

$^{30}\text{Si}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ **1984Be26**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia, A. Chakraborty		NDS 197,1 (2024)	31-May-2024

1984Be26: $^{30}\text{Si}(\gamma,\gamma')$, E=65 MeV bremsstrahlung, (pol γ,γ'), E=22 MeV bremsstrahlung; Ge(Li) detectors; deduced widths, transition strengths.

 ^{30}Si Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [‡]	Comments
0.0			
3769.7 2	1 ⁺	35 fs 19	$\Gamma_{\gamma 0}=0.006$ eV 3 (1984Be26)
8942.7 19	1 ⁺	0.13 fs 4	$\Gamma_{\gamma 0}=1.9$ eV 6 (1984Be26)
9356.6 9	1 ⁺	0.07 fs 2	$\Gamma_{\gamma 0}=7.0$ eV 17 (1984Be26)
9768.3 10	1 ⁺	0.23 fs 9	$\Gamma_{\gamma 0}=1.2$ eV 5 (1984Be26)
9792	1 ⁻		J^π : from the difference in excitation magnitude in (γ,γ') and (pol γ,γ') excitation (Fig 1. 1984Be26).
10478.0 12	1 ⁺	0.14 fs 5	$\Gamma_{\gamma 0}=1.6$ eV 6 (1984Be26)

[†] From **1984Be26**, except as noted. J^π assignments are from M1 excitation, determined using polarized and unpolarized bremsstrahlung beam.

[‡] Deduced from $\Gamma_{\gamma 0}$ (**1984Be26**) and adopted γ -ray properties.

 $\gamma(^{30}\text{Si})$

$E_i(\text{level})$	J^π_i	E_γ [†]	Γ_0/Γ (%)	E_f	Comments
3769.7	1 ⁺	3769	43 3	0.0	Γ_0/Γ (%): additional 1 ⁺ states were reported in literature, authors note.
8942.7	1 ⁺	8942	100	0.0	
9356.6	1 ⁺	9356	100	0.0	
9768.3	1 ⁺	9768	100	0.0	
9792	1 ⁻	9791		0.0	
10478.0	1 ⁺	10478	100	0.0	

[†] From level energy difference, except where otherwise noted.

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Level Scheme

Intensities: Relative photon branching from each level

