

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

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 asi = 0.538

vso = 5.629 rso0 = 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\(91\)90039-0](http://dx.doi.org/10.1016/0370-1573(91)90039-0)

v = 53.796 r0 = 1.182 a = 0.69

vi = 0.926 ri0 = 1.204 ai = 0.69

vsi = 8.823 rsi0 = 1.204 asi = 0.69

vso = 5.9 rso0 = 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 asi = 0.8

vso = 6.04 rso0 = 1.064 aso = 0.78

vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.25

DEUTERONS

A	36
Z	16
E (MEV)	8.000

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 asi = 0.614

vso = 3.703 rso0 = 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 asi = 0.736

vso = 3.557 rso0 = 0.972 aso = 1.011

vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.303

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

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 asi = 0.736

vso = 3 rso0 = 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 asi = 0.846

vso = 2.082 rso0 = 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 asi = 0.84

vso = 1.54 rso0 = 0.997 aso = 0.13

vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.276