

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

Type	Author	Citation	History	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 172,1 (2021)		31-Jan-2021

2003Re29: E(^{136}Xe)=700 MeV from the 88-inch cyclotron at LBNL. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$ -coin using GAMMASPHERE array of 102 Compton-suppressed Ge detectors. The Binary reaction fragments were detected using position-sensitive gas-filled CHICO detector. Gamma rays with GAMMASPHERE were detected together with two co-planar binary fragments in CHICO.

 ^{100}Mo Levels

E(level) [‡]	J ^π [†]	E(level) [‡]	J ^π [†]	E(level) [‡]	J ^π [†]	E(level) [‡]	J ^π [†]
0 [#]	0 ⁺	1848 [#] 2	6 ⁺	4065 [#] 3	(12 ⁺)	6952 [#] 3	(18 ⁺)
536 [#] 1	2 ⁺	2629 [#] 2	8 ⁺	4878 [#] 3	(14 ⁺)	8117 [#] 4	(20 ⁺)
1137. [#] 2	4 ⁺	3369 [#] 2	(10 ⁺)	5843 [#] 3	(16 ⁺)		

[†] From the Adopted Levels.

[‡] From $E\gamma$ data.

[#] Band(A): g.s. band.

 $\gamma(^{100}\text{Mo})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
536 1		536	2 ⁺	0	0 ⁺
601 1	48 3	1137.	4 ⁺	536	2 ⁺
696 1	12 1	4065	(12 ⁺)	3369	(10 ⁺)
711 1	36 3	1848	6 ⁺	1137.	4 ⁺
740 1	16 1	3369	(10 ⁺)	2629	8 ⁺
781 1	24 2	2629	8 ⁺	1848	6 ⁺
813 1	8 1	4878	(14 ⁺)	4065	(12 ⁺)
965 1	5 1	5843	(16 ⁺)	4878	(14 ⁺)
1109 1	2 1	6952	(18 ⁺)	5843	(16 ⁺)
1165 1	1 1	8117	(20 ⁺)	6952	(18 ⁺)

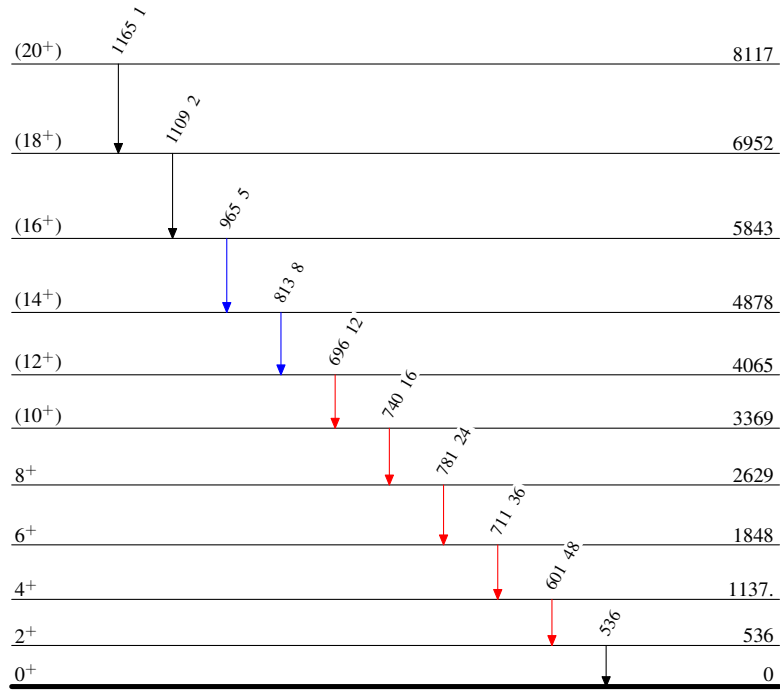
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Level Scheme

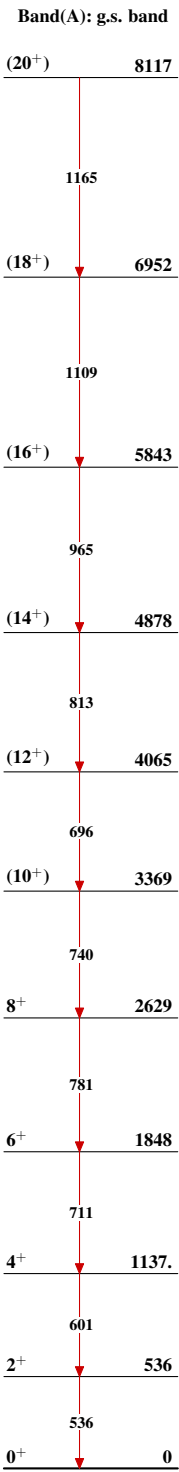
Intensities: Relative I_γ

Legend

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

 $^{100}_{42}\text{Mo}_{58}$

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$^{100}_{42}\text{Mo}_{58}$