

Adopted Levels, Gammas 1993Ti07

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, D. R. Tilley, H. R. Weller and C. M. Cheves		NP A564,1 (1993)	31-Dec-1992

$Q(\beta^-)=8679$ 15; $S(n)=5885$ 16; $S(p)=13113$ 16; $Q(\alpha)=-11117$ 15 [2012Wa38](#)
 Note: Current evaluation has used the following Q record 8680 15 5884 15 13112 16-11116 15 [1997Au04](#).
 See other reaction references in [1993Ti07](#).

 ^{17}N Levels

Decay mode not specified for E(level)>6000.

Cross Reference (XREF) Flags

A	$^{17}\text{N} \beta^-$ decay	E	$^{18}\text{O}(d, ^3\text{He})$
B	$^{11}\text{B}(^7\text{Li}, p)$	F	$^{18}\text{O}(t, \alpha)$
C	$^{14}\text{C}(^6\text{Li}, ^3\text{He})$	G	$^{17}\text{C} \beta^-$ decay
D	$^{15}\text{N}(t, p)$		

E(level)	J^π	$T_{1/2}$	XREF	Comments
0.0	$1/2^-$	4.173 s 4	ABCDEF	$\% \beta^- = 100$; $\% \beta^- n = 95.1$ 7 $T = 3/2$ $T_{1/2}$: weighted average of: 4174 ms 4 (1976Oh05), 4169 ms 8 (1972Al42) 4160 ms 31 (1965Do13), other: 4230 ms 490 (1991Re02). $\% \beta^- n$ from 1976Al02 .
1373.9 3	$3/2^-$	64 fs 24	B DEFG	
1849.6 3	$1/2^+$	28 ps +14-6	B DEFG	
1906.8 3	$5/2^-$	7.6 ps 14	BCDEFG	
2526.0 5	$5/2^+$	22.9 ps 21	BCDEFG	
3128.9 5	$7/2^-$	191 ps 56	B DEF	
3204.2 9	$3/2^-$	<21 fs	B DEF	
3628.7 7	$(7/2, 9/2)^-$	8.3 ps 14	BCD	
3663 4	$1/2^-$	<243 fs	B D	
3906.0 20	$(3/2, 5/2)^-$	36 fs 15	B D	
4006.4 20	$3/2^{(+)}$	<11 fs	BCDE	
4209 3	$5/2^+$	<49 fs	B D	
4415 3	$(3/2, 5/2)^-$	<42 fs	B D	$T_{1/2}$ is tentative.
5170 2	$(9/2^+)$	<42 fs	BCDE	
5195 3	$3/2^+$	<66 fs	B D	
5515 3	$3/2^-$	<70 fs	B DE	
5772 3	$1/2, 3/2^+$	<83 fs	B	
6080? 30			B	
6233 8			B D	
6449 3			B D	
6615 19			B D	
6938 15			D	
6981 20	$3/2^-$		B D F	
7013 22			B D F	
7170 40			B	
7370 40			B	
7630 40			B	
7730 40			B	
8000 25			B	
8140 40			B	
8550 40			B	$T_{1/2}$: Γ =broad.

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas 1993Ti07 (continued) ^{17}N Levels (continued)

E(level)	J ^π	XREF	Comments			
8930 <i>40</i>		B	T _{1/2} : Γ=broad.			
9260 <i>40</i>		B	T _{1/2} : Γ=broad.			
9740 <i>40</i>		B	T _{1/2} : Γ=broad.			
10140	(1/2,3/2) ⁻	E				
<u>γ(¹⁷N)</u>						
E _i (level)	J _i ^π	E _γ	I _γ	E _f	J _f ^π	Mult. Comments
1373.9	3/2 ⁻	1373.8 <i>3</i>	100	0.0	1/2 ⁻	[M1] B(M1)↓=0.13 <i>6</i>
1849.6	1/2 ⁺	475.7 <i>3</i>	16 <i>3</i>	1373.9	3/2 ⁻	[E1] B(E1)(W.u.)=4.4×10 ⁻⁵ +22- <i>10</i>
		1849.5 <i>3</i>	100 <i>3</i>	0.0	1/2 ⁻	[E1] B(E1)(W.u.)=5.0×10 ⁻⁶ +25- <i>10</i>
1906.8	5/2 ⁻	532.9 <i>3</i>	30 <i>3</i>	1373.9	3/2 ⁻	[M1] B(M1)(W.u.)=0.0044 <i>10</i>
		1906.7 <i>3</i>	100 <i>3</i>	0.0	1/2 ⁻	[E2] B(E2)(W.u.)=0.8 <i>2</i>
2526.0	5/2 ⁺	619.2 <i>5</i>	100 <i>6</i>	1906.8	5/2 ⁻	[E1] B(E1)(W.u.)=7.9×10 ⁻⁵ <i>10</i>
		676.4 <i>5</i>	29 <i>4</i>	1849.6	1/2 ⁺	[E2] B(E2)(W.u.)=7.7 <i>15</i>
		1152.1 <i>5</i>	83 <i>8</i>	1373.9	3/2 ⁻	[E1] B(E1)(W.u.)=9.8×10 ⁻⁶ <i>15</i>
		2525.8 <i>5</i>	27 <i>3</i>	0.0	1/2 ⁻	[M2] B(M2)(W.u.)=0.21 <i>3</i>
3128.9	7/2 ⁻	602.9 <i>7</i>	<3	2526.0	5/2 ⁺	
		1222.1 <i>5</i>	100	1906.8	5/2 ⁻	[M1] B(M1)(W.u.)=0.063 <i>18</i>
		1279.2 <i>6</i>	<2	1849.6	1/2 ⁺	
		1754.9 <i>6</i>	<5	1373.9	3/2 ⁻	
		3128.6 <i>5</i>	<2	0.0	1/2 ⁻	
3204.2	3/2 ⁻	678.2 <i>10</i>	<3	2526.0	5/2 ⁺	
		1297.3 <i>9</i>	14 <i>5</i>	1906.8	5/2 ⁻	[M1]
		1354.5 <i>10</i>	<6	1849.6	1/2 ⁺	
		1830.2 <i>10</i>	<5	1373.9	3/2 ⁻	
		3203.9 <i>9</i>	100 <i>5</i>	0.0	1/2 ⁻	[M1] δ: +0.06 <i>8</i> or -2.1 <i>4</i> .
3628.7	(7/2,9/2) ⁻	424.5 <i>12</i>	<2	3204.2	3/2 ⁻	
		499.8 <i>7</i>	100 <i>19</i>	3128.9	7/2 ⁻	[M1]
		1102.7 <i>9</i>	<3	2526.0	5/2 ⁺	
		1721.8 <i>7</i>	89 <i>19</i>	1906.8	5/2 ⁻	[E2]
		1779.0 <i>8</i>	<7	1849.6	1/2 ⁺	
		2254.6 <i>8</i>	<10	1373.9	3/2 ⁻	
		3628.3 <i>8</i>	<10	0.0	1/2 ⁻	
3663	1/2 ⁻	1813 <i>4</i>	100	1849.6	1/2 ⁺	[E1]
3906.0	(3/2,5/2) ⁻	1999.1 <i>20</i>	100	1906.8	5/2 ⁻	[M1] B(M1)(W.u.)=0.08 +6-2
4006.4	3/2 ⁽⁺⁾	1480.3 <i>20</i>	100 <i>6</i>	2526.0	5/2 ⁺	
		2156.7 <i>20</i>	≤24	1849.6	1/2 ⁺	Evaluator gives I _γ ≤18 <i>6</i> with a footnote stating that the branch is uncertain.
4209	5/2 ⁺	2835 <i>3</i>	100	1373.9	3/2 ⁻	
4415	(3/2,5/2) ⁻	2508 <i>3</i>	100	1906.8	5/2 ⁻	
5170	(9/2 ⁺)	2041 <i>2</i>	100 <i>11</i>	3128.9	7/2 ⁻	
		2644 <i>2</i>	59 <i>11</i>	2526.0	5/2 ⁺	
5195	3/2 ⁺	3288 <i>3</i>	≈100	1906.8	5/2 ⁻	
		3345 <i>3</i>	≈72	1849.6	1/2 ⁺	
5515	3/2 ⁻	4141 <i>3</i>	≈100	1373.9	3/2 ⁻	
		5515 <i>3</i>	≈100	0.0	1/2 ⁻	
5772	1/2,3/2 ⁺	1766 [†] <i>3</i>	≈100	4006.4	3/2 ⁽⁺⁾	
		3865 <i>3</i>	≈50	1906.8	5/2 ⁻	
		4398 <i>3</i>	≈50	1373.9	3/2 ⁻	

[†] Placement of transition in the level scheme is uncertain.

Adopted Levels, Gammas 1993Ti07

Legend

Level Scheme

Intensities: Relative photon branching from each level

-----► γ Decay (Uncertain)