

$^{234}\text{U}(\text{}^3\text{He,d}),(\alpha,\text{t})$ 1978Gr12

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 122, 205 (2014)		1-Feb-2014

$E(^3\text{He})=E(\alpha)=30$ MeV; magnetic spectrograph, FWHM=16-20 keV; angular distributions, DWBA analysis. Deduced transferred L-values from ratios of cross sections, with an accuracy of ± 1 unit.

 ^{235}Np Levels

E(level) [‡]	J^π [†]	E(level) [‡]	J^π [†]	E(level) [‡]	J^π [†]	E(level) [‡]	J^π [†]
3 [#] 3	5/2 ⁺	520 1		922 ^c 1	(7/2 ⁻)	1364 2	
46 [@] 3	5/2 ⁻	565 ^a 1	3/2 ⁻	978 ^c 1	(9/2 ⁻)	1510 2	
82 [#] 1	9/2 ⁺	602 ^a 3	5/2 ⁻	1024 1		1607 2	
146.8 [@] CA	9/2 ⁻	644 ^a 1	7/2 ⁻	1064 ^c 2	(9/2 ⁻)	1675 4	
200 [#] 1	13/2 ⁺	≈681		1117 3		1696 2	
352 ^{&} 2	3/2 ⁻	700 ^a 3	9/2 ⁻	1160 ^b 2	(13/2 ⁺)	1758 3	
371? ^{&} 3	(1/2 ⁻)	761 ^a 2	(11/2 ⁻)	1227 3		1845 ^d 3	(7/2 ⁻)
408 ^{&} 2	7/2 ⁻	820 3		1262 2		1918 4	
441 ^{&} 3	5/2 ⁻	870 3		1310 2		2050 5	

[†] From experimental transferred L-values, systematics of Nilsson configurations, and comparison of experimental cross sections with theoretical values.

[‡] Energies are relative to 146.8 keV ($J^\pi=9/2^-$), from Adopted Levels.

[#] Band(A): 5/2(642).

[@] Band(B): 5/2(523).

[&] Band(C): 1/2(530).

^a Band(D): 3/2(521).

^b Band(E): 7/2(633)?

^c Band(F): 7/2(514)?

^d Band(G): 5/2(512)?

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Band(E): 7/2(633)?

(13/2⁺) 1160

Band(F): 7/2(514)?

(9/2⁻) 1064(9/2⁻) 978(7/2⁻) 922

Band(D): 3/2(521)

(11/2⁻) 7619/2⁻ 7007/2⁻ 6445/2⁻ 6023/2⁻ 565

Band(C): 1/2(530)

5/2⁻ 4417/2⁻ 408(1/2⁻) 3713/2⁻ 352

Band(A): 5/2(642)

13/2⁺ 200

Band(B): 5/2(523)

9/2⁻ 146.89/2⁺ 825/2⁻ 465/2⁺ 3

²³⁴U(³He,d),(α,t) **1978Gr12 (continued)**

Band(G): 5/2(512)?

(7/2⁻) 1845

²³⁵Np₁₄₂