

(HI,xn γ) **1994Du06,1993Sh01**

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Mar-2009

1994Du06: $^{82}\text{Se}(^{40}\text{Ar},5\text{n})$ E= 180 MeV.

1993Sh01: $^{108}\text{Pd}(^{16}\text{O},2\text{p}5\text{n})$ E= 84 MeV.

Measured: γ , $\gamma\gamma$, $\alpha\gamma(t)$, $p\gamma$, $\gamma(\theta)$, Ge(Li), γ array, 14 BGO.

The evaluator have adopted the level scheme of 1994Du06 which disagrees with 1993Sh01. 1994Du06 find that the two bands are connected at the top and that the 665 γ is a stretched quadrupole. The two papers have many similar γ . The 238, 485, 509, 516, 575, 596, 738, 830, 905, 948, 967, 976, 1044, 1185, 1212, 1315 γ 's are given by 1994Du06 and not reported by 1993Sh01. The 199, 618, 632, 664, 721, 760, 798, 930 γ 's are given by 1993Sh01 but not by 1995Du06.

 ^{117}Te Levels

E(level)	J $^{\pi\dagger}$	T $_{1/2}$	Comments
0	1/2 ⁺		
x			E(level): x=0, see Adopted Levels.
296+x ‡	11/2 ⁻	103 ms	Additional information 1. T $_{1/2}$: from Adopted Levels.
966.8+x ‡ 10	15/2 ⁻		
1680.1+x ‡ 15	19/2 ⁻		
2303.9+x ‡ 18	23/2 ⁻		
2609.7+x 19	23/2 ⁻		
3316.0+x $^{\#}$ 19	25/2 ⁺		
3348.6+x ‡ 19	27/2 ⁻		
3619.2+x 19	27/2 ⁻		
3628.4+x $^{\#}$ 21	27/2 ⁺		
3828.1+x $^{\#}$ 20	29/2 ⁺		
4109.9+x $^{\#}$ 22	31/2 ⁺		
4357.8+x $^{\#}$ 22	33/2 ⁺		
4534.2+x ‡ 20	31/2 ⁻		
4619.3+x $^{\#}$ 22	35/2 ⁺		
5216.0+x $^{\#}$ 22	37/2 ⁺		
5380.3+x ‡ 21	35/2 ⁻		
5880.2+x ‡ 22	39/2 ⁻		
6118.9+x 22	(41/2)		
6534.7+x 23	43/2 ⁻		
6848.3+x ‡ 23	43/2 ⁻		
7364.6+x 23	45/2 ⁻		
7825.5+x ‡ 24	47/2 ⁻		
8311.8+x 25	49/2 ⁻		
8887+x 3	49/2 ⁻		
9217+x 3	(53/2)		
10429+x 3			

\dagger From gammas properties derived from $\gamma(\theta)$ and as given by the authors.

\ddagger Band(A): band based on the 11/2⁻ level.

$\#$ Band(B): positive parity band based on 25/2⁺.

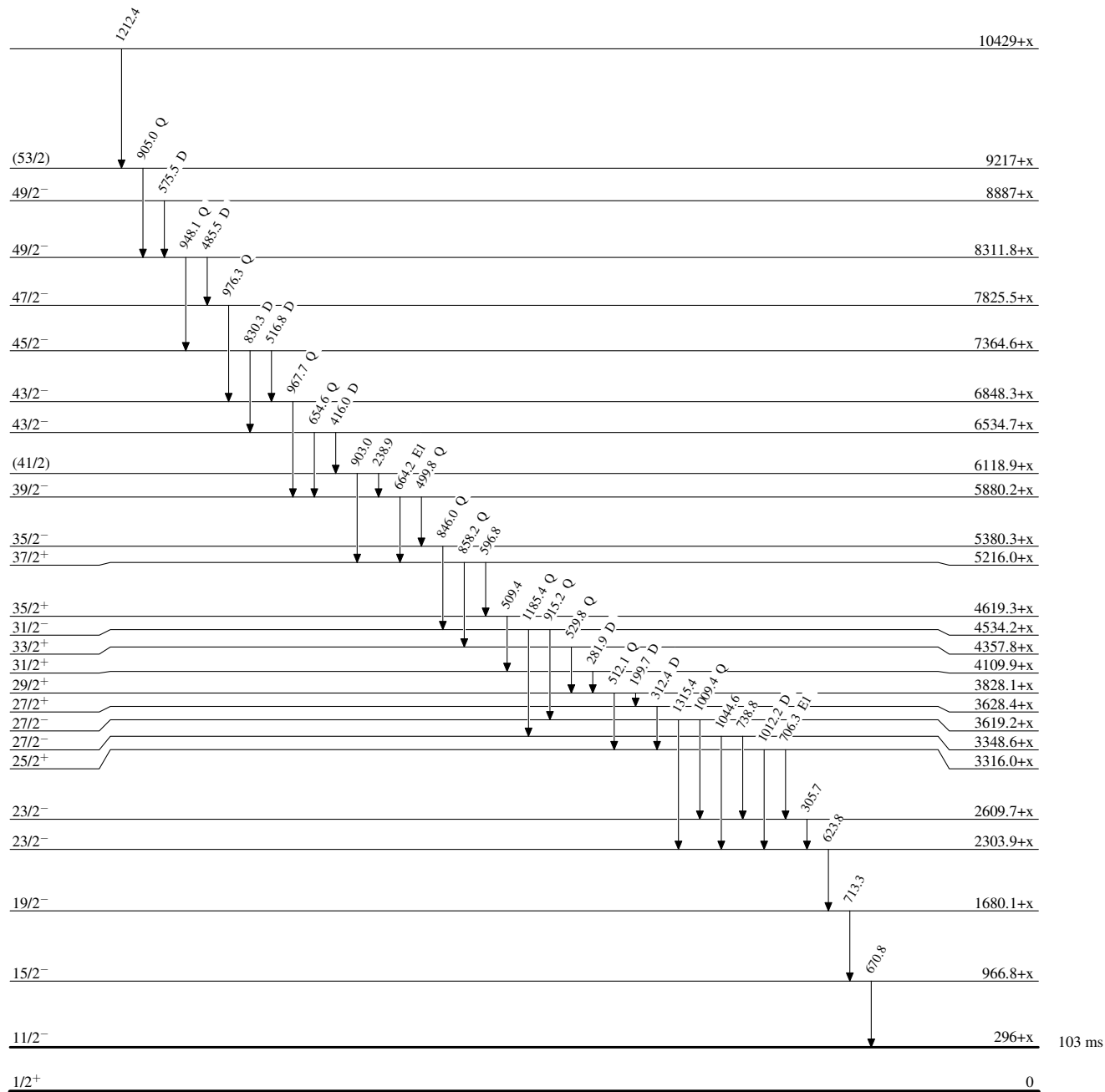
(HI,xn γ) 1994Du06,1993Sh01 (continued) $\gamma(^{117}\text{Te})$

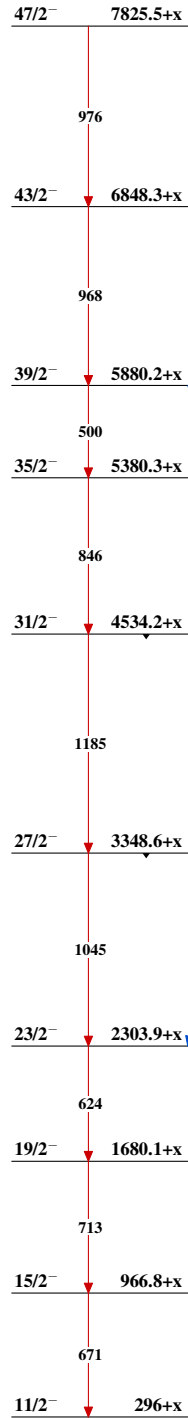
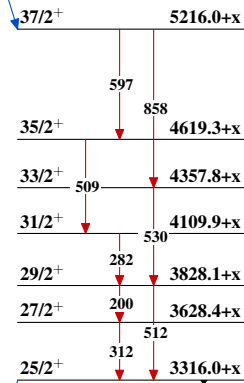
E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [†]
199.7	3828.1+x	29/2 ⁺	3628.4+x	27/2 ⁺	D
238.9	6118.9+x	(41/2)	5880.2+x	39/2 ⁻	
281.9	4109.9+x	31/2 ⁺	3828.1+x	29/2 ⁺	D
305.7	2609.7+x	23/2 ⁻	2303.9+x	23/2 ⁻	
312.4	3628.4+x	27/2 ⁺	3316.0+x	25/2 ⁺	D
416.0	6534.7+x	43/2 ⁻	6118.9+x	(41/2)	D
485.5	8311.8+x	49/2 ⁻	7825.5+x	47/2 ⁻	D
499.8	5880.2+x	39/2 ⁻	5380.3+x	35/2 ⁻	Q
509.4	4619.3+x	35/2 ⁺	4109.9+x	31/2 ⁺	
512.1	3828.1+x	29/2 ⁺	3316.0+x	25/2 ⁺	Q
516.8	7364.6+x	45/2 ⁻	6848.3+x	43/2 ⁻	D
529.8	4357.8+x	33/2 ⁺	3828.1+x	29/2 ⁺	Q
575.5	8887+x	49/2 ⁻	8311.8+x	49/2 ⁻	D
596.8	5216.0+x	37/2 ⁺	4619.3+x	35/2 ⁺	
623.8	2303.9+x	23/2 ⁻	1680.1+x	19/2 ⁻	
654.6	6534.7+x	43/2 ⁻	5880.2+x	39/2 ⁻	Q
664.2	5880.2+x	39/2 ⁻	5216.0+x	37/2 ⁺	E1
670.8	966.8+x	15/2 ⁻	296+x	11/2 ⁻	
706.3	3316.0+x	25/2 ⁺	2609.7+x	23/2 ⁻	E1
713.3	1680.1+x	19/2 ⁻	966.8+x	15/2 ⁻	
738.8	3348.6+x	27/2 ⁻	2609.7+x	23/2 ⁻	
830.3	7364.6+x	45/2 ⁻	6534.7+x	43/2 ⁻	D
846.0	5380.3+x	35/2 ⁻	4534.2+x	31/2 ⁻	Q
858.2	5216.0+x	37/2 ⁺	4357.8+x	33/2 ⁺	Q
903.0	6118.9+x	(41/2)	5216.0+x	37/2 ⁺	
905.0	9217+x	(53/2)	8311.8+x	49/2 ⁻	Q
915.2	4534.2+x	31/2 ⁻	3619.2+x	27/2 ⁻	Q
948.1	8311.8+x	49/2 ⁻	7364.6+x	45/2 ⁻	Q
967.7	6848.3+x	43/2 ⁻	5880.2+x	39/2 ⁻	Q
976.3	7825.5+x	47/2 ⁻	6848.3+x	43/2 ⁻	Q
1009.4	3619.2+x	27/2 ⁻	2609.7+x	23/2 ⁻	Q
1012.2	3316.0+x	25/2 ⁺	2303.9+x	23/2 ⁻	D
1044.6	3348.6+x	27/2 ⁻	2303.9+x	23/2 ⁻	
1185.4	4534.2+x	31/2 ⁻	3348.6+x	27/2 ⁻	Q
1212.4	10429+x		9217+x	(53/2)	
1315.4	3619.2+x	27/2 ⁻	2303.9+x	23/2 ⁻	

[†] From DCO ratio.

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Level Scheme

 $^{117}_{52}\text{Te}_{65}$

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