

(HI,xn γ) 1980Ka25,1992Cr02

Type	History		
	Author	Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	ENSDF	1-Jul-2006

1980Ka25: $^{92}\text{Mo}(^{12}\text{C},\text{p}2\text{n}\gamma)$ E= 60 MeV.

1992Cr02: $^{70}\text{Ge}(^{35}\text{Cl},2\text{p}2\text{n})$ E=110– 150 MeV.

Measured γ , ce, $\gamma(\theta)$, $\gamma\gamma(t)$, $\gamma\gamma(t)$ Ge(Li), Si(Li) detectors (1980Ka25) Yale γ array, 5 Compton suppressed Ge +19 BGO (1992Cr02).

1992Cr02 have confirmed most of the levels given by 1980Ka25 and added many new levels. 1992Cr02 have not confirmed the cascade on the 2016 level (346+384+522) and they have placed the 905 γ from the 2922 level.

The level scheme of 1992Cr02 has been adopted by evaluator.

 ^{101}Ag Levels

E(level)	J $^{\pi}$ [†]	E(level)	J $^{\pi}$ [†]	E(level)	J $^{\pi}$ [†]	E(level)	J $^{\pi}$ [†]
0 ‡	9/2 ⁺	2620.8 ‡ 5	21/2 ⁺	3794.5 10		5298.7 ‡ 10	(31/2 ⁺)
98.1 3	7/2 ⁺	2922.4 7	21/2 ⁺	3800.1 $^{\textcircled{A}}$ 9	23/2	5677.9 $^{\#}$ 12	31/2 ⁽⁻⁾
686.48 ‡ 24	11/2 ⁺	2955.5 ‡ 5	23/2 ⁺	3867.9 $^{\#}$ 7	23/2 ⁽⁻⁾	6196.1 $^{\#}$ 13	33/2 ⁽⁻⁾
861.33 ‡ 24	13/2 ⁺	3010.3? 6		4157.6 ‡ 6	27/2 ⁺	6917.0 $^{\#}$ 14	35/2 ⁽⁻⁾
1573.3 ‡ 3	15/2 ⁺	3187.1 9		4215.4 $^{\#}$ 9	25/2 ⁽⁻⁾	7393.1 $^{\#}$ 15	37/2 ⁽⁻⁾
1769.3 ‡ 4	17/2 ⁺	3208.9 $^{\textcircled{A}}$ 5	21/2	4313.1 $^{\textcircled{A}}$ 14	25/2	8547.1 $^{\#}$ 18	(41/2 ⁻)
2016.4 ‡ 5	19/2 ⁺	3373.2 9		4570.8 ‡ 9	(29/2 ⁺)		
2114.3 $^{\textcircled{A}}$ 4	17/2 ⁺	3577.1 ‡ 6	25/2 ⁺	4748.2 $^{\#}$ 10	27/2 ⁽⁻⁾		
2447.5 5		3614.0 8		5133.4 $^{\#}$ 11	29/2 ⁽⁻⁾		

[†] As given by 1992Cr02.

‡ Band(A): positive-parity band.

$^{\#}$ Band(B): negative-parity band.

$^{\textcircled{A}}$ Band(C): Level sequence above 15/2⁺.

 $\gamma(^{101}\text{Ag})$

E $_{\gamma}$ [†]	I $_{\gamma}$ [†]	E $_i$ (level)	J $_i^{\pi}$	E $_f$	J $_f^{\pi}$	Mult. ‡	δ^{\ddagger}	Comments
73.5 1	5 1	3867.9	23/2 ⁽⁻⁾	3794.5				
98.1 3	5.5 7	98.1	7/2 ⁺	0	9/2 ⁺	M1		Mult.: from IT decay.
174.4 1	9.7 3	861.33	13/2 ⁺	686.48	11/2 ⁺	M1+E2	+0.03 +3–4	Mult.: from 1992Cr02. Other: +0.09 +11–10 (1980Ka25).
181.3 1	3.8 7	3794.5		3614.0				
196.0 1	10.6 5	1769.3	17/2 ⁺	1573.3	15/2 ⁺	M1+E2	+0.07 3	
241.1 1	1.7 5	3614.0		3373.2				
247.6 1	58 2	2016.4	19/2 ⁺	1769.3	17/2 ⁺	M1+E2	+0.00 2	Mult.: from 1992Cr02. Other: –0.01 +11–10 (1980Ka25).
335.1 1	15 1	2955.5	23/2 ⁺	2620.8	21/2 ⁺	M1+E2	+0.02 5	Mult.: from 1992Cr02. Other: –0.04 +8–10 (1980Ka25).
346.9 1	21.1 6	2114.3	17/2 ⁺	1769.3	17/2 ⁺	M1+E2	–0.02 2	Mult.: from 1992Cr02. Other: –0.03 +5–12 (1980Ka25).
346.9 1	21.1 6	4215.4	25/2 ⁽⁻⁾	3867.9	23/2 ⁽⁻⁾			
384.9 1	17.0 4	5133.4	29/2 ⁽⁻⁾	4748.2	27/2 ⁽⁻⁾	M1+E2	–0.05 2	
412.9 1	2.8 4	4570.8	(29/2 ⁺)	4157.6	27/2 ⁺			
415.6 1	3.5 4	4215.4	25/2 ⁽⁻⁾	3800.1	23/2	D		
434.9 3	2 1	4748.2	27/2 ⁽⁻⁾	4313.1	25/2	D		

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(HI,xn γ) 1980Ka25,1992Cr02 (continued) $\gamma(^{101}\text{Ag})$ (continued)

E_γ^\dagger	I_γ^\dagger	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	δ^\ddagger	Comments
443.7	2	5	1	2016.4	19/2 ⁺	1573.3	15/2 ⁺	
475.9	2	3.9	4	7393.1	37/2 ⁽⁻⁾	6917.0	35/2 ⁽⁻⁾	M1+E2
513.4	2	7	1	4313.1	25/2	3800.1	23/2	M1+E2
518.3	1	9.4	6	6196.1	33/2 ⁽⁻⁾	5677.9	31/2 ⁽⁻⁾	M1+E2
532.8	1	20.5	7	4748.2	27/2 ⁽⁻⁾	4215.4	25/2 ⁽⁻⁾	M1+E2
541.5	2	16	3	2114.3	17/2 ⁺	1573.3	15/2 ⁺	
544.0	1	13.1	5	5677.9	31/2 ⁽⁻⁾	5133.4	29/2 ⁽⁻⁾	M1+E2
580.7	1	3	1	4157.6	27/2 ⁺	3577.1	25/2 ⁺	
587.0	2	2.5	5	3794.5		3208.9	21/2	
591.5	1	11	2	3800.1	23/2	3208.9	21/2	D
604.3	1	23	1	2620.8	21/2 ⁺	2016.4	19/2 ⁺	M1+E2
								Mult.: from 1992Cr02. Other: +0.03 +4-6 (1980Ka25).
621.8	1	12	1	3577.1	25/2 ⁺	2955.5	23/2 ⁺	M1+E2
678.2	3	12.5	8	2447.5		1769.3	17/2 ⁺	
681.3	1	3.0	5	3867.9	23/2 ⁽⁻⁾	3187.1		
687.0	1	15	1	686.48	11/2 ⁺	0	9/2 ⁺	M1+E2
								Mult.: from 1992Cr02. Other: +0.43 +12-15.
712.0	1	31	1	1573.3	15/2 ⁺	861.33	13/2 ⁺	M1+E2
								Mult.: from 1992Cr02. Other: -0.01 +11-10 (1980Ka25).
720.5	2	4.2	5	6917.0	35/2 ⁽⁻⁾	6196.1	33/2 ⁽⁻⁾	M1+E2
728.0	1	7.1	6	5298.7	(31/2 ⁺)	4570.8	(29/2 ⁺)	M1+E2
852.0	1	8	1	2620.8	21/2 ⁺	1769.3	17/2 ⁺	
861.4	1	100		861.33	13/2 ⁺	0	9/2 ⁺	
880.2	4	4.7	6	4748.2	27/2 ⁽⁻⁾	3867.9	23/2 ⁽⁻⁾	
886.1	4	6	1	1573.3	15/2 ⁺	686.48	11/2 ⁺	
904.6	1	9	2	2922.4	21/2 ⁺	2016.4	19/2 ⁺	
908.0	1	72	2	1769.3	17/2 ⁺	861.33	13/2 ⁺	
913.3	1	7	2	3867.9	23/2 ⁽⁻⁾	2955.5	23/2 ⁺	D
918.1	1	5.4	3	5133.4	29/2 ⁽⁻⁾	4215.4	25/2 ⁽⁻⁾	
929.5	4	1.4	4	5677.9	31/2 ⁽⁻⁾	4748.2	27/2 ⁽⁻⁾	
939.5	1	33	3	2955.5	23/2 ⁺	2016.4	19/2 ⁺	
948.2	1	8	1	3867.9	23/2 ⁽⁻⁾	2922.4	21/2 ⁺	
956.6	2	5.9	4	3577.1	25/2 ⁺	2620.8	21/2 ⁺	
993.8	1	13	2	3010.3?		2016.4	19/2 ⁺	
993.8	1	13	2	4570.8	(29/2 ⁺)	3577.1	25/2 ⁺	
1063.2	2	2.0	3	6196.1	33/2 ⁽⁻⁾	5133.4	29/2 ⁽⁻⁾	
1095.0	1	14	2	3208.9	21/2	2114.3	17/2 ⁺	
1141.0	2	2.8	7	5298.7	(31/2 ⁺)	4157.6	27/2 ⁺	
1151.5	2	2.8	5	2922.4	21/2 ⁺	1769.3	17/2 ⁺	E2
1153.8	2	3.4	7	8547.1	(41/2 ⁻)	7393.1	37/2 ⁽⁻⁾	
1171.0	2	2.3	4	3187.1		2016.4	19/2 ⁺	
1196.9	3	2.1	4	7393.1	37/2 ⁽⁻⁾	6196.1	33/2 ⁽⁻⁾	
1202.7	1	13.5	7	4157.6	27/2 ⁺	2955.5	23/2 ⁺	
1239.2	4	1.9	2	6917.0	35/2 ⁽⁻⁾	5677.9	31/2 ⁽⁻⁾	
1604	1	0.2	2	3373.2		1769.3	17/2 ⁺	
1845	1	0.3	3	3614.0		1769.3	17/2 ⁺	

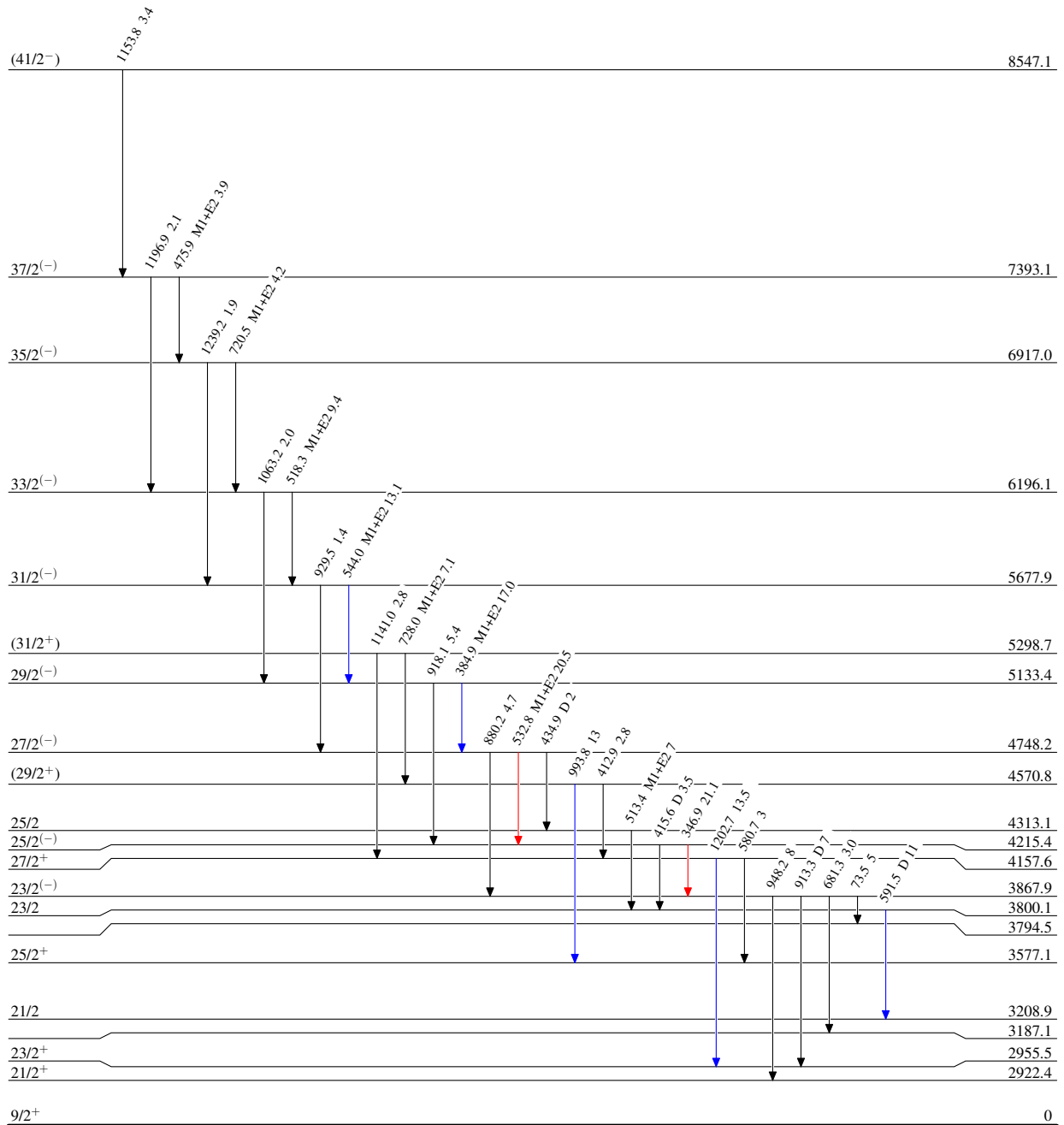
 † From 1992Cr02. ‡ From 1992Cr02, unless otherwise noted.

(HI,xn γ) 1980Ka25,1992Cr02

Level Scheme
 Intensities: Relative I_γ

Legend

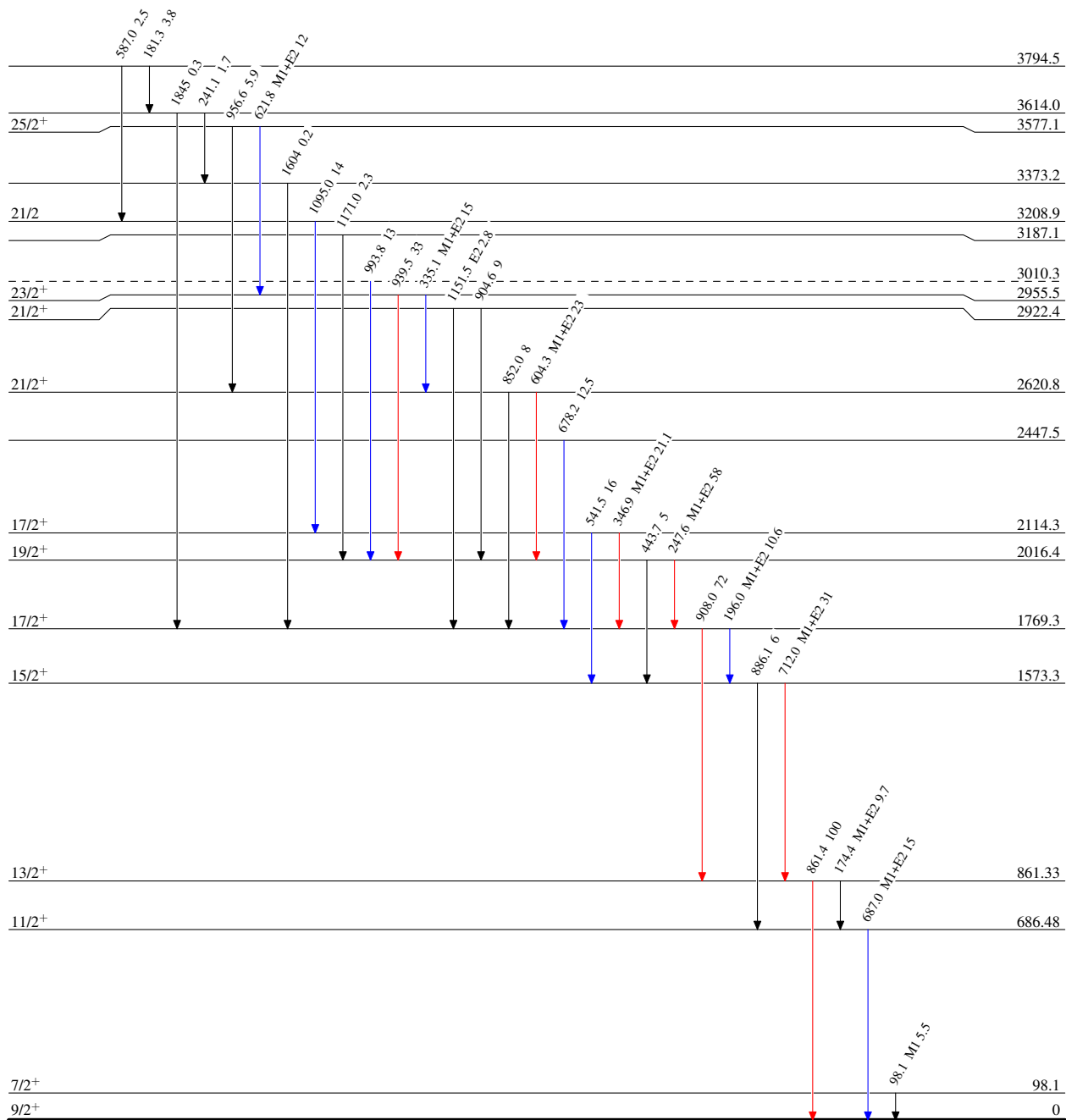
- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{101}_{47}\text{Ag}_{54}$

(HI,xn γ) 1980Ka25,1992Cr02**Level Scheme (continued)**Intensities: Relative I_γ

Legend

- $I_\gamma < 2\% \times I_\gamma^{\max}$
- $I_\gamma < 10\% \times I_\gamma^{\max}$
- $I_\gamma > 10\% \times I_\gamma^{\max}$

 $^{101}_{47}\text{Ag}_{54}$

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