

$^{100}\text{Mo}(^{136}\text{Xe},\text{X}\gamma)$  2003Re29

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, J. K. Tuli		NDS 145, 25 (2017)	1-Jul-2017

Based on XUNDL. Compiled by B. Singh (McMaster) October 21, 2003.

E=700 MeV. Heavy-ion deep-inelastic reaction. Measured  $E_\gamma$ ,  $I_\gamma$ ,  $\gamma\gamma$  using GAMMASPHERE array of 102 Compton-suppressed Ge detectors. The reaction fragments were detected using a position-sensitive gas-filled CHICO detector.  $\gamma$  rays with GAMMASPHERE were detected together with two co-planar fragments in CHICO.

 $^{99}\text{Mo}$  Levels

E(level) <sup>†</sup>	$J^\pi$	$T_{1/2}$ <sup>‡</sup>	E(level) <sup>†</sup>	$J^\pi$	E(level) <sup>†</sup>	$J^\pi$
0.0 <sup>‡</sup>	1/2 <sup>+</sup> <sup>‡</sup>		1165.5 <sup>#</sup> 11	15/2 <sup>-</sup>	4746.5 <sup>#</sup> 23	(31/2 <sup>-</sup> )
97.785 <sup>‡</sup> 3	5/2 <sup>+</sup> <sup>‡</sup>	15.5 $\mu\text{s}$ 2	1858.5 <sup>#</sup> 15	19/2 <sup>-</sup>	5795.5 <sup>#</sup> 25	(35/2 <sup>-</sup> )
235.508 <sup>‡</sup> 8	7/2 <sup>+</sup> <sup>‡</sup>		2703.5 <sup>#</sup> 18	23/2 <sup>-</sup>	6896 <sup>#</sup> 3	(39/2 <sup>-</sup> )
684.5 <sup>#</sup> 4	11/2 <sup>-</sup>	0.76 $\mu\text{s}$ 6	3683.5 <sup>#</sup> 21	(27/2 <sup>-</sup> )	8118 <sup>#</sup> 3	(43/2 <sup>-</sup> )

<sup>†</sup> From  $\gamma$ -ray energies, except where noted.

<sup>‡</sup> From Adopted Levels.

<sup>#</sup> Band(A): Decoupled band built on  $h_{11/2}$ .

 $\gamma(^{99}\text{Mo})$ 

$E_\gamma$	$I_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
97.785 <sup>†</sup> 3		97.785	5/2 <sup>+</sup>	0.0	1/2 <sup>+</sup>
137.723 <sup>†</sup> 7		235.508	7/2 <sup>+</sup>	97.785	5/2 <sup>+</sup>
448.6 <sup>†</sup> 2		684.5	11/2 <sup>-</sup>	235.508	7/2 <sup>+</sup>
481 1		1165.5	15/2 <sup>-</sup>	684.5	11/2 <sup>-</sup>
693 1	19 1	1858.5	19/2 <sup>-</sup>	1165.5	15/2 <sup>-</sup>
845 1	14 1	2703.5	23/2 <sup>-</sup>	1858.5	19/2 <sup>-</sup>
980 1	9 1	3683.5	(27/2 <sup>-</sup> )	2703.5	23/2 <sup>-</sup>
1049 1	2 1	5795.5	(35/2 <sup>-</sup> )	4746.5	(31/2 <sup>-</sup> )
1063 1	4 1	4746.5	(31/2 <sup>-</sup> )	3683.5	(27/2 <sup>-</sup> )
1100 1	2 1	6896	(39/2 <sup>-</sup> )	5795.5	(35/2 <sup>-</sup> )
1222 1	1 1	8118	(43/2 <sup>-</sup> )	6896	(39/2 <sup>-</sup> )




<sup>†</sup> From Adopted Gammas.

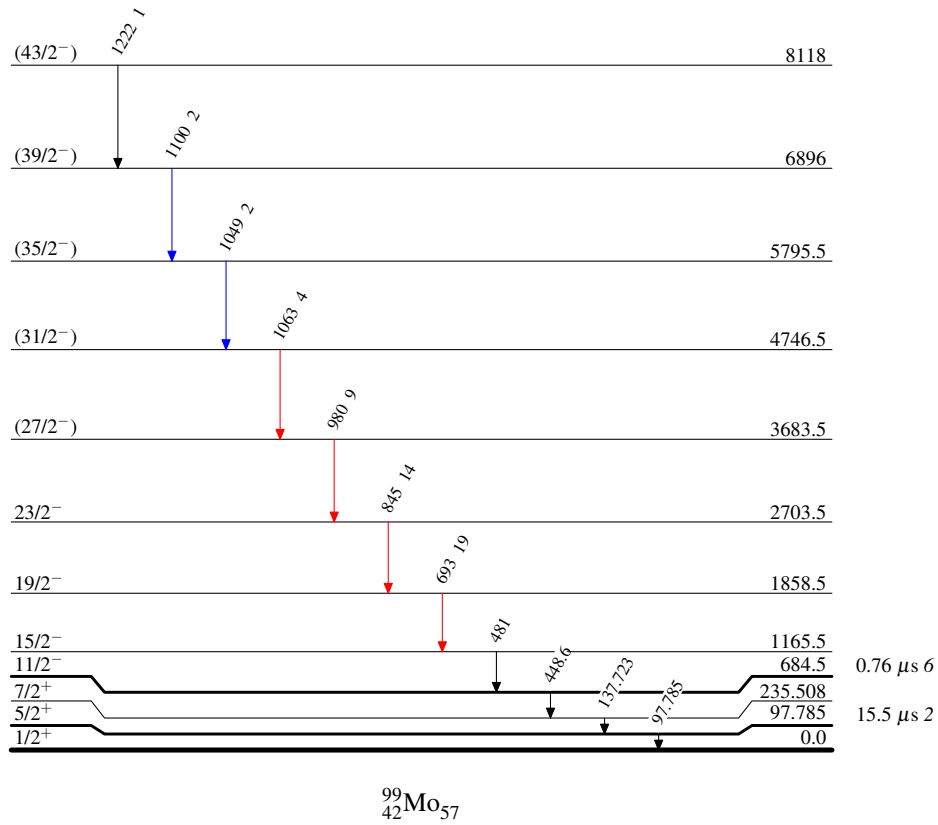
$^{100}\text{Mo} (^{136}\text{Xe}, X\gamma)$  2003Re29

## Level Scheme

Intensities: Relative  $I_\gamma$ 

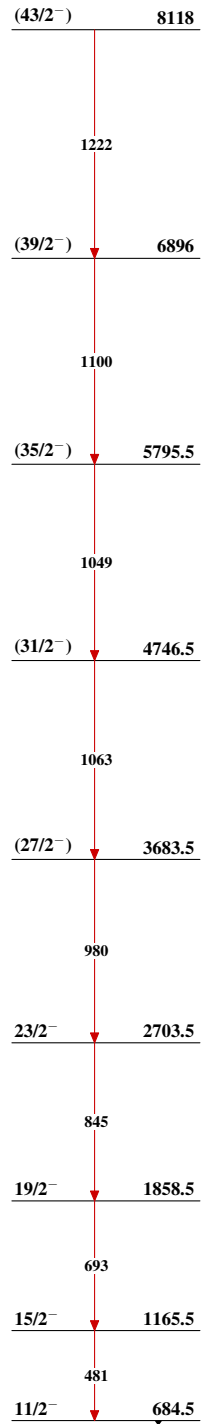
## Legend

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



$^{100}\text{Mo} (^{136}\text{Xe}, X\gamma)$  2003Re29

Band(A): Decoupled band  
built on  $h_{11/2}$

 $^{99}_{42}\text{Mo}_{57}$