

$^{238}\text{U}(\alpha, \text{F}\gamma)$ 2004Hu02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 1745 (2009)	31-Dec-2008

E=30 MeV. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ with Rochester 4π , highly segmented heavy-ion detector array CHICO, in coincidence with the GAMMASPHERE detector array.

 ^{102}Mo Levels

E(level)	J^π [†]	Comments
0.0 [‡]	0 ⁺	
295.4 [‡]	2 ⁺	
696.1 ^a	0 ⁺	
741.6 [‡]	4 ⁺	
846.8 ^{&}	2 ⁺	
1142.3 ^a	2 ⁺	
1325.6 [‡]	6 ⁺	
1397.0 ^{&}	4 ⁺	
2009.0 ^{&}	(6 ⁺)	
2017.0 [‡]	8 ⁺	
2458.6 [@]	(5 ⁻)	J^π : Adopted value is (6 ⁻).
2548.2 [#]	(4 ⁺)	J^π : Adopted value is (7 ⁻).
2788.5 [‡]	10 ⁺	
2827.0 [@]	(7 ⁻)	J^π : Adopted value is (8 ⁻).
3006.3 [#]	(6 ⁺)	J^π : Adopted value is (9 ⁻).
3367.7 [@]	(9 ⁻)	J^π : Adopted value is (10 ⁻).
3615.3 [#]	(8 ⁺)	J^π : Adopted value is (11 ⁻).
3623.4 [‡]	12 ⁺	
4051.3 [@]	(11 ⁻)	
4364.1 [#]	(10 ⁺)	
4502.6 [‡]	14 ⁺	
4855.0 [@]	(13 ⁻)	
5231.2 [#]	(12 ⁺)	
5469.1 [‡]	16 ⁺	
5762.8 [@]	(15 ⁻)	
6200.9 [#]	(14 ⁺)	

[†] From $E\gamma$, $I\gamma$, $\gamma\gamma$ and observed band structure. Some values for BAND(B) are different from Adopted values which are given in comments. For additional comment on BAND structure see Adopted Levels.

[‡] Band(A): g.s. band.

[#] Band(B): (4⁺) band. Possibly $\nu 5/2[413] \otimes \nu 3/2[411]$; $K^\pi=4^+$.

[@] Band(C): (5⁻) band. Possibly $\nu 5/2[532] \otimes \nu 5/2[413]$; $K^\pi=5^-$.

[&] Band(D): γ band.

^a Band(E): β band.

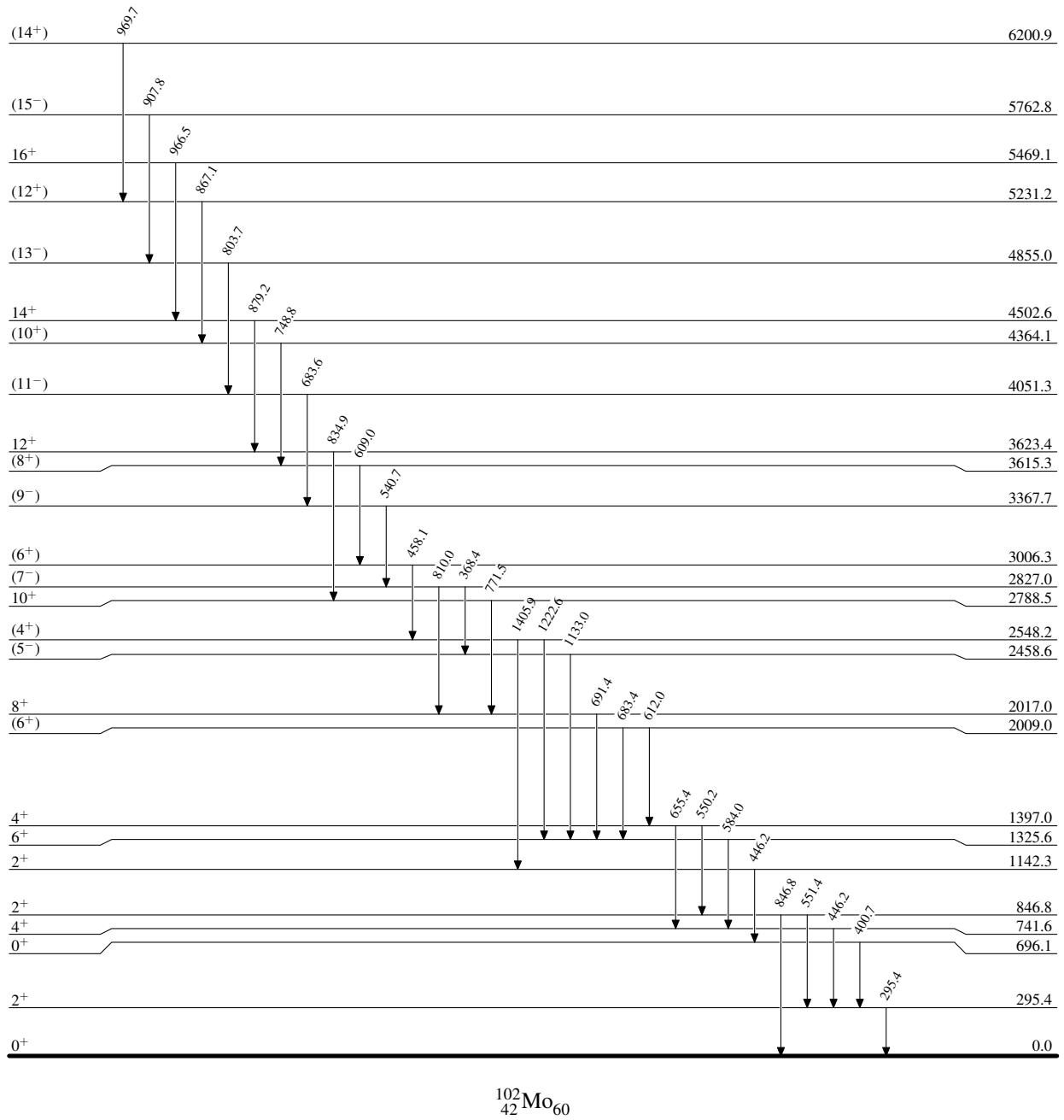
$^{238}\text{U}(\alpha, \text{F}\gamma)$ **2004Hu02 (continued)** $\gamma(^{102}\text{Mo})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
295.4	295.4	2 ⁺	0.0	0 ⁺	691.4	2017.0	8 ⁺	1325.6	6 ⁺
368.4	2827.0	(7 ⁻)	2458.6	(5 ⁻)	748.8	4364.1	(10 ⁺)	3615.3	(8 ⁺)
400.7 [†]	696.1	0 ⁺	295.4	2 ⁺	771.5	2788.5	10 ⁺	2017.0	8 ⁺
446.2	741.6	4 ⁺	295.4	2 ⁺	803.7	4855.0	(13 ⁻)	4051.3	(11 ⁻)
446.2	1142.3	2 ⁺	696.1	0 ⁺	810.0 [†]	2827.0	(7 ⁻)	2017.0	8 ⁺
458.1	3006.3	(6 ⁺)	2548.2	(4 ⁺)	834.9	3623.4	12 ⁺	2788.5	10 ⁺
540.7	3367.7	(9 ⁻)	2827.0	(7 ⁻)	846.8 [†]	846.8	2 ⁺	0.0	0 ⁺
550.2	1397.0	4 ⁺	846.8	2 ⁺	867.1	5231.2	(12 ⁺)	4364.1	(10 ⁺)
551.4 [†]	846.8	2 ⁺	295.4	2 ⁺	879.2	4502.6	14 ⁺	3623.4	12 ⁺
584.0	1325.6	6 ⁺	741.6	4 ⁺	907.8	5762.8	(15 ⁻)	4855.0	(13 ⁻)
609.0	3615.3	(8 ⁺)	3006.3	(6 ⁺)	966.5	5469.1	16 ⁺	4502.6	14 ⁺
612.0	2009.0	(6 ⁺)	1397.0	4 ⁺	969.7	6200.9	(14 ⁺)	5231.2	(12 ⁺)
655.4 [†]	1397.0	4 ⁺	741.6	4 ⁺	1133.0 [†]	2458.6	(5 ⁻)	1325.6	6 ⁺
683.4 [†]	2009.0	(6 ⁺)	1325.6	6 ⁺	1222.6 [†]	2548.2	(4 ⁺)	1325.6	6 ⁺
683.6	4051.3	(11 ⁻)	3367.7	(9 ⁻)	1405.9 [†]	2548.2	(4 ⁺)	1142.3	2 ⁺

[†] From level-energy difference; value not quoted by [2004Hu02](#).

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Level Scheme



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