^{93}Nb(γ,γ'): E<2.75 MeV   2007Or01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112, 1163 (2011)	15-Dec-2010

See ^{93}Nb(γ,γ') E=6465 keV data set for additional (γ,γ') data.

Bremsstrahlung end-point energy=2.75 MeV; HPGe detectors at θ=90°, 127°, 150°; measured integrated photon scattering cross sections.

^{93}Nb Levels

E(level)[†]	J$^\pi$[@]	T$_{1/2}$[‡]	I$_{s,0}$ (eV b)[#]	E(level)[†]	J$^\pi$[@]	T$_{1/2}$[‡]	I$_{s,0}$ (eV b)[#]
0	9/2$^+$			1499.9	(9/2$^-$)	0.84 ps 22	0.58 15
744.2	7/2$^+$	0.48 ps 5	5.3 5	1910.6	11/2$^+$	168 fs 14	2.50 22
949.8	13/2$^+$	2.3[&] ps 7	1.18 34	1968.9	11/2$^+$	111 fs 19	0.73 12
979.8	11/2$^+$	0.33 ps 6	6.7 12	2122.6	9/2$^+$	113 fs 21	0.62 11
1297.4	9/2$^+$	0.21 ps 3	1.30 20	2506.9			1.12 26
1483.6	7/2$^{(+)}$	47 fs 4	7.9 6				

[†] Rounded value from Adopted Levels.

[‡] Calculated by evaluator from measured integrated cross section assuming adopted branching to g.s. and Eγ and J$^\pi$ As indicated.

[#] Integrated photon scattering cross section.

[@] From Adopted Levels.

[&] High background measurement; possibly low As a result of unknown feeding effects In (γ,γ') (2007Or01).

$\gamma(^{93}$Nb)

E$_i$(level)	J$_i^\pi$	E$_\gamma$[†]	I$_\gamma$[‡]	E$_f$	J$_f^\pi$
744.2	7/2$^+$	744.2	100	0	9/2$^+$
949.8	13/2$^+$	949.8	100	0	9/2$^+$
979.8	11/2$^+$	979.8	100	0	9/2$^+$
1297.4	9/2$^+$	1297.4	51.0 23	0	9/2$^+$
1483.6	7/2$^{(+)}$	1483.6	76.1 15	0	9/2$^+$
1499.9	(9/2$^-$)	1499.9	78.8 23	0	9/2$^+$
1910.6	11/2$^+$	1910.6	85.5 29	0	9/2$^+$
1968.9	11/2$^+$	1968.9	38.6 18	0	9/2$^+$
2122.6	9/2$^+$	2122.6	42.4 11	0	9/2$^+$
2506.9		2506.9		0	9/2$^+$

[†] From level energy difference.

[‡] % branching to g.s.; from Adopted Gammas.

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Level Scheme

Intensities: % photon branching from each level

$^{93}_{41}$Nb$_{52}$