

$^{100}\text{Mo}({}^7\text{Li},3n\gamma)$  1986Du04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 108,2035 (2007)	30-Mar-2007

E=28 MeV.

Measured:  $\gamma$ ,  $\gamma\gamma$ ,  $\gamma\gamma(t)$ ,  $\gamma(\theta)$  linear polarization.

Authors give level scheme relative to  $5^+$  taken as E(level)=0. Evaluator has recalculated levels using the adopted level energy (128.9) for the level with  $5^+$  and  $T_{1/2}=4.34$  min.

E=30 MeV (1990Bi03), measured TDPAD; deduced g factor.

 $^{104}\text{Rh}$  Levels

E(level)	$J^\pi$	$T_{1/2}^\dagger$	Comments
0	$1^+$		
128.9 1	$5^+$		
175.1 1	$6^+$		
344.4 1	$6^-$	47 ns 3	$g=0.33$ 1 g: from TDPAD (1990Bi03).
349.5 2	$6^+$		
394.0 2	$7^-$		
416.1 2	$7^+$		
455.3 2	$8^-$		
584.0 2	$7^+$		
613.5 2	$9^-$		
817.4 2	$8^+$		
971.1 3	$10^-$		
1001.5 4			
1200.8 4			
1274.0 5			
1299.9 3	$11^-$		
1358.2 4			
1408.9 3			
1651.5 4	-		
1712.6 5			
1747.9 5			
1768.0 4	$12^-$		
1906.1 5			
2102.3 6			
2134.2 6			
2147.7 6			
2192.3 6			
2243.4 4	$13^-$		
2298.8 4			
2445.5 7			
2493.3 7			
2846.8 8			

$^\dagger$  From Adopted Levels.

$^{100}\text{Mo}(^7\text{Li},3\text{n}\gamma)$  **1986Du04** (continued) $\gamma(^{104}\text{Rh})$ 

$E_\gamma$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.	$\delta$	Comments
46.2 1	25 4	175.1	6 <sup>+</sup>	128.9	5 <sup>+</sup>			
49.6 1	30 5	394.0	7 <sup>-</sup>	344.4	6 <sup>-</sup>			
61.3 1	39 6	455.3	8 <sup>-</sup>	394.0	7 <sup>-</sup>			
158.2 1	90 6	613.5	9 <sup>-</sup>	455.3	8 <sup>-</sup>	M1+E2	<0.06	
169.2 1	100	344.4	6 <sup>-</sup>	175.1	6 <sup>+</sup>	E1+M2	+0.10 10	B(E1)(W.u.)=8.2×10 <sup>-7</sup> 6; B(M2)(W.u.)=1 +3-1
174.5 3	7 1	349.5	6 <sup>+</sup>	175.1	6 <sup>+</sup>			
215.5 1	62 5	344.4	6 <sup>-</sup>	128.9	5 <sup>+</sup>	E1		B(E1)(W.u.)=2.5×10 <sup>-7</sup> 3
220.6 2	26 2	349.5	6 <sup>+</sup>	128.9	5 <sup>+</sup>	M1(+E2)		$\delta: 0 < \delta < 0.23.$
228.1 3	5 1	2134.2		1906.1				
233.2 2	21 2	817.4	8 <sup>+</sup>	584.0	7 <sup>+</sup>	M1(+E2)		$\delta: -0.05 < \delta < +0.12.$
234.4 2	25 2	584.0	7 <sup>+</sup>	349.5	6 <sup>+</sup>	M1+E2		$\delta: -0.05 < \delta < +0.26.$
241.0 2	21 2	416.1	7 <sup>+</sup>	175.1	6 <sup>+</sup>	M1+E2		$\delta: -0.36 < \delta < +0.08.$
242.5 3	4 1	1651.5	-	1408.9				
254.6 3	4 1	1906.1		1651.5	-			
286.2 3	6 1	2192.3		1906.1		M1(+E2)		$\delta: -0.05 < \delta < +0.21.$
301.0 3	4 1	2493.3		2192.3				
<sup>x</sup> 308.8 3	8 1							
311.3 3	8 1	2445.5		2134.2				
328.9 2	27 3	1299.9	11 <sup>-</sup>	971.1	10 <sup>-</sup>	M1		
<sup>x</sup> 339.4 4	3 1							
<sup>x</sup> 351.0 4	2 1							
353.5 4	3 1	2846.8		2493.3				
357.5 2	160 10	971.1	10 <sup>-</sup>	613.5	9 <sup>-</sup>			
389.7 <sup>†</sup> 3	6 <sup>†</sup> 1	1747.9		1358.2				
389.7 <sup>†</sup> 3	6 <sup>†</sup> 1	2102.3		1712.6				
399.8 3	7 1	2147.7		1747.9		(E2)		
408.8 4	3 1	584.0	7 <sup>+</sup>	175.1	6 <sup>+</sup>			
455.2 3	6 1	584.0	7 <sup>+</sup>	128.9	5 <sup>+</sup>			
468.2 <sup>†</sup> 3	23 <sup>†</sup> 3	817.4	8 <sup>+</sup>	349.5	6 <sup>+</sup>	(E2)		$\delta: -0.05 < \delta < +0.17.$ Mult.: M1 excluded, $\Delta J=2.$
468.2 <sup>†</sup> 3	23 <sup>†</sup> 3	1768.0	12 <sup>-</sup>	1299.9	11 <sup>-</sup>	M1(+E2)		$\delta: -0.05 < \delta < +0.17.$
475.3 2	41 4	2243.4	13 <sup>-</sup>	1768.0	12 <sup>-</sup>			
516.0 3	4 1	971.1	10 <sup>-</sup>	455.3	8 <sup>-</sup>			
530.8 2	22 3	2298.8		1768.0	12 <sup>-</sup>			
585.4 3	12 2	1001.5		416.1	7 <sup>+</sup>			
591.5 3	10 2	1408.9		817.4	8 <sup>+</sup>			
<sup>x</sup> 599.6 4	5 1							
686.4 5	3 1	1299.9	11 <sup>-</sup>	613.5	9 <sup>-</sup>			
741.5 4	6 1	1712.6		971.1	10 <sup>-</sup>			
744.7 3	10 2	1358.2		613.5	9 <sup>-</sup>			
784.7 3	8 2	1200.8		416.1	7 <sup>+</sup>			
796.5 4	6 1	1768.0	12 <sup>-</sup>	971.1	10 <sup>-</sup>	(E2)		
824.6 4	4 1	1408.9		584.0	7 <sup>+</sup>			
834.3 3	12 2	1651.5	-	817.4	8 <sup>+</sup>	(E1)		
857.9 4	5 1	1274.0		416.1	7 <sup>+</sup>			
<sup>x</sup> 888.0 4	4 1							
943.9 4	4 1	2243.4	13 <sup>-</sup>	1299.9	11 <sup>-</sup>			

<sup>†</sup> Multiply placed with undivided intensity.<sup>x</sup>  $\gamma$  ray not placed in level scheme.

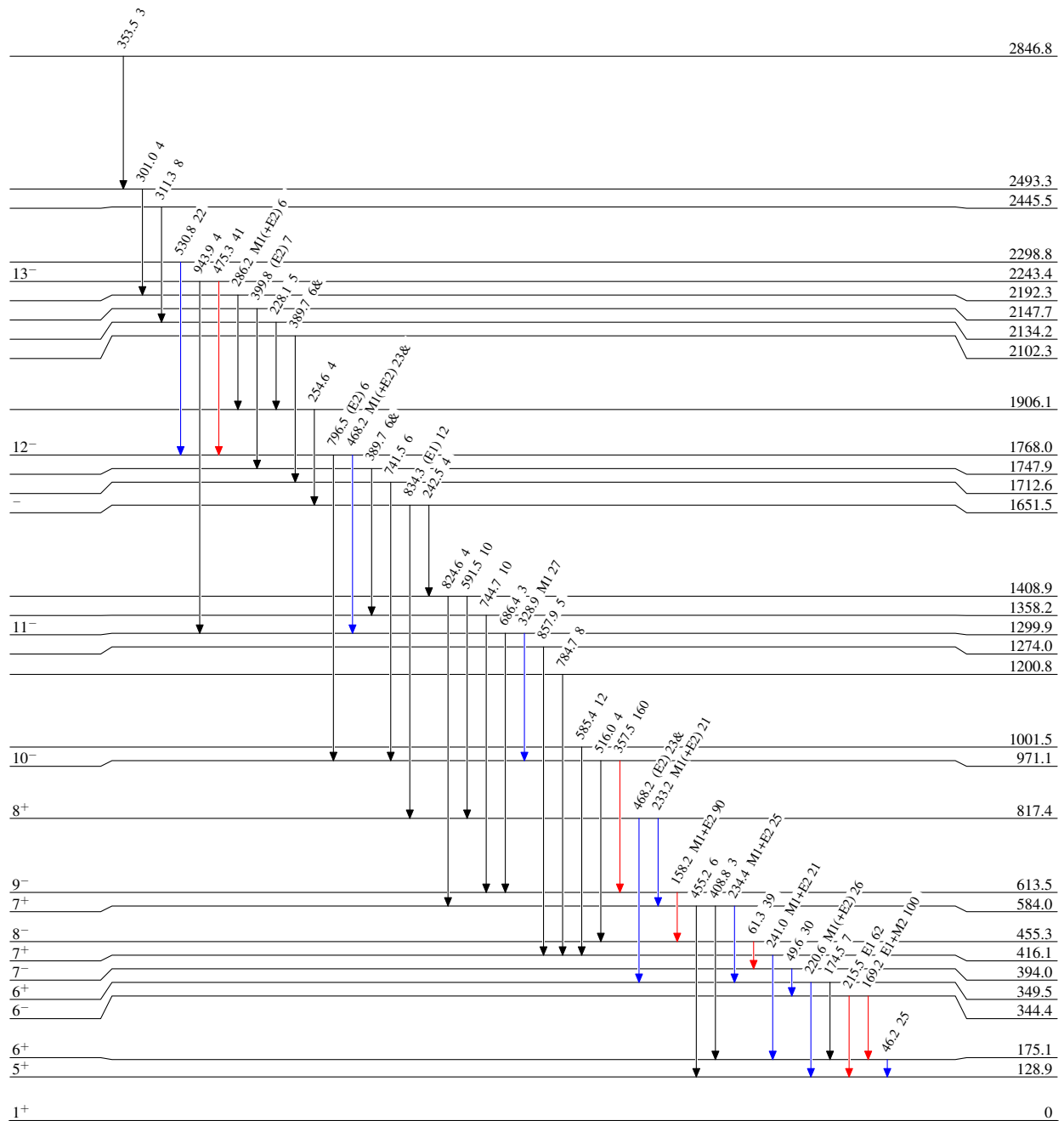
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Level Scheme

Legend

Intensities: Type not specified  
& Multiply placed: undivided intensity given

- $I_\gamma < 2\% \times I_\gamma^{max}$
- $I_\gamma < 10\% \times I_\gamma^{max}$
- $I_\gamma > 10\% \times I_\gamma^{max}$



$^{104}_{45}\text{Rh}_{59}$

47 ns 3