^{91}Nb IT decay (3.76 μs) 1976Br14

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 114, 1293 (2013)	1-Sep-2013

Parent: ^{91}Nb: E=2034.42 *20*; J^π=(17/2$^-$); $T_{1/2}$=3.76 μs *12*; %IT decay=100.0
^{91}Nb-E,J^π,$T_{1/2}$: From Adopted Levels.

^{91}Nb Levels

E(level)[†]	J^π[‡]	$T_{1/2}$[‡]	Comments
0	9/2$^+$	6.8×10^2 y *13*	
104.62 *5*	1/2$^-$	60.86 d *22*	
1187.1 *4*	5/2$^-$		
1790.6 *4*	(9/2$^-$)		
1984.7 *4*	(13/2$^-$)	10.0 ns *4*	
2034.8 *4*	(17/2$^-$)	3.76 μs *12*	%IT=100

[†] From least-squares fit to Eγ.
[‡] From Adopted Levels.

γ(^{91}Nb)

Iγ normalization: [Ti(1083γ)+Ti(1791γ)+Ti(1985γ)]=100. consistent with≈1.12 from Ti(50.1γ)=100.
Isomer produced by ^{88}Sr(^{6}Li,3nγ), E=34 MeV. Ge(Li), FWHM=2.5 keV to 3.0 keV. Si(Li), FWHM=180 eV.

E_γ	I_γ[‡][b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[a]	δ[a]	α[†]	Comments
50.1 *2*	≈6	2034.8	(17/2$^-$)	1984.7	(13/2$^-$)	(E2)		13.9 *3*	α(K)=9.64 *19*; α(L)=3.52 *9*; α(M)=0.635 *15*; α(N+..)=0.0833 *19* α(N)=0.0821 *19*; α(O)=0.001211 *23*
(104.62[#] *5*)		104.62	1/2$^-$	0	9/2$^+$	M4		167.3	α(K)=114.7 *17*; α(L)=43.1 *7*; α(M)=8.28 *12*; α(N+..)=1.168 *17* α(N)=1.132 *17*; α(O)=0.0356 *5*
194.1 *3*	31 *3*	1984.7	(13/2$^-$)	1790.6	(9/2$^-$)	E2		0.1051	α(K)=0.0900 *14*; α(L)=0.01250 *19*; α(M)=0.00221 *4*; α(N+..)=0.000324 *5* α(N)=0.000310 *5*; α(O)=1.359×10^{-5} *21*
603.5 *3*	1.20[&] *12*	1790.6	(9/2$^-$)	1187.1	5/2$^-$				
1082.6 *5*	≈1[@&]	1187.1	5/2$^-$	104.62	1/2$^-$	E2		0.000602 *9*	α=0.000602 *9*; α(K)=0.000531 *8*; α(L)=5.93×10^{-5} *9*; α(M)=1.044×10^{-5} *15*; α(N+..)=1.615×10^{-6} *23* α(N)=1.527×10^{-6} *22*; α(O)=8.79×10^{-8} *13*
1790.6 *5*	33.5 *10*	1790.6	(9/2$^-$)	0	9/2$^+$	(E1+M2)	−0.15 *15*	0.000578 *9*	α=0.000578 *9*; α(K)=0.000106 *18*;

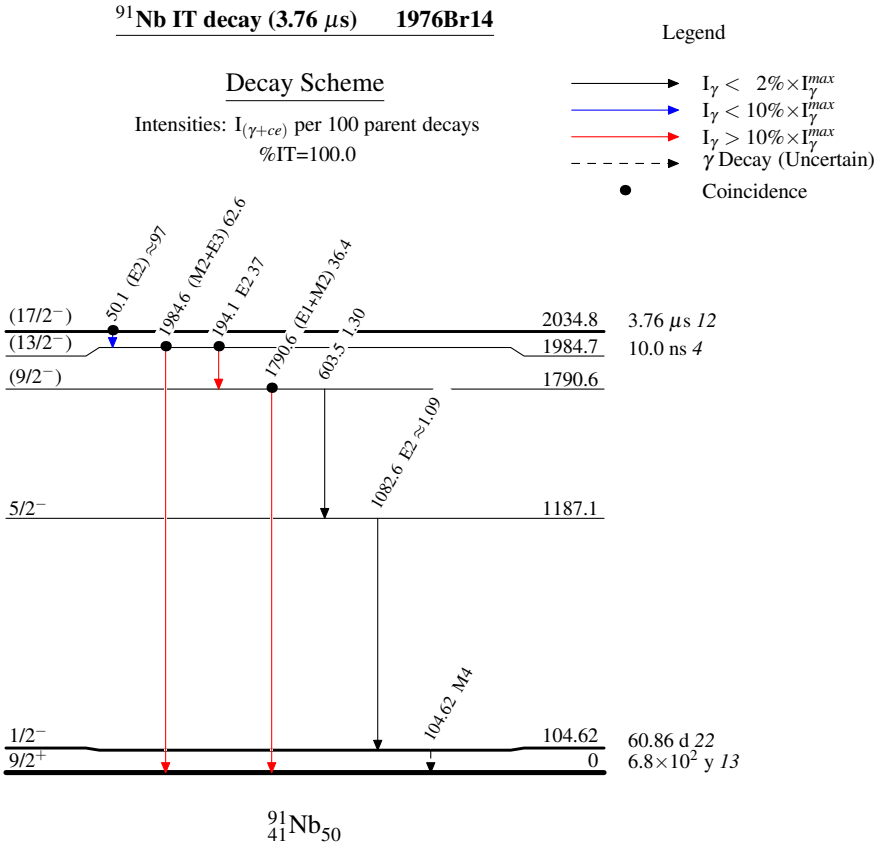
Continued on next page (footnotes at end of table)

^{91}Nb IT decay (3.76 μs) 1976Br14 (continued)

γ(^{91}Nb) (continued)

E_γ	I_γ[‡][b]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[a]	δ[a]	α[†]	Comments
									α(L)=1.15×10^{-5} *20*; α(M)=2.0×10^{-6} *4*; α(N+..)=0.000458 *24* α(N)=3.0×10^{-7} *5*; α(O)=1.7×10^{-8} *3*; α(IPF)=0.000458 *24*
1984.6 *5*	57.7 *10*	1984.7	(13/2$^-$)	0	9/2$^+$	(M2+E3)	−0.13 *4*	0.000486 *7*	α=0.000486 *7*; α(K)=0.000306 *5*; α(L)=3.38×10^{-5} *5*; α(M)=5.95×10^{-6} *9*; α(N+..)=0.0001404 *20* α(N)=8.74×10^{-7} *13*; α(O)=5.16×10^{-8} *8*; α(IPF)=0.0001395 *20*

† Additional information 1.
‡ Intensity integrated over 0°, 45° and 90°, if not indicated otherwise.
# Not observed. Energy taken from adopted γ-radiations.
@ Doublet.
& Intensity at θ=90°.
[a] From Adopted Gammas.
[b] For absolute intensity per 100 decays, multiply by 1.085 *18*.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Decay Scheme
Intensities: I(γ+ce) per 100 parent decays
%IT=100.0
Legend
Iγ < 2%×Iγmax
Iγ < 10%×Iγmax
Iγ > 10%×Iγmax
γ Decay (Uncertain)
Coincidence
(17/2−)
(13/2−)
(9/2−)
5/2−
1/2−
9/2+
2034.8
1984.7
1790.6
1187.1
104.62
0
3.76 μs 12
10.0 ns 4
60.86 d 22
6.8×10^2 y 13
50.1 (E2) ≈97
1984.6 (M2+E3) 62.6
194.1 E2 37
1790.6 (E1+M2) 36.4
603.5 1.30
1082.6 E2 ≈1.09
104.62 M4
$^{91}_{41}Nb_{50}$