

$^{170}\text{Er}(\text{}^{82}\text{Se}, \text{}^{84}\text{Kr}\gamma)$ 2010So03

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 111, 1807 (2010)	15-Jun-2010

2010So03: E(^{82}Se)=460 MeV; PRISMA magnetic spectrometer At 52° with position-sensitive microchannel plate At entrance (for beam-like fragment identification); multi-wire parallel-plate avalanche counter; and ionization chamber; CLARA γ detector array (23 Compton-suppressed Clover detectors; FWHM=5.8 keV At 542 keV after event-by-event Doppler correction for target-like fragment γ -rays); measured fragment tof, A, Z, and E γ , I γ , ^{84}Kr - γ coin, $\gamma\gamma$ coin. supersedes [2008SoZZ](#).

^{168}Dy Levels

E(level) [†]	J $^{\pi}$ [‡]	Comments
0.0 [#]	0 ⁺	J $^{\pi}$: from Adopted Levels.
75 [#]	(2 ⁺)	
248 [#]	(4 ⁺)	
516 [#]	(6 ⁺)	
873 [#]	(8 ⁺)	
1315 [#]	(10 ⁺)	

[†] From E γ .

[‡] Authors' suggested values, based on probable assignment of observed states to K $^{\pi}$ =0⁺ g.s. band, except as noted.

[#] Band(A): K $^{\pi}$ =0⁺ g.s. band. Structure closely resembles that observed for g.s. bands in lighter even-A Dy isotopes ([2010So03](#)).

$\gamma(^{168}\text{Dy})$

E γ [†]	I γ [‡]	E $_i$ (level)	J $_i^{\pi}$	E $_f$	J $_f^{\pi}$	Mult.	α [@]	I $_{(\gamma+ce)}$ [#]	Comments
75	19 5	75	(2 ⁺)	0.0	0 ⁺	[E2]	8.16	170 50	
173	72 9	248	(4 ⁺)	75	(2 ⁺)	[E2]	0.385	100 12	
268	57 8	516	(6 ⁺)	248	(4 ⁺)	[E2]	0.0915	62 9	
357	29 7	873	(8 ⁺)	516	(6 ⁺)	[E2]	0.0384	30 7	
442	25 8	1315	(10 ⁺)	873	(8 ⁺)	[E2]	0.0210	25 8	E γ : revision of tentative E γ =451 reported by 2008SoZZ . seen only in $\gamma\gamma$ coin spectrum.

[†] From [2010So03](#); uncertainties unstated by authors. Transition present in both the singles spectrum with the correct beam-like partner fragment and in the $\gamma\gamma$ coin spectrum, except as noted.

[‡] From I($\gamma+ce$) and α .

[#] From [2010So03](#). authors report I($\gamma+ce$) calculated from observed (but unstated) I γ assuming E2 multipolarity; values assumed for conversion coefficients are unstated.

[@] Total theoretical internal conversion coefficients, calculated using the BrIcc code ([2008Ki07](#)) with frozen orbital approximation based on γ -ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

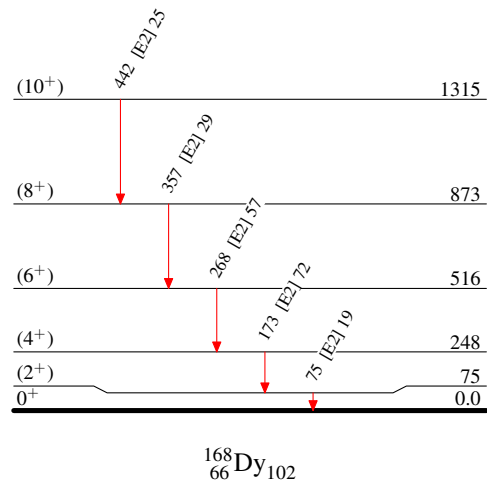
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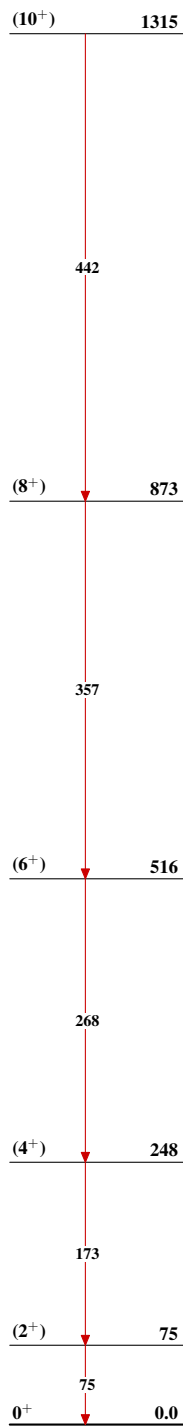
Level Scheme

Intensities: Relative I_γ

Legend

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



$^{170}\text{Er}(\text{}^{82}\text{Se}, \text{}^{84}\text{Kr}\gamma)$ 2010So03Band(A): $K^\pi=0^+$ g.s.
band $^{168}_{66}\text{Dy}_{102}$