^{9}Be(^{3}He,n) 1965Ro07,1965Ol03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	J. H. Kelley, C. G. Sheu	NP A880, 88 (2012)	1-Jan-2011

1965Di06: ^{9}Be(^{3}He,n) E=1.30-5.35 MeV, measured σ(E,E_N,θ), L.
1965Ol03: ^{11}C, measured not abstracted; deduced nuclear properties.
1965Ro07: ^{9}Be(^{3}He,nγ) E=2.0 MeV, measured N-spectrum, nγ-coin, I_γ, E_γ. ^{11}C deduced levels, J, π, γ-branching ratios.
1968Ok03: ^{9}Be(^{3}He,n) E=3.49-9.96 MeV, measured σ(E,E_N,θ).
1969Br30: ^{9}Be(^{3}He,n) E=11.6, 16.1 MeV, measured σ(E_N). ^{11}C deduced levels, T, analog states.
1970Kr09: ^{9}Be(^{3}He,n) E=1-30 MeV, measured σ(E).
1971Wa21: ^{9}Be(^{3}He,n) E=29.8 MeV, measured σ(ef), σ(E(^{3}He′), sigma(En)). ^{11}C deduced T=3/2 levels, level-width.
1971Th15: ^{9}Be(^{3}He,N_0),(^{3}He,n) E=2.1-3.9 MeV, measured P_N(E, THETA=21 DEGREE-140 DEGREE C.M.).
1973Su07: ^{9}Be(^{3}He,nγ) E=0.5-1.1 MeV, measured σ(E).
1974Fu11: ^{9}Be(^{3}He,n) E=10.5-13 MeV, measured σ(E,E_N,θ). ^{11}C deduced levels, L, J, π, analog states.
1981An16: ^{9}Be(^{3}He,n) E=5.7-40.7 MeV, measured σ(E), thick target yields.
1986Gu19: ^{9}Be(^{3}He,n) E=23 MeV, measured σ(E_N). Tof spectrometer.
Iγ from (1965Ro07), except where noted; additions mainly from (1965Ol03).
J^π: Analysis includes data from ^{10}B(d,n) and ^{12}C(d,t).
L: From (1974Fu11).
E: (1968Aj02) gives energy values with uncertainties of 20-30 keV from various sources.

^{11}C Levels

E(level)	J^π	$T_{1/2}$	L	Comments
0			0	
2.00×10^3	1/2$^-$		2	
4.32×10^3	5/2$^-$		2	
4.80×10^3	3/2$^-$		2	branching ratios from (1965Ol03), ^{10}B(d,n) are also included.
6.37×10^3 *10*	1/2$^+$	<76.2 fs	1	Γ: from (1966Wa10). E(level): J^π: 1/2+/-,3/2+/- or 5/2$^-$ from (1965Ro07). branching ratios from analysis In (1965Ol03).
6.48×10^3	7/2$^-$	<173 fs	2	Γ: from (1966Wa10). branching ratios from analysis In (1965Ol03).
6.93×10^3 *8*	5/2$^+$	<111 fs	3	Γ: from (1966Wa10). E(level): J^π: 3/2+/-,5/2+/- or 7/2$^-$ from (1965Ro07). branching ratios from analysis In (1965Ol03).
7.50×10^3 *5*	3/2$^+$		1	J^π: 1/2+/- or 3/2+/- from (1965Ro07). branching ratios from analysis In(1965Ol03).
8.10×10^3			0	
8.42×10^3			2	
8.65×10^3				
8.69×10^3				
10682 *20*				E(level): from (1974Fu11).
10957 *20*		250 keV *30*		E(level): Γ: from (1974Fu11).
12.17×10^3 *5*		0.20 MeV *10*		T=3/2 E(level): Γ: from (1971Wa21).
12.55×10^3 *5*		0.35 MeV *10*		T=3/2 E(level): from 12.55 MeV *5* (1971Wa21) and 12.50 MeV *10* (1969Br30). Γ: from (1971Wa21).
13.7×10^3 *1*				T=3/2 E(level): from (1969Br30).
14.7×10^3				there is ambiguity about this state; it is reported by Ajzenberg-Selove, but not referred to In other manuscripts.

^{9}Be(^{3}He,n) 1965Ro07,1965Ol03 (continued)

$\gamma(^{11}C)$

E_γ	I_γ	E_i(level)	J_i^π	E_f	J_f^π	Comments
450	<5	6.93×10^3	$5/2^+$	6.48×10^3	$7/2^-$	
560	<5	6.93×10^3	$5/2^+$	6.37×10^3	$1/2^+$	
1.56×10^3	<4	6.37×10^3	$1/2^+$	4.80×10^3	$3/2^-$	
2.01×10^3 *3*	100	2.00×10^3	$1/2^-$	0		Eγ: from (1965Ro07).
2.12×10^3	<3	6.93×10^3	$5/2^+$	4.80×10^3	$3/2^-$	
2170	11 *2*	6.48×10^3	$7/2^-$	4.32×10^3	$5/2^-$	
2320	<2	4.32×10^3	$5/2^-$	2.00×10^3	$1/2^-$	from (1965Ol03).
2.61×10^3	11 *3*	6.93×10^3	$5/2^+$	4.32×10^3	$5/2^-$	
2.69×10^3	<3	7.50×10^3	$3/2^+$	4.80×10^3	$3/2^-$	
2.81×10^3	17 *5*	4.80×10^3	$3/2^-$	2.00×10^3	$1/2^-$	
3.18×10^3	<3	7.50×10^3	$3/2^+$	4.32×10^3	$5/2^-$	
4320	100	4.32×10^3	$5/2^-$	0		
4.37×10^3	35 *3*	6.37×10^3	$1/2^+$	2.00×10^3	$1/2^-$	
4480	<2	6.48×10^3	$7/2^-$	2.00×10^3	$1/2^-$	
4.81×10^3	83 *5*	4.80×10^3	$3/2^-$	0		
4.93×10^3	<2	6.93×10^3	$5/2^+$	2.00×10^3	$1/2^-$	
5.50×10^3	64 *2*	7.50×10^3	$3/2^+$	2.00×10^3	$1/2^-$	
6.37×10^3	65 *3*	6.37×10^3	$1/2^+$	0		
6480	89 *2*	6.48×10^3	$7/2^-$	0		
6.93×10^3	89 *3*	6.93×10^3	$5/2^+$	0		
7.50×10^3	36 *2*	7.50×10^3	$3/2^+$	0		

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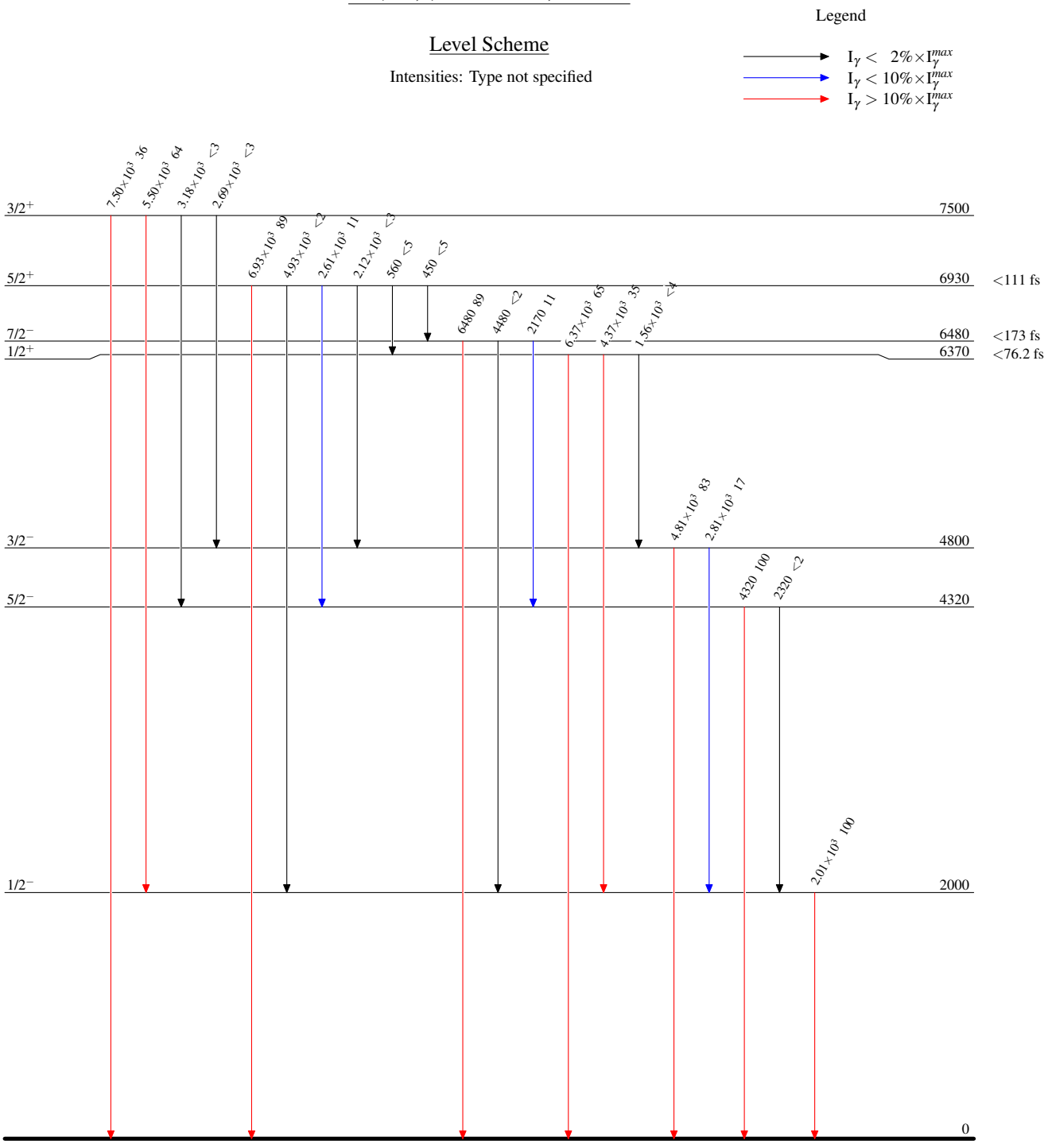
Level Scheme

Intensities: Type not specified



$^{11}_{6}C_5$