

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	R. B. Firestone	NDS 127, 1 (2015)	15-Jan-2015

$Q(\beta^-) = -16080$ SY; S(n)=14720 30; S(p)=3226 16; $Q(\alpha) = -8012$ 16 [2012Wa38](#)

 ^{21}Mg LevelsCross Reference (XREF) Flags

A	$^{24}\text{Mg}(^3\text{He}, ^6\text{He})$	D	$^9\text{Be}(^{22}\text{Mg}, ^{21}\text{Mg})$
B	$^{22}\text{Si} \varepsilon\text{p decay}$	E	Si(p,X); μ
C	$^{20}\text{Na}(p,\gamma)$	F	U(p,X),Si(p,X):radius

E(level)	J^π [†]	$T_{1/2}$	L	XREF	Comments
0.0	5/2 ⁺	122 ms 3		A DEF	$\% \varepsilon + \% \beta^+ = 100$; $\% \beta^+ \text{p} = 32.6$ 10; $\% \beta^+ \alpha < 0.5$ $\mu = -0.983$ 7 $T_{1/2}$: Weighted average of 121 ms 5 (1965Ha20), 123 ms 3 (1973Se08), and 120 ms 5 (1992Go10). μ : From 2011StZZ . $\% \beta^+ \text{p}$: From 1973Se08 . J^π : $\log ft = 4.79$ to 3/2 ⁺ and $\log ft = 5.11$ to 7/2 ⁺ . Mirror of ^{21}F ground state.
201 4	1/2 ⁺			A D	
1081 4	1/2 ⁻			A D	
1651 4	3/2 ⁺			A D	
1989 3	3/2 ⁻			A D	
2048 15	(1/2, 3/2) ⁻			A	
3086 15	(3/2 ⁺ , 5/2 ⁺)		(2)	A	
3244 15	(3/2 ⁺ , 5/2 ⁺)		(2)	A	
3347 15	(7/2 ⁺)		4	A	
3643 15	(7/2 ⁺ , 9/2 ⁺)		(4)	A	
3752 15	(1/2 ⁻ , 3/2 ⁻)		1	A	
3901 15			3,4	A	
4008 15	(1/2 ⁺)		(0)	A C	
4228 15	(5/2 ⁺)			C	
4261 15				A	
4538 15	(3/2 ⁺)			C	
4987 15				A	
5158 15				A	
5318 15				A	
5421 15				A	
5614 15				A	
5757 15				A	
5862 15				A	
6052 15				A	

[†] From $^9\text{Be}(^{22}\text{Mg}, ^{21}\text{Mg})$ for levels below 2 MeV, and $^{24}\text{Mg}(^3\text{He}, ^6\text{He})$ and $^{20}\text{Na}(p,\gamma)$ for higher levels.

Adopted Levels, Gammas (continued) $\gamma(^{21}\text{Mg})$

$E_i(\text{level})$	J_i^π	E_γ	I_γ	E_f	J_f^π
201	$1/2^+$	201 4	100	0.0	$5/2^+$
1081	$1/2^-$	883.3 8	100	201	$1/2^+$
		1084 [†]	<5	0.0	$5/2^+$
1651	$3/2^+$	1451 4	22 9	201	$1/2^+$
		1651 4	100 9	0.0	$5/2^+$
1989	$3/2^-$	1787 4	67 13	201	$1/2^+$
		1989 3	100 13	0.0	$5/2^+$

[†] Placement of transition in the level scheme is uncertain.**Adopted Levels, Gammas**

Legend

Level Scheme

Intensities: Type not specified

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$
- - - - -→ γ Decay (Uncertain)

