^{186}W(d,3nγ)   1971Ev02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 619 (2005)	1-Nov-2005

E(d)=12, 16, and 19.6 MeV.

(d,242.9γ)(t): $T_{1/2}$(368.2 level)=33 ns *3*.

The level scheme is given as constructed by 1971Ev02. The assignments of states to the bands were made on the basis of the γ excitation functions, intensity pattern, and the energy fit to the systematics of these bands. The 9/2[514] state assignment was made on the basis of its energy and half-life systematics in odd-A rhenium isotopes.

^{185}Re Levels

E(level)[†]	J^π[‡]	$T_{1/2}$	Comments
0.0[#]	5/2$^+$		
125.2[#]	7/2$^+$		E(level): adopted from ^{185}Os ε decay.
284.1[#]	9/2$^+$		
368.1[@]	9/2$^-$	33 ns *3*	
475.6[#]	11/2$^+$		
546.8[@]	11/2$^-$		
697.0[#]	13/2$^+$		
757.3[@]	13/2$^-$		
949.5[#]	15/2$^+$		
1000?[@]	15/2$^-$		
1230.4[#]	17/2$^+$		
1277?[@]	17/2$^-$		

[†] From level diagram of 1971Ev02.
[‡] From band structure.
[#] 5/2[402] rotational band.
[@] 9/2[514] rotational band.

γ(^{185}Re)

$E_γ$	E_i(level)	$J_i^π$	E_f	$J_f^π$	$I_{(γ+ce)}$[†]	Comments
125.2[‡]	125.2	7/2$^+$	0.0	5/2$^+$	208	
158.9[‡]	284.1	9/2$^+$	125.2	7/2$^+$	61	
178.7 *1*	546.8	11/2$^-$	368.1	9/2$^-$	77	
191.5[‡]	475.6	11/2$^+$	284.1	9/2$^+$	38	
210.5 *1*	757.3	13/2$^-$	546.8	11/2$^-$	52	
221.4[‡]	697.0	13/2$^+$	475.6	11/2$^+$	16	
242.9	368.1	9/2$^-$	125.2	7/2$^+$	94	
243[#]	1000?	15/2$^-$	757.3	13/2$^-$	32	The width of the strong 242.9-keV γ-ray was 0.15 keV larger than expected. This indicates the presence of another γ with about the same energy. From the expected energy of the 15/2$^-$ member of the 9/2[514] band, the weaker γ of this doublet was assigned by 1971Ev02 to deexcite a 15/2$^-$ level at 1000 keV. The method of obtaining its intensity was not explained by 1971Ev02.
252.5[‡]	949.5	15/2$^+$	697.0	13/2$^+$	14	
277.0 *3*	1277?	17/2$^-$	1000?	15/2$^-$	9	

Continued on next page (footnotes at end of table)

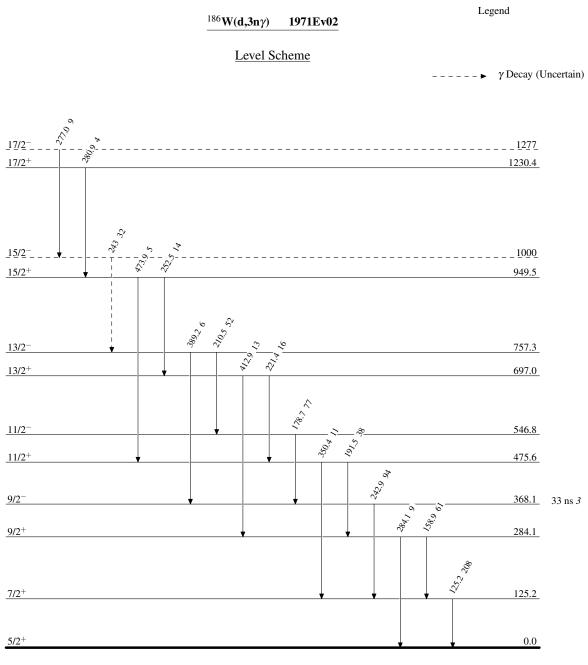^{186}W(d,3nγ)   **1971Ev02 (continued)**

γ(^{185}Re) (continued)

E_γ	E_i(level)	J_i^π	E_f	J_f^π	$I_{(\gamma+ce)}$[†]
280.9[‡]	1230.4	17/2$^+$	949.5	15/2$^+$	4
284.1[‡]	284.1	9/2$^+$	0.0	5/2$^+$	9
350.4[‡]	475.6	11/2$^+$	125.2	7/2$^+$	11
389.2[‡]	757.3	13/2$^-$	368.1	9/2$^-$	6
412.9[‡]	697.0	13/2$^+$	284.1	9/2$^+$	13
473.9[‡]	949.5	15/2$^+$	475.6	11/2$^+$	5

[†] Relative transition intensity given by 1971Ev02, presumably calculated from relative photon intensities and theoretical conversion coefficients. The M1,E2 mixing ratios used were not given.

[‡] Deduced by the evaluator from authors′ level scheme.

[#] Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

- - - - - ▶ γ Decay (Uncertain)

$^{185}_{75}$Re$_{110}$