

$^{124}\text{Sn}(^{32}\text{S},6n\gamma)$ 1985Ho17

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	S. K. Basu, A. A. Sonzogni		NDS 114, 435 (2013)	1-Apr-2013

1985Ho17: Compton-suppressed $\gamma\gamma$ studies using the $^{124}\text{Sn}(^{32}\text{S},6n\gamma)$ reaction at E=163 MeV.

Authors adopt level structure of ^{150}Dy up to $J^\pi=21^-$ as given by 1979LuZZ. They extend the level scheme to 8829 keV, proposing ten new levels.

 ^{150}Dy Levels

E(level)	J^π [†]	E(level)	J^π [†]	E(level)	J^π [†]	E(level)
0.0	0 ⁺	6395	21 ⁻	7741	(23 ⁻)	8404
5071	18 ⁺	7372		7754		8610
5813	19 ⁻	7474	(22 ⁻)	8008	(24)	8829
6019	20 ⁻	7725		8122		

[†] From Adopted Levels.

 $\gamma(^{150}\text{Dy})$

E_γ	$E_i(\text{level})$	J^π_i	E_f	J^π_f	Mult.	E_γ	$E_i(\text{level})$	J^π_i	E_f	J^π_f	Mult.
206	6019	20 ⁻	5813	19 ⁻		650 [‡]	8404		7754		
253 [‡]	8008	(24)	7754			679 [‡]	8404		7725		
267 [#]	7741	(23 ⁻)	7474	(22 ⁻)	(D) [†]	742	5813	19 ⁻	5071	18 ⁺	
267	8008	(24)	7741	(23 ⁻)	(D) [†]	855 [‡]	8610		7754		
353 [‡]	7725		7372			977 [‡]	7372		6395	21 ⁻	
376	6395	21 ⁻	6019	20 ⁻		1074	8829		7754		
382 [‡]	7754		7372			1103	8829		7725		
397 [‡]	8122		7725			1346	7741	(23 ⁻)	6395	21 ⁻	(Q) [†]
602	8610		8008	(24)		1455 [#]	7474	(22 ⁻)	6019	20 ⁻	(Q) [†]

[†] From DCO (directional correlation orientation) ratio. Authors caution that DCO measurements were not precise.

[‡] Placed elsewhere in decay scheme in $^{114}\text{Cd}(^{40}\text{Ar},4n\gamma)$.

[#] Order of 267- and 1455-keV transitions not determined in this experiment, but established in ($^{40}\text{Ar},4n\gamma$) experiment.

$^{124}\text{Sn}(^{32}\text{S},6n\gamma)$ 1985Ho17Level Scheme