

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	G. Gürdal and F. G. Kondev		NDS 113,1315 (2012)	1-Aug-2011

$Q(\beta^-) = -8.55 \times 10^3$ 12; $S(n) = 1.086 \times 10^4$ 5; $S(p) = 4. \times 10^1$ 5; $Q(\alpha) = 3.58 \times 10^3$ 5 [2012Wa38](#)

Note: Current evaluation has used the following Q record -8.54E3 12 10860 51 4.E1 5 3584 50 [2011AuZZ](#).

 ^{110}I LevelsCross Reference (XREF) Flags

A ^{114}Cs α decay (0.57 s)
B ^{58}Ni ($^{58}\text{Ni}, \alpha p n \gamma$)

E(level) [†]	J^π [‡]	$T_{1/2}$	XREF	Comments
0.0	(1 ⁺)	0.664 s 24	A	$\% \alpha = 17$ 4 (1981Sc17); $\% \epsilon + \% \beta^+ = 83$ 4; $\% \epsilon p = 11$ 3; $\% \epsilon \alpha = 1.1$ 3 (1985Ti02) J^π : From HF=3.1 13 in ^{114}Cs α decay ($J^\pi = (1^+)$). It should be noted, however, that the HF value is very sensitive to the r_0 parameter, which is not well defined in the case of ^{114}Cs α decay. $T_{1/2}$: Weighted average of 0.69 s 4 ($\alpha(t)$ in 1977Ki11) and 0.65 s 3 (weighted average of 0.62 s 2 using $\alpha(t)$, 0.68 s 2 using $\beta p(t)$ and 0.81 s 9 using $\beta \alpha(t)$ in 1981Sc17). $E \alpha = 3392$ 25 (1977Ki11), 3424 15 (1978Ro19), 3444 10 (1981Sc17) and 3456 5 (1991He21). Additional information 1. $E(\text{level})$: It is not clear, if the g.s. or an isomeric state is populated in ^{58}Ni ($^{58}\text{Ni}, \alpha p n \gamma$).
0.0+x			B	
45.0+x 20			B	
191.0+x 10			B	
269.0+x 17			B	
472.0+x & 15			B	
502.0+x # 20			B	
517.0+x 14			B	
784.0+x & 18			B	
830.0+x 14			B	
1071.0+x # 22			B	
1084.0+x 14			B	
1128.0+x & 20			B	
1220.0+x 16			B	
1387.0+x & 23			B	
1706.0+x 16			B	
1710.0+x # 24			B	
1729.0+x & 25			B	
1834.0+x 24			B	
2065.0+x @ 17 (11 ⁺)			B	
2426+x # 3			B	
2592.0+x @ 20 (13 ⁺)			B	
2676+x 3			B	
3256.0+x @ 22 (15 ⁺)			B	
3309+x # 3			B	
3576+x 3			B	
3998.0+x @ 24 (17 ⁺)			B	

Continued on next page (footnotes at end of table)

Adopted Levels, Gammas (continued) ^{110}I Levels (continued)

<u>E(level)[†]</u>	<u>J^π[‡]</u>	<u>XREF</u>
4267+x [#] 3		B
4966+x [@] 3	(19 ⁺)	B
5412+x [#] 4		B
5973+x [@] 3	(21 ⁺)	B
7075+x [@] 3	(23 ⁺)	B

[†] From least-squares fit to $E\gamma$'s. $\Delta E\gamma = 1$ keV by the evaluators.

[‡] From systematics (comparisons with similar structures in ^{112}I and ^{114}I in [2000St27](#)), unless otherwise stated.

[#] Band(A): band #1: $\pi(g_{7/2}d_{5/2})\otimes\nu h_{11/2}$.

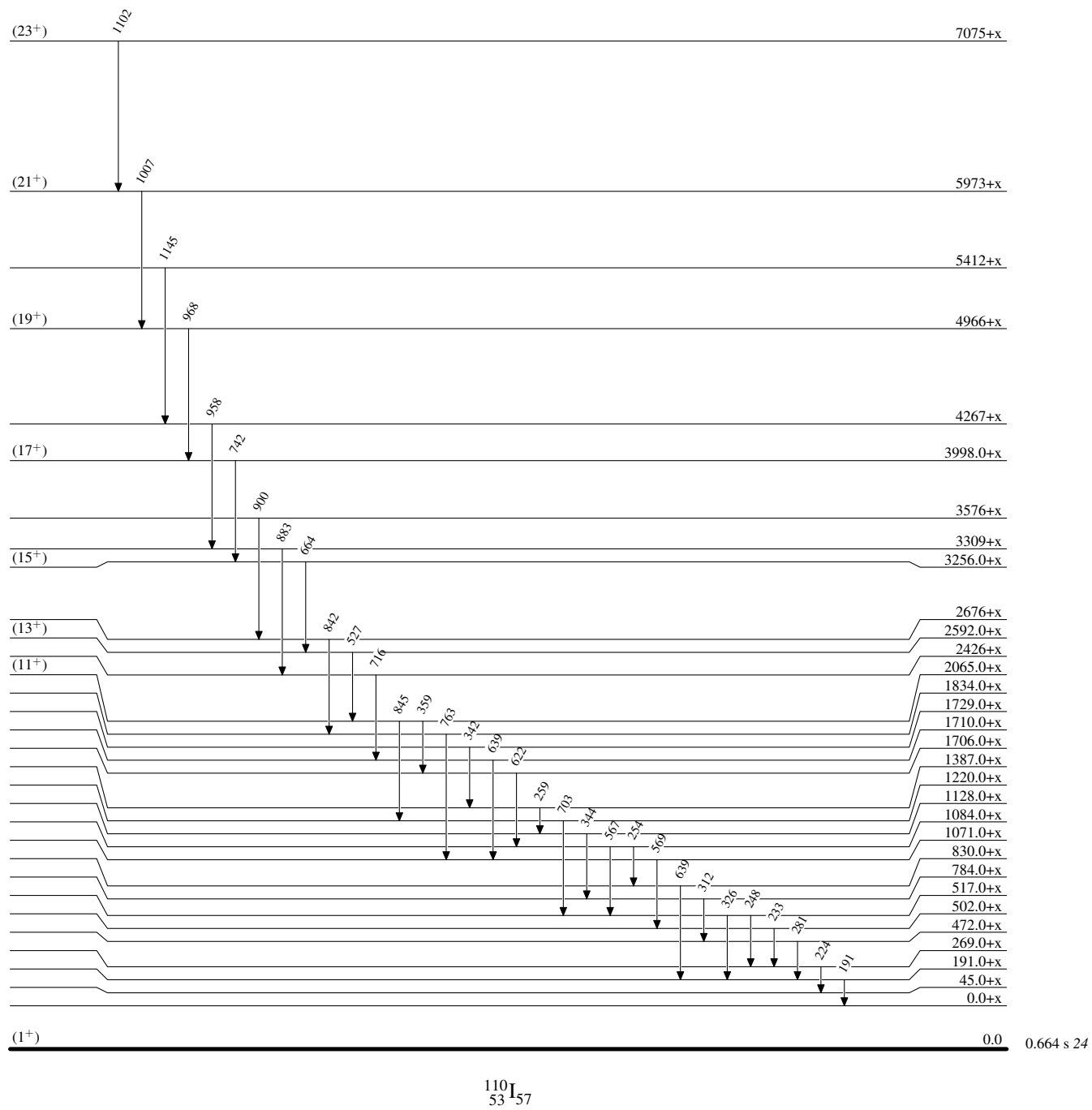
[@] Band(B): band #2: $\pi h_{11/2}\otimes\nu h_{11/2}$.

[&] Band(C): Band #3.

 $\gamma(^{110}\text{I})$

<u>E_i(level)</u>	<u>E_γ[†]</u>	<u>E_f</u>	<u>E_i(level)</u>	<u>J_i^π</u>	<u>E_γ[†]</u>	<u>E_f</u>	<u>J_f^π</u>
191.0+x	191	0.0+x	1729.0+x		342	1387.0+x	
269.0+x	224	45.0+x	1834.0+x		763	1071.0+x	
472.0+x	281	191.0+x	2065.0+x	(11 ⁺)	359	1706.0+x	
502.0+x	233	269.0+x			845	1220.0+x	
517.0+x	248	269.0+x	2426+x		716	1710.0+x	
	326	191.0+x	2592.0+x	(13 ⁺)	527	2065.0+x	(11 ⁺)
784.0+x	312	472.0+x	2676+x		842	1834.0+x	
830.0+x	639	191.0+x	3256.0+x	(15 ⁺)	664	2592.0+x	(13 ⁺)
1071.0+x	569	502.0+x	3309+x		883	2426+x	
1084.0+x	254	830.0+x	3576+x		900	2676+x	
	567	517.0+x	3998.0+x	(17 ⁺)	742	3256.0+x	(15 ⁺)
1128.0+x	344	784.0+x	4267+x		958	3309+x	
1220.0+x	703	517.0+x	4966+x	(19 ⁺)	968	3998.0+x	(17 ⁺)
1387.0+x	259	1128.0+x	5412+x		1145	4267+x	
1706.0+x	622	1084.0+x	5973+x	(21 ⁺)	1007	4966+x	(19 ⁺)
1710.0+x	639	1071.0+x	7075+x	(23 ⁺)	1102	5973+x	(21 ⁺)

[†] From [2000St27](#).

Adopted Levels, GammasLevel Scheme

Adopted Levels, Gammas