

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	K. Kitao	NDS 75,99 (1995)	1-Feb-1993

Q(β⁻)=4425 8; S(n)=6356 6; S(p)=8099 8; Q(α)=-4722 9 [2012Wa38](#)
 Note: Current evaluation has used the following Q record 4423 8 6358 6 8092 8 -4710 30 [1993Au05](#).

¹¹⁸In Levels

Cross Reference (XREF) Flags

- A ¹¹⁸Cd β⁻ decay (50.3 min)
- B ¹¹⁸In IT decay (8.5 s)
- C ¹¹⁹Sn(t,α)

E(level) [†]	J ^π	T _{1/2}	XREF	Comments
0.0 [‡]	1 ⁺	5.0 s 5	ABC	%β ⁻ =100 J ^π : log ft=4.7 to 0 ⁺ , log ft=5.5 to 2 ⁺ . T _{1/2} : from 1964Ka10 , 1968Sc24 . Others: 5.1 s 5 (1961GI02), 5.7 s 3 (1965Br34).
≈60 [#]	5 ⁺	4.45 min 5	B	%β ⁻ =100 μ=+4.231 9; Q=+0.796 8 μ,Q: collinear fast-beam LASER spectroscopy (1989Ra17); μ value relative to μ=+5.5408 2 for ¹¹⁵ In (9/2 ⁺ g.s.), Q value relative to Q=+0.81 for ¹¹⁵ In (9/2 ⁺ g.s.) and includes the Sternheimer correction (1989Ra17). J ^π : atomic beam (1984Be40). T _{1/2} : from 1969Do11 . Others: 4.35 min 5 (1964Ka10), 4.9 min 1 (1965Br34), 4.7 min 3 (1965Me11), 4.4 min 1 (1968Sc24).
173 6 ≈200 [@]	8 ⁻	8.5 s 3	B	%β ⁻ =1.4 3; %IT=98.6 3 μ=+3.321 11; Q=+0.441 7 %β ⁻ ,%IT: From ¹¹⁸ In β ⁻ decay (8.5 s). μ,Q: collinear fast-beam LASER spectroscopy (1989Ra17); μ value relative to μ=+5.5408 2 for ¹¹⁵ In (9/2 ⁺ g.s.), Q value relative to Q=+0.81 for ¹¹⁵ In (9/2 ⁺ g.s.) and includes the Sternheimer correction (1989Ra17). J ^π : atomic beam (1984Be40). T _{1/2} : from 1969Ha08 .
234 6			C	
251 6			C	
350 6			C	
429 6			C	
500 6			C	
600 6			C	
637 6			C	
711 6			C	
790 6			C	
843 6			C	
948 6			C	
974 6			C	
1028 10			C	
1234 10			C	
1290 10			C	

[†] Energy values are from ¹¹⁹Sn(t,α), except as noted.

Adopted Levels, Gammas (continued) ^{118}In Levels (continued)

‡ Assignment of 1^+ state to g.s. is based on measurements of $E\beta$ in ^{118}In β^- decay (5.0 s, 4.45 min) (1964Ka10). In 1993Au05, the $E\beta$ value of 4310 keV, given by 1987GaZO, for β^- feeding from 5.0-s state to g.s. was used as the input for evaluation of the $Q(\beta^-)$ value.

From difference of $E\beta(\text{to g.s.})=4200\ 300$ in ^{118}In β^- decay (5.0 s) and $E\beta(\text{to 2963 level})+E(2963\ \text{level})=4263\ 100$ in ^{118}In β^- decay (4.45 min) (1964Ka10).

@ From $E(5^+\ \text{level})+E(138.5\gamma)=198$.

								$\gamma(^{118}\text{In})$		
$E_i(\text{level})$	J_i^π	E_γ^\dagger	I_γ	E_f	J_f^π	Mult.	α^\ddagger	Comments		
≈ 200	8^-	138.2 5	100	≈ 60	5^+	(E3)	3.56	$\alpha(\text{K})= 2.075$; $\alpha(\text{L})= 1.195$; $\alpha(\text{M})= 0.2459$; $\alpha(\text{N+..})= 0.0491$ $\text{B}(\text{E}3)(\text{W.u.})=0.0388\ 20$ Mult.: from $\alpha(\text{K})_{\text{exp}}$ and W.u.		

† All data from ^{118}In IT decay.

‡ 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.

Adopted Levels, GammasLevel Scheme

Intensities: Relative photon branching from each level

