

Energy levels and branching ratios [99Ar21, 06Tu0A].

²⁵¹₉₉Es

E^*	$2J^\pi$	S_N	$2K[Nn_z\Lambda]$	$T_{1/2}$ or	Ref.
[keV]		(α, t)		T_{cm}	
0	$\langle 3^- \rangle$	0.09(2)	3-[521]	33(1) h	
8.30(13)*	$\langle 7^+ \rangle$		7+[633]		
31.7(10)	$\langle 5^- \rangle$	0.14(4)	3-[521]		06Tu0A
55.8(10)	$\langle 9^+ \rangle$		7+[633]		06Tu0A
76.2(11)	$\langle 7^- \rangle$	0.74(8)	3-[521]		
114.1(19)	$\langle 11^+ \rangle$		7+[633]		
182.5(10)	$\langle 13^+ \rangle$	2.44(27)	7+[633]		
263.0(11)	$\langle 15^+ \rangle$		7+[633]		
411(2)	$\langle 1^- \rangle$	0.32(5)	1-[521]		
452(2)	$\langle 5^- \rangle$	0.72(9)	1-[521]		
461.5(10)	$\langle 7^- \rangle$		7-[514]		
515.5					06Tu0A
523(2)	$\langle 9^- \rangle$	1.62(25)	7-[514]		
548(2)**	$\langle 7^- \rangle$	0.31(6)	1-[521]		78Ah02
548(2)**	$\langle 9^- \rangle$	0.28(5)	1-[521]		78Ah02
661(3)	$\langle 1^+ \rangle$	0.13(6)	1+[661]		78Ah02
778.0(10)	$\langle 9^+ \rangle$		9+[624]		06Tu0A
889.1(10)	$\langle 11^+ \rangle$		7+[633]+2+		06Tu0A
942(4)	$\langle 13^+ \rangle$	1.13(24)	9+[624]		78Ah02
957.5(10)	$\langle 13^+ \rangle$		7+[633]+2+		06Tu0A
1239.0(10)	$\langle 11^+ \rangle$				
1264.9(10)	$\langle 11^+ \rangle$				
1301.4(11)	$\langle 7^+, 9, 11 \rangle$				
1307.2(10)	$\langle 7^+, 9, 11^+ \rangle$				06Tu0A
1357.0(11)	$\langle 7^+, 9, 11^+ \rangle$				06Tu0A

* $E^*=8.4(10)$ keV in [06Tu0A].

** The partition in [78Ah02] between the 7/2 and 9/2 intensities was discussed in [06Tu0A].

Spectroscopic factor S_N was defined in [78Ah02] as $S_N=S(2J+1)=d\sigma/d\Omega_{exp}/N d\sigma/d\Omega_{DWBA}$ with $N=150$.

7 bands of levels are suggested in [06Tu0A, 78Ah02].

Data for this isotope are considered in vol. LB I/18C.

Energy levels and branching ratios [99Ar21, 06Tu0A]. Part 2

²⁵¹₉₉Es

E^*	$2J^\pi$	Branching ratios in percentage											
		E_f^* :	0	8.30	31.7	55.80	76.10	114.04	182.54	263.0	777.90	889.06	957.48
[keV]		$2J_f^\pi$:	$\langle 3^- \rangle$	$\langle 7^+ \rangle$	$\langle 5^- \rangle$	$\langle 9^+ \rangle$	$\langle 7^- \rangle$	$\langle 11^+ \rangle$	$\langle 13^+ \rangle$	$\langle 15^+ \rangle$	$\langle 9^+ \rangle$	$\langle 11^+ \rangle$	$\langle 13^+ \rangle$
8.30(13)*	$\langle 7^+ \rangle$	x											
55.8(10)	$\langle 9^+ \rangle$			x									
461.5(10)	$\langle 7^- \rangle$			57(3)	3.2(3)	39(2)	1.2(1)						
778.0(10)	$\langle 9^+ \rangle$			80(4)		17(2)		3.4(6)					
889.1(10)	$\langle 11^+ \rangle$			75(4)		22(1)		≈ 2.9	0.84(10)				

(continued)

²⁵¹Es

E^*	$2J^\pi$	Branching ratios in percentage											
[keV]	E_f^* : $2J_f^\pi$:	0 $\langle 3^- \rangle$	8.30 $\langle 7^+ \rangle$	31.7 $\langle 5^- \rangle$	55.80 $\langle 9^+ \rangle$	76.10 $\langle 7^- \rangle$	114.04 $\langle 11^+ \rangle$	182.54 $\langle 13^+ \rangle$	263.0 $\langle 15^+ \rangle$	777.90 $\langle 9^+ \rangle$	889.06 $\langle 11^+ \rangle$	957.48 $\langle 13^+ \rangle$	
957.5(10)	$\langle 13^+ \rangle$				42(3)		39(3)	≈ 14	5(1)				
1239.0(10)	$\langle 11^+ \rangle$		11.2(8)		5.9(4)		2.2(3)	0.5(1)		7.4(5)	67(3)	5.8(4)	
1264.9(10)	$\langle 11^+ \rangle$		12.2(10)		6.6(6)		2.8(4)			2.1(4)	69(4)	6.7(6)	
1301.4(11)	$\langle 7^+, 9, 11 \rangle$		86(7)		14(2)								
1307.2(10)	$\langle 7^+, 9, 11^+ \rangle$		60(4)		27(2)		13(1)						
1357.0(11)	$\langle 7^+, 9, 11^+ \rangle$		18(2)		54(5)		28(3)						

Energy levels [99Ak02, 05Ni22].

²⁵²Es

E^* [keV]	J^π	$T_{1/2}$ or Γ_{cm}
0.0 92(17) 157(19) 234(19) 309(17) 430(23) 536(16) 600(17)	$\langle 5^- \rangle$ $\langle 1^- \rangle$	472(2) d

Data for this isotope are considered in vol. LB I/18C.

Energy levels and branching ratios [99Ar21, 06Ja10].

²⁵³Es

E^* [keV]	$2J^\pi$	$T_{1/2}$ or Γ_{cm}
0 46.4(2) 80(8) 106(4) 139(3) 181.3(5) 371.4(1) 435(1)	7^+ $\langle 9^+ \rangle$ $\langle 11^+ \rangle$ $\langle 3^- \rangle$ $\langle 5^- \rangle$ $\langle 7^- \rangle$ $\langle 7^- \rangle$ $\langle 9^- \rangle$	20.47(3) d

3 bands of levels are suggested in [06Ja10].

Energy levels and branching ratios [99Ar21, 06Ja10]. Part 2

²⁵³₉₉Es

E^*	$2J^\pi$	$E_f^*:$ $2J_f^\pi:$	Branching ratios in percentage	46.4 $\langle 9^+ \rangle$
[keV]			0 7 ⁺	
46.4(2)	$\langle 9^+ \rangle$		100	
106(4)	$\langle 3^- \rangle$		100	
181.3(5)	$\langle 7^- \rangle$		100	
371.4(1)	$\langle 7^- \rangle$		83(4)	17(2)
435(1)	$\langle 9^- \rangle$			100

Energy levels and branching ratios [01Ak11, 05Bh12].

²⁵⁴₉₉Es

E^*	J^π	$T_{1/2}$ or Γ_{cm}
[keV]		
0.0	$\langle 7^+ \rangle$	275.7(5) d
80.1(2)	$\langle 8^+ \rangle$	
84.2(25)	2 ⁺	39.3(2) h
171.1(2)	$\langle 9^+ \rangle$	
214.7(2)		
289.9(3)		
376.8(2)		
402(5)		
447.9(1)	$\langle 8^- \rangle$	
469.2(2)		

Data for this isotope are considered in vol. LB I/18C.

Energy levels and branching ratios [01Ak11, 05Bh12]. Part 2

²⁵⁴₉₉Es

E^*	J^π	$E_f^*:$ $J_f^\pi:$	0.0 $\langle 7^+ \rangle$	80.1 $\langle 8^+ \rangle$	171.1 $\langle 9^+ \rangle$	376.8
[keV]						
80.1(2)	$\langle 8^+ \rangle$		x			
171.1(2)	$\langle 9^+ \rangle$		79(26)	21(13)		
376.8(2)			20(8)	65(5)	14(5)	
447.9(1)	$\langle 8^- \rangle$		22(2)	61(4)	12.2(12)	4.8(3)
469.2(2)				68(16)	32(10)	