

$^{235}\text{U}(\text{d,p})$ 1973Ka38

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Shaofei Zhu	NDS 182, 2 (2022).	1-Apr-2022

1973Ka38: E(d)=12,14,16 MeV, measured angular distributions. Detector: split-pole magnetic spectrograph. Assigned rotational and possible quasi-particle configurations on the basis of measured and calculated cross sections, and confirmed by comparing to the results of corresponding members of the respective bands in the $^{237}\text{Np}(\text{d,p})^{238}\text{Np}$ reaction.

Other: **1964Ma24**.

 ^{236}U Levels

E(level) [‡]	J ^π [†]	E(level) [‡]	J ^π [†]	E(level) [‡]	J ^π [†]	E(level) [‡]
686.4 [#] 25	1 ⁻ , 2 ⁻	1191.6 ^{&} 10	3 ⁻	1600.8 10		2052.6 21
744.4 [#] 11	(3 ⁻)	≈1232? ^a	7 ⁻	1621.8 [@] 12	8 ⁻	2114 3
969.7 ^b 19	1 ⁻	1232.2 ^{&} 10	4 ⁻	1658.1 23		2155.1 15
991.5 ^b 19	2 ⁻	1282.2 ^{&} 10	5 ⁻	1689.6 17		2176.9 18
1038 ^b 3	3 ⁻	1320 ^a 4	8 ⁻	1748 3		2201 3
1053.9 ^a 14	4 ⁻	1342.8 ^{&} 10	6 ⁻	1775.9 22		2234 4
1072.3 ^b 25	4 ⁻	1413.3 ^{&} 19	7 ⁻	1811.3 13		2260.4 10
1104.4 ^a 14	5 ⁻	1471.7 [@] 10	6 ⁻	1854.8 20		
≈1164? ^b	5 ⁻	1541.8 [@] 13	7 ⁻	1912.0 16		
1164 ^a 3	6 ⁻	1575.4 18		1946.8 20		

[†] Based on cross section signatures and J(J+1) rule in level energy for band assignments (**1973Ka38**).

[‡] Level energies adjusted up by 15 keV to agree with values from (n,γ) and (d,d') (**1973Ka38**).

[#] Band(A): Tentatively assigned K=0⁻.

[@] Band(B): K=6⁻ Configuration=((ν 7/2(743))+(ν 5/2(622))).

[&] Band(C): K=3⁻ Configuration=((ν 7/2(743))-(ν 1/2(631))).

^a Band(D): K=4⁻ Configuration=((ν 7/2(743))+(ν 1/2(631))).

^b Band(E): K=1⁻ Configuration=((ν 7/2(743))-(ν 5/2(622))).

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Band(B): $K=6^-$
Configuration= $((\nu$
 $7/2(743))+(\nu 5/2(622)))$

8^- 1621.8

7^- 1541.8

6^- 1471.7

Band(C): $K=3^-$
Configuration= $((\nu$
 $7/2(743))-(\nu 1/2(631)))$

7^- 1413.3

6^- 1342.8

Band(D): $K=4^-$
Configuration= $((\nu$
 $7/2(743))+(\nu 1/2(631)))$

8^- 1320

5^- 1282.2

4^- 1232.2

7^- $\approx$ 1232

3^- 1191.6

Band(E): $K=1^-$
Configuration= $((\nu$
 $7/2(743))-(\nu 5/2(622)))$

6^- 1164

5^- $\approx$ 1164

5^- 1104.4

4^- 1072.3

4^- 1053.9

3^- 1038

Band(A): Tentatively
assigned $K=0^-$

(3^-) 744.4

$1^-, 2^-$ 686.4

2^- 991.5

1^- 969.7