

¹⁸³W(¹⁹F,5n γ):SD 1995CI01,1996CI01,1997BoZK

Type	Author	History	Citation	Literature Cutoff Date
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The level scheme is given as constructed by 1996CI01. The assignments of states to the bands were made on the basis of the fitting spin of 15/2 using the I(I+1) relationship.

1995CI01: ¹⁸³W(¹⁹F,5n γ) E=108 MeV. Measured E γ , $\gamma\gamma\gamma$, SD bands using GAMMASPHERE array. The SD bands are in ¹⁹⁷Bi or ¹⁹⁶Bi with slight preference for ¹⁹⁷Bi, or one SD band may be in ¹⁹⁷Bi and the other in ¹⁹⁶Bi. In later work (1996CI01) only one SD band is confirmed.

1996CI01: ¹⁸³W(¹⁹F,5n γ) E=108 MeV and ¹⁸¹Ta(²⁰Ne,4n γ) E=123 MeV. Measured E γ , I γ , $\gamma\gamma\gamma$ with GAMMASPHERE array (36 Compton-suppressed Ge detectors). Deduced SD band. The SD band was not detected in ¹⁸¹Ta(²⁰Ne,4n γ) reaction.

¹⁹⁷Bi Levels

E(level)	J π^{\ddagger}	Comments
y [†]	J \approx (15/2)	Additional information 1.
186.7+y [†] 5	J+2	
415.8+y [†] 7	J+4	
685.4+y [†] 9	J+6	
995.4+y [†] 10	J+8	
1346.5+y [†] 12	J+10	
1737.2+y [†] 13	J+12	
2168.0+y [†] 14	J+14	
2636.5+y [†] 15	J+16	
3143.6+y [†] 15	J+18	
3688.6+y? [†] 18	J+20	

[†] Band(A): SD band (?) (1996CI01,1997BoZK). The isotopic assignment is considered tentative by 1996CI01. Percent population <0.6 (1996CI01), \approx 2 (1995CI01).

[‡] The spin, parity and band assignments are from 1996CI01.

γ (¹⁹⁷Bi)

E γ [‡]	I γ ^{†‡}	E _i (level)	J π _i	E _f	J π _f	Comments
186.7 5	0.66 7	186.7+y	J+2	y	J \approx (15/2)	
229.1 5	1.09 10	415.8+y	J+4	186.7+y	J+2	
269.6 5	1.03 10	685.4+y	J+6	415.8+y	J+4	
310.0 5	0.94 10	995.4+y	J+8	685.4+y	J+6	
351.1 5	0.98 10	1346.5+y	J+10	995.4+y	J+8	
390.7 5	0.97 10	1737.2+y	J+12	1346.5+y	J+10	
430.8 5	0.87 8	2168.0+y	J+14	1737.2+y	J+12	
468.5 5	0.46 8	2636.5+y	J+16	2168.0+y	J+14	
507.1 5	0.56 8	3143.6+y	J+18	2636.5+y	J+16	
545 [#] 1		3688.6+y?	J+20	3143.6+y	J+18	From 1995CI01. Other: 544.0 10(1997BoZK).

[†] Relative transition intensities within the SD band.

[‡] From 1996CI01, except as noted.

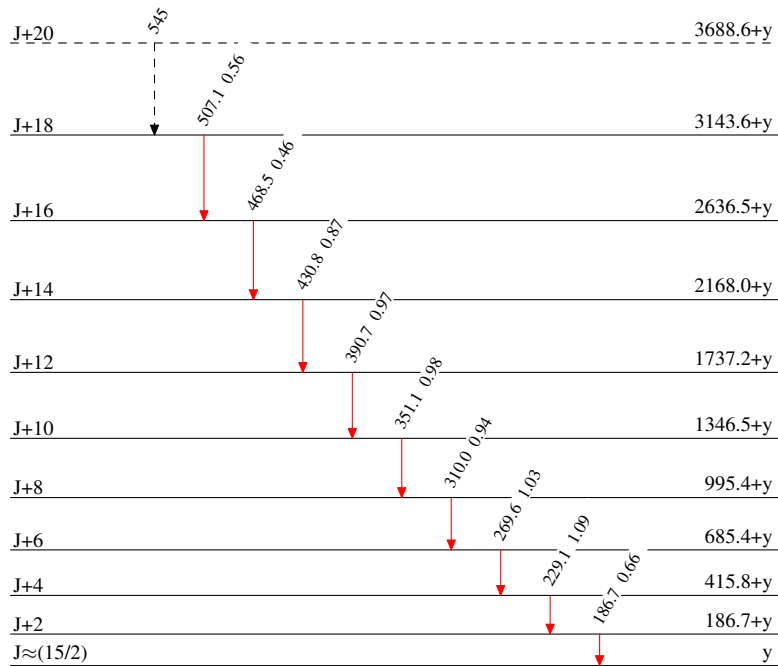
[#] Placement of transition in the level scheme is uncertain.

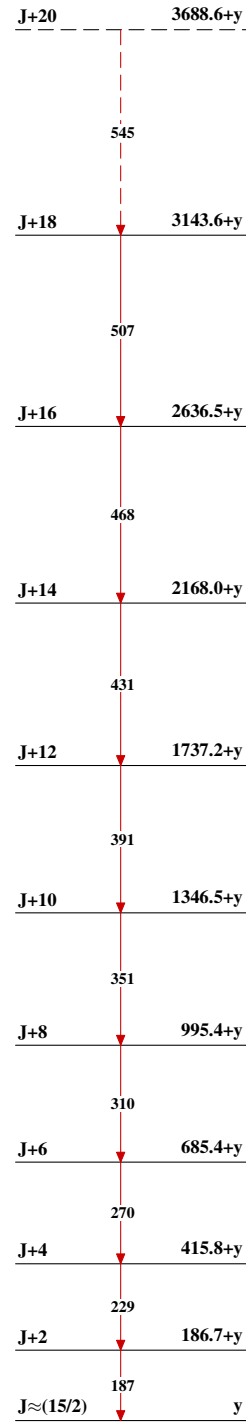
$^{183}\text{W}(^{19}\text{F},5n\gamma):\text{SD}$ 1995CI01,1996CI01,1997BoZK

Legend

Level Scheme
 Intensities: Relative I_γ

- $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- - - - - γ Decay (Uncertain)

 $^{197}\text{Bi}_{114}$

$^{183}\text{W}(^{19}\text{F},5n\gamma):\text{SD}$ 1995Cl01,1996Cl01,1997BoZKBand(A): SD band (?) (1996Cl01,
1997BoZK) $^{197}_{83}\text{Bi}_{114}$