^{236}U(p,t) 1996Ba67,1972Ma15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli	NDS 108, 681 (2007)	1-Jun-2006

1970Ma29,1974FrZK.

Additional information 1.

E(p)=22 MeV, on thin targets of enriched ^{236}U. Measured angular distributions of scattered tritons at θ=12.5°, θ=25°, and θ=30° to identify L=0 transfers.

E(p)=17 MeV (1972Ma15,1970Ma29,1974FrZK).

Q(p,t)=−3330 *15*.

L values shown here were deduced from angular distributions. See 1972Ma15 for measured angular distributions for other levels.

See 1974So14 for calculated differential cross sections leading to the g.s. and the excited K=0 band.

(p,t) strength to 0^+ state excitation was calculated by 1972Ab10, 1972Be35, 1972Va20, 1973Im02, 1974So14, 1976Ra12, 1979Ab10, 1980Ab03, 1981Ma35 and 1985Zh08.

^{234}U Levels

E(level)[†]	J$^\pi$[‡][a]	L	Comments
0[b]	0^+	0	
44[#b]	2^+		
145[#b]	4^+		
296[b]	6^+		
497[b]	8^+		
786[c]	1^-		
809[d]	0^+	0	
849[@c]	3^-		
851[@d]	2^+		
927[e]	2^+		
948[d]	4^+		
963[&c]	5^-		
969[&e]	3^+		
1024[e]	4^+		Possible doublet.
1044[g] 2	0^+		Weakly populated in ^{236}U(p,t) (1996Ba67).
1084[g] 2	2^+		Weakly populated in ^{236}U(p,t) (1996Ba67).
1091[e]	5^+		
1125[c]	7^-		
1127[f]	2^+		
1165[f]	3^+		
1215[f]	4^+		

[†] Rounded values from Adopted Levels, unless otherwise specified.
[‡] From Adopted Levels.
[#] From 1972Ma15. Estimated uncertainties ΔE=2 keV.
[@] Doublet (849 (3^-) and 851 (2^+)).
[&] Doublet (963 (5^-) and 969 (3^+)).
[a] From 1972Ma15.
[b] Band(A): K$^\pi$=0^+ g.s. rotational band.
[c] Band(B): octupole-vibrational band.
[d] Band(C): β-vibrational band.

Continued on next page (footnotes at end of table)

^{236}U(p,t) 1996Ba67,1972Ma15 (continued)

^{234}U Levels (continued)

[e] Band(D): γ-vibrational band.
[f] Band(E): $K^{\pi}=2^{+}$ band.
[g] Band(F): $K^{\pi}=0^{+}$ band.

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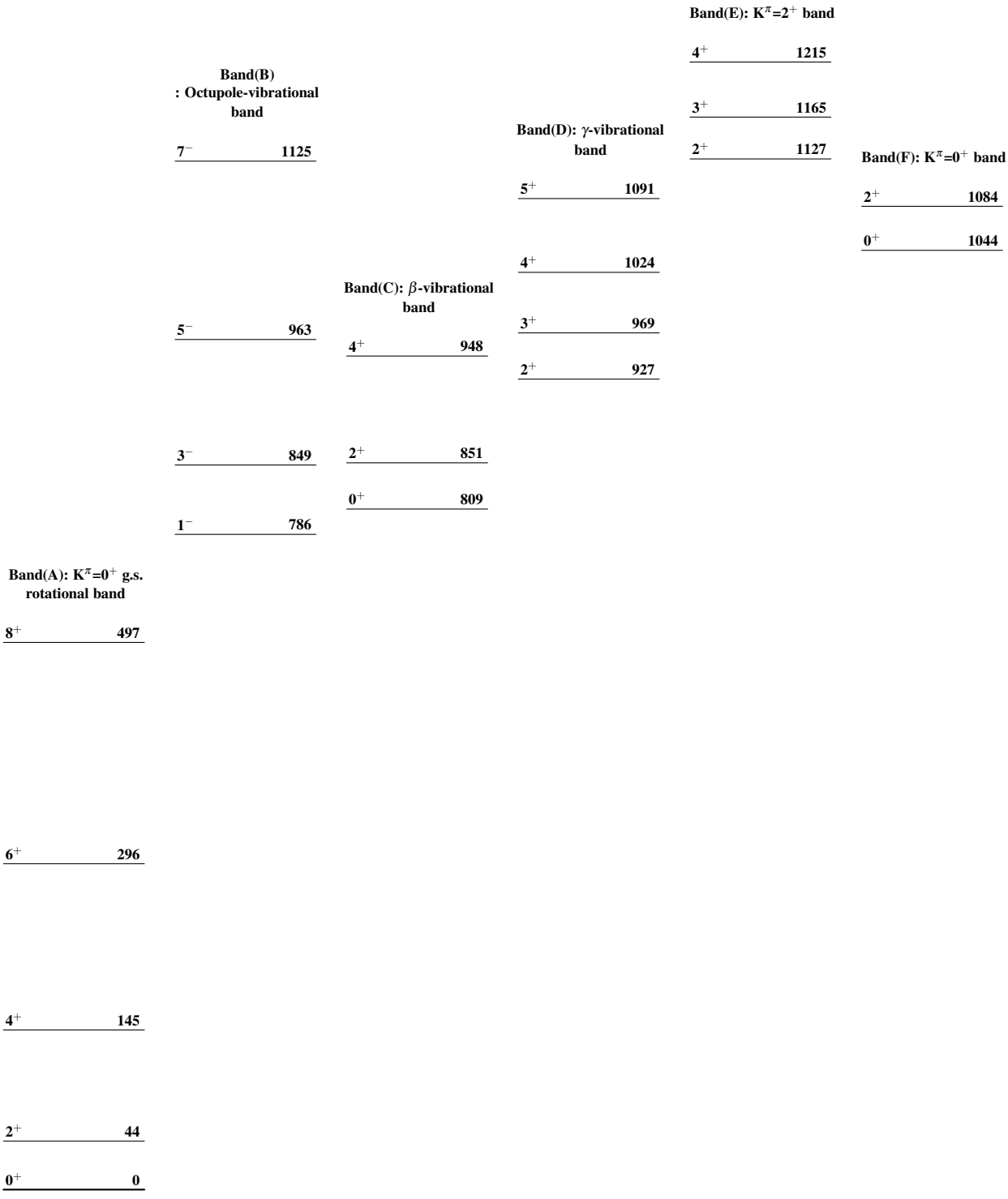

$^{234}_{92}U_{142}$