

From 04/08/25

- Secondary target products in Monte Carlo plots
- Abrasion-Fission CS plots: plotting user CSs
- Plotting Momentum Distribution Characteristics
 - 3D separator envelope plot updates
 - Stamps in 2D Beam Dump plots
 - Update of Reaction and Title lines in the Beam Dump dialog
 - Unreacted beam value in the Beam Dialog
 - Finger center is shown in setup panel
 - Printing full name in of distribution in plot statistics window
 - Fixing bugs
 - All 17.12.* modifications

Options of Fragment Production in Material (wedge)

Dimension of distributions used for fragment production calculations in Material or Wedge

Use fragments produced in Material (Wedge) for fragment production in the following Material or Wedge with the "Calculate fragment production" option turned on

Method to calculate kinematic of fragment produced in Material or Wedge

Rate Threshold for the parent-daughter link 1e-10 pps

ACCURATE 16 ☒ FAST 8 ☐

For High Z-beams use:
 * "fast" method,
 * increase the rate threshold,
 * turn off option using fragments production in proceedings material

Yes ☐ No ☒

"Distribution" ☐ "Gaussian" ☐ "Dispersion" (special case) ☒

set all to "Accurate" set all to "Fast" MC mode uses only "Dispersion" method

Show detail statistics of fragment production in Materials (Wedges)

☐ Show the statistics window during calculations

☐ Make default

OK Cancel Help

Calculation Rectangle of fragments produced in Material

"DAUGHTER region"

first corner=> 1H min 1 0

second corner=> 48Ca max 20 28

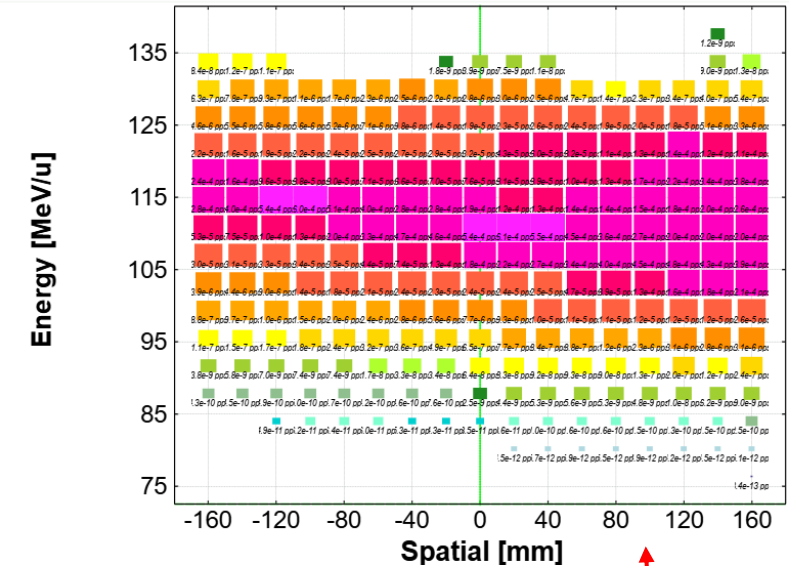
Should be used for MC

Why?

Creation of the E & X correlation matrix used in MC

E & X matrix after Fragment Production Material

Fragment: ^{32}Ne ; Intensity: 0.0185; Number of parents: 28; Secondary target #1: I2_wedge
 ^{48}Ca (140 MeV/u) + Be (3 mm); Settings on ^{42}Si 14+; Config: D/DLDD_{min}
 dp/p=5.07%; Wedge(s): Al (1.9 mm); Bp (Tm): 4.8826, 4.8826, 4.6089, 4.6089



Rate comparison for models of fragment production in materials(secondary targets)

For settings are shown in the next slide
 $^{48}\text{Ca} + \text{Be} \rightarrow ^{42}\text{Si}$

Reactions in Wedge		
model	Total, pps	only Reactions in Wedge
-	4.06E+02	
distrib	4.19E+02	1.36E+01
gauss	4.20E+02	1.38E+01
dispersion	4.23E+02	1.73E+01

Options of Fragment Production in Material (wedge)

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☐ Show the statistics window during calculations

☐ Make default

OK Cancel Help

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"DAUGHTER region"

first corner=> 1H min 1 0

second corner=> 48Ca max 20 28

Statistics of Fragment Production in Material (Wedge)

Secondary target #1: I2_wedge

Number of parents 94

Number of daughters 247

Number of links 9796

Total intensity of parent nuclei before the secondary target 1.94e+07 pps

Total intensity of parent nuclei (with links) before the ST 1.94e+07 pps

Total intensity of daughter nuclei after the secondary target 2.38e+04 pps

Generate All-links table Quit

Partial analysis

☐ Parent (outcoming)

☒ Daughter (incoming)

Choose fragment

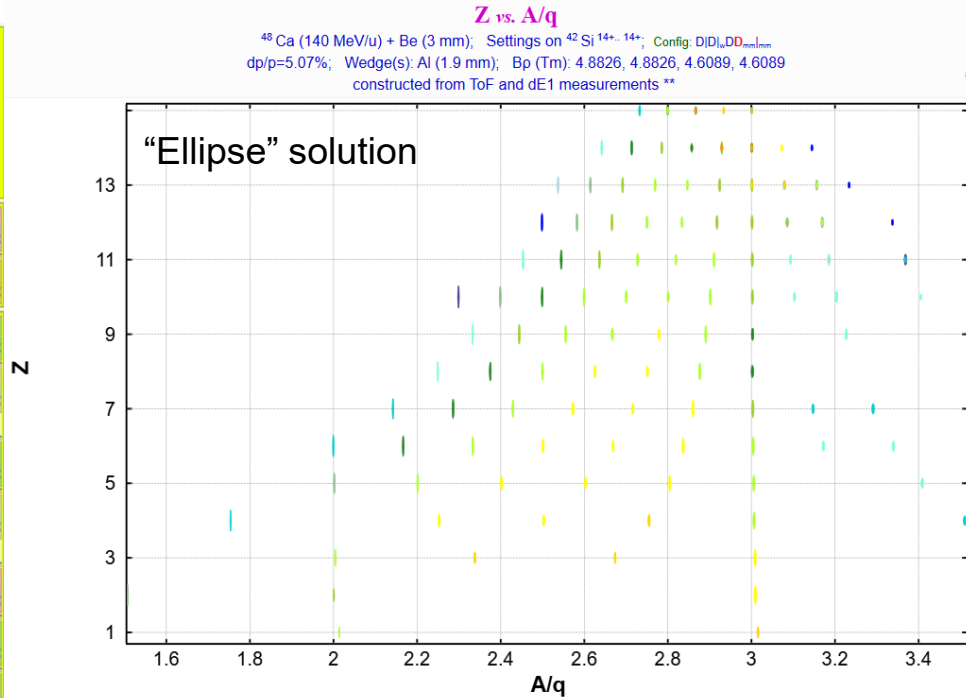
^{32}Ne

Number of parents: 28

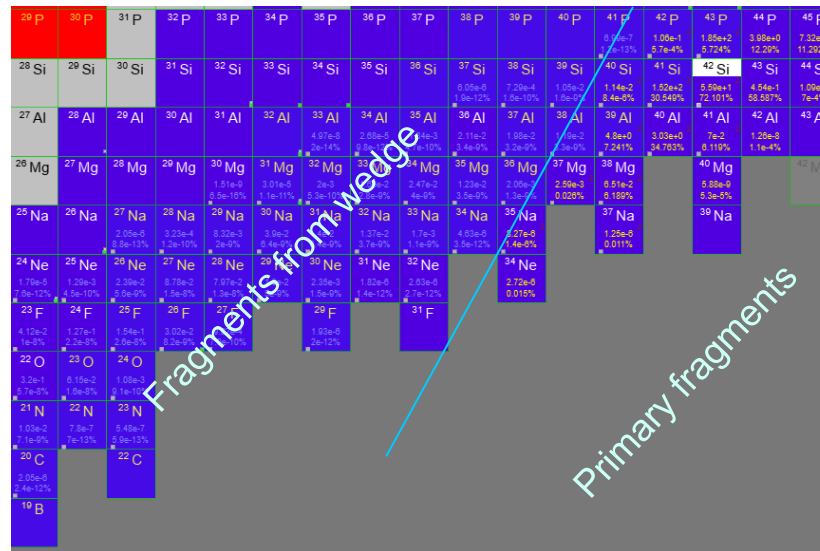
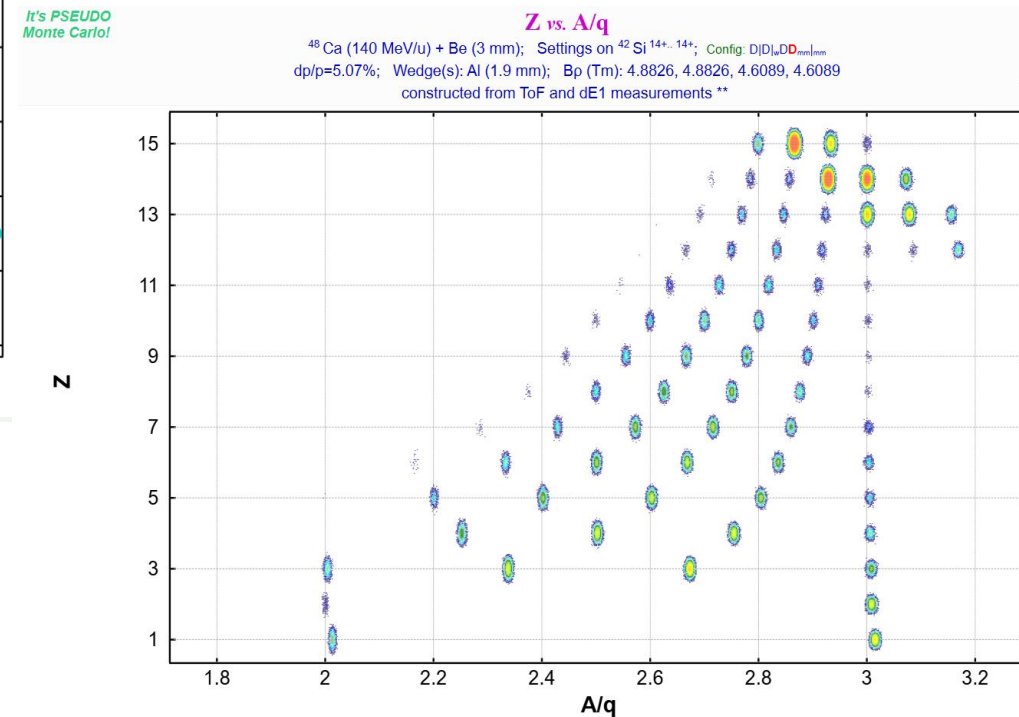
Show links

E&X matrix

Projectile	48 Ca 20+
140 MeV/u	1 kW
Fragment	42 Si 14+.. 14+
Target	⁹ Be 3 mm
Stripper	
D1	Bp=4.8826 Tm
I1_slits	slits
-100 H +100	
D2	Bp=4.8826 Tm
I2_slits	slits
-150 H +150	
I2_wedge	Al 1.9 mm
D3	Bp=4.6089 Tm
D4	Bp=4.6089 Tm
FP_PPAC0	Al 2 mg/cm ²
FP_PPAC1	Al 2 mg/cm ²
FP_slits	slits
-25 H +25 -25 V +25	
FP_PIN	Si 504 μm
FP_SCI	C ₉ H ₁₀ 100 mm



Pseudo Monte Carlo
based on “Distribution” solution



What isotope transmission to calculate?

☐ One ION of interest. Chose manually here

☐ One FRAGMENT of interest.
All produced charge states are kept

☒ Group of isotopes already
calculated by the
Distribution method (Ncalc = 121)

☐ List of isotopes from
file to produce inside
target -- no file --

☐ Input ions rays
from file emitted
from target -- no file --

2-D ☐ 2-D & 3-D ☒ ?

A Element Z

42 Si 14

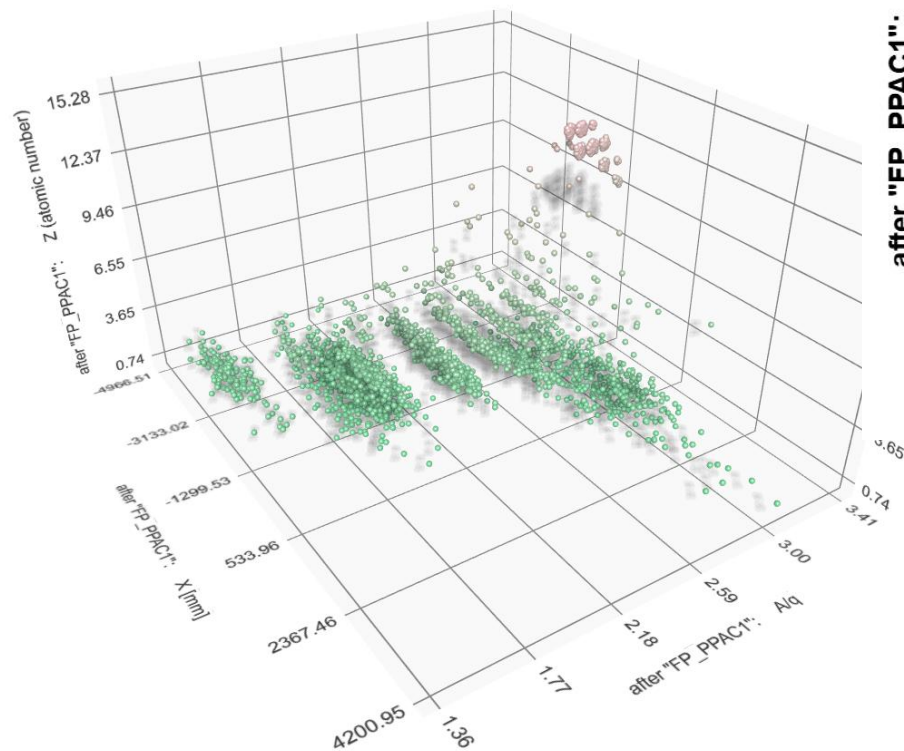
β^- decay

Charge states

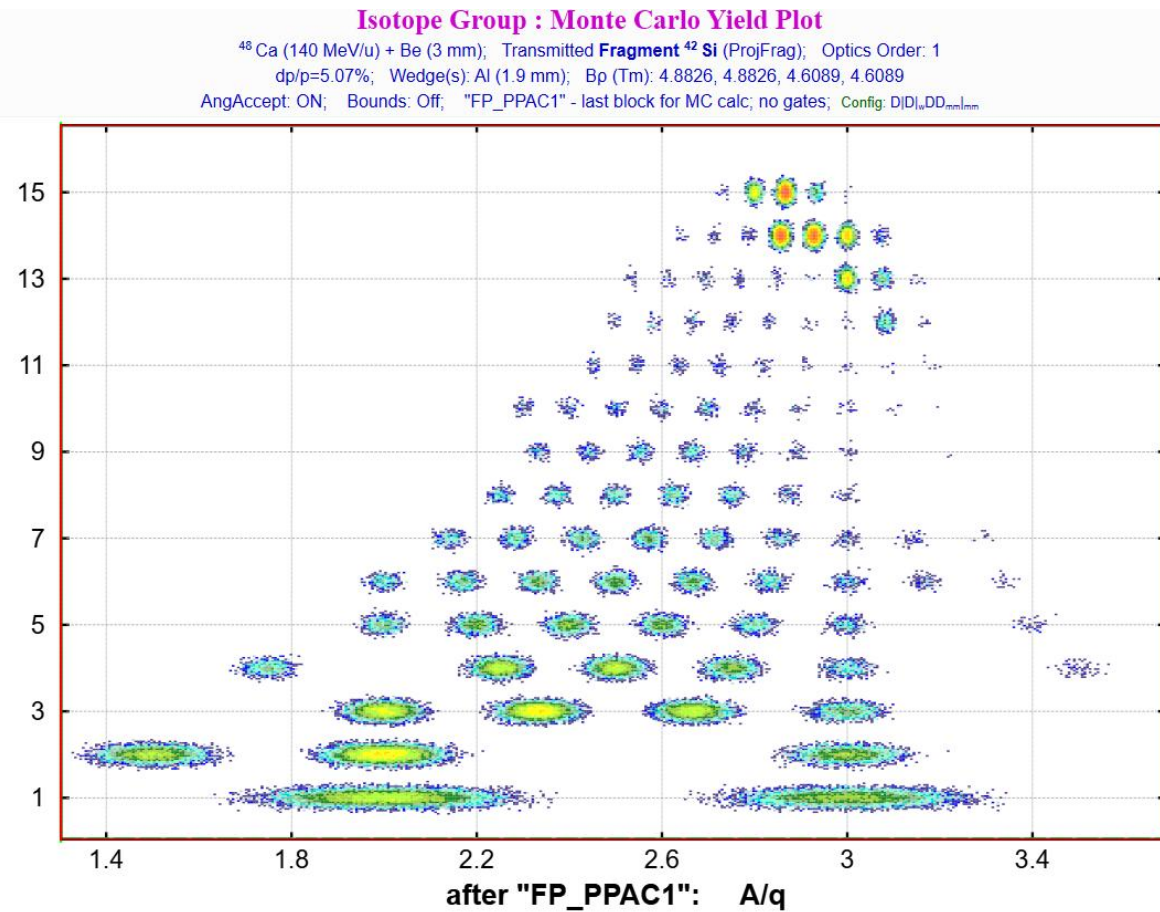
14+ D1

Reaction mechanism

Projectile Fragmentation



after "FP_PPAC1": Z (atomic number)



Monte Carlo: plotting only Secondary target products

What isotope transmission to calculate?

☒ One ION of interest. Chose manually here

☐ One FRAGMENT of interest.
All produced charge states are kept

☐ Group of isotopes already
calculated by the
Distribution method (Ncalc = 121)

☐ List of isotopes from
file to produce inside
target

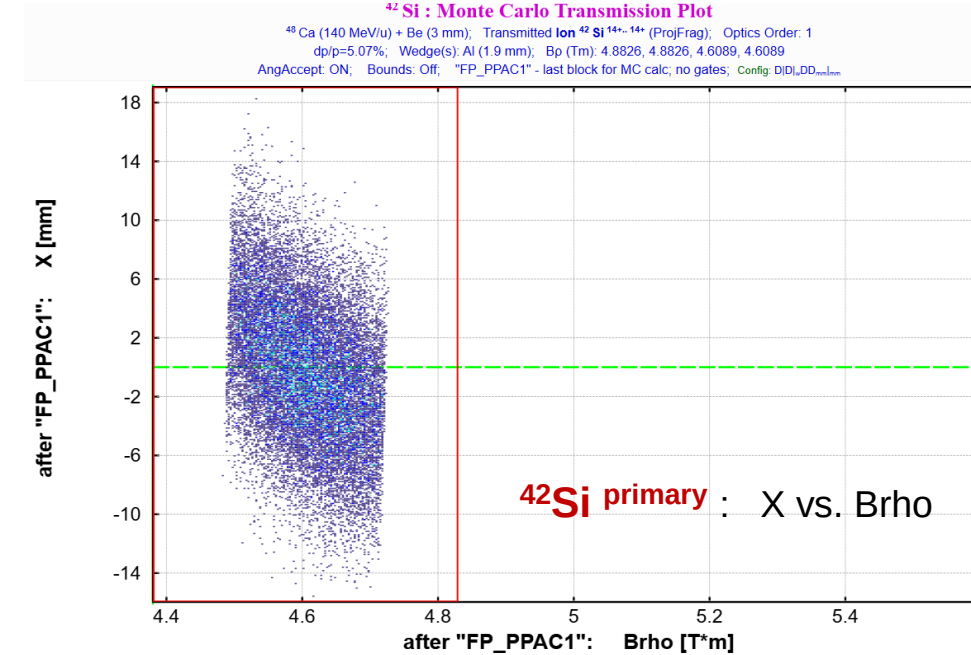
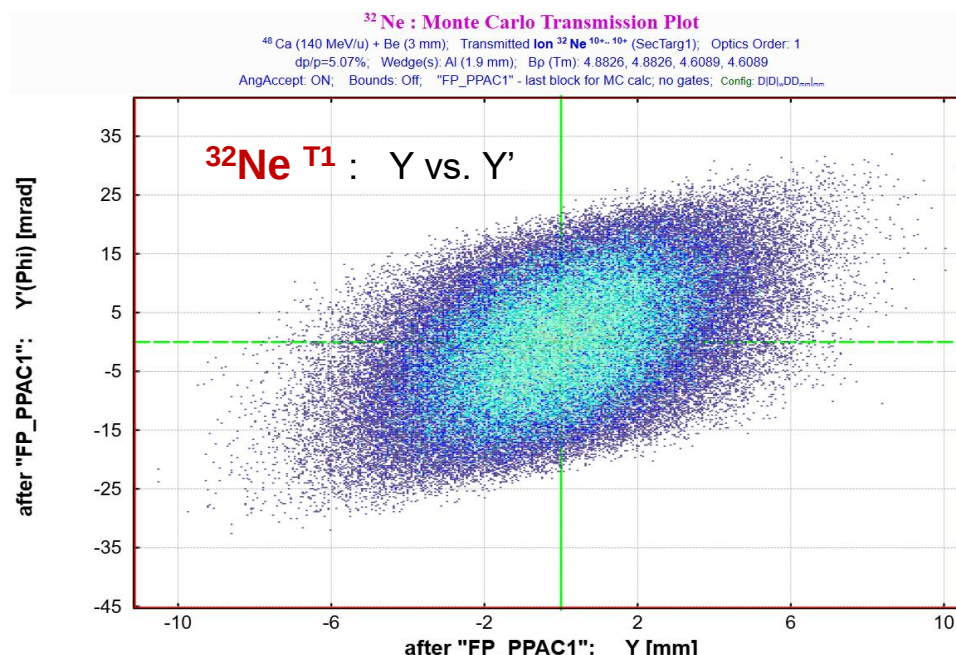
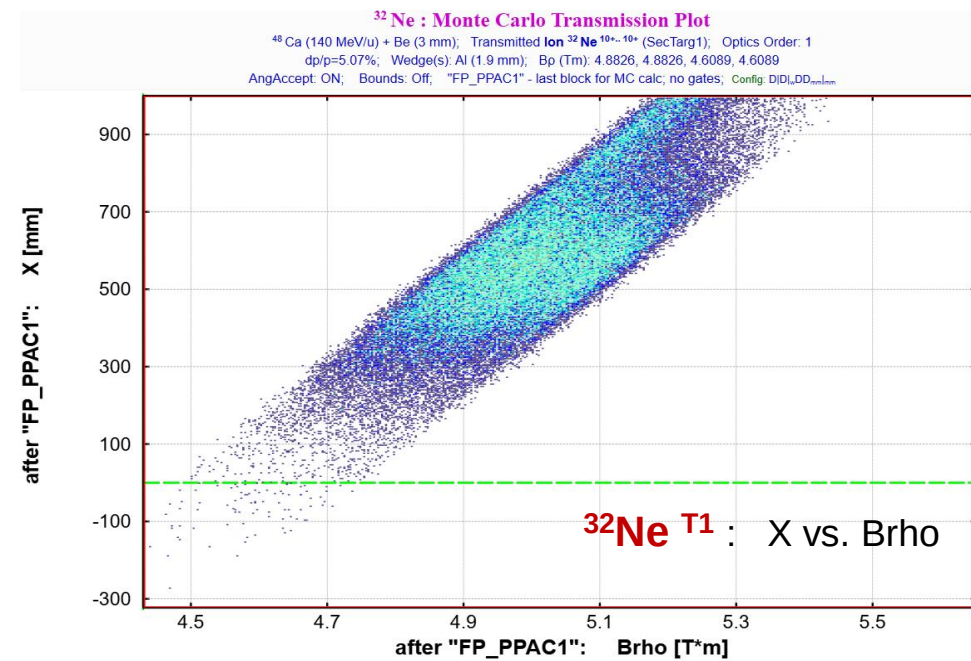
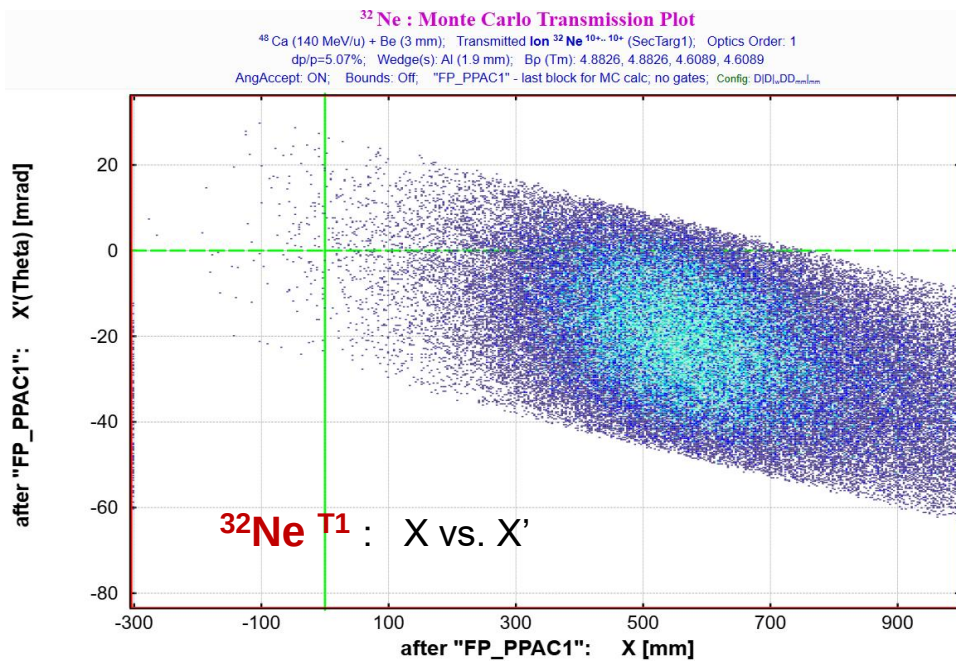
☐ Input ions rays
from file emitted
from target

2-D ☒ ☐ 2-D & 3-D

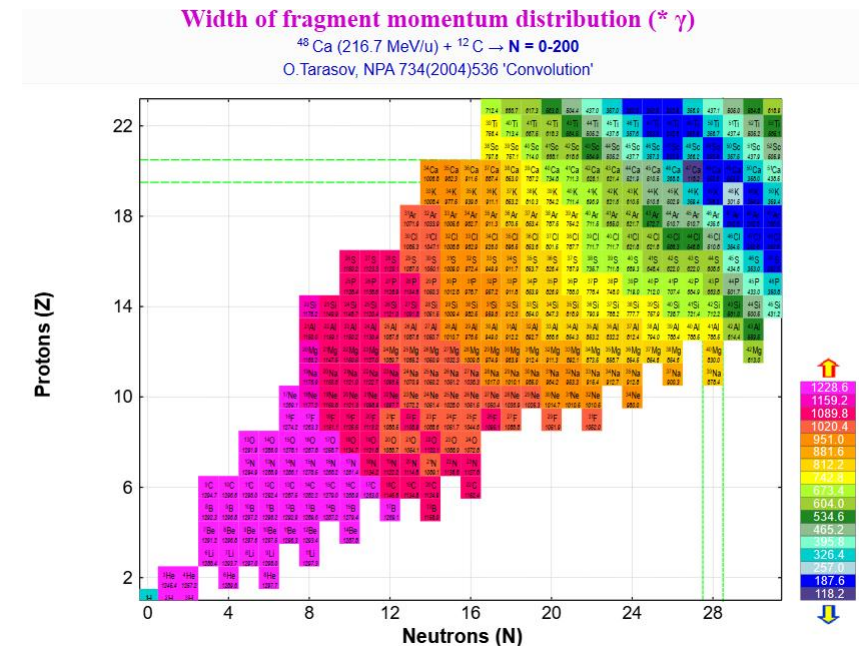
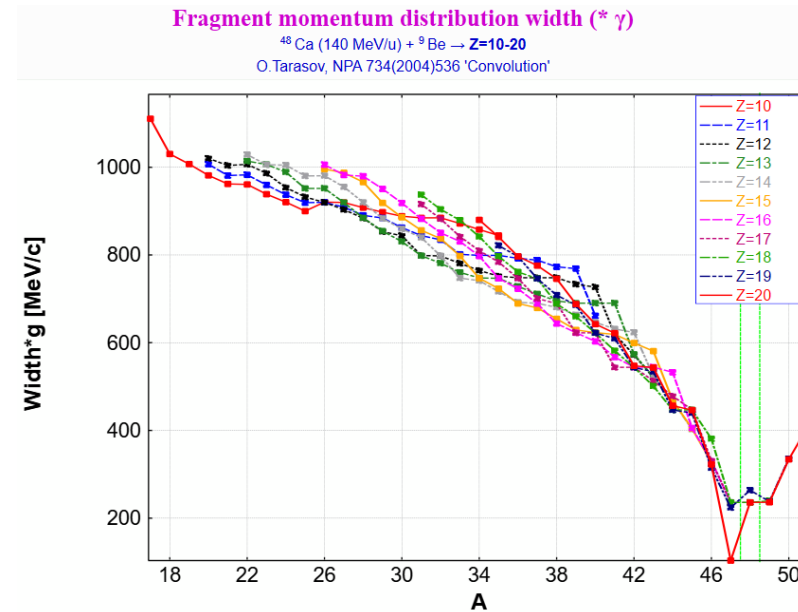
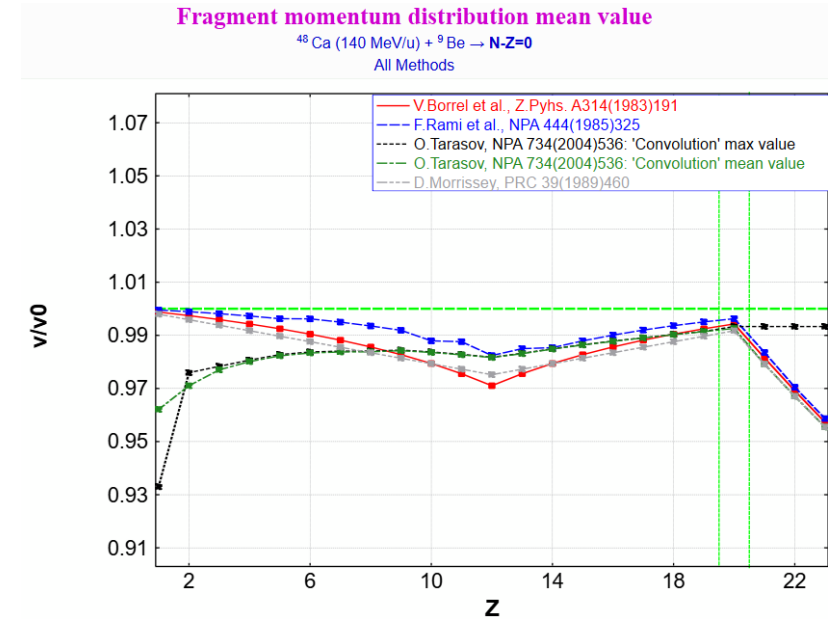
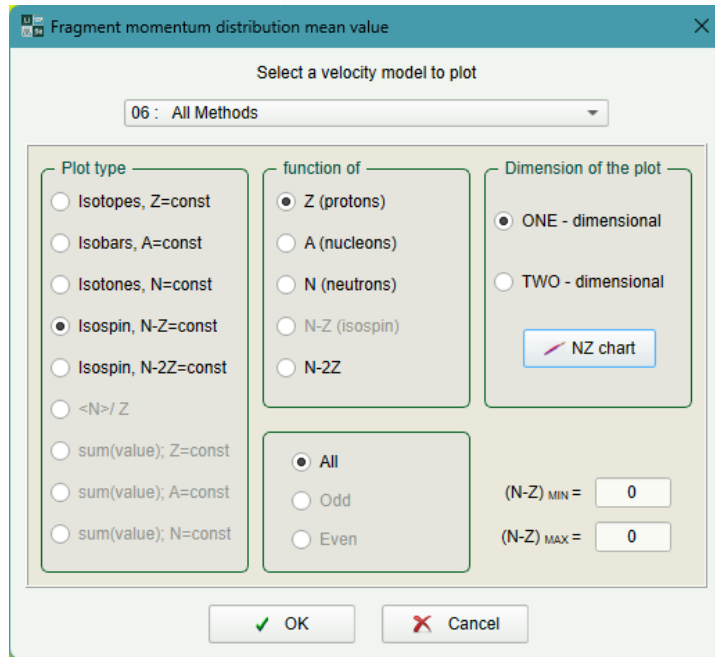
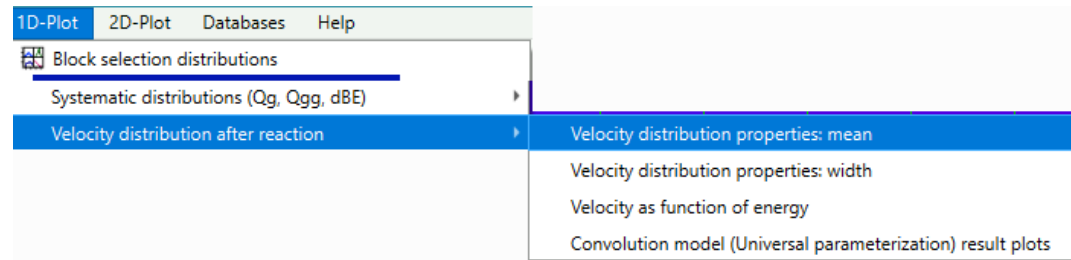
A	Element	Z
32	Ne	10

Charge states
10+ D1

Reaction mechanism
Secondary Target ~1



Plotting Momentum Distribution Characteristics



Abrasion-Fission CS plots: plotting user CSs

Abrasion-Fission cross section plot

Show for the excitation energy region(s) —

☐ Low $^{238}\text{U}^*$ $E_x = 24\text{ MeV}$ $\text{CS} = 285\text{ mb}$

☐ Middle $^{232}\text{Th}^*$ $E_x = 105\text{ MeV}$ $\text{CS} = 554\text{ mb}$

☐ High $^{224}\text{Fr}^*$ $E_x = 251\text{ MeV}$ $\text{CS} = 409\text{ mb}$

☒ Weighted Average (Low + Middle + High)

☐ All listed above (Low, Middle, High, AverageWeighted)

☒ Plot user cross sections (if available)

Cross section are : ☒ Final (after deexcitation) ☐ Initial (before light particle emission)

Plot type —

☒ Isotopes, $Z=\text{const}$

☐ Isobars, $A=\text{const}$

☐ Isotones, $N=\text{const}$

☐ Isospin, $N-Z=\text{const}$

☐ Isospin, $N-2Z=\text{const}$

☐ $\langle N \rangle / Z$

☐ sum(CS); $Z=\text{const}$

☐ sum(CS); $A=\text{const}$

☐ sum(CS); $N=\text{const}$

function of —

☐ Z (protons)

☒ A (nucleons)

☐ N (neutrons)

☐ N-Z (isospin)

☐ N-2Z

Dimension of the plot

☒ ONE - dimensional

☐ TWO - dimensional

☒ NZ chart

☒ All

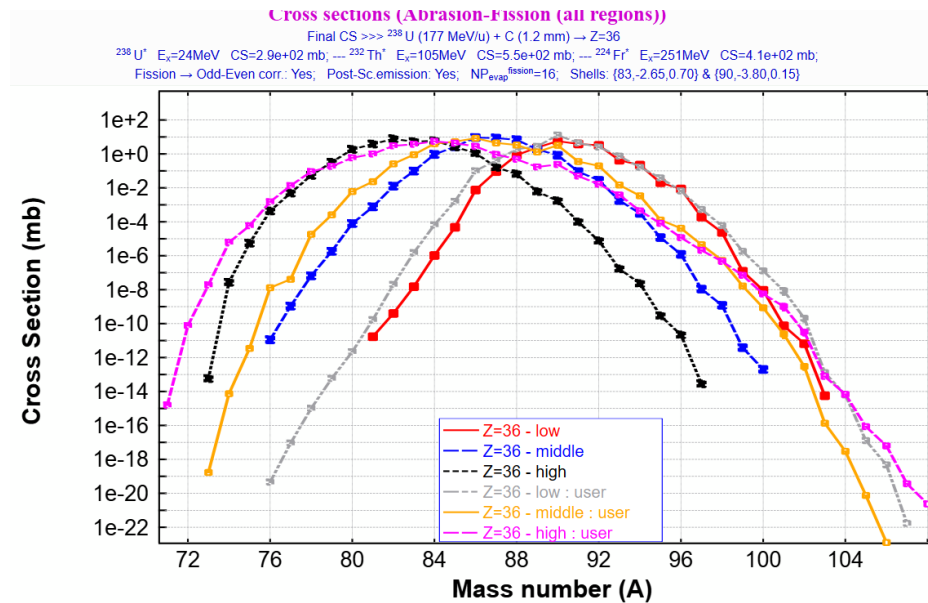
☐ Odd

☐ Even

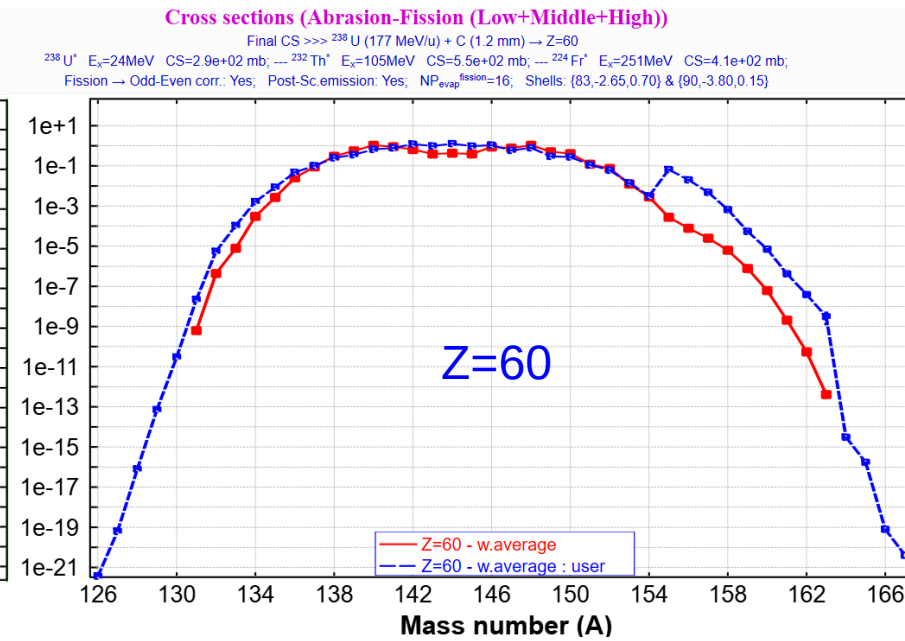
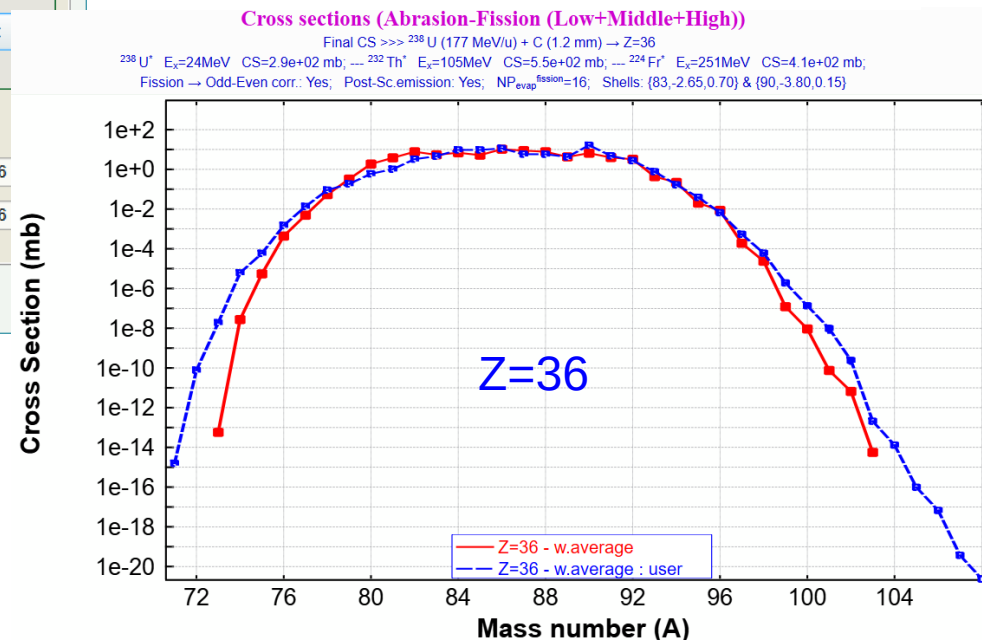
$Z_{\text{MIN}} = 36$

$Z_{\text{MAX}} = 36$

☒ OK ☐ Cancel



- RIKEN (BigRIPS) CS table has been used
- LISE 3EER settings are given on the next slide



3EER model settings for the previous slide calculations

Mass:
WS4_RBF

Choose FISSIONING nucleus	238U	232Th	224Fr
Z, N, N/Z	92,146 1.587	90,142 1.578	87,137 1.575
Excitation energy (MeV)	24	104.8	251
Cross section (mb)	285.2	553.6	409
Restore previous settings		Cross sections sum (mb) 1247.8	

Evaporation calculation settings

Evaporation options
Dimension of evaporation distributions [64] 32
Version of Cross-Section evaporation file brief

Correction dR for the deduced effective Coulomb barrier in the TUNNELLING mode [fm] -

Fission Barrier
Model = "FisRot" - RLDM(Cohen)
BarFac = 1

Decay modes
1n 2n 1p 2p α d t ³He Fission Breakup γ
☒ ☐ ☒ ☐ ☒ ☐ ☐ ☒ ☒ ☐

protected mode ☒ debugging mode

Mode
☐ manual ☒ auto

For "daughter" nucleus excitation energy distribution apply:
☐ energy distribution of emitted light particle (qualitatively)
☒ average energy of emitted light particle (fast) [recommended for high Z]

State density
☐ [A] - Equidistant model
☐ [B] - as [A] + pairing corrections
☒ [C] - as [B] + shell corrections

Dissipative effects in fission
☐ use Krammers's factor
☒ use Gamma_f(t) as a step function
Reduced dissipation coefficient "β" (10⁻¹) / s β = 1

Break-up parameters
The limiting temperature calculated from the curve based on three points for masses 50,150,250
T (A=050)= 8 8.0
T (A=150)= 4.5 5.9
T (A=250)= 3.5 4.7
Default values from Z.Li & M.Liu, PRC60, 034615 (2004), Fig.6
Diffuseness= 0.05 0.05

Evaporation = 12 12
Fission = 14 14

Use Ablation in Abrasion-Ablation calculations (for plots) ☒
Avoid residual cross section for nuclei with T1/2 < 1ns ☒

State density & T plots Probability & Width plots

Make default OK Cancel Help

Fission properties

Cross sections
☒ Use Odd-Even corrections for fragments
☒ Include post-scission (n,p,α) evaporation

Parameters for shell structures**
Shell position N_{sh,i} Strength dU_i (MeV) Curvature 2C_{sh,i} (MeV)
1 83 -2.65 0.7
2 90 -3.8 0.15

Potential energy plot
Put original values **1*
Put "2005" values **2*

1 J.Benlliure et al., NPA628(1998)458
2 see LISE++ v.7.5 documentation

Cross section suppression values

Fragment excitation (TXE) depends on
☐ #0 Dissipated energy [NPA 628(1998)458]
TXE = E* - Bf + Edis
☒ #1 Reaction Q-value [EPHysJA14(2002)459]
TXE = (a1 + a2) (f Q)² + E*
f = 0.0035 default 0.0035

Fragment excitation energy distribution width
St.Dev = 5.5 MeV default 5.5

Angular distribution cut by momentum splits
☐ Do not use
☐ Use just for "MatrixKinematics" class
☒ Use for all Angular Distributions (default)

Angular distribution shape
Isotopic ☒ Anisotropic

NP-evap : fission case
Dimension of evaporation distributions for de-excitation of fission fragments
☐ 8 (default)
☒ 16
☐ 24
☐ 32

Settings of Quadrupole deformation (beta) at the scission point
☐ Manual B.D.Wilkins et al., PRC14 (1976) 1832
☒ Fit (Pr.v.1) tip distance: d (TKE) = 2 default 2 fm

Beta values
Fragments:
1. light = 0.625 default 0.625
2. heavy = 0.625
These values are used for Wilkins's TKE plot, and in the "manual" mode in LISE++ fission kinematics calculations with TXE #0 mode

Make default OK Cancel Help

Excitation energy

3. Parametrized Gaussian distribution

☒ 4. Exponential <T> excitation-energy distribution

☐ 5. Log-normal distribution

☒ Use LISE++ corrections for Geometric A-A model
☐ [beta] Use one-nucleon pickup contribution (charge exchange)

Apply the limiting temperature threshold: T=min(T,Tlim)
☐ "Isospin-thermometer model", corresponds to Fig.9 K.-H.Schmidt et al., NPA 710 (2002) 157
☐ Apply thermalization for Excitat.energy according to J.-J.Gaimard, K.-H.Schmidt, NPA531 (1991) 709; Equation 3.4

3. Parametrized Gaussian distribution -- simplified combina

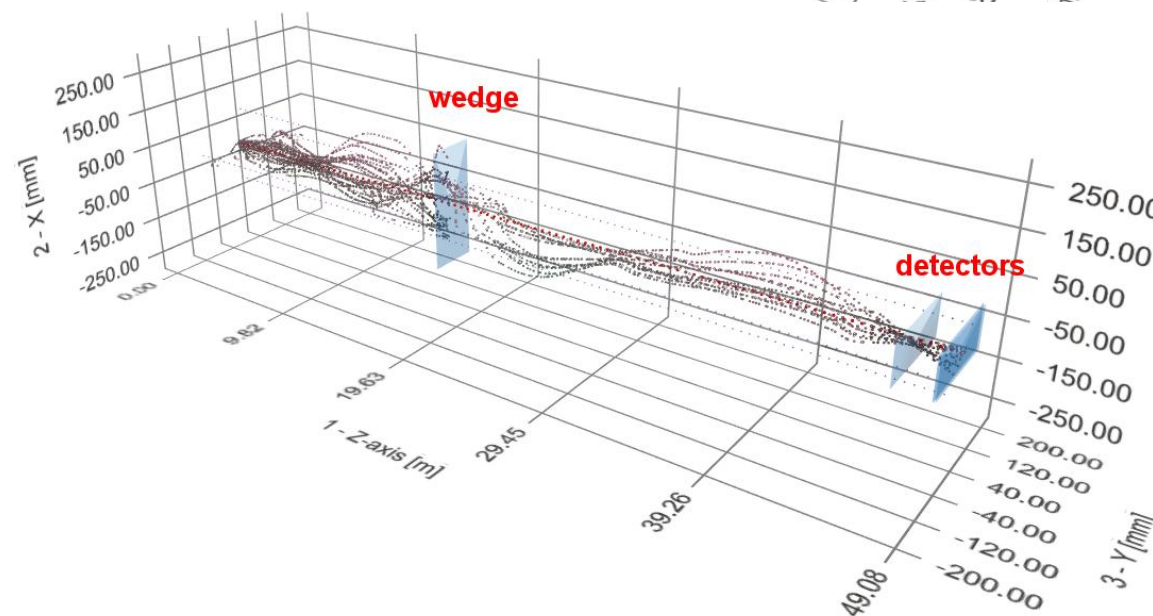
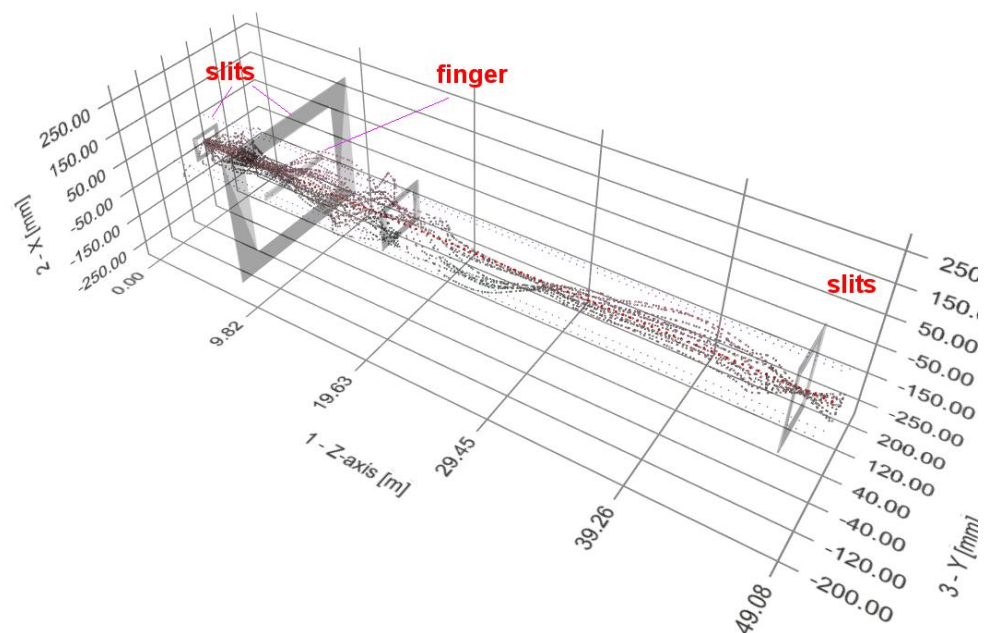
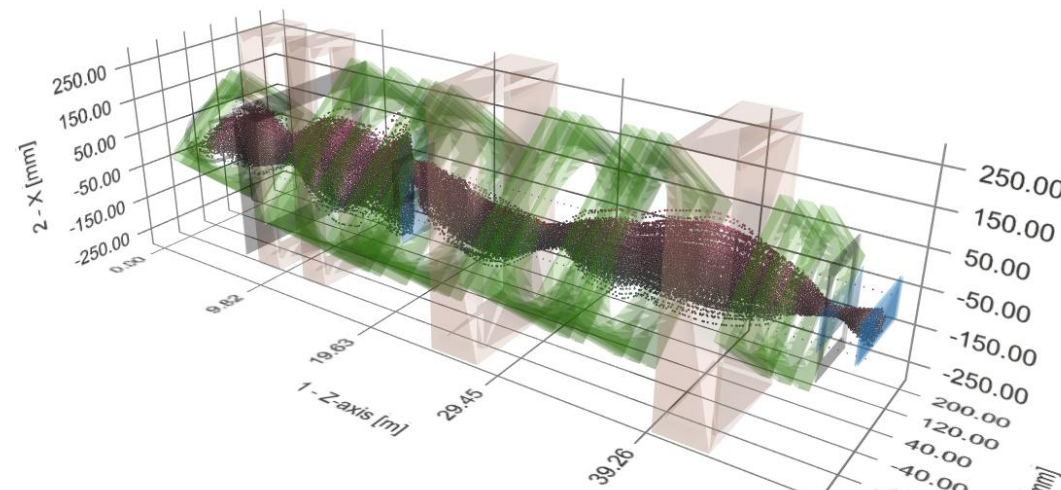
<E*>		σ(E*)	
0	*d _{abr} ² +	0	*d _{abr} +
20	*d _{abr} +	14	*d _{abr} ^{1/2} +
0	[MeV]	0	[MeV]

4. Exponential excitation-energy distribution -- L.Audirac et

<T> - Mean Distribution Value (MeV)				
base	+	k ₁ *d _{Nabr}	+	k ₂ *d _{Zabr}
20		0		0

Sasha's contribution is appreciated

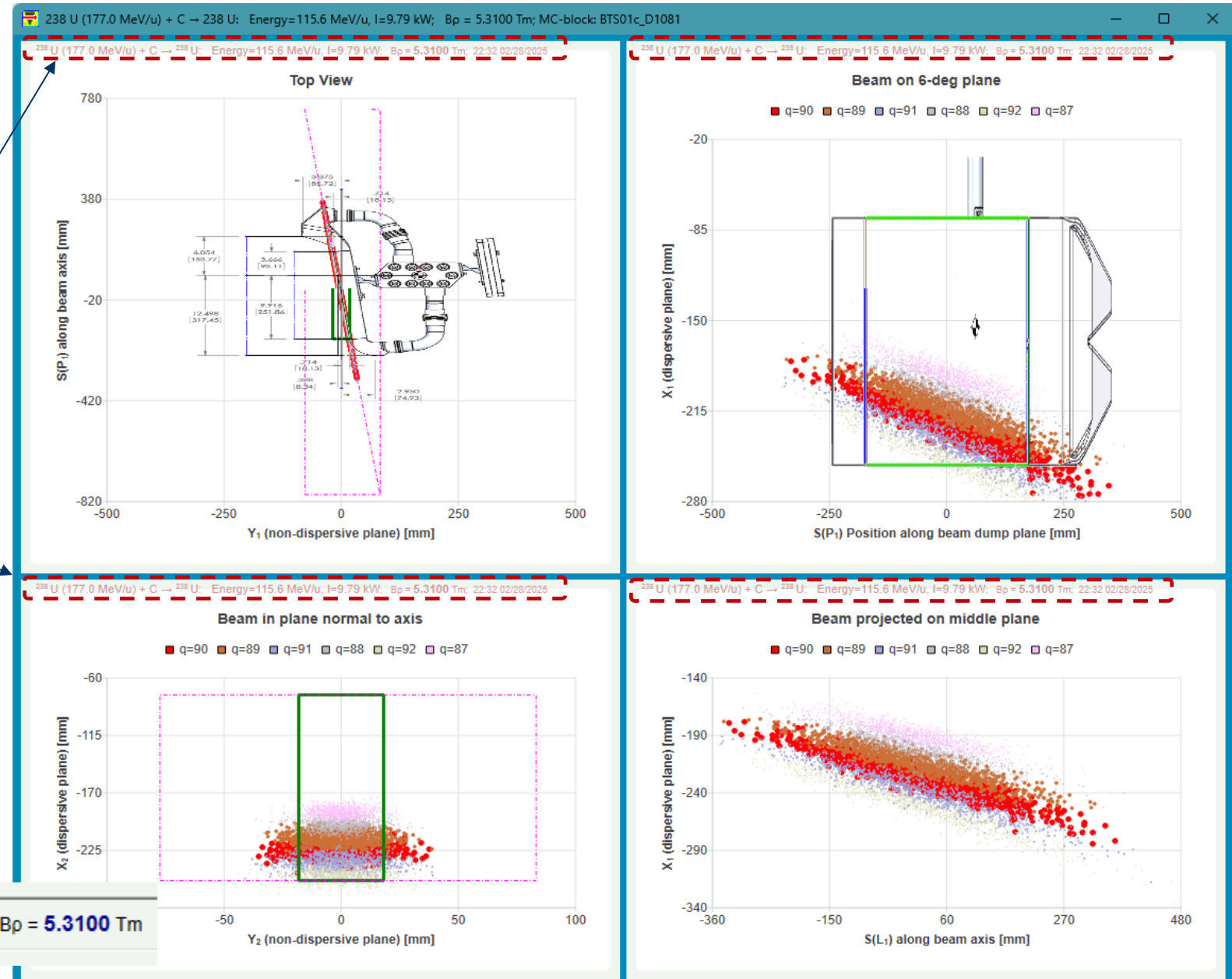
- 17.12.2 02/21/25 3D-graph plot pan
- 17.12.7 02/28/25 New ARIS 3D blocks
- 17.12.8 03/16/25 3D Axis rotation
- 17.12.9 03/16/25 ARIS 3D blocks resize
- 17.12.14 03/31/25 3D update rotation gadgets - synchronize with mouse rotation
- 17.12.17 04/01/25 Modification of 3D Sasha's block for correlation slider & manual rotation
- 17.12.23 04/02/25 Camera Rotation calculation in Q3D



Beam Dump Dialog update

Stamps in 2D Beam Dump plots

Update of Reaction and Title lines in the Beam Dump dialog



$^{238}\text{U} (177.0 \text{ MeV/u}) + \text{C} \rightarrow ^{238}\text{U}$; Energy=115.6 MeV/u, I=9.79 kW; Bp = 5.3100 Tm

A

238

Element

U

Z

92

q

92

Table of Nuclides

Z

92

N

148

Stable

Beam energy

Energy

177

MeV/u

TKE

42126.201

MeV

Brho

5.18526

Tm

P

143.0143

GeV/c

U

4.58e+05

KV

Beam intensity

32759

enA

356.07463

pnA

2.22e+12

pps

15

kW

OK

Cancel

Emittance [#1]

Beam CARD (sigma, semi-axis, half-width...)

1D - shape (Distribution method)

2D mode

2D - shape (Monte Carlo method)

Correlated with

1. X	mm	0.3	Gaussian	☐	
2. T	mrاد	2.34	Gaussian	☐	
3. Y	mm	0.3	Gaussian	☐	
4. P	mrاد	2.34	Gaussian	☐	
5. L	mm	42	Gaussian	☐	
6. D	%	0.07	Gaussian	☐	

Primary Beam in Target Box

Power Loss

5.2074

kW

Unreacted

93.66

%

RF and Bunch Length Settings

Frequency

40.25

MHz

Bunch length

0.261

ns

dimension

mm

cm

respect to axis

d X

0

mm

d T

0

mrاد

d Y

0

mm

d P

0

mrاد

d T

0

degree

d P

0

degree

Beam Sigma Vector [#2]

used in the "Optics Optimization" procedure

Beam power loss excludes the reacted portion and accounts only for energy loss within the target and stripper

dynamical cell length

Statistics for DB3_slt -> BrhoPlot

Save As

Print

PrintView

Consolas

9

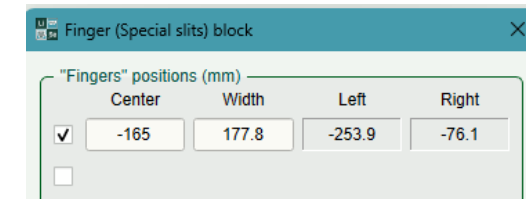
DB3_slt -> BrhoPlot
208Pb (190 MeV/u) + C (3.5 mm); Settings on 208Pb 80+.. 80+; Config: doDds|dD|wDD|obD|wDM|mwD|mDM|mm
dp/p=1.76%; Wedge(s): A1977Mg11 (0.75 mm), 0, 0; Brho (Tm): 3.5796, 3.5796, 2.5714, 2.5714, 2.5714....
Plot 1; "input"

N	distribution	x-mean	x-mode	y-max	StDeviation	FWHM	area	SumOfCounts	Pfit-xmode	P: -varnc	P: +varnc	Median	M: -varnc	M: +varnc
01	208Pb[beam]80+80+80+80+80+80+80+80+: 100.0%	+2.5553e+00	+2.5551e+00	1.497e+12	4.389e-03	1.062e-02	1.6764e+10	2.571e+13	+2.555e+00	4.209e-03	4.573e-03	+2.555e+00	4.354e-03	4.421e-03
02	208Pb[beam]81+81+82+82+82+82+82+82+: 100.0%	+2.5705e+00	+2.5705e+00	5.978e+04	3.084e-03	7.227e-03	4.6057e+02	9.516e+05	+2.570e+00	3.022e-03	3.148e-03	+2.571e+00	3.068e-03	3.098e-03
03	208Pb[beam]80+80+81+81+81+81+81+81+: 100.0%	+2.5354e+00	+2.5354e+00	5.725e+07	2.537e-03	6.030e-03	3.6630e+05	9.751e+08	+2.535e+00	2.592e-03	2.483e-03	+2.535e+00	2.545e-03	2.527e-03
04	208Pb[beam]80+80+79+79+79+79+79+79+: 100.0%	+2.5749e+00	+2.5751e+00	4.212e+09	2.856e-03	6.781e-03	3.0296e+07	7.145e+10	+2.575e+00	3.064e-03	2.650e-03	+2.575e+00	2.954e-03	2.757e-03
05	208Pb[beam]79+79+78+78+78+78+78+78+: 100.0%	+2.5414e+00	+2.5412e+00	8.281e+07	3.934e-03	9.103e-03	8.0748e+05	1.277e+09	+2.541e+00	3.809e-03	4.045e-03	+2.541e+00	3.634e-03	4.240e-03
06	208Pb[beam]79+79+77+77+77+77+77+77+: 100.0%	+2.5575e+00	+2.5574e+00	4.723e+10	4.923e-03	1.201e-02	5.9556e+08	8.148e+11	+2.557e+00	4.930e-03	4.917e-03	+2.557e+00	4.727e-03	5.123e-03
07	208Pb[beam]79+79+76+76+76+76+76+76+: 100.0%	+2.5761e+00	+2.5762e+00	2.012e+09	2.328e-03	5.569e-03	1.1861e+07	3.360e+10	+2.576e+00	2.439e-03	2.220e-03	+2.576e+00	2.359e-03	2.296e-03
08	208Pb[beam]78+78+75+75+75+75+75+75+: 100.0%	+2.5426e+00	+2.5423e+00	8.167e+04	3.978e-03	9.354e-03	8.1307e+02	1.326e+06	+2.542e+00	3.919e-03	4.035e-03	+2.542e+00	3.796e-03	4.161e-03
09	208Pb[beam]78+78+74+74+74+74+74+74+: 100.0%	+2.5563e+00	+2.5554e+00	1.148e+08	5.452e-03	1.303e-02	1.5847e+06	1.914e+09	+2.555e+00	4.784e-03	6.110e-03	+2.556e+00	5.383e-03	5.511e-03
10	208Pb[beam]78+78+73+73+73+73+73+73+: 100.0%	+2.5738e+00	+2.5737e+00	2.058e+08	2.299e-03	5.577e-03	1.2078e+06	3.431e+09	+2.574e+00	2.162e-03	2.437e-03	+2.574e+00	2.248e-03	2.348e-03
11	208Pb[beam]77+77+72+72+72+72+72+72+: 100.0%	+2.5257e+00	+2.5254e+00	6.216e-02	1.261e-03	3.042e-03	1.9885e-04	1.214e+00	+2.525e+00	1.020e-03	1.490e-03	+2.526e+00	1.171e-03	1.345e-03
12	208Pb[beam]77+77+71+71+71+71+71+71+: 100.0%	+2.5524e+00	+2.5516e+00	4.283e+02	5.781e-03	1.359e-02	6.2033e+00	7.059e+03	+2.552e+00	5.097e-03	6.453e-03	+2.552e+00	5.652e-03	5.897e-03
13	208Pb[beam]77+77+70+70+70+70+70+70+: 100.0%	+2.5661e+00	+2.5655e+00	1.546e+05	4.387e-03	1.070e-02	1.7367e+03	2.759e+06	+2.565e+00	3.897e-03	4.872e-03	+2.566e+00	4.336e-03	4.431e-03
14	208Pb[beam]76+76+67+67+67+67+67+67+: 100.0%	+2.5523e+00	+2.5522e+00	3.502e-03	3.371e-03	7.976e-03	2.9674e-05	5.720e-02	+2.552e+00	3.199e-03	3.546e-03	+2.552e+00	3.304e-03	3.436e-03
15	206Tl79+79+79+79+79+79+79+79+: 100.0%	+2.5580e+00	+2.5579e+00	1.650e+08	4.396e-03	1.061e-02	1.8470e+06	2.729e+09	+2.558e+00	4.234e-03	4.565e-03	+2.558e+00	4.295e-03	4.500e-03
16	207Tl79+79+78+78+78+78+78+78+: 100.0%	+2.5676e+00	+2.5678e+00	9.635e+07	4.555e-03	1.111e-02	1.1244e+06	1.697e+09	+2.568e+00	4.770e-03	4.346e-03	+2.568e+00	4.674e-03	4.438e-03
17	207Tl78+78+75+75+75+75+75+75+: 100.0%	+2.5678e+00	+2.5674e+00	9.401e+06	4.688e-03	1.146e-02	1.1315e+05	1.682e+08	+2.567e+00	4.307e-03	5.070e-03	+2.568e+00	4.624e-03	4.746e-03
18	206Tl78+78+76+76+76+76+76+76+: 100.0%	+2.5600e+00	+2.5599e+00	4.219e+06	4.914e-03	1.196e-02	5.3050e+04	6.985e+07	+2.560e+00	4.956e-03	4.874e-03	+2.560e+00	4.961e-03	4.869e-03
19	207Tl79+79+79+79+79+79+79+79+: 100.0%	+2.5491e+00	+2.5485e+00	3.649e+06	4.085e-03	9.668e-03	3.7511e+04	5.785e+07	+2.549e+00	3.650e-03	4.516e-03	+2.549e+00	4.026e-03	4.136e-03
20	206Tl79+79+78+78+78+78+78+78+: 100.0%	+2.5794e+00	+2.5793e+00	2.272e+05	1.852e-03	4.418e-03	1.0641e+03	3.574e+06	+2.579e+00	1.760e-03	1.946e-03	+2.579e+00	1.839e-03	1.864e-03
21	207Tl78+78+76+76+76+76+76+76+: 100.0%	+2.5518e+00	+2.5517e+00	2.077e+04	4.751e-03	1.117e-02	2.4719e+02	3.239e+05	+2.552e+00	4.697e-03	4.798e-03	+2.552e+00	4.433e-03	5.084e-03
22	207Tl77+77+72+72+72+72+72+72+: 100.0%	+2.5639e+00	+2.5635e+00	1.760e+04	5.329e-03	1.280e-02	2.3775e+02	3.072e+05	+2.563e+00	5.118e-03	5.526e-03	+2.564e+00	5.059e-03	5.592e-03

Fixing bugs, corrections:

- 17.12.1 02/20/25 lise.xlsm modified to do not use kernel functions
- 17.12.11 03/16/25 BeamDump : no gates in MC close MC_gate[i], update MC dialog if open
- 17.12.12 03/27/25 Fixed bug: zero angular distribution in material after drift in fission case
- 17.12.15 04/01/25 Fixed bug in SecReact Kineamtics
- 17.12.27 04/04/25 Modifications in d_PlotCS2_CS -- no repeating slots and signals
- 17.12.30 04/05/25 Correction in d_FissionEM_* dialogs for signals and slots isotopes

Finger center is shown in the setup panel



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|----------|----------|---|----------|----------|--|
| 17.12.1 | 02/20/25 | lise.xlsm modified to do not use kernel functions | 17.12.21 | 04/02/25 | splitting file w_Graph_CS to w_Graph_CS, w_Graph_CS_fusion, w_Graph_CS_AF, w_Graph_trans |
| 17.12.2 | 02/21/25 | 3D-graph plot pan | 17.12.22 | 04/02/25 | cleaning w_Graph_CS from AF |
| 17.12.3 | 02/25/25 | Finger center is shown in setup | 17.12.23 | 04/02/25 | Camera Rotation calcualtion in Q3D |
| 17.12.4 | 02/28/25 | Update of Reaction and Title lines in the Beam Dump dialog | 17.12.24 | 04/02/25 | Running w_Graph_CS_AF |
| 17.12.5 | 02/28/25 | Stamps in 2D Beam Dump plots | 17.12.25 | 04/04/25 | Printing full name in of distribution in plot statistics window |
| 17.12.6 | 02/28/25 | Unreacted beam value in the Beam dialog (DJM) | 17.12.26 | 04/04/25 | 1st part (Z to N-2Z) of w_Graph_CS_AF completed |
| 17.12.7 | 02/28/25 | New ARIS 3D blocks | 17.12.27 | 04/04/25 | modifications in d_PlotCS2_CS -- no repeating slots and signals |
| 17.12.8 | 03/16/25 | 3D Axis rotation | 17.12.28 | 04/04/25 | modifications in d_AbrFission_plot for RBdim |
| 17.12.9 | 03/16/25 | ARIS 3D blocks resize | 17.12.29 | 04/04/25 | 2nd part (N/Z) of w_Graph_CS_AF completed |
| 17.12.10 | 03/16/25 | new --> void TCN_MC_Dlg:noGates() | 17.12.30 | 04/05/25 | correction in d_FissionEM_* dialogs for signals and slots |
| 17.12.11 | 03/16/25 | BeamDump : no gates in MC
close MC_gate[i], update MC dls if open | 17.12.31 | 04/05/25 | Creation of submenu menuVelocity_distribution_after_reaction with three components |
| 17.12.12 | 03/27/25 | bug: zero anglular distribution in material after drift in fission case | 17.12.32 | 04/05/25 | Fragmentation velocity results plot dialog |
| 17.12.13 | 03/31/25 | 3D ARIS blocks renewal (Sasha) | 17.12.33 | 04/05/25 | Dialogs optimization: merging Fragmentation velocity and Convolution results plot |
| 17.12.14 | 03/31/25 | 3D update rotation gadgets - synchronize with mouse rotation (Sasha) | 17.12.34 | 04/05/25 | new file w_Graph_vv0.cpp
new function void MainWindow::CmPlotMomentumDistribution(int dialog) |
| 17.12.15 | 04/01/25 | Fixed bug in SecReact Kineamtics | 17.12.35 | 04/06/25 | Completed: Momentum distribution statistic plots |
| 17.12.16 | 04/01/25 | Revision in virtual/override in Distribution and Distribution2 | 17.12.36 | 04/07/25 | Update d_MC_Plot for secondary targets |
| 17.12.17 | 04/01/25 | Modification of 3D Sasha's block for correaltion slider & manual rotation | 17.12.37 | 04/07/25 | o_Second.h : modification for std::unique_ptr
splitting o_Second.cpp to 3 files |
| 17.12.18 | 04/02/25 | AF CS dialog : plot user CS | 17.12.38 | 04/07/25 | creation L_Element/secondTarget, moving o_Second* files in this folder
o_Second* revision |
| 17.12.19 | 04/02/25 | AF CS plot dialog : plot user CS checkbox | 17.12.39 | 04/08/25 | Secondary Target in MC : completed
tested modes: ion, fragment, group of isotopes |
| 17.12.20 | 04/02/25 | CmPlotCS_AF separation from CmPlotCS | | | |