

Table 2 from (2017KE05): Some electromagnetic transitions in  $A = 12$ 

Nucleus	$E_{x_i} \rightarrow E_{x_f}$ (MeV)	$J_i^\pi \rightarrow J_f^\pi$	$\Gamma_\gamma$ (eV)	Mult.	$\Gamma_\gamma/\Gamma_W$ (W.u.)
$^{12}\text{Be}$	2.109 $\rightarrow$ 0	$2^+ \rightarrow 0^+$	$(2.637 \pm 0.808) \times 10^{-4}$	E2	$4.7 \pm 1.4$
	2.251 $\rightarrow$ 0	$0^+ \rightarrow 0^+$	$(1.520 \pm 0.096) \times 10^{-9}$	E0	$e^+e^-$ -decay
	$\rightarrow$ 2.109	$\rightarrow 2^+$	$(3.269 \pm 0.341) \times 10^{-10}$	E2	$4.21 \pm 0.44$
	2.715 $\rightarrow$ 0	$1^- \rightarrow 0^+$	$0.035 \pm 0.009^a$	E1	$0.0049 \pm 0.0013$
$^{12}\text{B}$	0.953 $\rightarrow$ 0	$2^+ \rightarrow 1^+$	$(2.515 \pm 0.387) \times 10^{-3}$	M1	$0.138 \pm 0.021$
$^{12}\text{C}$	4.440 $\rightarrow$ 0	$2^+ \rightarrow 0^+$	$(1.08 \pm 0.06) \times 10^{-2}$	E2	$4.66 \pm 0.26$
	7.654 $\rightarrow$ 4.440	$0^+ \rightarrow 2^+$	$(3.81 \pm 0.39) \times 10^{-3}$	E2	$8.26 \pm 0.85$
	9.641 $\rightarrow$ 0	$3^- \rightarrow 0^+$	$(3.1 \pm 0.4) \times 10^{-4}$	E3	$12.1 \pm 1.6$
	12.710 $\rightarrow$ 0	$1^+ \rightarrow 0^+$	$0.35 \pm 0.05$	M1	$(8.1 \pm 1.2) \times 10^{-3}$
	$\rightarrow$ 4.440	$\rightarrow 2^+$	$0.053 \pm 0.010$	M1	$(4.5 \pm 0.8) \times 10^{-3}$
	15.110 $\rightarrow$ 0	$1^+ \rightarrow 0^+$	$38.5 \pm 0.8$	M1	$0.533 \pm 0.011$
	$\rightarrow$ 4.440	$\rightarrow 2^+$	$0.96 \pm 0.13$	M1	$(3.8 \pm 0.5) \times 10^{-2}$
	$\rightarrow$ 7.654	$\rightarrow 0^+$	$1.09 \pm 0.30$	M1	$0.125 \pm 0.035$
	$\rightarrow$ 10.300	$\rightarrow 0^+$	$1.60 \pm 0.67$	M1	$0.69 \pm 0.29$
	$\rightarrow$ 12.710	$\rightarrow 1^+$	$0.59 \pm 0.17$	M1	$2.0 \pm 0.6$
	16.106 $\rightarrow$ 0	$2^+ \rightarrow 0^+$	$0.59 \pm 0.11$	E2	$0.41 \pm 0.08$
	$\rightarrow$ 4.440	$\rightarrow 2^+$	$12.8 \pm 1.5$	M1	$0.385 \pm 0.045$
	$\rightarrow$ 9.641	$\rightarrow 3^-$	$0.31 \pm 0.06$	E1	$(3.2 \pm 0.6) \times 10^{-3}$
	$\rightarrow$ 10.847	$\rightarrow 1^-$	$0.48 \pm 0.12$	E1	$(9.3 \pm 2.3) \times 10^{-3}$
	$\rightarrow$ 12.710	$\rightarrow 1^+$	$0.19 \pm 0.04$	M1	$0.231 \pm 0.049$
	16.620 $\rightarrow$ 0	$2^- \rightarrow 0^+$	$0.048 \pm 0.008$	M2	$0.48 \pm 0.08$
	$\rightarrow$ 4.440	$\rightarrow 2^+$	8.0	E1	$1.244 \times 10^{-2}$

<sup>a</sup> Using  $\tau_m = 1.9 \pm 0.5$  fs from the  $B(E1)$  given in (2000IW03).