

Table 2 from (2012KE01): Some electromagnetic transitions in  $A = 11$ 

Nucleus	$E_{\text{xi}} \rightarrow E_{\text{xf}}$ (MeV)	$J_i^\pi \rightarrow J_f^\pi$	$\Gamma_\gamma$ (eV)	Mult.	$\Gamma_\gamma/\Gamma_W$ (W.u.)
$^{11}\text{Be}$	0.32 $\rightarrow$ 0	$\frac{1}{2}^- \rightarrow \frac{1}{2}^+$	$(3.97 \pm 0.35) \times 10^{-3}$	E1	$0.360 \pm 0.031$
$^{11}\text{B}$	2.125 $\rightarrow$ 0	$\frac{1}{2}^- \rightarrow \frac{3}{2}^-$	$0.117 \pm 0.004$	M1	$0.58 \pm 0.02$
	4.445 $\rightarrow$ 0	$\frac{5}{2}^- \rightarrow \frac{3}{2}^-$	$0.54 \pm 0.05$	M1	$0.29 \pm 0.03$
		a	$(1.27 \pm 0.46) \times 10^{-2}$	E2	$6.1 \pm 2.2$
	5.020 $\rightarrow$ 0	$\frac{3}{2}^- \rightarrow \frac{3}{2}^-$	$1.68 \pm 0.06$	M1	$0.63 \pm 0.02$
		b	$(2.2^{+1.8}_{-1.4}) \times 10^{-3}$	E2	$0.57^{+0.49}_{-0.35}$
	$\rightarrow$ 2.125	$\rightarrow \frac{1}{2}^-$	$0.27 \pm 0.02$	M1	$0.54 \pm 0.03$
		c	$(9.6^{+20}_{-7}) \times 10^{-3}$	E2	$40^{+80}_{-9}$
	6.742 $\rightarrow$ 0	$\frac{7}{2}^- \rightarrow \frac{3}{2}^-$	$(2.1 \pm 0.5) \times 10^{-2}$	E2 <sup>d</sup>	$1.26 \pm 0.30$
	$\rightarrow$ 4.445	$\rightarrow \frac{5}{2}^-$	$(9.0 \pm 2.2) \times 10^{-3}$	M1	$(3.5 \pm 0.8) \times 10^{-2}$
	6.792 $\rightarrow$ 0	$\frac{1}{2}^+ \rightarrow \frac{3}{2}^-$	$0.26 \pm 0.03$	E1	$(2.5 \pm 0.3) \times 10^{-3}$
	$\rightarrow$ 2.125	$\rightarrow \frac{1}{2}^-$	$0.11 \pm 0.02$	E1	$(3.2 \pm 0.4) \times 10^{-3}$
	$\rightarrow$ 5.020	$\rightarrow \frac{3}{2}^-$	$(1.56 \pm 0.23) \times 10^{-2}$	E1	$(8.3 \pm 1.2) \times 10^{-3}$
	7.286 $\rightarrow$ 0	$\frac{5}{2}^+ \rightarrow \frac{3}{2}^-$	$0.99 \pm 0.07$	E1	$(7.6 \pm 0.6) \times 10^{-3}$
		e	$(10^{+5000}_{-10}) \times 10^{-7}$	M2	$\leq 0.33$
	$\rightarrow$ 4.445	$\rightarrow \frac{5}{2}^-$	$(6.2 \pm 1.2) \times 10^{-2}$	E1	$(8.1 \pm 1.6) \times 10^{-3}$
		f	$(4^{+24}_{-4}) \times 10^{-4}$	M2	$\leq 180$
	$\rightarrow$ 5.020	$\rightarrow \frac{3}{2}^-$	$(8.5 \pm 1.3) \times 10^{-2}$	E1	$(2.2 \pm 0.3) \times 10^{-2}$
		g	$(7^{+77}_{-7}) \times 10^{-5}$	M2	$\leq 190$
	7.978 $\rightarrow$ 0	$\frac{3}{2}^+ \rightarrow \frac{3}{2}^-$	$0.53 \pm 0.07$	E1	$(3.1 \pm 0.4) \times 10^{-3}$
	$\rightarrow$ 2.125	$\rightarrow \frac{1}{2}^-$	$0.61 \pm 0.08$	E1	$(9.1 \pm 1.2) \times 10^{-3}$
	$\rightarrow$ 7.286	$\rightarrow \frac{5}{2}^+$	$(9.8 \pm 1.4) \times 10^{-3}$	M1	$1.4 \pm 0.2$
	8.560 $\rightarrow$ 0	$\frac{3}{2}^- \rightarrow \frac{3}{2}^-$	$0.56 \pm 0.05$	M1	$(4.3 \pm 0.4) \times 10^{-2}$
	$\rightarrow$ 2.125	$\rightarrow \frac{1}{2}^-$	$0.30 \pm 0.03$	M1	$(5.4 \pm 0.6) \times 10^{-2}$
	$\rightarrow$ 4.445	$\rightarrow \frac{5}{2}^-$	$(5.0 \pm 1.1) \times 10^{-2}$	M1	$(3.4 \pm 0.8) \times 10^{-2}$
	$\rightarrow$ 5.020	$\rightarrow \frac{3}{2}^-$	$(9.0 \pm 1.3) \times 10^{-2}$	M1	$(9.7 \pm 1.4) \times 10^{-2}$
	8.920 $\rightarrow$ 0	$\frac{5}{2}^- \rightarrow \frac{3}{2}^-$	$4.15 \pm 0.05$	M1	$0.28 \pm 0.03$
		h	$(0^{+8}_{-0}) \times 10^{-4}$	E2	$\leq 0.01$
$\rightarrow$ 4.445	$\rightarrow \frac{5}{2}^-$	$0.20 \pm 0.02$	M1	$0.10 \pm 0.01$	
	i	$(7.3 \pm 5.8) \times 10^{-4}$	E2	$0.34 \pm 0.27$	
9.184 $\rightarrow$ 0	$\frac{7}{2}^+ \rightarrow \frac{3}{2}^-$	$(1.5 \pm 0.7) \times 10^{-3}$	M2	$0.32 \pm 0.15$	
$\rightarrow$ 4.445	$\rightarrow \frac{5}{2}^-$	$0.15 \pm 0.05$	E1	$(4.1 \pm 1.4) \times 10^{-3}$	
$\rightarrow$ 6.742	$\rightarrow \frac{7}{2}^-$	$(2.1 \pm 0.8) \times 10^{-2}$	E1	$(4.3 \pm 1.6) \times 10^{-3}$	
$^{11}\text{C}$	2.000 $\rightarrow$ 0	$\frac{1}{2}^- \rightarrow \frac{3}{2}^-$	$(6.43 \pm 0.45) \times 10^{-2}$	M1	$0.38 \pm 0.03$
	8.105 $\rightarrow$ 0	$\frac{3}{2}^- \rightarrow \frac{3}{2}^-$	$0.26 \pm 0.06$	M1	$(2.3 \pm 0.5) \times 10^{-2}$
	$\rightarrow$ 2.000	$\rightarrow \frac{1}{2}^-$	$(9.1 \pm 2.3) \times 10^{-2}$	M1	$(1.9 \pm 0.5) \times 10^{-2}$
	8.420 $\rightarrow$ 0	$\frac{5}{2}^- \rightarrow \frac{3}{2}^-$	$3.0 \pm 1.1$	M1	$0.25 \pm 0.09$

- <sup>a</sup>  $\delta = +0.158_{-0.021}^{+0.025}$  (2009RU04). See also  $\delta = +0.19 \pm 0.03$  (1968BE03).
- <sup>b</sup>  $\delta = -0.036 \pm 0.013$  (2009RU04). See also  $\delta = -0.03 \pm 0.05$  (1968BE03).
- <sup>c</sup>  $\delta = -0.19_{-0.17}^{+0.10}$  (2009RU04). See also  $\delta = -0.05 \pm 0.20$  (1968BE03).
- <sup>d</sup>  $\delta = -0.45 \pm 0.18$ . This value leads to too large a value of  $\Gamma_\gamma$  for an M3 transition (P.M. Endt, private communication with FAS).
- <sup>e</sup>  $\delta = +0.001_{-0.021}^{+0.022}$  (2009RU04).
- <sup>f</sup>  $\delta = -0.081_{-0.126}^{+0.164}$  (2009RU04).
- <sup>g</sup>  $\delta = +0.028_{-0.075}^{+0.073}$  (2009RU04).
- <sup>h</sup>  $\delta = 0.000 \pm 0.014$  (2009RU04). See also  $\delta = -0.11 \pm 0.04$  (1968CO09).
- <sup>i</sup>  $\delta = -0.061_{-0.022}^{+0.025}$  (2009RU04).