Table 12.42 from (2017KE05): Branching in ^{12}N(β^+)^{12}C

Decay to ^{12}C* (MeV)	Branch (%)	log ft [a]	Reference.
g.s.	$\mathbf{96.15 \pm 0.05}$ [b]	4.1107 ± 0.0007	
$\mathbf{E_\gamma = 4.43891 \pm 0.31}$ [c]	$\mathbf{1.898 \pm 0.032}$ [d]	5.148 ± 0.008	(1981KA31)
$\mathbf{7.6543 \pm 2.0}$ [e]	$\mathbf{1.41 \pm 0.03}$	4.622 ± 0.010	
	3.0 ± 0.4		(1962MA22)
	2.2 ± 0.6		(1963GL04)
	1.41 ± 0.03 [f]		(2009HY01)
$\mathbf{10.3 \pm 0.3}$ [g]	$\mathbf{0.404 \pm 0.009}$	4.42 ± 0.11	
	0.44 ± 0.15 [h]		(1963WI05)
	0.85 ± 0.6 [h]		(1963GL04)
[9-12] [n]	0.404 ± 0.009 [f]		(2009HY01)
	0.38 ± 0.05 [i]		(2009HY01)
12.7	$\mathbf{0.120 \pm 0.003}$	3.924 ± 0.012	
	≈ 2.0 [j]		(1966SC23)
	0.29 ± 0.08 [k]		(1967AL03)
	0.120 ± 0.003 [f]		(2009HY01)
	0.11 ± 0.02 [i]		(2009HY01)
$[\mathbf{12 - 16.3}]$ [n]	0.021 ± 0.006 [i]		(2009HY01)
	0.020 ± 0.003 [f]		(2009HY01)
15.11	$\mathbf{(2.3 \pm 1.5) \times 10^{-3}}$	3.6 ± 0.3	
	$(3.8 \pm 0.8) \times 10^{-3}$ [l]		(1967AL03)
	$(0.8 \pm 0.3) \times 10^{-3}$ [m]		(2009HY01) [n]

[a] Based on $Q_\mathrm{m} = 17338.1 \pm 1.0$ keV and $T_{1/2} = 11.000 \pm 0.016$ ms.
[b] Taken as unity - branching ratios measured to excited states. [c] (1967CH19). [d] See Table 12.23.
[e] Based on (2012WA38) and $Q = 379.6 \pm 2.0$ keV (1973BA73). [f] Analysis of KVI data in (2009HY01): normalized to $B(4.44) = (1.90 \pm 0.03)\%$. [g] $\Gamma = 3.0 \pm 0.7$ MeV and $\theta_\alpha^2 \approx 1.5$ (1966SC23).
[h] The presence of higher lying states was not taken into account.
[i] Analysis of JYFL data in (2009HY01): normalized to $B(4.44) = (1.90 \pm 0.03)\%$.
[j] From $I_\alpha(10.3)/I_\alpha(12.7) = 0.2$ (1966SC23).
[k] In the original manuscript, the value 0.29 ± 0.13 is calculated using $\Gamma_\gamma/\Gamma(12.7) = (3 \pm 1) \times 10^{-2}$, 0.80 ± 0.07 as the ground state branching fraction and assuming $B(4.4) = (2.4 \pm 0.2)\%$. The observable is $I_\gamma(12.7)/I_\gamma(4.4) = 2.9 \times 10^{-3}$ ($\pm 26\%$). We used the values in Table 12.14 and $B(4.4) = 1.89\%$.
[l] In the original manuscript, the value $(4.4 \pm 1.5) \times 10^{-3}$ is calculated using $\Gamma_\gamma/\Gamma = 1$ and 0.965 as the ground state branching fraction, and assuming $B(4.4) = (2.4 \pm 0.2)\%$. The observable is $I_\gamma(15.11)/I_\gamma(4.4) = 1.78 \times 10^{-3}$ ($\pm 20\%$). We used the values in Table 12.14 and $B(4.4) = (1.898 \pm 0.032)\%$.
[m] The value is $(3.2 \pm 1.0) \times 10^{-5} \cdot \Gamma/\Gamma_\alpha$.
[n] (2009HY01) integrated the strength in the E_x = 9-12 MeV and 12-16.3 MeV regions [excluding the 12.7 MeV state] rather than attributing the strength to a 10.3 MeV group, see discussion.