^{236}U(p,t), ^{235}U(p,d) 1996Ba67,1972Ma15

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. Ota	NDS 207,351 (2026)	1-Dec-2023

1996Ba67: An enriched ^{236}U target with a Ni backing was bombarded by 22 MeV protons. Triton energy spectra were measured at 12.5°, 25°, and 30° with a Q3D spectrometer backed by a 1.7 m long position-sensitive detector.

1970Ma29, 1972Ma15: An enriched (>98%) ^{236}U target was bombarded with protons at 17 MeV. Tritons were measured in photographic emulsions following a split-pole spectrometer.

Other: 1974FrZK: ^{236}U(p,t) at E(p)=16.8 MeV. Measured σ.

1959Fu64: A 22.8 MeV proton beam on an enriched (93.18%) ^{235}U target. ^{235}U(p,d) reaction was measured with a CsI(Tl) scintillator. Only measured reaction cross sections and no structural information was provided.

Q(p,t)=−3330 *15* (1972Ma15).

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

^{234}U Levels

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

† Rounded values from Adopted Levels, unless otherwise specified.
‡ From 1996Ba67.
# From 1972Ma15.
@ Doublet (849 (3−) and 851 (2+)).
& Doublet (963 (5−) and 969 (3+)).
a Band(A): Kπ=0+ g.s. rotational band.
b Band(B): octupole-vibrational band.
c Band(C): β-vibrational band.
d Band(D): γ-vibrational band.
e Band(E): Kπ=2+ band.
f Band(F): Kπ=0+ band.

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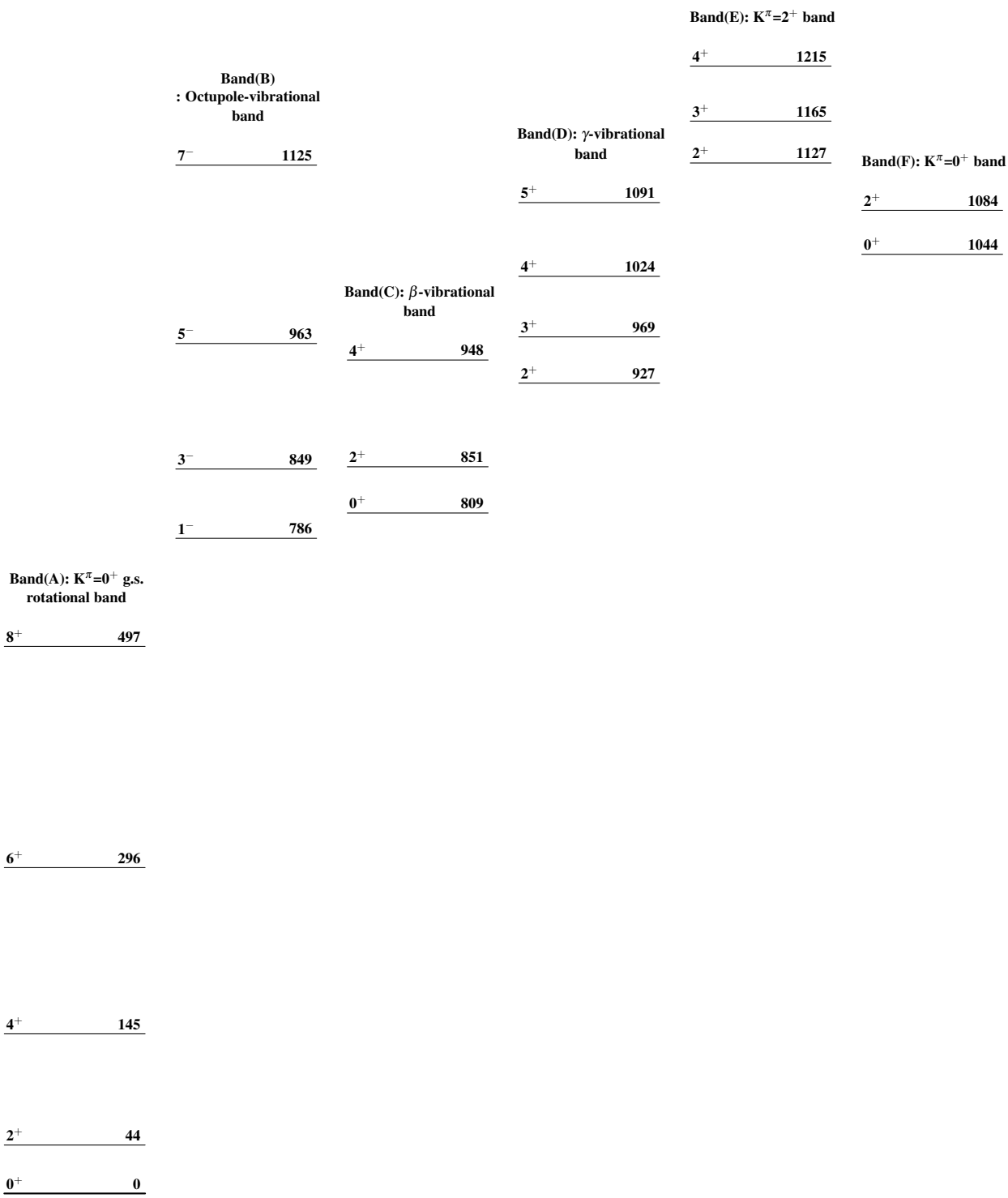

$^{234}_{92}U_{142}$