

Click to bring up table of isotopes to get close to desired nuclide

Use these to fine tune A

Fine tune Z

Choose Laboratory or Center of mass frame of reference for calcs (lab preferred)

Click this frequently: graphs don't auto update

choose beam energy

this specifies angle increment to calculate plots below at

Reaction: $^2_1\text{H} + ^2_1\text{H} \rightarrow ^3_2\text{He} + ^1_0\text{n} + Q (= 3.27 \text{ MeV})$

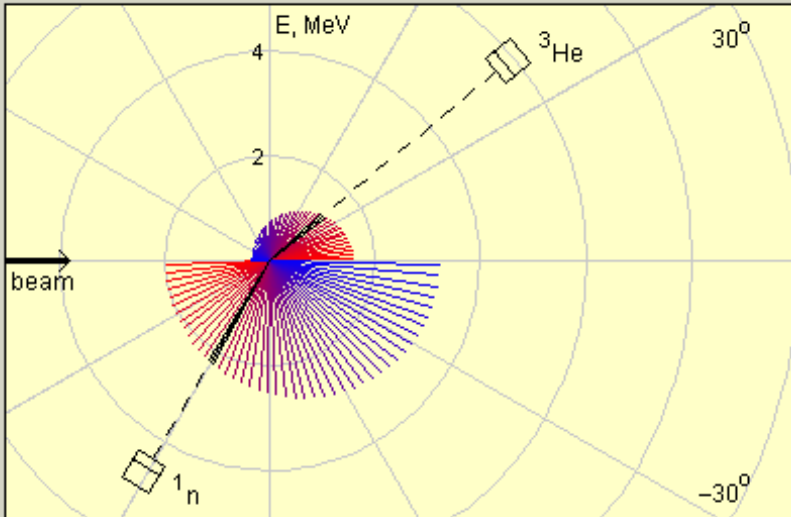
Energy = MeV ☐ lab ☐ cm ☐ E/A

$\epsilon_{\text{PLF}}^* =$ MeV $\epsilon_{\text{TLF}}^* =$ MeV $E_{\text{cm}}^{\text{out}} =$ MeV

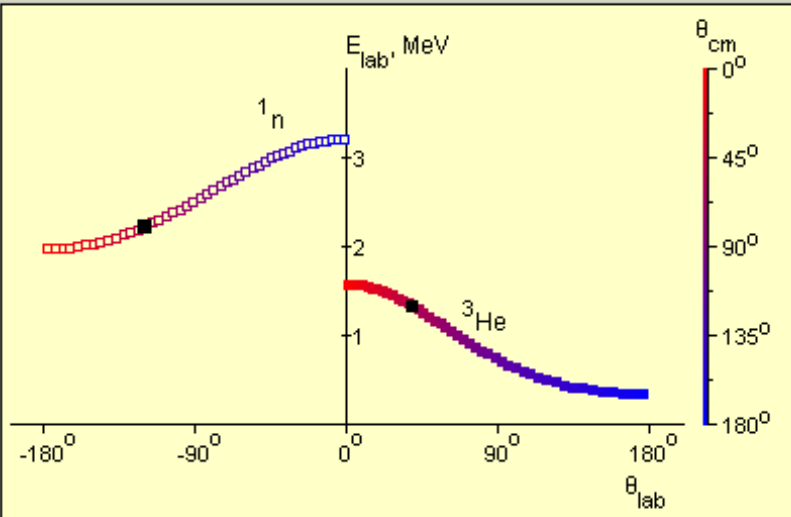
$\Delta\theta_{\text{cm}} =$ deg

experimental masses [1]
theoretical masses [2]
approximated [3]

Energy-angle correlation (lab. system)



Energy-angle correlation



Kinematically allowed values

	lab. energy (MeV)	lab. angle (deg)
PLF	$0.35 < E < 1.59$	$0.0 < \theta < 180.00$
TLF	$1.98 < E < 3.22$	$0.0 < \theta < 180.00$

Fixed event

PLF: $E_1 =$ MeV; $\theta_1 =$ deg

TLF: $E_2 =$ MeV; $\theta_2 =$ deg

$\theta_{\text{cm}} =$ deg

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Some dynamical properties

Grazing collision ([4], p.7): $\theta_{\text{gr}}(\text{cm}) \approx 5.3 \text{ deg}$, $\theta_{\text{gr}}(\text{lab}) \approx 2.7 \text{ deg}$, $b_{\text{gr}} \approx 0.0 \text{ fm}$, $L_{\text{gr}} \approx 0 \text{ h}$

Refers to a specific outgoing state, specified below (also where detectors are graphed in left plot)

range of energies and angles for outgoing particles. PLF and TLF correspond to same labels in reaction list at top of page

Specify angle for outgoing particle 1. This changes when other things changed so always check/change value last thing before updating plots