^{96}Ru(γ,γ') 2005Li59

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 109, 2501 (2008)	1-Apr-2008

Eγ≠3.2-3.8 MeV. Bremmstrahlung beam with end-point energy of 3.8 MeV. Measured Eγ, Iγ, $\gamma(\theta)$, absolute photon scattering cross sections using three large Ge detectors positioned at 90°, 127° and 150° relative to the incident beam. The detector at 127° was equipped with BGO anti-Compton shield.

^{96}Ru Levels

E(level)	J$^{\pi}$[#]	$T_{1/2}$[‡]	$I_{S,0}$[†]
0.0	0^+		
832.6	2^+		
1931.1	2^+		
3154.2 *3*	$1^{(+)}$	3.12 fs *14*	95 *3*
3282.4 *3*	1	49.2 fs *35*	9.9 *6*
3447.9 *10*	1	126 fs *21*	3.5 *6*
3479.6 *3*	1	35.3 fs *28*	12.4 *8*

[†] Absolute, energy integrated, photon cross section (eV b).
[‡] Deduced from decay width.
[#] From Adopted Levels.

$\gamma(^{96}Ru)$

Reduced gamma transition probabilities are given assuming that each gamma has a multipolarity compatible with spin differences and it's either M1, E1 or E2.

E_i(level)	J_i^{π}	E_γ	I_γ	E_f	J_f^{π}	Mult.[‡]	Comments
832.6	2^+	832.6[†]		0.0	0^+		
1931.1	2^+	1098.5[†]		832.6	2^+		
3154.2	$1^{(+)}$	1224.1 *6*	28 *10*	1931.1	2^+		B(M1)=1.4 *6*, B(E1)(W.u.)=0.012 *5*, B(E2)(W.u.)=533 *224*.
		2321.5 *3*	6 *1*	832.6	2^+		B(M1)=0.045 *10*, B(E1)(W.u.)=0.00037 *8*, B(E2)(W.u.)=4.6 *10*.
		3154.1 *3*	100 *8*	0.0	0^+	D	B(M1)=0.30 *4*, B(E1)(W.u.)=0.0025 *3*.
3282.4	1	3282.3 *3*	100	0.0	0^+	D	B(M1)=0.023 *2*, B(E1)(W.u.)=0.00019 *1*.
3447.9	1	3447.8 *10*	100	0.0	0^+	D	B(M1)=0.008 *2*, B(E1)(W.u.)=0.00006 *1*.
3479.6	1	3479.5 *3*	100	0.0	0^+	D	B(M1)=0.026 *2*, B(E1)(W.u.)=0.00022 *2*.

[†] from Adopted Gammas (rounded).
[‡] From W(90°)/W(127°).

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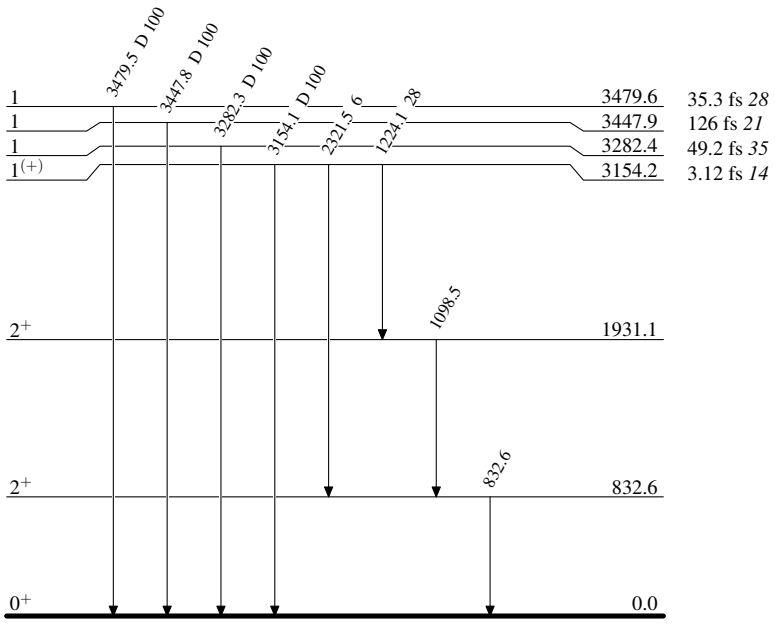
Level Scheme

Intensities: Relative photon branching from each level



$^{96}_{44}Ru_{52}$