

^{20}Mg β^+ decay [1995Pi03](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	D. R. Tilley, C. Cheves, J. Kelley, S. Raman, H. Weller		NP A636, 249 (1998)	21-Apr-1997

Parent: ^{20}Mg : $E=0$; $J^\pi=0^+$; $T_{1/2}=90.8$ ms 24; $Q(\beta^+)=10726$ 28; $\% \beta^+$ decay=100.0

Levels fed in β^+ decay are all proton unstable the branching percentage could be determined only from proton emission to excited levels for broad and states. The I_γ are deduced from the β feedings and γ branching ratios given in [1998Ti06](#) (J. H. Kelley).

 ^{20}Na Levels

E(level)	J^π	Comments
984.25 10	1^+	
2645 6		
3001 2	1^+	
3871 9	1^+	
4123 16	1^+	
≈ 4800	1^+	Unresolved.
≈ 5600	1^+	Unresolved.
6266 30	1^+	
6534 13	0^+	

 ϵ, β^+ radiations

E(decay)	E(level)	$I\beta^+{}^\dagger$	Log ft	$I(\epsilon + \beta^+){}^\dagger$	Comments
(4.19×10^3) 3)	6534	3.3 4	3.13 6	3.3 4	
(4.46×10^3) 4)	6266	1.2 1	3.72 6	1.2 1	
(5.13×10^3) 3)	≈ 5600	≥ 1.5	≤ 3.97	≥ 1.5	The 3% branching to the ^{19}Ne g.s. gives $I\beta=2.8$ 4 and $\log ft=3.70$ 6.
(5.93×10^3) 3)	≈ 4800	≥ 1.9	≤ 4.23	≥ 1.9	The 3% branching to the ^{19}Ne g.s. gives $I\beta=3.6$ 5 and $\log ft=3.95$ 6.
(6.60×10^3) 3)	4123	2.7 3	4.33 6	2.7 3	
(6.86×10^3) 3)	3871	4.8 6	4.17 6	4.8 6	
(7.73×10^3) 3)	3001	11.5 14	4.08 6	11.5 14	
(8.08×10^3) 3)	2645	≤ 0.1	≥ 6.24	≤ 0.1	
(9.74×10^3) 3)	984.25	69.7 12	3.83 2	69.7 12	

† Absolute intensity per 100 decays.