

<b>MBS/file location</b> <i>/d/7151h902/mar AG-74/data</i>	<b>File (first)</b> <i>66Cu_isomer_0998.Lnd</i> <b>File (last)</b> <i>66Cu_isomer_1000.Lnd</i>	<b>Start</b> <i>≈ 23:40</i> <b>Stop</b> <i>00:49 (25.03.2019)</i>
<b>Narval/file location</b> <i>run_0046 / run_0047</i>	<b>File (first)</b> <b>File (last)</b>	<b>Start</b> <b>Stop</b>
<b>Merged(Narval+MBS)/file location</b>	<b>File (first)</b> <b>File (last)</b>	<b>Start</b> <b>Stop</b>

**PURPOSE OF MEASUREMENT: (Centered Isotope)**  Calibration run  Production run  
*see 66 Cu*

**COMMENTS:** *shift-in-charge identify isomer decay lines of 66 Cu to verify FRS setting*

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: <i>0.85215</i> TS3MU2: <i>0.79639</i> TS4MU1: <i>0.63954</i> HF3MU1: <i>0.63895</i>	PreSPEC-Trig/red. <input type="checkbox"/> Pulsar(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input checked="" type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....
	<b>SPILL</b> spill length: period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right):	<b>FRS-RATES</b> (counts/spill) 10 kHzrtz : 10 kHzrtz veto dT : SC21L: SC21R: SC41L: SC41R:
<b>FRS setting No.</b> [ ]	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right):	<b>TA1</b> Element : Thickness : Position:	<b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :
<b>PRIMARY BEAM</b> Element: SIS energy [MeV/u] Intensity-SEETRAM	<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: element: thickness:	<b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right):	<b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :

Exp No.	Primary Beam:	Date
MBS/file location <i>/d/ising 02/mar_ AG 14/data</i>	File (first) <i>64 Co_setting_1001.lnd</i> File (last)	Start Stop <i>02:22</i>
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

COMMENTS: **shift-in-charge**

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: TS3MU2: TS4MU1: HFMSMU1:	PreSPEC-Trig/red. <input type="checkbox"/> Pulsar(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....
	<b>SPILL</b> spill length: period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right):	<b>FRS-RATES</b> (counts/spill) 10 kHz : 10 kHz veto dT : SC21L: SC21R: SC41L: SC41R:
<b>FRS setting No.</b> 	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right):	<b>FRS-RATES</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
<b>PRIMARY BEAM</b> Element: SIS energy [MeV/u] Intensity-SEETRAM	<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: element: thickness:	<b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right):	<b>FRS-RATES</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
		<b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>FRS-RATES</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
			<b>TA1</b> Element : Thickness : Position:	<b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :

Exp No. Primary Beam: Date 25.03.2014

MBS/file location /d/rising02/mar\_16\_14/data File (first) 64Fe\_setting\_1002.lnd Start 02:50 File (last) Stop 04:05

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 run with the 64Fe setting

COMMENTS: shift-in-charge final S1-slits Changing rate and slit during data taking -40 +20

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: 4 sec period: 6 sec

FRS setting No. S426\_25

PRIMARY BEAM Element: 86Kr SIS energy [MeV/u]: 700 Intensity-SEETRAM 3.10^8

PROD. TARGET TS1ET5HS, TS1ET5VS: number: 35 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): -60 TS3DS2HR (right): +60

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

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

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

MAGNETS Field values from Hall probes: TS3MU1: 0.92665 TS3MU2: 0.84164 TS4MU1: 0.73834 HFMSMU1: 0.73785

FRS-RATES (counts/spill) 10 kHrtz: 60260 10 kHrtz veto dT: 60000 SC21L: 250k SC21R: 250k SC41L: 100 SC41R: 180

TA1 Element: Au Thickness: 2 g/cm^2 Position: center

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: 01:45

Tank1 Vol. (%): 55%

Tank2 Vol. (%): 55%

Exp No.	Primary Beam:	Date	25.3.2019
MBS/file location	File (first) <sup>60Ca settings 2-</sup> File (last) 1003	Start Stop	4:35 4:42
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

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:

period:

**FRS setting No.**

**PRIMARY BEAM**

Element:  $^{86}\text{Kr}$

SIS energy [MeV/u]: 700

Intensity-SEETRAM

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:

number:

element:

thickness:

**S1 DEGRADER**

TS3ED2...

Thickness:  $2\text{ g/cm}^2$

Wedge used:

O2 (Wedge Oben):

V1 (Wedge Unten):

**S2 DEGRADER**

TS3ED7...

Thickness:  $5\text{ g/cm}^2$

L (Ladder):

D (Disk):  $60.9\text{ grad}$

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): -40

TS3DS2HR (right): 40

**S2 SLITS**

beam plug out

TS4DS1HL (left):

TS4DS1HR (right):

TS4DS1VO (left):

TS4DS1VU (right):

**S3 SLITS**

TS4DS3HL (left):

TS4DS3HR (right):

**S4 SLITS**

HFSDS3H (left): -35

HFSDS3H (right): 35

Pb Brick (top):

Pb Brick (bottom):

**MAGNETS**

Field values from Hall probes:

TS3MU1: 0.85195

TS3MU2: 0.79644

TS4MU1: 0.63954

HFSMU1: 0.63895

**FRS-RATES**

(counts/spill)

10 kHz :

10 kHz veto dT :

SC21L: 27.000

SC21R: 23.000

SC41L: 392

SC41R: 307

**TA1**

Element :

Thickness :

Position:

**PreSPEC-Trig/red.**

- Pulsar(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.	Primary Beam:	Date
MBS/file location	File (first) <i>66Cu_petting3_1004.Pnd</i> File (last)	Start Stop <i>4:41</i> <i>4:53</i>
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

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:  
period:

**FRS setting No.**

**PRIMARY BEAM**

Element: *66Cu*  
SIS energy [MeV/u]  
*700*  
Intensity-SEETRAM

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:  
number:  
element:  
thickness:

**S1 DEGRADER**  
TS3ED2...

Thickness:  
*2g/cm<sup>2</sup>*

Wedge used:

O2 (Wedge Oben):  
V1 (Wedge Unten):

**S2 DEGRADER**  
TS3ED7...

Thickness:  
*5g/cm<sup>2</sup>*

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):  
*-40*  
TS3DS2HR (right):  
*+40*

**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:  
*0.85195*

TS3MU2:  
*0.79634*

TS4MU1:  
*0.63954*

HFSMU1:  
*0.63855*

**FRS-RATES**  
(counts/spill)

10 kHzrtz :  
10 kHzrtz veto dT :  
SC21L:  
*23000*  
SC21R:  
*22000*  
SC41L:  
*9000*  
SC41R:  
*9000*

**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.	Primary Beam:	Date
MBS/file location	File (first) 1005 File (last)	Start 5:02 Stop 5:05
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

COMMENTS: *66Cu settings (no slits)* shift-in-charge

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: 0.85185 TS3MU2: 0.84164 TS4MU1: 0.69524 HFMSU1: 0.69465	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....	
	<b>SPILL</b> spill length: period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: 5g L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): -25 TS3DS2HR (right): +25	<b>FRS-RATES</b> (counts/spill) 10 kHzrtz : 10 kHzrtz veto dT : SC21L: 22000 SC21R: / SC41L: 1500 SC41R:	<b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other:
	<b>FRS setting No.</b>	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right):	<b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
	<b>PRIMARY BEAM</b> Element: SIS energy [MeV/u] Intensity-SEETRAM	<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: element: thickness:	<b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right):	<b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>TA1</b> Element : Thickness : Position:
				<b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :	

Exp No.	Primary Beam:	Date
MBS/file location	File (first) File (last)	Start 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

COMMENTS: shift-in-charge

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom): <b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right): <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right): <b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right): <b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: TS3MU2: TS4MU1: HFSMU1: <b>FRS-RATES</b> (counts/spill) 10 kHzrtz : 10 kHzrtz veto dT : SC21L: SC21R: SC41L: SC41R: <b>TA1</b> Element : Thickness : Position:	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/..... <b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR : <b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :
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**SPILL**  
 spill length:  
 period:

**FRS setting No.**  
 \_\_\_\_\_

**PRIMARY BEAM**  
 Element:  
 SIS energy [MeV/u]:  
 Intensity-SEETRAM

**PROD. TARGET**  
 TS1ET5HS,  
 TS1ET5VS:  
 number:  
 element:  
 thickness:

Exp No. Primary Beam: Date *25/31 2014*

MBS/file location	File (first) File (last) <i>1007</i>	Start Stop <i>5:50 5:51</i>
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

COMMENTS: *shift-in-charge*

<p><b>FRS/BEAMLINE elements</b></p> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<p><b>S1 DEGRADER</b> TS3ED2...</p> <p>Thickness:</p> <p>Wedge used:</p> <p>O2 (Wedge Oben):</p> <p>V1 (Wedge Unten):</p>	<p><b>S0 SLITS</b></p> <input type="checkbox"/> beam stop out	<p><b>MAGNETS</b> Field values from Hall probes:</p> <p>TS3MU1: <i>0.85055</i></p> <p>TS3MU2: <i>0.79334</i></p> <p>TS4MU1: <i>0.63754</i></p> <p>HFSMU1: <i>0.63705</i></p>	<p>PreSPEC-Trig/red.</p> <input type="checkbox"/> Pulsar(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....
<p><b>SPILL</b></p> <p>spill length:</p> <p>period:</p>	<p><b>S2 DEGRADER</b> TS3ED7...</p> <p>Thickness:</p> <p>L (Ladder):</p> <p>D (Disk):</p> <p>VO (Wedge Oben):</p> <p>VU (Wedge Unten):</p>	<p><b>S1 SLITS</b></p> <input type="checkbox"/> beam plug out	<p><b>FRS-RATES</b> (counts/spill)</p> <p>10 kHzrtz :</p> <p>10 kHzrtz veto dT :</p> <p>SC21L:</p> <p>SC21R:</p> <p>SC41L:</p> <p>SC41R:</p>	<p><b>FRS-TRIGGER</b></p> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other:
<p><b>FRS setting No.</b></p>	<p><b>S4 DEGRADER</b> HFSED3...</p> <p>Thickness:</p> <p>O (Wedge Oben):</p> <p>U (Wedge Unten):</p>	<p><b>S2 SLITS</b></p> <input type="checkbox"/> beam plug out	<p><b>PreSPEC-Rates</b> (Validated/Rejected)</p> <p>AGATA :</p> <p>FRS :</p> <p>Ta-ToF-LYCCA :</p> <p>HECTOR :</p>	<p><b>LYCCA / Pls. check</b></p> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
<p><b>PRIMARY BEAM</b></p> <p>Element:</p> <p>SIS energy [MeV/u]:</p> <p>Intensity-SEETRAM</p>	<p><b>S3 SLITS</b></p> <p>TS4DS3HL (left):</p> <p>TS4DS3HR (right):</p>	<p><b>S4 SLITS</b></p> <p>HFSDS3H (left):</p> <p>HFSDS3H (right):</p> <p>Pb Brick (top):</p> <p>Pb Brick (bottom):</p>	<p>TA1</p> <p>Element :</p> <p>Thickness :</p> <p>Position:</p>	<p><b>LN2</b></p> <p>LN2 Last Filling :</p> <p>Tank1 Vol. (%) :</p> <p>Tank2 Vol. (%) :</p>
<p><b>PROD. TARGET</b></p> <p>TS1ET5HS, TS1ET5VS:</p> <p>number:</p> <p>element:</p> <p>thickness:</p>				



Exp No.	Primary Beam:	Date	25/03/2014
MBS/file location	File (first) File (last)	Start Stop	1008 5:56 6:06
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

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:

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:  
0.85058

TS3MU2:  
0.73264

TS4MU1:  
0.63544

HFSMU1:  
0.63495

**FRS-RATES**

(counts/spill)

10 kHzrtz :

10 kHzrtz veto dT :

SC21L:

SC21R:

SC41L:

SC41R:

**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.	Primary Beam:	Date <i>25/03/2014</i>	
MBS/file location	File (first) <i>1009</i>	Start <i>6:16</i>	Stop <i>6:26</i>
	File (last) <i>64Fe_setting</i>		
Narval/file location	File (first)	Start	Stop
	File (last)		
Merged(Narval+MBS)/file location	File (first)	Start	Stop
	File (last)		
PURPOSE OF MEASUREMENT: (Centered Isotope)		<input type="checkbox"/> Calibration run	<input type="checkbox"/> Production run

COMMENTS: shift-in-charge

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: <hr/> Wedge used: <hr/> O2 (Wedge Oben): <hr/> V1 (Wedge Unten): <hr/>	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): <hr/> TS2DS3HR (right): <hr/> TS2DS3VO (top): <hr/> TS2DS3VU (bottom): <hr/> <b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): <hr/> <i>-10</i> TS3DS2HR (right): <hr/> <i>+10</i> <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): <hr/> TS4DS1HR (right): <hr/> TS4DS1VO (left): <hr/> TS4DS1VU (right): <hr/> <b>S3 SLITS</b> TS4DS3HL (left): <hr/> TS4DS3HR (right): <hr/> <b>S4 SLITS</b> HFSDS3H (left): <hr/> HFSDS3H (right): <hr/> Pb Brick (top): <hr/> Pb Brick (bottom): <hr/>	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: <hr/> <i>0.92505</i> TS3MU2: <hr/> <i>0.87114</i> TS4MU1: <hr/> <i>0.73584</i> HF3SMU1: <hr/> <i>0.73575</i> <b>FRS-RATES</b> (counts/spill) 10 kHzrtz : <hr/> 10 kHzrtz veto dT : <hr/> SC21L: <hr/> SC21R: <hr/> SC41L: <hr/> SC41R: <hr/> <b>TA1</b> Element : <hr/> Thickness : <hr/> Position: <hr/>	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/..... <b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : <hr/> FRS : <hr/> Ta-ToF-LYCCA : <hr/> HECTOR : <hr/> <b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : <hr/> Tank1 Vol. (%) : <hr/> Tank2 Vol. (%) : <hr/>
<b>SPILL</b> spill length: <hr/> period: <hr/> <b>FRS setting No.</b> <hr/> <b>PRIMARY BEAM</b> Element: <hr/> SIS energy [MeV/u] <hr/> Intensity-SEETRAM <hr/> <b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: <hr/> element: <hr/> thickness: <hr/>	<b>S2 DEGRADER</b> TS3ED7... Thickness: <hr/> L (Ladder): <hr/> D (Disk): <hr/> VO (Wedge Oben): <hr/> VU (Wedge Unten): <hr/> <b>S4 DEGRADER</b> HFSED3... Thickness: <hr/> O (Wedge Oben): <hr/> U (Wedge Unten): <hr/>			

Exp No. Primary Beam: Date 25/03/2014

MBS/file location File (first) 1010 File (last) Start 6:30 Stop 6:35

Narval/file location File (first) File (last) 84Fe - setting Cent Start Stop

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

PURPOSE OF MEASUREMENT: (Centered Isotope) Calibration run Production 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: 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): -40 TS3DS2HR (right): +40

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: 0.32525 TS3MU2: 0.37114 TS4MU1: 0.73664 HFMSMU1: 0.73605

FRS-RATES (counts/spill) 10 kHz : 10 kHz veto dT : SC21L: SC21R: SC41L: SC41R:

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.	Primary Beam: <sup>86</sup> W <sup>33+</sup>	Date	25/03/2014
MBS/file location	File (first) 104 File (last)	Start 6:35 Stop 8:40	
Narval/file location AR 48	File (first) 64Fe-production File (last)	Start 6:39 Stop	
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop	

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

COMMENTS: shift-in-charge

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom): <b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right): <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right): <b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right): <b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: TS3MU2: TS4MU1: HFSMU1: <b>FRS-RATES</b> (counts/spill) 10 kHzrtz : 10 kHzrtz veto dT : SC21L: SC21R: SC41L: SC41R: <b>TA1</b> Element : Thickness : Position:	PreSPEC-Trig/red. <input type="checkbox"/> Pulsar(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/..... <b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR : <b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :
<b>SPILL</b> spill length: period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):			
<b>FRS setting No.</b> 				
<b>PRIMARY BEAM</b> Element: SIS energy [MeV/u]: Intensity-SEETRAM				
<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: element: thickness:				

Exp No.	Primary Beam:	Date	25/3/2014
MBS/file location	File (first) File (last)	10 12	Start Stop 6:45 8:30
Narval/file location AR 43	File (first) File (last)	64Fe - ar49 - cooler	Start Stop
Merged(Narval+MBS)/file location	File (first) File (last)		Start Stop
PURPOSE OF MEASUREMENT: (Centered Isotope) <input type="checkbox"/> Calibration run <input checked="" type="checkbox"/> Production 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:  
45

period:  
65

**FRS setting No.**

5426 - 28

**PRIMARY BEAM**

Element:  
<sup>36</sup>Kr

SIS energy [MeV/u]  
700

Intensity-SEETRAM  
1.3 x 10<sup>8</sup>

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:

number:  
# 35

element:  
Be

thickness:  
2.5

**S1 DEGRADER**

TS3ED2...

Thickness:  
2 g/cm<sup>2</sup>

Wedge used:  
1

O2 (Wedge Oben):  
-31.2

V1 (Wedge Unten):  
-252.7

**S2 DEGRADER**

TS3ED7...

Thickness:  
5 g/cm<sup>2</sup>

L (Ladder):

D (Disk):  
60.6

VO (Wedge Oben):  
-298.0

VU (Wedge Unten):  
-298.0

**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):  
-40

TS3DS2HR (right):  
+40

**S2 SLITS**

beam plug out

TS4DS1HL (left):

TS4DS1HR (right):

TS4DS1VO (left):

TS4DS1VU (right):

**S3 SLITS**

TS4DS3HL (left):

TS4DS3HR (right):

**S4 SLITS**

HFSDS3H (left):  
+35

HFSDS3H (right):  
+35

Pb Brick (top):

Pb Brick (bottom):

**MAGNETS**

Field values from Hall probes:

TS3MU1:  
0.92505

TS3MU2:  
0.87114

TS4MU1:  
0.73664

HFSMU1:  
0.73605

**FRS-RATES**

(counts/spill)

10 kHzrtz :

10 kHzrtz veto dT :

SC21L:  
260.000

SC21R:  
274.000

SC41L:  
5540

SC41R:  
5480

**TA1**

Element :  
Au

Thickness :  
2 g/cm<sup>2</sup>

Position:  
centrally

**PreSPEC-Trig/red.**

Pulser(1) /.....  
 LYCCA cal(2)/.....  
 AgataCal(3)/...A.  
 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 :  
1.50

Tank1 Vol. (%) :  
56

Tank2 Vol. (%) :  
55

Exp No.	Primary Beam:	Date	15/3/2014
MBS/file location	File (first) File (last)	Start Stop	10:05
Narval/file location	File (first) File (last)	Start Stop	64Fe - at 48 - Coulomb
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop	

PURPOSE OF MEASUREMENT: (Centered Isotope)  Calibration run  Production 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:  
2s

period:

**FRS setting No.**

S426-28

**PRIMARY BEAM**

Element: 86 Kr

SIS energy [MeV/u]  
700

Intensity-SEETRAM  
 $2 \times 10^6$

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:

number:

element: Be

thickness: 2.5

**S1 DEGRADER**

TS3ED2...

Thickness:  
 $28 / \text{cm}^2$

Wedge used:  
1

O2 (Wedge Oben):  
-31.2

V1 (Wedge Unten):  
-252.7

**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):  
OPEN

TS2DS3HR (right):  
OPEN

TS2DS3VO (top):

TS2DS3VU (bottom):

**S1 SLITS**

beam plug out

TS3DS2HL (left):  
-40

TS3DS2HR (right):  
+40

**S2 SLITS**

beam plug out

TS4DS1HL (left):  
OPEN

TS4DS1HR (right):  
OPEN

TS4DS1VO (left):

TS4DS1VU (right):

**S3 SLITS**

TS4DS3HL (left):  
OPEN

TS4DS3HR (right):  
OPEN

**S4 SLITS**

HFSDS3H (left):  
-35

HFSDS3H (right):  
+35

Pb Brick (top):

Pb Brick (bottom):

**MAGNETS**

Field values from Hall probes:

TS3MU1:  
0.82515

TS3MU2:  
0.8744

TS4MU1:  
0.73664

HFSMU1:  
0.73605

**FRS-RATES**

(counts/spill)

10 kHz :

10 kHz veto dT :

SC21L:

SC21R:

SC41L:

SC41R:

**TA1**

Element : Au

Thickness :  $28 / \text{cm}^2$

Position : central

**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)/...0  
 p+Agata+Lyc(9)/...0  
 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 :  
7:40

Tank1 Vol. (%) :  
100

Tank2 Vol. (%) :  
85

## Check list

Name: *Damia Palet.*

Time: *13M24* the *23<sup>th</sup>* *Mar* 2016.

### Agata

- Run number: *51*
- Agava requested: *202*
- Agava validated: *168*.
- Screenshot trigger rate + spectrum of time coincidence: ✓
- Check in Go4 that all Agata-TDC spectra are there: *(21 spectra : OK)*
- 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: } *No global.*
- Crystals with problems: *5A is error, 7C in back pressure => stop, 0B pream problem, 7B off.*

### General

- lmd file nr: *1015*
- Beam intensity:
- Scaler sc at S4: *4.0e4*
- Scaler sc at S2: *1.2e6*
- Check in Go4 all the spectra of the list\* : *1*
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: *~*

### Comments:

*Electric need to be reboot for 5A and 7C.*

Exp No. Primary Beam: Date 25/3/2014

MBS/file location File (first) File (last) 1015 Start Stop 13:30

Narval/file location File (first) File (last) 64Fe - on 51 - coulex Start Stop

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

PURPOSE OF MEASUREMENT: (Centered Isotope) Calibration run Production 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: 10 period:

FRS setting No. S426 - 28

PRIMARY BEAM Element: 86Kr SIS energy [MeV/u] 700 Intensity-SEETRAM 1.2.10^8

PROD. TARGET TS1ET5HS, TS1ET5VS: number: #35 element: Be thickness: 2.5

S1 DEGRADER TS3ED2... Thickness: 2g/cm^2 Wedge used: 1 O2 (Wedge Oben): -31.2 V1 (Wedge Unten): -252.7

S2 DEGRADER TS3ED7... Thickness: 5g/cm^2 L (Ladder): D (Disk): 60.6 VO (Wedge Oben): -258.0 VU (Wedge Unten): -258.0

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

S0 SLITS beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VQ (top): TS2DS3VU (bottom):

S1 SLITS beam plug out TS3DS2HL (left): -40.0 TS3DS2HR (right): +40.0

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

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

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

MAGNETS Field values from Hall probes: TS3MU1: 0.82505 TS3MU2: 0.87M4 TS4MU1: 0.73664 HFMSU1: 0.73605

FRS-RATES (counts/spill) 10 kHz : 10 kHz veto dT :

SC21L: 495000 SC21R: 380000 SC41L: 4400 SC41R: 4300

TA1 Element : Au Thickness : 2g/cm^2 Position: central

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)/...0 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 : 13:30 Tank1 Vol. (%) : 95 Tank2 Vol. (%) : 87



Exp No.	Primary Beam:	Date
MBS/file location /d/rising02/mar_AG_14/data	File (first) Fe_64_FRS_tu_1020. File (last) lmd	Start Stop ≈ 23:20
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  
*have problems reloading ~~the~~ last FRS setting. Writing file to check centering of shift-in-charge beam offline*

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: Wedge used: O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: 0.92525 TS3MU2: 0.87114 TS4MU1: 0.73664 HFMSU1: 0.73605	<b>PreSPEC-Trig/red.</b> <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....
<b>SPILL</b> spill length: period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right):	<b>FRS-RATES</b> (counts/spill) 10 kHzrtz : 10 kHzrtz veto dT : SC21L: SC21R: SC41L: SC41R:	<b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other:
<b>FRS setting No.</b> 	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right):	<b>TA1</b> Element : Thickness : Position:	<b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : FRS : Ta-ToF-LYCCA : HECTOR :
<b>PRIMARY BEAM</b> Element: SIS energy [MeV/u] Intensity-SEETRAM		<b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right):		<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog
<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: element: thickness:		<b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):		<b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :

Exp No. Primary Beam:  $86\text{Kr}$  Date 26.03.2014

MBS/file location File (first) Fe\_64 (order - AR55\_1021 File (last) Start Stop 0:58

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  
fabry Conlex data

COMMENTS: shift-in-charge  
\*  $^{64}\text{Fe}$  production is less than before (only 4% instead of 25%)

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

S1 DEGRADER  
TS3ED2...  
Thickness:  $2\text{g}/\text{cm}^2$   
Wedge used: 1  
O2 (Wedge Oben):  $-31.25$   
V1 (Wedge Unten):  $-252.7$

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

MAGNETS  
Field values from Hall probes:  
TS3MU1:  $0.92515$   
TS3MU2:  $0.87114$   
TS4MU1:  $0.73664$   
HFMSU1:  $0.73605$

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)/.....

SPILL  
spill length: 1 sec  
period: 2.5 sec

S2 DEGRADER  
TS3ED7...  
Thickness:  $5\text{g}/\text{cm}^2$   
L (Ladder):  $-107.7$   
D (Disk):  $60.7$   
VO (Wedge Oben):  $-298.0$   
VU (Wedge Unten):  $-298.0$

S1 SLITS  
 beam plug out  
TS3DS2HL (left):  $-15$   
TS3DS2HR (right):  $40$

FRS-RATES  
(counts/spill)  
10 kHzrtz :  
10 kHzrtz veto dT :

FRS-TRIGGER  
 SCI21  
 SCI41  
 Other:

FRS setting No.  
5426-28

S4 DEGRADER  
HFS3ED3...  
Thickness:  
O (Wedge Oben):  
U (Wedge Unten):

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

SC21L:  $494.000$   
SC21R:  $403.000$   
SC41L:  $4800$   
SC41R:  $4700$

PreSPEC-Rates  
(Validated/Rejected)  
AGATA :  $50/610$

PRIMARY BEAM  
Element:  $^{86}\text{Kr}$   
SIS energy [MeV/u]  $700$   
Intensity-SEETRAM  $1.4 \times 10^9$

S4 SLITS  
HFS3DS3H (left):  $-35$   
HFS3DS3H (right):  $35$   
Pb Brick (top):  
Pb Brick (bottom):

TA1  
Element:  $^{84}$   
Thickness:  $2\text{g}/\text{cm}^2$   
Position: central

FRS :  
Ta-ToF-LYCCA :  
HECTOR :

PROD. TARGET  
TS1ET5HS,  
TS1ET5VS:  
number: 35  
element: Be  
thickness:  $2.5\text{g}/\text{cm}^2$

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

LN2  
LN2 Last Filling :  $19.40\text{pm}$   
Tank1 Vol. (%) : 84  
Tank2 Vol. (%) : 78

## Check list

Name: Natasa

Time: 01:34

### Agata

- Run number: 55
- Agava requested: 334
- Agava validated: 276
- 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: 1021
- Beam intensity:  $\sim 1.3 \times 10^9$
- Scaler sc at S4:  $\sim 16000$
- Scaler sc at S2:  $\sim 970000$
- 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, 8, 9, 10

### Comments:

TR 3 reduced  $\rightarrow$  factor 8

Exp No.	Primary Beam:	Date
MBS/file location <i>1d/rising02/mar_Abr_14/data</i>	File (first) <i>1022</i> File (last)	Start Stop <i>02:45</i>
Narval/file location	File (first) File (last) <i>run 55</i>	Start Stop
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop

PURPOSE OF MEASUREMENT: (Centered Isotope)  Calibration run  Production run  
*<sup>69</sup>Fe complex*

COMMENTS: *shift-in-charge Marc*

<b>FRS/BEAMLINE elements</b> <input checked="" type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input checked="" type="checkbox"/> FRS-TA0 <input checked="" type="checkbox"/> S1-degrader <input checked="" type="checkbox"/> S2-degrader <input checked="" type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input checked="" type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input checked="" type="checkbox"/> TA1 <input checked="" type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: <i>29 cm<sup>2</sup></i> Wedge used: <i>1</i> O2 (Wedge Oben): <i>-31.2</i> V1 (Wedge Unten): <i>-252.7</i>	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): <i>OPEN</i> TS2DS3HR (right): <i>OPEN</i> TS2DS3VO (top): TS2DS3VU (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: <i>0.92525</i> TS3MU2: <i>0.87114</i> TS4MU1: <i>0.73664</i> HFSMU1: <i>0.73605</i>	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input checked="" type="checkbox"/> AgataCal(3)/... <i>4</i> .. <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input checked="" type="checkbox"/> p+HEC+Lyc(8)/... <input checked="" type="checkbox"/> p+Agata+Lyc(9)/... <input checked="" type="checkbox"/> Part-SC41(10)/... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/.....
<b>SPILL</b> spill length: <i>1s</i> period: <i>2.8s</i>	<b>S2 DEGRADER</b> TS3ED7... Thickness: <i>59 cm<sup>2</sup></i> L (Ladder): <i>-107.7</i> D (Disk): <i>60.6</i> VO (Wedge Oben): <i>-288</i> VU (Wedge Unten): <i>-288</i>	<b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): <i>-48</i> TS3DS2HR (right): <i>+40</i> <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): <i>OPEN</i> TS4DS1HR (right): <i>OPEN</i> TS4DS1VO (left): TS4DS1VU (right):	<b>FRS-RATES</b> (counts/spill) 10 kHz : <i>26670</i> 10 kHz veto dT : <i>25980</i> SC21L: <i>500k</i> SC21R: <i>480k</i> SC41L: <i>4800</i> SC41R: <i>4600</i>	<b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input checked="" type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : <i>450/340</i> <i>500</i> FRS : <i>500</i> Ta-ToF-LYCCA : <i>500</i> HECTOR : <i>500</i>
<b>FRS setting No.</b> <i>8426 - 28</i> <b>PRIMARY BEAM</b> Element: <i>86Kr<sup>33+</sup></i> SIS energy [MeV/u]: <i>700-800</i> Intensity-SEETRAM <i>1.4 · 10<sup>9</sup></i>	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>S3 SLITS</b> TS4DS3HL (left): <i>OPEN</i> TS4DS3HR (right): <b>S4 SLITS</b> HFSDS3H (left): <i>-35</i> HFSDS3H (right): <i>+35</i> Pb Brick (top): Pb Brick (bottom):	<b>TA1</b> Element : <i>Au</i> Thickness : <i>29 cm<sup>2</sup></i> Position: <i>central</i>	<b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : <i>01:56 am</i> Tank1 Vol. (%) : <i>79</i> Tank2 Vol. (%) : <i>76</i>

online analysis

Exp No.	Primary Beam:	Date
MBS/file location d:\nsa\coll\mar-AG-14\data	File (first) File (last)	Start 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  
<sup>64</sup>Fe complex

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:  
1s

period:  
2.5s

**FRS setting No.**

8426-28

**PRIMARY BEAM**

Element:  
86Kr 33+

SIS energy [MeV/u]  
700

Intensity-SEETRAM  
1.4 · 10<sup>9</sup>

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:

number:  
# 35

element:  
Be

thickness:  
2.5

**S1 DEGRADER**

TS3ED2...

Thickness:  
2g/cm<sup>2</sup>

Wedge used:  
1

O2 (Wedge Oben):  
- 31.2

V1 (Wedge Unten):  
- 252.7

**S2 DEGRADER**

TS3ED7...

Thickness:  
5g/cm<sup>2</sup>

L (Ladder):  
- 107.7

D (Disk):  
60.6

VO (Wedge Oben):  
- 298

VU (Wedge Unten):  
- 298

**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):  
- 15

TS3DS2HR (right):  
+ 40

**S2 SLITS**

beam plug out

TS4DS1HL (left):

TS4DS1HR (right):

TS4DS1VO (left):

TS4DS1VU (right):

**S3 SLITS**

TS4DS3HL (left):

TS4DS3HR (right):

**S4 SLITS**

HFSDS3H (left):  
- 35

HFSDS3H (right):  
+ 35

Pb Brick (top):

Pb Brick (bottom):

**MAGNETS**

Field values from Hall probes:

TS3MU1:  
0.92515

TS3MU2:  
0.87124

TS4MU1:  
0.73665

HFSMU1:  
0.73605

**FRS-RATES**

(counts/spill)

10 kHz :  
28098

10 kHz veto dT :  
26786

SC21L:  
500k

SC21R:  
480k

SC41L:  
4700

SC41R:  
4500

**TA1**

Element:  
M

Thickness:  
2g/cm<sup>2</sup>

Position:  
central

**PreSPEC-Trig/red.**

Pulser(1) /.....  
 LYCCA cal(2)/.....  
 AgataCal(3)/...9.  
 HEC Cal(4)/.....  
 FRS from TB(5)/...  
 p+HEC(6)/.....  
 p+Agata(7)/.....  
 p+HEC+Lyc(8)/...0.  
 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 :  
350/450

**FRS :**  
400

**Ta-ToF-LYCCA :**  
400

**HECTOR :**  
400

**LYCCA / Pls. check**

Run-sheet filled  
 Run-sheet uploaded on elog

**LN2**

LN2 Last Filling :  
01:56am

Tank1 Vol. (%) :  
79

Tank2 Vol. (%) :  
70

from online analysis

## Check list

Name: N. Labay E

Time: 03:30

### Agata

- Run number: 55
- Agava requested: 542
- Agava validated: 442
- 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: 1025
- Beam intensity:  $1.4 \times 10^9$
- Scaler sc at S4:  $\sim 1.5 \times 10^4$
- Scaler sc at S2:  $\sim 9 \times 10^5$
- 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, 8, 9, 10

Comments: For details on ~~xxx~~ lmd-files 1023  
1024  
1025 ,  
see the log-book

Exp No.	Primary Beam:	Date
MBS/file location <i>d/insim02/mar-A6-14/data</i>	File (first) File (last) <i>1030</i>	Start Stop <i>5:25</i>
Narval/file location	File (first) File (last) <i>run 55</i>	Start Stop
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop

PURPOSE OF MEASUREMENT: (Centered Isotope)  Calibration run  Production run  
*64Fe coulex*

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: *15*

period: *2.55*

**FRS setting No.**

*5426-28*

**PRIMARY BEAM**

Element:  
*86Kr 33+*

SIS energy [MeV/u]  
*700*

Intensity-SEETRAM  
*1 · 10<sup>9</sup>*

**PROD. TARGET**

TS1ET5HS,  
TS1ET5VS:

number:  
*# 35*

element:  
*Be*

thickness:  
*2.5*

**S1 DEGRADER**

TS3ED2...

Thickness:  
*2g/cm<sup>2</sup>*

Wedge used:  
*1*

O2 (Wedge Oben):  
*-31.2*

V1 (Wedge Unten):  
*-252.7*

**S2 DEGRADER**

TS3ED7...

Thickness:  
*5g/cm<sup>2</sup>*

L (Ladder):  
*-107.7*

D (Disk):  
*60.6*

VO (Wedge Oben):  
*-298*

VU (Wedge Unten):  
*-298*

**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):  
*-15*

TS3DS2HR (right):  
*+40*

**S2 SLITS**

beam plug out

TS4DS1HL (left):

TS4DS1HR (right):

TS4DS1VO (left):

TS4DS1VU (right):

**S3 SLITS**

TS4DS3HL (left):

TS4DS3HR (right):

**S4 SLITS**

HFSDS3H (left):  
*-35*

HFSDS3H (right):  
*+35*

Pb Brick (top):

Pb Brick (bottom):

**MAGNETS**

Field values from Hall probes:

TS3MU1:  
*0.92515*

TS3MU2:  
*0.87124*

TS4MU1:  
*0.73664*

HFSMU1:  
*0.73605*

**FRS-RATES**

(counts/spill)

10 kHzrtz :  
*27331*

10 kHzrtz veto dT :  
*26160*

SC21L:  
*440k*

SC21R:  
*420k*

SC41L:  
*3600*

SC41R:  
*3500*

**TA1**

Element:  
*Au*

Thickness:  
*2g/cm<sup>2</sup>*

Position:  
*central*

**PreSPEC-Trig/red.**

Pulsar(1)/.....  
 LYCCA cal(2)/.....  
 AgataCal(3)/...*4.*  
 HEC Cal(4)/.....  
 FRS from TB(5)/...  
 p+HEC(6)/.....  
 p+Agata(7)/.....  
 p+HEC+Lyc(8)/...*6.*  
 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 :  
*300/80*

**FRS :**  
*350*

**Ta-ToF-LYCCA :**  
*350*

**HECTOR :**  
*350*

**LYCCA / Pls. check**

Run-sheet filled  
 Run-sheet uploaded on elog

**LN2**

LN2 Last Filling :  
*01:56 am*

Tank1 Vol. (%) : *79*  
~~*01:56 am*~~

Tank2 Vol. (%) :  
*70*

*from online analysis*

## Check list

Name: N. Labovic

Time: 05:24

### Agata

- Run number: 55
- Agava requested: 394
- Agava validated: 312
- 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: 1028
- Beam intensity:  $1 \times 10^9$
- Scaler sc at S4:  $\sim 1.2 \cdot 10^4$
- Scaler sc at S2:  $\sim 9.2 \cdot 10^5$
- Check in Go4 all the spectra of the list\* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 1,3,8,9,10

Comments:



Exp No.	Primary Beam:	Date
MBS/file location <i>Musing 02-1 mar - AG-24/1/1/1</i>	File (first) File (last) <i>1035</i>	Start Stop <i>08:00</i>
Narval/file location	File (first) File (last) <i>AR55</i>	Start Stop
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop
PURPOSE OF MEASUREMENT: (Centered Isotope) <input type="checkbox"/> Calibration run <input checked="" type="checkbox"/> Production run		

COMMENTS: shift-in-charge

<b>FRS/BEAMLINE elements</b> <input checked="" type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input checked="" type="checkbox"/> FRS-TA0 <input checked="" type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input checked="" type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input checked="" type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input checked="" type="checkbox"/> TA1 <input checked="" type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: <i>7g/cm<sup>2</sup></i> Wedge used: <i>1</i> O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): <i>OK</i> TS2DS3VO (top): TS2DS3VU (bottom): <b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right): <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): <i>OK</i> TS4DS1VO (left): TS4DS1VU (right): <b>S3 SLITS</b> TS4DS3HL (left): <i>OK</i> TS4DS3HR (right): <b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: <i>.92515</i> TS3MU2: <i>.87124</i> TS4MU1: <i>.73664</i> HFSMU1: <i>.73605</i> <b>FRS-RATES</b> (counts/spill) 10 kHz : <i>25k</i> 10 kHz veto dT : <i>23k</i> SC21L: <i>505k</i> SC21R: <i>480k</i> SC41L: <i>4700</i> SC41R: <i>4600</i> <b>TA1</b> Element : <i>Pu</i> Thickness : <i>7g/cm<sup>2</sup></i> Position: <i>central.</i>	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/..... <b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : <i>20/710</i> FRS : Ta-ToF-LYCCA : <i>3500</i> HECTOR : <i>640</i> <b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : <i>64</i> Tank2 Vol. (%) : <i>65</i>	
<b>SPILL</b> spill length: <i>20</i> period: <i>2.50</i>	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>FRS setting No.</b> <i>5426-28</i>	<b>PRIMARY BEAM</b> Element: <i>36 Kr<sup>33+</sup></i> SIS energy [MeV/u]: <i>700</i> Intensity-SEETRAM: <i>20<sup>5</sup></i>	<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: <i>#35</i> element: <i>Be</i> thickness: <i>2.5</i>

# Check list

Name: Cesar

Time: 8:19


## Agata

- Run number: 55
- Agava requested: 2
- Agava validated: 10
- Screenshot trigger rate + spectrum of time coincidence : ✓
- Check in Go4 that all Agata-TDC spectra are there:
- Check that the last .cdat files have 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: 1036
- Beam intensity:  $1.37 \times 10^9$
- Scaler sc at S4: 4600
- Scaler sc at S2: 4800
- Check in Go4 all the spectra of the list\* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers:

## Comments:

Section, Monitor, TPC @ S4 and LYCCA <sup>Target</sup> DSSD  
show a double-peak structure of the beam,  
kind of this  $\Rightarrow$  . This should be checked.

Exp No.	Primary Beam:	Date
MBS/file location	File (first) 1043 File (last)	Start 11:50 Stop 13:10 (12h30)
Narval/file location	File (first) run 56 File (last)	Start 11:52 Stop 13:10
Merged(Narval+MBS)/file location	File (first) File (last)	Start Stop

PURPOSE OF MEASUREMENT: (Centered Isotope) *ufe*  Calibration run  Production run

COMMENTS: shift-in-charge

<b>FRS/BEAMLINE elements</b> <input type="checkbox"/> SEETRAM <input type="checkbox"/> SCI-01 <input type="checkbox"/> FRS-TA0 <input type="checkbox"/> S1-degrader <input type="checkbox"/> S2-degrader <input type="checkbox"/> SCI-21 <input type="checkbox"/> S4-degrader <input type="checkbox"/> LYCCA-Start <input type="checkbox"/> LYCCA-TaStart <input type="checkbox"/> TA1 <input type="checkbox"/> TaDSSD	<b>S1 DEGRADER</b> TS3ED2... Thickness: <i>2.5 μm</i> Wedge used: <i>1</i> O2 (Wedge Oben): V1 (Wedge Unten):	<b>S0 SLITS</b> <input type="checkbox"/> beam stop out TS2DS3HL (left): TS2DS3HR (right): TS2DS3VO (top): TS2DS3VU (bottom): <b>S1 SLITS</b> <input type="checkbox"/> beam plug out TS3DS2HL (left): TS3DS2HR (right): <b>S2 SLITS</b> <input type="checkbox"/> beam plug out TS4DS1HL (left): TS4DS1HR (right): TS4DS1VO (left): TS4DS1VU (right):	<b>MAGNETS</b> Field values from Hall probes: TS3MU1: TS3MU2: TS4MU1: HFMSMU1: <b>FRS-RATES</b> (counts/spill) 10 kHz : <i>28k</i> 10 kHz veto dT : <i>27k</i> SC21L: <i>360000</i> <i>360000</i> SC21R: <i>3800</i> <i>1800</i> SC41L: <i>2000</i> <i>3400</i> SC41R: <i>250000</i> <i>350000</i>	PreSPEC-Trig/red. <input type="checkbox"/> Pulser(1) /..... <input type="checkbox"/> LYCCA cal(2)/..... <input type="checkbox"/> AgataCal(3)/..... <input type="checkbox"/> HEC Cal(4)/..... <input type="checkbox"/> FRS from TB(5)/... <input type="checkbox"/> p+HEC(6)/..... <input type="checkbox"/> p+Agata(7)/..... <input type="checkbox"/> p+HEC+Lyc(8)/..... <input type="checkbox"/> p+Agata+Lyc(9)/... <input type="checkbox"/> Part-SC41(10)/..... <input type="checkbox"/> Spill-on(12)/..... <input type="checkbox"/> Spill-off(13)/..... <b>FRS-TRIGGER</b> <input type="checkbox"/> SCI21 <input type="checkbox"/> SCI41 <input type="checkbox"/> Other: <b>PreSPEC-Rates</b> (Validated/Rejected) AGATA : <i>30 60</i> FRS : <i>220 710</i> Ta-ToF-LYCCA : <i>1600</i> HECTOR : <i>350</i> <b>LYCCA / Pls. check</b> <input type="checkbox"/> Run-sheet filled <input type="checkbox"/> Run-sheet uploaded on elog <b>LN2</b> LN2 Last Filling : Tank1 Vol. (%) : Tank2 Vol. (%) :		
<b>SPILL</b> spill length: <i>1s</i> period:	<b>S2 DEGRADER</b> TS3ED7... Thickness: L (Ladder): D (Disk): VO (Wedge Oben): VU (Wedge Unten):	<b>S3 SLITS</b> TS4DS3HL (left): TS4DS3HR (right): <b>S4 SLITS</b> HFSDS3H (left): HFSDS3H (right): Pb Brick (top): Pb Brick (bottom):	<b>FRS setting No.</b> 	<b>PRIMARY BEAM</b> Element: <i>86Kr<sup>33+</sup></i> SIS energy [MeV/u] <i>700 MeV/u</i> Intensity-SEETRAM <i>4 · 10<sup>8</sup></i>	<b>S4 DEGRADER</b> HFSED3... Thickness: O (Wedge Oben): U (Wedge Unten):	<b>PROD. TARGET</b> TS1ET5HS, TS1ET5VS: number: <i>#35</i> element: <i>Be</i> thickness: <i>2.5</i>

- for 3min -  
 - ~~end~~ of the run

## Check list

Name: Cesar

Time: ~~12:26~~ 12:30

### Agata

- Run number: 56
- Agava requested: 14
- Agava validated: 2
- 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: 1043
- Beam intensity:  $9.6 \times 10^8$
- Scaler sc at S4:  $4 \times 10^3$
- Scaler sc at S2:  $400 \times 10^3$
- Check in Go4 all the spectra of the list\* :
- Check in Go4 the hit pattern of the Wall
- Check in Go4 the triggers:

Comments: Beam looks very wide at FRS TPCs :  
- 80 to +20 @ S2  
- 20 to +20 @ S4

Exp No. 5430 Primary Beam: 86kV Date 27/03/2014

MBS/file location: /s2/col/arras - 1024/1024 File (first) Fe\_62\_coulter\_AR5T File (last) -1050.lmd Start Stop 1-35

Narval/file location -> File (first) File (last) 57 Start Stop

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

PURPOSE OF MEASUREMENT: (Centered Isotope) Calibration run Production run PDR Run for 62Fe (coulter experiment)

COMMENTS: Empty shift-in-charge H. Pau, N. Labovic

- 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: 10s, period: 2.5s

FRS setting No.: 5426\_29

PRIMARY BEAM: Element: 86kV, SIS energy [MeV/u]: 700, Intensity-SEETRAM: 7.5 x 10^8

PROD. TARGET: TS1ET5HS, TS1ET5VS: number: 35, element: BE, thickness: 2.5 mg/cm^2

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

S2 DEGRADER: TS3ED7... Thickness: 5 gm/cm^2, 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: 0.89335, TS3MU2: 0.83984, TS4MU1: 0.70454, HFSMU1: 0.70395

FRS-RATES (counts/spill): 10 kHz: 24.9 kHz, 10 kHz veto dT: 24.4 kHz, SC21L: 270.8 kHz, SC21R: 258.8 kHz, SC41L: 4.7 kHz, SC41R: 4.6 kHz

TA1: Element: Au, Thickness: 2 gm/cm^2, Position: Central

- 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: (46/400), FRS:

Ta-ToF-LYCCA: 4.1 kHz, HECTOR: (OR) 11.8 kHz

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

LN2: LN2 Last Filling: 1.56 a.m., Tank1 Vol. (%): 94, Tank2 Vol. (%): 86

## Check list

Name: P. Lalovic

Time: 02:26

### Agata

- Run number: 57
- Agava requested: 604
- Agava validated: 472
- 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: 1051 8
- Beam intensity:  $7.5 \times 10^8$
- Scaler sc at S4:  $\sim 2.06 \times 10^4$  ①
- Scaler sc at S2:  $\sim 9 \times 10^5$  ①
- 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, 8, 9, 10

### Comments:

① Rates read out using Go4 ; FRS  $\left\{ \begin{array}{l} S4 \sim 4.5 \text{ kHz} \\ S2 \sim 270 \text{ kHz} \end{array} \right.$   
FRS run-sheet

Exp No. 5930 Primary Beam: 86kV Date 21/03/2014 (3:48)

MBS/file location same as before File (first) Fe-62-Coulex-AR5T- Start 1:35  
File (last) 1053. Lrrd Stop

Narval/file location // File (first) 57 Start  
File (last) Stop

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

PURPOSE OF MEASUREMENT: (Centered Isotope)  Calibration run  Production run  
PPR run for 62Fe (Coulex)

COMMENTS: shift-in-charge M.L. COOKS, H. Pai, N. Lalovic

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: 10S  
period: 2.5S

FRS setting No.  
8245426-29

PRIMARY BEAM  
Element: 86kV  
SIS energy [MeV/u]: 700  
Intensity-SEETRAM: 7x10<sup>8</sup>

PROD. TARGET  
TS1ET5HS,  
TS1ET5VS:  
number: 35  
element: Be  
thickness: 2.5 mg/cm<sup>2</sup>

S1 DEGRADER  
TS3ED2...  
Thickness: 2 gm/cm<sup>2</sup>  
Wedge used:  
O2 (Wedge Oben):  
V1 (Wedge Unten):

S2 DEGRADER  
TS3ED7...  
Thickness: 5 gm/cm<sup>2</sup>  
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): 0  
TS3DS2HR (right): 10

S2 SLITS  
 beam plug out  
TS4DS1HL (left): -40  
TS4DS1HR (right): 20  
TS4DS1VO (left):  
TS4DS1VU (right):

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

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

MAGNETS  
Field values from Hall probes:  
TS3MU1: 0.89345  
TS3MU2: 0.84014  
TS4MU1: 0.70454  
HFMSU1: 0.70395

FRS-RATES (counts/spill)  
10 kHz: 25.0 kHz  
10 kHz veto dT: 24.8 kHz  
SC21L: 65.7 kHz  
SC21R: 63.4 kHz  
SC41L: 3.5 kHz  
SC41R: 3.8 kHz

TA1  
Element: Au  
Thickness: 2 gm/cm<sup>2</sup>  
Position: central

PreSPEC-Trig/red.  
 Pulsar(1)/.....  
 LYCCA cal(2)/.....  
 AgataCal(3)/.8.  
 HEC Cal(4)/.....  
 FRS from TB(5)/...  
 p+HEC(6)/.....  
 p+Agata(7)/.....  
 p+HEC+Lyc(8)/...0  
 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: 216/204  
FRS:  
Ta-ToF-LYCCA: 2.9 kHz  
HECTOR: (COR) 11.3 kHz

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

LN2  
LN2 Last Filling: 1.50  
Tank1 Vol. (%): 93  
Tank2 Vol. (%): 85

## Check list

Name:

N. Lalovic

Time:

04:07

### Agata

- Run number: 57
- Agava requested: 292
- Agava validated: 216
- 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: 1053
- Beam intensity:  $7 \times 10^3$
- Scaler sc at S4:  $\sim 4.5 \times 10^3$
- Scaler sc at S2:  $\sim 7 \times 10^4$
- Check in Go4 all the spectra of the list\* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 3, 8, 9, 10 ✓

Comments:



Exp No. 5430 Primary Beam: 86Kr Date 27/03/2014 (pdt 5-35)

MBS/file location File (first) File (last) -1055.2.mrd Start Stop 1-35

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

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

PURPOSE OF MEASUREMENT: (Centered Isotope) Calibration run Production run PDR Run of 62Fe (complex)

COMMENTS: shift-in-charge M.L. Cortes, H. Pavi, N. Lalovic

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: 2.5 S

FRS setting No. 5426-29

PRIMARY BEAM Element: 86Kr SIS energy [MeV/u]: 780 Intensity-SEETRAM 8.7x10^8

PROD. TARGET TS1ET5HS, TS1ET5VS: number: 35 element: Be thickness: 2.5 mg/cm^2

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

S2 DEGRADER TS3ED7... Thickness: 5.8/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): 0 TS3DS2HR (right): 10

S2 SLITS beam plug out TS4DS1HL (left): -40 TS4DS1HR (right): 20 TS4DS1VO (left): TS4DS1VU (right):

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

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

MAGNETS Field values from Hall probes: TS3MU1: 0.89335 TS3MU2: 0.84014 TS4MU1: 0.70454 HFSMU1: 0.70395

FRS-RATES (counts/spill) 10 kHz: 28.0 kHz 10 kHz veto dT: 27.9 kHz

SC21L: 64 kHz SC21R: 62.1 kHz SC41L: 3.8 kHz SC41R: 3.6 kHz

TA1 Element: Au Thickness: 2 gm/cm^2 Position: central

PreSPEC-Trig/red. Pulser(1)/..... LYCCA cal(2)/..... AgataCal(3)/...8 HEC Cal(4)/..... FRS from TB(5)/... p+HEC(6)/..... p+Agata(7)/..... p+HEC+Lyc(8)/...D 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: 270/250

FRS: Ta-ToF-LYCCA: 2.9 kHz

HECTOR: 11.4 kHz

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

LN2 LN2 Last Filling: 1.50

Tank1 Vol. (%): 93

Tank2 Vol. (%): 85.85

## Check list

Name: N. Lalowé

Time: 05:30

### Agata

- Run number: 57
- Agava requested: 298
- Agava validated: 240
- 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: 1055
- Beam intensity:
- Scaler sc at S4:  $\sim 4.7 \times 10^3$
- Scaler sc at S2:  $8 \times 10^4$
- Check in Go4 all the spectra of the list\* :
- Check in Go4 the hit pattern of the Wall ✓
- Check in Go4 the triggers: 3, 8, 9, 10

Comments: