

$^{51}\text{V}(\alpha, 2n\gamma)$ **1991Ba37**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Huo Junde	NDS 110,2689 (2009)	31-Mar-2007

$J^\pi(^{51}\text{V})=7/2^-$.

1991Ba37: E=30 MeV, HPGe FWHM 2.5-2.8 keV for 1332 keV, measured E_γ , DSAM.

1971AnZG: E=30 MeV, measured: γ , $\gamma\gamma$, yield, $\gamma(\theta)$.

Other: **1970SaZW**.

All data were taken from presented level scheme (**1991Ba37**).

 ^{53}Mn Levels

E(level)	J^π^\dagger	E(level)	J^π^\dagger	$T_{1/2}$	E(level)	J^π^\dagger	$T_{1/2}$
0.0	$7/2^-$	2692.3	$15/2^-$		5613.3	$(19/2^-)^\ddagger$	0.12 ps 6
378	$5/2^-$	2696.8	$11/2^-$		6533.4	$21/2^-^\ddagger$	0.08 ps 4
1440.9	$11/2^-$	3424.8	$13/2^-^\ddagger$		7004.5	$(23/2^-)^\ddagger$	0.83 ps +17-14
1620.4	$9/2^-$	3439.1	$15/2^-$	0.06 ps 3	7961.2	$(25/2^-)^\ddagger$	0.17 ps +6-4
2563.3	$13/2^-$	4383.2	$17/2^-^\ddagger$	0.16 ps +6-5			

† Adopted values, except as noted.

‡ Based on $\gamma(\theta)$, **1991Ba37**.

 $\gamma(^{53}\text{Mn})$

E_γ	I_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. †	δ	Comments
130		2692.3	$15/2^-$	2563.3	$13/2^-$			E_γ : from 1971AnZG .
378		378	$5/2^-$	0.0	$7/2^-$			
471.1	7.7	7004.5	$(23/2^-)$	6533.4	$21/2^-$	M1+E2	-0.05 +10-11	Additional information 6.
728.0	2.4	3424.8	$13/2^-$	2696.8	$11/2^-$	M1+E2		δ : not give in 1991Ba37 . Additional information 1.
746.8	10.6	3439.1	$15/2^-$	2692.3	$15/2^-$			
875.8	6.7	3439.1	$15/2^-$	2563.3	$13/2^-$			
920.0	2.0	6533.4	$21/2^-$	5613.3	$(19/2^-)$			
944.0	12.6	4383.2	$17/2^-$	3439.1	$15/2^-$	D(+Q)		δ : not give in 1991Ba37 .
956.7	3.6	7961.2	$(25/2^-)$	7004.5	$(23/2^-)$	M1+E2	-0.05 +12-11	Additional information 7.
1076.4	4.4	2696.8	$11/2^-$	1620.4	$9/2^-$			
1122.4	23.5	2563.3	$13/2^-$	1440.9	$11/2^-$			
1230.0	4.2	5613.3	$(19/2^-)$	4383.2	$17/2^-$	M1+E2	-0.16 +3-8	Additional information 3.
1242.4	<1.0	1620.4	$9/2^-$	378	$5/2^-$			
1251.4	55.0	2692.3	$15/2^-$	1440.9	$11/2^-$			
1255.8	1.6	2696.8	$11/2^-$	1440.9	$11/2^-$			
1440.9	100	1440.9	$11/2^-$	0.0	$7/2^-$			
1620.4	10.5	1620.4	$9/2^-$	0.0	$7/2^-$			
1691.0	4.6	4383.2	$17/2^-$	2692.3	$15/2^-$	M1+E2		Additional information 2.
1820.1	2.0	4383.2	$17/2^-$	2563.3	$13/2^-$			
2150.3	8.9	6533.4	$21/2^-$	4383.2	$17/2^-$	E2		Additional information 5.
2174.3	2.2	5613.3	$(19/2^-)$	3439.1	$15/2^-$	E2		Additional information 4.

† Based on $\gamma(\theta)$, **1991Ba37**.

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Level Scheme

Intensities: Relative I_γ

Legend

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

