

$^{40}\text{Ca}(^{16}\text{O},2\text{p}\gamma)$ 1980GuZZ,1978NoZY,1978Da09

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde		NDS 121, 1 (2014)	20-Jun-2014

1978Da09, 1978NoZY: E=40 MeV. Measured $\gamma\gamma(\theta)$, $\gamma(\theta,H,t)$, time-differential perturbed angular distribution, and RDM.
 1978GuZZ, 1980GuZZ: E=45-70 MeV, measured $E\gamma$, $I\gamma$, $\gamma(\theta)$, $\gamma\gamma$ -coin, $\gamma\gamma(\theta)$, linear polarization.
 1974Br04: E=47 MeV. Measured recoil distance,

 ^{54}Fe Levels

E(level) [†]	$J^{\pi\ddagger}$	$T_{1/2}$	Comments
0.0	0 ⁺		
1409	2 ⁺		
2539	4 ⁺	4.0 ps 8	$T_{1/2}$: from RDM by 1974Br04.
2951	6 ⁺		
6382 2	8 ⁺	<1.4 ns	$T_{1/2}$: from RDM and TDPAD by 1978NoZY.
6528	10 ⁺	364 ns 7	$g=+0.716$ 20; $Q=0.072$ 7 (1978Da09) $T_{1/2}$: from time differential PAD by 1978Da09.
6726	9 ⁺	≈ 41 ps	$T_{1/2}$: from RDM and TDPAD by 1978NoZY.

[†] From 1978NoZY.

[‡] From Adopted Levels.

 $\gamma(^{54}\text{Fe})$

E_γ	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	Comments
146.1	32.0	6528	10 ⁺	6382	8 ⁺	E2	Mult.: $A_2 \approx +0.20$.
197.5		6726	9 ⁺	6528	10 ⁺		
411.6	83	2951	6 ⁺	2539	4 ⁺	E2	
1130.3	96	2539	4 ⁺	1409	2 ⁺	E2	
1408.6	100	1409	2 ⁺	0.0	0 ⁺	E2	
3431.5	39	6382	8 ⁺	2951	6 ⁺	E2	Mult.: $A_2 \approx +0.20$.
3577.6	0.65	6528	10 ⁺	2951	6 ⁺	E4	I_γ : from $I_\gamma(146\gamma):I_\gamma(3578\gamma)=98.0$ 2:2.0 2 (1978NoZY). Mult.: measured B(E4) is consistent with the negative polarization charge. From RUL, γ to 6 ⁺ cannot be M4.

[†] Side feeding and γ 's are normalized to 1408 γ (1978GuZZ).

[‡] From adopted γ , except as noted.

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Level Scheme

Intensities: Relative I_γ

Legend

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

