEGIC
- ☐ TPC-42
- ☐ SCI-41
- ☐ S4-degrader
- ☐ LYCCA-start
- ☐ LYCCA-start-TA
- ☐ TA1
- ☐ DSSD-TA

GATE VALVES
Check if gate valves were open throughout this file:
- ☐ open at START
- ☐ open at STOP

SPILL
- spill length: 1000 ns
- period:

Setting Fragment

FRS setting No.

Check list

Name : Cesar
Time : 19:27

Agata

- Run Number 75
- Agava Requested 2600
- Agava Validated 2500
- Screenshot trigger rate + spectrum of the coincidence
- Agata TDC spectra in God
- cdat Files written less than 10 minutes ago
- txt file with gts ratio
- Spectra of all crystals for all crystals

General

- Img file # 1456
- Beam intensity 1.4×10⁶
- Scaler @ S4 7.4×10⁵
- Scaler @ S2 1.3×10⁶

Exp No. S426 **Primary Beam:** 86 Kr **Date** 07.04.2014

MBS/file location	
Narval/file location	run 78
Merged(Narval+MBS)/file location	

	File (first)	File (last)	
	File (first)	File (last)	**Start** 01:24 / **Stop** 02:26
	File (first)	File (last)	**Start** / **Stop**
			Start / **Stop**

PURPOSE OF MEASUREMENT: (Centered Isotope)
☐ Calibration run   ☒ Production run

shift-in-charge

COMMENTS:

FRS/BEAMLINE elements
- ☒ SEETRAM
- ☐ SCI-01
- ☒ FRS-TA0
- ☒ S1-degrader
- ☒ S2-degrader
- ☒ SCI-21
- ☐ S4-degrader
- ☒ LYCCA-Start
- ☐ LYCCA-TaStart
- ☒ TA1
- ☒ TaDSSD

SPILL
- spill length: 10 sec
- period: 12 sec

FRS setting No.: S426-3c

PRIMARY BEAM
- Element: 86 Kr
- SIS energy [MeV/u]: 700
- Intensity-SEETRAM: 2.2 x 10^8

PROD. TARGET
- TS1ET5HS:
- TS1ET5VS:
- number: 25
- element: Be
- thickness: 2.5 g/cm2

MAGNETS
Field values from Hall probes:
- TS3MU1: 0.30855
- TS3MU2: 0.84264
- TS4MU1: 0.64574
- HFSMU1: 0.64415

FRS-RATES (counts/spill)
- 10 kHrtz: 10000
- 10 kHrtz veto dT: 650b
- SC21L: 1.22 M
- SC21R: 1.22 M
- SC41L: 670 k
- SC41R: 670 k

S0 SLITS — open, beam stop out
- TS2DS3HL (left):
- TS2DS3HR (right):
- TS2DS3VO (top):
- TS2DS3VU (bottom):

S1 SLITS — beam plug out
- TS3DS2HL (left): -10
- TS3DS2HR (right): 10

S2 SLITS — beam plug out
- TS4DS1HL (left): -30
- TS4DS1HR (right): 30
- TS4DS1VO (left): 30
- TS4DS1VU (right): 30

S3 SLITS
- TS4DS3HL (left): -20
- TS4DS3HR (right): 20

S4 SLITS
- HFSDS3H (left): -35
- HFSDS3H (right): 35
- Pb Brick (top):
- Pb Brick (bottom):

S1 DEGRADER — TS3ED2...
- Thickness: 2 g/cm2
- Wedge used:
- O2 (Wedge Oben):
- V1 (Wedge Unten):

S2 DEGRADER — TS3ED7...
- Thickness: 5 g/cm2
- L (Ladder):
- D (Disk):
- VO (Wedge Oben):
- VU (Wedge Unten):

S4 DEGRADER — HFSED3...
- Thickness:
- O (Wedge Oben):
- U (Wedge Unten):

TA1
- Element:
- Thickness:
- Position:

PreSPEC-Trig/red.
- ☐ Pulser(1) /......
- ☐ LYCCA cal(2)/......
- ☒ AgataCal(3)/... 4
- ☐ HEC Cal(4)/......
- ☐ FRS from TB(5)/...
- ☐ p+HEC(6)/......
- ☐ p+Agata(7)/......
- ☐ p+HEC+Lyc(8)/...
- ☒ p+Agata+Lyc(9)/ 0
- ☒ Part-SC41(10)/.8.
- ☐ Spill-on(12)/......
- ☐ Spill-off(13)/......

FRS-TRIGGER
- ☐ SCI21
- ☒ SCI41
- ☐ Other:

PreSPEC-Rates (Validated/Rejected)
- AGATA:
- FRS:
- Ta-ToF-LYCCA:
- HECTOR:

LYCCA / Pls. check
- ☐ Run-sheet filled
- ☐ Run-sheet uploaded on elog

LN2
- LN2 Last Filling: 20:50
- Tank1 Vol. (%): 65%
- Tank2 Vol. (%): 63%

Check list

Name:

Time: 01:11

Agata

- Run number: 18
- Agava requested: 2902
- Agava validated: 2646
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there: ✓
- Check that the last .cdat files has been written less then 10 minutes ago for all the crystals: ✓
- Copy and paste in a text file the GTS rate: ✓
- Check Spectra of all crystals: ✓
- Check at the sum spectra "Global level":
  - number of counts in 511 keV:
  - number of counts in 1460 keV K:
-
- Crystals with problems: 00B, 00C stopped

General

- lmd file nr: 1494
- Beam intensity: 2,14.10⁸
- Scaler sc at S4: 354.10³
- Scaler sc at S2: 690.10³
- Check in Go4 all the spectra of the list* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1,3,9,10

Comments:

FRS settings for ^{86}Kr beam v.17.03.2014

Beam: 700 MeV/u ^{86}Kr. Energy before the primary target: 699.626 MeV/u
For calibration S2 slits open and S4 slits [-35,35]mm

start Loading S431_12

√ 1. Effective thickness of Sc21: TOF1, dE1 ✓

- No primary Target. SEETRAM in
- No S1 degrader, no S2 degrader, SC21 in (3.1 mm).

$B\rho_{12}$ = 10.6586 Tm $B\rho_{34}$ = 10.3698 Tm
β_{34} = 0.8134413   *10.3850*

ΔE: SC21= 1023.5 MeV	SC41= 1015.69 MeV
TPC21= 46.236 MeV	TPC22= 47.191 MeV
TPC41= 46.473 MeV	TPC42= 47.247 MeV
Music1= 170.077 MeV	Music2= 170.551 MeV
Target DSSD = 198.9 MeV	wall DSSD = 200.2 MeV

Finger= 332.044 MeV

wall CsI = 37497.5 MeV

2. Minimum matter:

- No primary Target. SEETRAM in
- No S1 degrader, no S2 degrader, SC21 out.

$B\rho_{12}$ = 10.6586 Tm $B\rho_{34}$ = 10.4871 ᵀᴹ

√ 3. Effective thickness of S1 degrader, TOF2, dE2:

- No primary Target. SEETRAM in
- S1 degrader: 2g/cm², no S2 degrader, SC21 in (3.1 mm).
- offset: 75 mg/cm²

$B\rho_1$ = 10.6586 Tm $B\rho_2$ = 10.0616 ᵀᴹ $B\rho_{34}$ = 9.7576 Tm
β_{34} = 0.7961977

ΔE: SC21= 1055.693 MeV	SC41= 1053.721 MeV
TPC21= 47.653 MeV	TPC22= 47.773 MeV
TPC41= 47.953 MeV	TPC42= 48.885 MeV
Music1= 175.557 MeV	Music2= 176.194 MeV
Target DSSD = 206.6 MeV	wall DSSD = 208.3 MeV

Finger= 342.886 MeV

wall CsI = 46656 MeV

4. Effective thickness of S2 degrader. TOF3, dE3:

- No primary Target. SEETRAM in
- No S1 degrader, S2 degrader: 5g/cm², SC21 in (3.1 mm).
- offset=170mg/cm² (for a 4.5g/cm² degrader. Page 293)

$B\rho_{12}$ = 10.6586 Tm $B\rho_{34}$ = 8.7657 Tm
β_{34} = 0.7634833

ΔE: SC21= 1023.427 MeV   SC41= 1135.644 MeV
    TPC21= 50.616 MeV   TPC22= 50.804 MeV
    TPC41= 51.085 MeV   TPC42= 52.577 MeV
    Music1= 187.246 MeV   Music2= 188.282 MeV
    Target DSSD = 223.7 MeV   wall DSSD = 226.4 MeV

Finger= 365.612 MeV

wall CsI = 37867.7 MeV

5. Effective thickness of Ta #35.: Go only to S2

- Primary Target: #35 → Be 2513 mg/cm²
- No S1 degrader, no S2 degrader, SC21 in (3.1 mm).

$B\rho_{12}$ = 9.8927 Tm $B\rho_{34}$ = 9.5839 Tm
β_{34} = 0.7909203

ΔE: SC21= 1065.879 MeV   SC41= 1066.139 MeV
    TPC21= 48.097 MeV   TPC22= 48.22 9 MeV
    TPC41= 48.426 MeV   TPC42= 49.433 MeV
    Music1= 177.339 MeV   Music2= 178.001 MeV
    Target DSSD = 209.1 MeV   wall DSSD = 211 MeV

Finger= 346.418 MeV

wall CsI = 45103.1 MeV

6. TOF4, dE4:

- Primary Target: #35 → Be 2513 mg/cm²
- No S1 degrader, S2 degrader: 5g/cm², SC21 in (3.1 mm).

$B\rho_{12}$ = 9.8927 Tm $B\rho_{34}$ = 7.8181 Tm
β_{34} = 0.7255703

ΔE: SC21= 1065.879 MeV   SC41= 1249.467 MeV
    TPC21= 54.596 MeV   TPC22= 57.79 MeV
    TPC41= 55.298 MeV   TPC42= 52.577 MeV
    Music1= 203.067 MeV   Music2= 204.813 MeV
    Ta DSSD = 248.4 MeV   wall DSSD = 253.3 MeV

Finger= 395.282 MeV

wall CsI = 29634.2 MeV

(handwritten notes)

5000
−170
—————
4830

−131 g/yd (β.41%)

9.8953

2505 g/cm²

Bρ₁₂   Bρ₃₄
9.8953   7.8214
3: 0.7257152
ToF = 172.751

7. Isomer run of ^{66}Cu:

- Primary Target: #35 → Be 2513 mg/cm² nominal. → 2505 mg/cm²
- S1 degrader: 2 g/cm² nominal
- S2 degrader: 5 g/cm² nominal. —
Achromatic angle: -8.73 mrad (LISE++)
- S4 degrader: 5.5 g/cm2
range in PVC 5.6 mm (after target DSSD)

9.4498   8.9418   7.205

$B\rho_1$ = 9.4476 Tm $B\rho_2$ = 8.9395 Tm $B\rho_{34}$ = 7.1985 Tm

β_{34} = 0.728667   0.913900

125.0449...

ΔE:

SC21= 709.0 MeV	SC41=827.2 MeV	Finger= 262.4 MeV
TPC21= 36.14 MeV	TPC22= 36.33 MeV	
TPC41= 36.60 MeV	TPC42= 38.17 MeV	
Music1= 134.4 MeV	Music2= 118.1 MeV	
Ta DSSD = 163.8 MeV	wall DSSD = 180.9 MeV	wall CsI = 18724.4 MeV

8. Isomer run of ^{64}Co:

- Primary Target: #35 → Be 2513 mg/cm² nominal.
- S1 degrader: 2 g/cm² nominal
- S2 degrader: 5 g/cm² nominal.
Achromatic angle: -8.73 mrad (LISE++)
- S4 degrader: 7.7 g/cm2
range in PVC 5.1 mm (after target DSSD)

9.8731   9.4057   7.8310

$B\rho_1$ = 9.8709 Tm $B\rho_2$ = 9.4016 Tm $B\rho_{34}$ = 7.8282 Tm

β_{34} = 0.728667   0.928792

121.443

ΔE:

SC21= 606.555 MeV	SC41=681.601 MeV	Finger= 218.94 MeV
TPC21= 30.18 MeV	TPC22= 30.288 MeV	
TPC41= 30.465 MeV	TPC42= 31.417 MeV	
Music1= 111.669 MeV	Music2= 112.368 MeV	
Ta DSSD = 133.846 MeV	wall DSSD = 143.116 MeV	wall CsI = 21586.695 MeV

9. Production of ^{64}Fe:

- Primary Target: #35 → Be 2513 mg/cm² nominal
- S1 degrader: 2 g/cm² nominal

10.2754   9.8263   8.3333

- S2 degrader: 5 g/cm² nominal.
Achromatic angle: -8.73 mrad (LISE++)
$B\rho_1$ = 10.2738 Tm $B\rho_2$ = 9.8241 Tm $B\rho_{34}$ = 8.3346 Tm

0.9372096

Tof (SC21-SC41) = 169.487 ns   169.474

ΔE: SC21= 559.571 MeV   SC41= 616.991 MeV
TPC21= 27.481 MeV   TPC22= 27.571 MeV
TPC41= 27.704 MeV   TPC42= 28.427 MeV
Music1= 101.505 MeV   Music2= 102.033 MeV
TaDSSD =120.798 MeV   WallDSSD = 127.517 MeV
Rates: S2= 5.8x10⁴ S4= 2.1x10³

Finger= 199.34 MeV
CsIWall = 23389.405 MeV

At 1e10pps of 86Kr, S1 Slits (+/-)60 mm S2 rate: 2e6, main contaminants on minus side (LISE++) at S1. Main contaminants 83-84Se, 80-81As. At S4 the rate is 3e4 with open S4 slits. 64Fe production, 3e3

10. Production of ⁸⁵Br

- Primary Target: #35 → Be 2513 mg/cm² nominal.
- S1 degrader: 2 g/cm² nominal
- S2 degrader: 5 g/cm² nominal.
Achromatic angle: -9.0394 (LISE++)
↑Monoenergetic angle: -15.9832 (LISE++). We are using this one.
$B\rho_1$ = 10.0740 Tm $B\rho_2$ = 9.4540 Tm $B\rho_{34}$ = 7.2670 Tm

Tof (SC21-SC41) = 180.603 ns
ΔE: SC21= 1043.998 MeV   SC41= 1248.527 MeV
TPC21= 55.123 MeV   TPC22= 55.482 MeV
TPC41= 56.051 MeV   TPC42= 59.452 MeV
Music1= 206.184 MeV   Music2= 208.531 MeV
TaDSSD =257.988 MeV   WallDSSD = 303.323 MeV
Rates: S1 slits: +/- 10, S2 slits +/- 5. S2 rate = 3.6x10⁶
S3 slits open, S4 slits +/- 35. S4 rate = 1.6x10⁶

Finger= 399.932 MeV
CsIWall = 1880.538 MeV

With 1e10 pps, S1 slits open, S2 slits +/- 40 mm rate is 1.4e7.
with open slits at S4, rate is 5.2e6

Bρ: 10.0765   → 1.0002491
2 9.466   } New values including
3 7.2706.   Ta thickness.

β: 0.694 2064

ToF: 180.51 ns