Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Tilley, Weller, Cheves, Chasteler	NP A595,1 (1995)	31-Oct-1994

Q(β^-)=−11177 *11*; S(n)=11636.9 *4*; S(p)=6410.0 *5*; Q(α)=−3528.5 *6* 2012Wa38
Note: Current evaluation has used the following Q record −11178 1211639.5 *476411*.45 *82* 1993Au05.

^{19}Ne Levels

Cross Reference (XREF) Flags

A	^{19}Ne β^+ decay	F	^{16}O(^{10}B,^{7}Li)	K	^{19}F(^{3}He,t)
B	^{15}O(α,γ)	G	^{16}O(^{12}C,^{9}Be)	L	^{20}Ne(^{3}He,α)
C	^{16}O(^{3}He,X)	H	^{17}O(^{3}He,n)	M	^{21}Ne(p,t)
D	^{16}O(α,n)	I	^{18}O(p,π^-)		
E	^{16}O(^{6}Li,t)	J	^{19}F(p,n)		

E(level)	J$^\pi$	$T_{1/2}$	XREF	Comments
0.0	1/2$^+$	17.22 s *2*	A CDE G IJKLM	%ε+%β^+=100 T=1/2 $T_{1/2}$: Weighted Av: 17.36 s *6*(1968Go10), 17.36 s *6*(1974Wi14), 17.219 s 17 (1975Az01).
238.27 *11*	5/2$^+$	18.0 ns *5*	DE G JKLM	g=−0.296 *3*
275.09 *13*	1/2$^-$	42.6 ps *21*	DE G J L	
1507.56 *30*	5/2$^-$	0.97 ps *40*	DE G J L	
1536.0 *4*	3/2$^+$	19 fs *8*	DE G JKL	
1615.6 *5*	3/2$^-$	99 fs *21*	DE G J L	
2794.7 *6*	9/2$^+$	97 fs *24*	DEFG IJKLM	
4032.9 *24*	3/2$^+$	<35 fs	B E H LM	%α=?
4140 *4*	(9/2)$^-$	<0.2 ps	E H L	
4197.1 *24*	(7/2)$^-$	<0.24 ps	DE H L	
4379.1 *22*	7/2$^+$	<0.08 ps	B E H L	%α=?
4549 *4*	(1/2,3/2)$^-$	<55 fs	B E H L	%α=?
4600 *4*	(5/2$^+$)	<0.11 ps	B E H	
4635 *4*	13/2$^+$	>0.7 ps	DEFGHI L	
4712 *10*	(5/2$^-$)		B E	%α=100
4783 *20*			L	
5092 *6*	5/2$^+$		B E H LM	%α=?
5351 *10*	1/2$^+$		L	
5424 *7*	(7/2$^+$)		DE L	
5463 *20*			L	
5539 *9*			L	
5832 *9*			L	
6013 *7*	(3/2,1/2)$^-$		L	
6092 *8*			E L	
6149 *20*			M	
6288 *7*			E L	
6437 *9*			L	
6742 *7*	(3/2,1/2)$^-$		L	
6861 *7*			E L	
7067 *9*			L	
7210 *20*			E L	
7253 *10*			L	
7326? *15*			L	
7531? *15*			L	
7616 *16*	3/2$^+$		D LM	T=3/2
7700 *10*			L	

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Adopted Levels, Gammas (continued)

^{19}Ne Levels (continued)

E(level)	J^π	$T_{1/2}$	XREF	Comments
7788? *10*			L	
7994 *15*			L	
8069 *12*			E L	
8236 *10*			L	
8442 *9*			DE L	
8523 *10*			L	
8810? *25*			L	
8920 *9*	$(11/2^-)$		DEFG L	
9013 *10*			L	
9100 *20*			L	
9240 *20*			D L	
9489 *25*			L	
9810 *20*	$(11/2^+)$		DEFGH L	
10010 *20*			E	
10407 *30*	$3/2^+$	45 keV	CD G L	%α=?; %p=? %3HE=?
10460	$1/2^+$	355 keV	C	%α=?; %p=? %3HE=?
10613 *20*			L	
11080 *20*			DEF	
11240 *20*			E	
11400 *20*			E	
11510 *50*	$3/2^-$,$(1/2^-)$	25 keV	D	%α=? %3HE=?
12230 *50*	$5/2^+$	200 keV *25*	D FG	%α=? %3HE=?
12400 *50*	$7/2^+$	180 keV *25*	C	%α=? %3HE=?
12560 *20*			E	
12690 *50*	$1/2^+$	180 keV *40*	C	%p=? %3HE=?
13100 *30*			E	
13220 *30*			E	
1380×10^1 *25*		67×10^1 keV *25*	C	%3HE=?
14180 *30*			EF	
14440 *30*			E	
14780 *30*		62×10^1 keV *13*	C E	%3HE=?
1623×10^1 *13*		40×10^1 keV *13*	C	%n=? %3HE=?
1840×10^1 *50*		440×10^1 keV *50*	C	%3HE=?

$\gamma(^{19}Ne)$

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments
238.27	$5/2^+$	238.3	100	0.0	$1/2^+$	E2	B(E2)(W.u.)=13.2 *5*
275.09	$1/2^-$	275.1	100	0.0	$1/2^+$	E1	B(E1)(W.u.)=0.00106 *5*
1507.56	$5/2^-$	1232.5	88 *3*	275.09	$1/2^-$	E2	B(E2)(W.u.)=58 *20*
		1269.3	12 *3*	238.27	$5/2^+$	E1	B(E1)(W.u.)=0.000057 *25*
1536.0	$3/2^+$	1260.9	5 *3*	275.09	$1/2^-$	E1	B(E1)(W.u.)=0.0010 *7*
		1297.7	95 *3*	238.27	$5/2^+$	M1	B(M1)(W.u.)=0.50 *28*
1615.6	$3/2^-$	1340.5	70 *4*	275.09	$1/2^-$	M1	B(M1)(W.u.)=0.063 *16*
		1377	10 *3*	238.27	$5/2^+$	E1	B(E1)(W.u.)=0.00036 *14*
		1616	20 *3*	0.0	$1/2^+$	E1	B(E1)(W.u.)=0.00045 *14*
2794.7	$9/2^+$	2556.4	100	238.27	$5/2^+$	E2	B(E2)(W.u.)=17 *4*

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Adopted Levels, Gammas (continued)

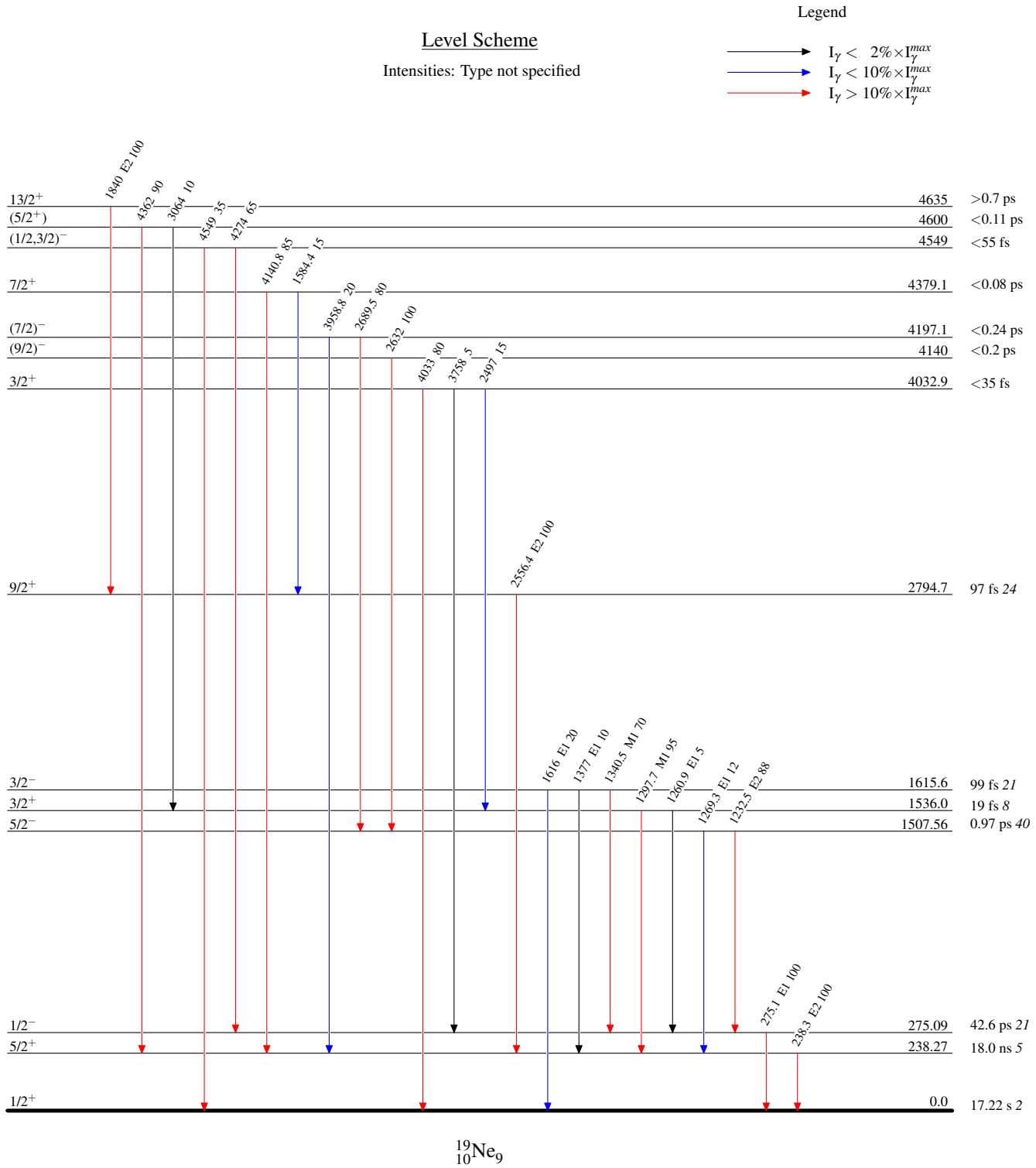
$\gamma(^{19}Ne)$ (continued)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.	Comments
4032.9	$3/2^+$	2497	15 *5*	1536.0	$3/2^+$		
		3758	5 *5*	275.09	$1/2^-$		
		4033	80 *15*	0.0	$1/2^+$		
4140	$(9/2)^-$	2632	100	1507.56	$5/2^-$		
4197.1	$(7/2)^-$	2689.5	80 *5*	1507.56	$5/2^-$		
		3958.8	20 *5*	238.27	$5/2^+$		
4379.1	$7/2^+$	1584.4	15 *4*	2794.7	$9/2^+$		
		4140.8	85 *4*	238.27	$5/2^+$		
4549	$(1/2,3/2)^-$	4274	65 *25*	275.09	$1/2^-$		
		4549	35 *25*	0.0	$1/2^+$		
4600	$(5/2^+)$	3064	10 *5*	1536.0	$3/2^+$		
		4362	90 *5*	238.27	$5/2^+$		
4635	$13/2^+$	1840	100	2794.7	$9/2^+$	E2	B(E2)(W.u.)<13

Adopted Levels, Gammas

Level Scheme

Intensities: Type not specified



$^{19}_{10}Ne_9$