

$^{22}\text{Ne}(\gamma, \gamma')$ 1984Be26,1979Be10

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia		NDS 127, 69(2015)	1-Apr-2015

1984Be26: $^{22}\text{Ne}(\gamma, \gamma)$, (pol γ, γ), E=22 MeV.

1979Be10: $^{22}\text{Ne}(\gamma, \gamma)$, E<18 MeV. Enriched target, measured E_γ , $\sigma(\gamma\gamma)$.

 ^{22}Ne Levels

E(level) [†]	J^π [†]	$T_{1/2}$ [‡]	Comments
0.0			
1274.6			E(level): From Adopted Levels.
5326.2 13	1 ⁺	1.8 fs 7	$\Gamma_{\gamma 0}=0.25$ eV 10 (1984Be26)
			$T_{1/2}$: Other: 1.8 fs +12-6 (1979Be10).
6853.4 19	1 ⁺	0.38 fs 16	$\Gamma_{\gamma 0}=1.7$ eV 7 (1984Be26)
			$T_{1/2}$: Other: 0.21 fs +17-6 (1979Be10).
8561.4 19	(1,2) ⁺	0.35 fs 13	$\Gamma_{\gamma 0}=1.3$ eV 5 (1984Be26)
			E(level), $T_{1/2}$: Other values: 8553 keV 3, 0.35 fs +24-10 (1979Be10).
9178 3	1 ⁺	84 as 3	$\Gamma_{\gamma 0}=5.4$ eV 2 (1984Be26)
			E(level), $T_{1/2}$: Other values: 9165 keV 3, 83 as +41-21 (1979Be10).
10203 4		41 as 14	$\Gamma_{\gamma 0}=9.4$ eV 33 (1979Be10)
			E(level): From 1979Be10.
			$T_{1/2}$: 1979Be10 report 41 as +23-11.

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

[‡] Deduced from $\Gamma_{\gamma 0}$ (1984Be26, 1979Be10) and Adopted γ -ray properties.

 $\gamma(^{22}\text{Ne})$

$E_i(\text{level})$	J_i^π	E_γ [†]	I_γ	E_f
5326.2	1 ⁺	5325.5	100	0.0
6853.4	1 ⁺	5578.1	27 8	1274.6
		6852.3	100 8	0.0
8561.4	(1,2) ⁺	8559.6	100	0.0
9178	1 ⁺	9176	100	0.0
10203		8926	19	1274.6
		10200	100	0.0

[†] Calculated by evaluator from level energy differences, recoil energy subtracted.

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Level Scheme

Intensities: Relative photon branching from each level

