

Enter reaction below in the yellow cells. This will automatically calculate the parameters you require in the appropriate columns. Simply cut and paste in Ptolemy. Other useful data given below.

KINEMATICS	target	beam	ejectile	recoil	MeV/u beam	ex	Qval gs	Qval ex	MeV beam	E c.m.	Qopt	Sn 37S	S2n 37S	Sp 37S
	36S	2H	1h	37S	4.000	0.645	2.0790	1.4340	8	7.5758	0.000	4.3036	14.1928	13.9344

A=1 IONS	1h
A	37
Z	16
E (MEV)	9.434

DEUTERONS	
A	36
Z	16
E (MEV)	8.000

A=3 IONS	3h
A	36
Z	16
E (MEV)	8.000

Koning and Delaroche, 2009 | 0.001 < E < 200 | 24 < A < 209 | Iso. Dep.

[http://dx.doi.org/10.1016/S0375-9474\(02\)01321-0](http://dx.doi.org/10.1016/S0375-9474(02)01321-0)

v = 56.51 r0 = 1.182 a = 0.672
 vi = 0.734 ri0 = 1.182 ai = 0.672
 vsi = 8.642 rsi0 = 1.29 as1 = 0.538
 vso = 5.629 rs00 = 0.991 aso = 0.59
 vsoi = -0.036 rsoi0 = 0.991 asoi = 0.59 rc0 = 1.292

Varner et al., (CH89), 1991 | 16 < E < 65 | 40 < A < 209

[http://dx.doi.org/10.1016/0370-1573\(91\)90039-O](http://dx.doi.org/10.1016/0370-1573(91)90039-O)

v = 53.796 r0 = 1.182 a = 0.69
 vi = 0.926 ri0 = 1.204 ai = 0.69
 vsi = 8.823 rsi0 = 1.204 as1 = 0.69
 vso = 5.9 rs00 = 0.98 aso = 0.63
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.276

Menet et al., 1971 | 30 < E < 60 | A > 40

[http://dx.doi.org/10.1016/0092-640X\(76\)90007-3](http://dx.doi.org/10.1016/0092-640X(76)90007-3)

v = 53.313 r0 = 1.16 a = 0.75
 vi = 2.049 ri0 = 1.37 ai = 0.8
 vsi = 5.823 rsi0 = 1.37 as1 = 0.8
 vso = 6.04 rs00 = 1.064 aso = 0.78
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.25

Zhang, Pang, and Lou, 2016 | 5.25 < E < 170 | 1p nuclei

<https://doi.org/10.1103/PhysRevC.94.014619>

To be added
 To be added
 To be added
 To be added
 To be added

Han, Shi, Shen, 2006 | E < 200 | 12 < A < 209

<http://dx.doi.org/10.1103/PhysRevC.74.044615>

v = 82.198 r0 = 1.174 a = 0.809
 vi = 0 ri0 = 0 ai = 0
 vsi = 15.511 rsi0 = 1.328 as1 = 0.614
 vso = 3.703 rs00 = 1.234 aso = 0.813
 vsoi = -0.206 rsoi0 = 1.234 asoi = 0.813 rc0 = 1.698

An, Cai, 2006 | E < 183 | 12 < A < 238

<http://dx.doi.org/10.1103/PhysRevC.73.054605>

v = 92.976 r0 = 1.15 a = 0.761
 vi = 1.602 ri0 = 1.335 ai = 0.525
 vsi = 10.585 rsi0 = 1.38 as1 = 0.736
 vso = 3.557 rs00 = 0.972 aso = 1.011
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.303

Xu, Guo, Han, Shen, 2011 | E < 250 MeV | 20 < A < 2

<http://dx.doi.org/10.1007/s11433-011-4488-5>

v = 133.977 r0 = 1.15 a = 0.788
 vi = 0 ri0 = 1.618 ai = 0.665
 vsi = 30.575 rsi0 = 1.207 as1 = 0.736
 vso = 3 rs00 = 1.269 aso = 0.9
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.25

Liang, Li, Cai, 2009 | E < 270 MeV | All masses

<http://dx.doi.org/10.1088/0954-3899/36/8/085104>

v = 122.343 r0 = 1.178 a = 0.765
 vi = -4.439 ri0 = 1.415 ai = 0.846
 vsi = 22.208 rsi0 = 1.198 as1 = 0.846
 vso = 2.082 rs00 = 0.739 aso = 0.941
 vsoi = -1.159 rsoi0 = 0.739 asoi = 0.941 rc0 = 1.289

Pang et al., 2009 | All E | All masses | Isospin dep.

<http://dx.doi.org/10.1103/PhysRevC.79.024615>

v = 118.966 r0 = 1.155 a = 0.82
 vi = 1.697 ri0 = 1.271 ai = 0.84
 vsi = 22.644 rsi0 = 1.271 as1 = 0.84
 vso = 1.54 rs00 = 0.997 aso = 0.13
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.276