

⁸⁹Y(n,2nγ) 1974Di04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. A. McCutchan and A. A. Sonzogni		NDS 115, 135 (2014)	1-Nov-2013

E(n)=14.1 MeV 3 from ³H(d,n). Measured E_γ, I_γ using Ge(Li) detector (FWHM≈5 keV at 511 keV).
 Other: 1976Ga33. E=14.7 MeV. Measured γ(t) of 442γ using NaI(Tl).

⁸⁸Y Levels

E(level) [†]	J ^π [‡]	T _{1/2} [#]	E(level) [†]	J ^π [‡]	E(level) [†]	J ^π [‡]
0	4 ⁻		706.2 7	2 ⁻	984.3 4	(4) ⁺
231.6 4	5 ⁻		715.4 7	(6) ⁺	1087.8 15	(4,5,6) ⁻
392.7 5	1 ⁺		766.2 7	(0) ⁺	1128.8 7	3 ⁻ ,4 ⁻ ,5 ⁻
674.0 7	8 ⁺	14.5 ms 10	843.0 5	5 ⁺	1283.0 7	(3,4,5) ⁺

[†] From a least-squares fit to E_γ by evaluators.

[‡] From the Adopted Levels.

[#] From γ(t) (1976Ga33).

γ(⁸⁸Y)

E _γ	I _γ [†]	E _i (level)	J ^π _i	E _f	J ^π _f	E _γ	I _γ [†]	E _i (level)	J ^π _i	E _f	J ^π _f
127.6 5	34 10	843.0	5 ⁺	715.4	(6) ⁺	^x 537.7 5	17 5				
141.4 5	17 5	984.3	(4) ⁺	843.0	5 ⁺	611.4 5	11 3	843.0	5 ⁺	231.6	5 ⁻
231.6 5	403 44	231.6	5 ⁻	0	4 ⁻	^x 776.9 5	29 9				
298.7 5	11 3	1283.0	(3,4,5) ⁺	984.3	(4) ⁺	897.2 [‡] 5	53 16	1128.8	3 ⁻ ,4 ⁻ ,5 ⁻	231.6	5 ⁻
313.5 5	33 10	706.2	2 ⁻	392.7	1 ⁺	^x 962.0 5	17 5				
373.5 5	17 5	766.2	(0) ⁺	392.7	1 ⁺	984.3 5	40 12	984.3	(4) ⁺	0	4 ⁻
392.7 5	114 13	392.7	1 ⁺	0	4 ⁻	1087.8 15	25 8	1087.8	(4,5,6) ⁻	0	4 ⁻
442.4 5	136 15	674.0	8 ⁺	231.6	5 ⁻						

[†] Production cross section in mb at 90°.

[‡] Not placed by 1974Di04 but placement is known from other experiments.

^x γ ray not placed in level scheme.

$^{89}\text{Y}(n,2n\gamma)$ 1974Di04

Level Scheme

Intensities: Type not specified

Legend

- \longrightarrow $I_\gamma < 2\% \times I_\gamma^{max}$
- \longrightarrow $I_\gamma < 10\% \times I_\gamma^{max}$
- \longrightarrow $I_\gamma > 10\% \times I_\gamma^{max}$

