

R-matrix parameters in test1b_ind-case3.amur

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TABLE I: Particle Properties. Masses are in amu, and excitation energies in MeV.

Particle	Mass	Charge	Spin	Parity	E^*
H1	1.00782503207	1	0.5	1	0.0
He3	3.01602931914	2	0.5	1	0.
He4	4.00260325415	2	0.0	1	0.0
Li6	6.015122794	3	1.0	1	0.

TABLE II: Channel Properties. Q values are in MeV, and radii in fm.

GNDS Label	Projectile	Target	Q value	Radius	Compound	Eliminated
H1 + Li6	H1	Li6	-4.01963212915	3.94397	Be7	False
He4 + He3	He4	He3	0.0	4.24151	Be7	False

TABLE III: R-matrix parameters in the $B = -L$ basis.
Pole energies are relative to ground state of composite Be7 system at 1.586 MeV below threshold.
Reduced width amplitudes γ_c in units of $\text{MeV}^{1/2}$ (cm).

$J^\pi = 0.5^-$				
E (MeV)	H1+Li6 LS: 1, 1/2	H1+Li6 LS: 1, 3/2	He4+He3 LS: 1, 1/2	
20.000 B	-1.14970	1.83033	0.0	
20.000 B	0.0	0.0	0.72081	
$J^\pi = 0.5^+$				
E (MeV)	H1+Li6 LS: 0, 1/2	H1+Li6 LS: 2, 3/2	He4+He3 LS: 0, 1/2	
20.000 B	2.86100	0.65282	-2.88040	
$J^\pi = 1.5^-$ (zero for all $L \geq 2$)				
E (MeV)	H1+Li6 LS: 1, 1/2	H1+Li6 LS: 1, 3/2	He4+He3 LS: 1, 1/2	
-0.000000	-1.35385	-0.15277	0.67227	
20.000 B	-0.27977	2.55941	0.49171	
20.000 B	0.0	0.0	1.49994	
$J^\pi = 1.5^+$				
E (MeV)	H1+Li6 LS: 0, 3/2	H1+Li6 LS: 2, 1/2	H1+Li6 LS: 2, 3/2	He4+He3 LS: 2, 1/2
20.000 B	0.45732	-1.44633	-0.25440	1.63624
20.000 B	2.80093	0.0	0.0	0.0
$J^\pi = 2.5^-$				
E (MeV)	H1+Li6 LS: 1, 3/2	H1+Li6 LS: 3, 1/2	H1+Li6 LS: 3, 3/2	He4+He3 LS: 3, 1/2
7.382878	0.97967	0.0	0.0	0.21102
8.689746	-0.45720	0.0	0.0	0.96792
20.000 B	0.0	0.0	0.0	1.72228
$J^\pi = 2.5^+$				
E (MeV)	He4+He3 LS: 2, 1/2			

TABLE III: R-matrix parameters in the $B = -L$ basis.
Pole energies are relative to ground state of composite Be7 system at
1.586 MeV below threshold.
Reduced width amplitudes γ_c in units of $\text{MeV}^{1/2}$ (cm).

20.000 B	1.68435
$J^\pi = 3.5^-$ (zero for all $L \geq 4$)	
E	H1+Li6 H1+Li6 He4+He3
(MeV)	LS: 3, 1/2 LS: 3, 3/2 LS: 3, 1/2
5.036523	0.0 0.0 0.78061
20.000 B	0.0 0.0 1.83383
$J^\pi = 3.5^+$	
E	H1+Li6
(MeV)	LS: 2, 3/2
20.000 B	2.32761
$J^\pi = 4.5^-$	
E	
(MeV)	
$J^\pi = 4.5^+$	
E	
(MeV)	