Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110,2081 (2009)	1-Mar-2009

Q(β^-)=−1.08×10^4 *syst*; S(n)=1.011×10^4 *13*; S(p)=3.56×10^3 *7*; Q(α)=5.4×10^2 *7* 2012Wa38
Note: Current evaluation has used the following Q record −10800 SY10120 SY3550 SY450 syst 2003Au03.
Estimated uncertainties from 2003Au03: ΔQ-=420, ΔSn=330, ΔSp=320, ΔQα=360.
Q(εp)=5420 *300* (syst,2003Au03).

^{103}Sn Levels

Cross Reference (XREF) Flags

A ^{107}Te α decay (3.1 ms)
B ^{54}Fe(^{58}Ni,2αnγ)

E(level)†	Jπ‡	$T_{1/2}$	XREF	Comments
0.0	(5/2$^+$)	7.0 s *2*	AB	%ε+%β^+=100; %εp=1.2 *1* (2005Ka34) $T_{1/2}$: from 2005Ka34 (also 2005Ka48,2004Mu32). Others: 7 s *3* (1981Ti03, time distribution of β-delayed protons), 7.5 s *15* (GSI annual report 1995, p9), 8.7 s *6* (thesis by A. Stolz, Munich, 2001). The last two values are also quoted by 2005Ka34.
168.0 *1*	(7/2$^+$)		AB	
1197.2 *4*			B	
1486.2 *3*	(11/2$^+$)		B	
1775.4? *4*			B	
1784.6 *4*	(13/2$^+$)		B	

† From least-squares fit to Eγ′s observed in ^{54}Fe(^{58}Ni,2αnγ).
‡ As proposed by 2001Fa01 based on gamma-ray angular-distribution data, systematics of odd-A Sn nuclei and shell-model predictions.

γ(^{103}Sn)

E_i(level)	J_i^π	E_γ	I_γ	E_f	J_f^π	Mult.†
168.0	(7/2$^+$)	168.0 *1*	100	0.0	(5/2$^+$)	D
1197.2		1029.0 *10*	100	168.0	(7/2$^+$)	
1486.2	(11/2$^+$)	289.0‡ *2*	<70‡	1197.2		
		1318.2 *3*	100 *18*	168.0	(7/2$^+$)	(Q)
1775.4?		289.0‡ *2*	<85‡	1486.2	(11/2$^+$)	
		578.2 *2*	100 *17*	1197.2		
1784.6	(13/2$^+$)	298.4 *1*	100	1486.2	(11/2$^+$)	D

† From angular distribution data in ^{54}Fe(^{58}Ni,2αnγ).
‡ Multiply placed with undivided intensity.

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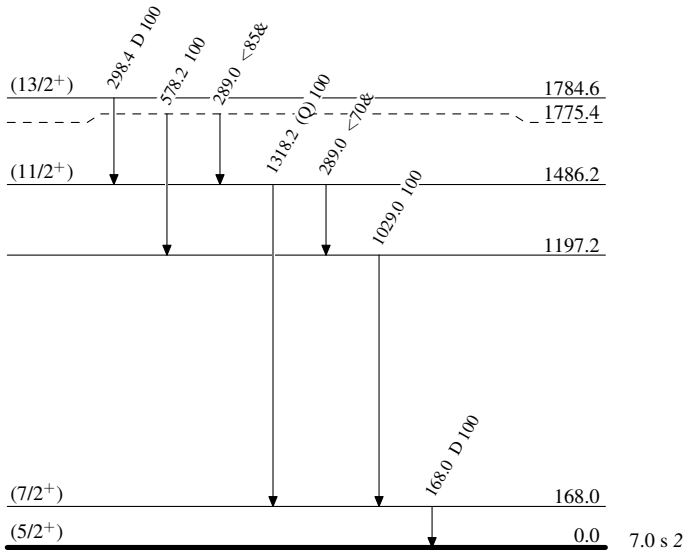
Level Scheme

Intensities: Relative photon branching from each level
& Multiply placed: undivided intensity given



$^{103}_{50}Sn_{53}$