

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	0.000	2.0790	2.0790	8	7.5758	0.000	4.3036	14.1928	13.9344

A=1 IONS	1h
A	37
Z	16
E (MEV)	10.079

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 = 56.24 r0 = 1.182 a = 0.672  
 vi = 0.786 ri0 = 1.182 ai = 0.672  
 vsi = 8.709 rsi0 = 1.29 as1 = 0.538  
 vso = 5.614 rso0 = 0.991 aso = 0.59  
 vsoi = -0.039 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 = 53.603 r0 = 1.182 a = 0.69  
 vi = 0.959 ri0 = 1.204 ai = 0.69  
 vsi = 8.779 rsi0 = 1.204 as1 = 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 = 53.171 r0 = 1.16 a = 0.75  
 vi = 2.107 ri0 = 1.37 ai = 0.795  
 vsi = 5.791 rsi0 = 1.37 as1 = 0.795  
 vso = 6.04 rso0 = 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  
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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 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 as1 = 0.736  
 vso = 3.557 rso0 = 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 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 as1 = 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 as1 = 0.84  
 vso = 1.54 rso0 = 0.997 aso = 0.13  
 vsoi = 0 rsoi0 = 0 asoi = 0 rc0 = 1.276