

v.16.17.20
08/28/23

Menu → Experimental Settings → Optics → Adjust Slits on Fragment of Interest

- For each step of adjusting slits, LISE inserts Faraday cup after current block
- It's a non-modal window, so it is possible to plot distribution, calculate total rate and so on
- The Dialog checks if the configuration has been changed outside this dialog

Adjust Slits on on distribution of Fragment of Interest

Using distribution characteristics of Fragment of Interest (Fol)

Slits plane

Horizontal

Vertical

Both

Centering slits on

Maximum

Mean

Median

Slits size

+/- 1 sigma

+/- 2 sigma

+/- 3 sigma

+/- 4 sigma

Fragment of Interest

54 Ni 28+.. 28+

after selected block

<X>, X_{max}, σ(X)

-12.0, -1.1, 27.4

<Y>, Y_{max}, σ(Y)

-0.0, -0.0, 0.4

Rate after block = 7.98e+02 pps

Select block to adjust

One selected block PS_Mom_slits

All downstream blocks starting from selected block

All blocks

Selected Block

	Slits	Aperture
X	-30 : 30	-128 : 128
Y	-100 : 100	-100 : 100

Adjust selected slits

Restore previous adjustment

Make default

Exit

Adjust slits on on distribution of Fragment of Interest

Using distribution characteristics of Fragment of Interest (FOI)

Fragment of Interest: $^{27}\text{Na}^{11+}, 11+$

after selected block
 $\langle X \rangle, X_{\text{max}}, \sigma(X)$
 1.7, 1.7, 7.1
 $\langle Y \rangle, Y_{\text{max}}, \sigma(Y)$
 0.0, 0.0, 0.4
 Rate after block = 7.57e+02 pps

Splits plane: Horizontal, Vertical, Both

Centering slits on: Maximum, Mean, Median

Splits size: +/- 1 sigma, +/- 2 sigma, +/- 3 sigma, +/- 4 sigma

Select block to adjust: One selected block (PS_FP_slit), All downstream blocks starting from selected block, All blocks

Selected Block:

	Sits	Aperture
X	-26.8 : 30.2	-150 : 150
Y	-1.8 : 1.8	-150 : 150

Buttons: Adjust selected slits, Make default, Restore previous adjustment, Exit

Projectile $^{70}\text{Zn}^{28+}$
238 MeV/u, 10 kW

Fragment ^{54}Ni

Target: ^{12}C 3.5 mm

Stripper

rotate_PS: Angle= +90 deg

BTS01A: Bp=4.1317 Tm

Beam_Dump: 1 finger : 177.8 mm

Frag_Catchers: slits
-55 H +55

BTS01C: Bp=4.1317 Tm

PS_Mom_slits: slits
-30 H +30

PS_wdg: Al₉₄₈ Mg₄₄ M 3 mm

BTS02: Bp=3.6044 Tm

config: PSv15_k3_CB2_v367 total
option: FRIB_2023 dp/p
version: 16.17.20 MSVC 2.01%

width in +/- sigma	FOI transmission	FOI yield	Total yield	Purity
1	0.82%	1.21E+01	2.53E+01	47.84%
2	34.09%	5.05E+02	9.43E+03	5.36%
3	50.37%	7.46E+02	1.03E+05	0.73%
4	50.84%	7.53E+02	1.08E+05	0.70%