	History		
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	D. M. Symochko, E. Browne, J. K. Tuli	NDS 110,2945 (2009)	1-Dec-2008

 $Q(\beta^{-}) = -3.42 \times 10^{3} 3$; S(n) = 7556 21; S(p) = 6474 9; $Q(\alpha) = 428 8 2012$ Wa38 Note: Current evaluation has used the following Q record $-3.42E+3 3 7.58 \times 10^{3} 2 6474 8 427 8 2009$ AuZZ,2003Au03. S(n) = 7535 17 (2003Au03).

Theory:: Structure calculations - quasiparticle-phonon model (1994Di06), total Routhian surface formalism (1995Pa41).

¹¹⁹Te Levels

J(A,B,C) From assignment to a band, in addition to the arguments given.

Cross Reference (XREF) Flags

			A B	¹¹⁹ I ε decay D ¹²⁰ Te(³ He, α) ¹¹⁷ Sn(α ,2n γ) E (HI,xn γ)								
			С	120 Te(d,t),(pol d,t)								
E(level) [†]	\mathbf{J}^{π}	T _{1/2}	XREF	Comments								
0.0	1/2+	16.05 h 5	ABCDE	$\%\varepsilon + \%\beta^+ = 100; \ \%\beta^+ = 2.06 \ 5$								
				μ atomic-beam magnetic resonance (2005St24).								
				$T_{1/2}$: from $\gamma(t)$ in ¹¹⁹ Te ε decay (1973Ka45). Other: 15.9 h 3 (1961Fi05).								
257.484 21	3/2+		ABC E	J^{α} : J=1/2 from atomic beam (19/6Fu06); L(³ He, α),(d,t)=0. J ^{\pi} : L(d,t)=2, M1+E2 γ to 1/2 ⁺ .								
260.96 [#] 5	11/2-	4.70 d 4	ABCDE	$\%\epsilon + \%\beta^{+} = 100; \% \text{IT} < 0.008 (1975 \text{Du04}); \%\beta^{+} = 0.41 4$								
				μ =0.894 6 Additional information 1								
				μ : radiative detection of NMR (2005St24).								
				$T_{1/2}$: weighted av of 4.79 d <i>12</i> (1973Ka45), 4.7 d <i>3</i> (1960Ko12) 4.68 d 5								
				from ¹¹⁹ Te ε decay.								
				J ^{π} : J=11/2 from atomic beam (1976Fu06), L(³ He, α), (pol d,t)=5.								
320.506 ⁴ 20	5/2+	2.2 ns 2	ABCDE	μ =-0.9 2 μ : integral-perturbed angular distribution of γ rays following reactions								
				(2005St24).								
				$J^{\pi}: L(d,t), ({}^{3}He, \alpha) = 2; \gamma(\theta) \text{ in } (\alpha, 2n\gamma).$								
360.39 <i>3</i>	7/2+		A CD	$J_{1/2}^{\pi}$. Itom y(t) in (α , 2iry). J ^{π} : L(d,t),(³ He, α)=4; log <i>ft</i> =6.76 from 5/2 ⁺ excludes 9/2 ⁺ .								
467.96 [@] 4	9/2-		AB DE	J^{π} : $\sigma(\theta)$ in (³ He,d).								
501.10 4	7/2-		A CD	J^{π} : L(d,t),(³ He, α)=3; γ to 11/2 ⁻ .								
557.17 <i>3</i> 598.18 <i>21</i>	3/2",5/2"		A CD B	$J^{*}: L({}^{\circ}He, \alpha), (d,t)=2.$								
635.86 <i>3</i>	5/2+		A CD	J ^{π} : L(d,t),(³ He, α)=2; M1+E2+E0 γ to 5/2 ⁺ rules out 3/2 ⁺ .								
661.27 4	7/2-		A C	J^{π} : L(pol d,t)=(3); γ 's to 5/2 ⁺ and 11/2 ⁻ , log <i>ft</i> =7.22 (log <i>f</i> ^{1<i>u</i>} <i>t</i> =8.55) from 5/2 ⁺ excludes 9/2 ⁺ .								
669.31 4	7/2+		ABCD	J^{π} : L(d,t),(³ He, α)=4; M1+E2 γ to 5/2 ⁺ .								
703.08 [‡] 20	$(7/2^+)$		BE	J^{π} : (M1+E2) γ to 5/2 ⁺ , $\gamma(\theta)$ in (HI,xn γ).								
707.68 5	$\frac{1}{2}^{+}$ $\frac{3}{2}^{+}$ $\frac{5}{2}^{+}$			$J^{*}: L(d,t)=0.$ $I^{*}: L({}^{3}He \alpha) (d t)=2$								
743.08 6	7/2-,9/2-		A C	J^{π} : L(pol d,t)=3, γ to 11/2 ⁻ excludes 5/2 ⁻ .								
747 20	$(3/2^+, 5/2^+)$		С	J^{π} : L(d,t)=(2).								

¹¹⁹Te Levels (continued)

E(level) [†]	\mathbf{J}^{π}	XREF	Comments
766.60 18	5/2-,7/2-	ABCd	XREF: d(771).
			$J^{\pi}: L(\text{pol } d, t) = 3.$
771.7 <i>3</i>	5/2-	BCD	J^{π} : L(d,t),(³ He, α)=3; γ to 3/2 ⁺ .
813.31 4	3/2+,5/2+	A CD	J^{π} : L(³ He, α),(d,t)=2.
877.45 5	3/2+,5/2+	A Cd	XREF: d(883).
			J^{π} : L(pol d,t)=2.
889.07 <i>3</i>	$3/2^+, 5/2^+$	A Cd	XREF: d(883).
001.0.6	(5/0- 7/0-)	~	J^{π} : L(pol d,t)=2.
901.0 6	(5/2 , 1/2)	C	J^{A} : L(pol d,t)=(3).
901.26 [#] 10	$15/2^{-}$	BE	J^{π} : E2 γ to $11/2^{-}$, $\gamma(\theta)$ in $(\alpha, 2n\gamma)$.
906 10		D	
945.92+ 18	$(9/2^+)$	ΒE	J^{π} : (M1+E2) γ to (7/2 ⁺) γ , (θ) in (α ,2n γ).
957.1 4		С	
964.21 4	3/2+,5/2+	A CD	J^{n} : L(³ He, α),(d,t)=2.
979.96 ^w 13	$(13/2^{-})$	ΒE	J^{π} : $\gamma(\theta)$ in $(\alpha, 2n\gamma)$.
984.6 <i>3</i>	7/2+,9/2+	CD	XREF: D(995).
004 41 27	5/2- 7/2-	DC	J^{n} : L(pol d,t)=4.
994.41 <i>21</i>	$\frac{5}{2}, \frac{1}{2}$	BC	J^{*} : L(pol d,t)=3. $\overline{\pi}$, L(d,t)=0.
1005.99 5	$\frac{1}{2}$ (7/2+ 0/2+)	AC	J^{*} : L(u,t)=0. I^{π} : L (pol d t)=(A)
1092.6.7	(1/2, 1/2)	c	J : E(pot u, t) = (4).
1104.87 9	$(7/2^+, 9/2^+)$	Ad	XREF: d(1111).
			J^{π} : L(³ He. α)=(4):
1113.57 3	$5/2^{+}$	A Cd	XREF: d(1111).
			J^{π} : L(pol d,t)=2, γ to 1/2 ⁺ , γ 's to 7/2 ⁺ and 7/2 ⁻ .
1132.1 4	$1/2^{+}$	С	J^{π} : L(pol d,t)=0.
1154.7 20	$1/2^{-}, 3/2^{-}$	С	J^{π} : L(pol d,t)=1.
1162.32 9	7/2-,9/2-	Α	J^{π} : γ 's to $7/2^+$ and $11/2^-$; log ft=7.57 (log $f^{lu}t=8.8$) from $5/2^+$ excludes $9/2^+$ and $11/2^+$.
1184.79 6	5/2-,7/2+	Α	J^{π} : γ 's to $3/2^+$ and $9/2^-$.
1189.0 3	$(1/2^+, 9/2^+)$	C	J^{n} : L(pol d,t)=4.
1197.13 0	$(3/2^{+})$	A Ca	AKEF: $U(1198)$. I^{π} , $I(roldt) = 2$, $M1 + E2 + E0$ or to $2/2^{+}$
1107 71 7	3/2- 5/2 7/2	h A	J . $L(pol (d, t)=2, M1+E2+E0 \ \gamma \ to \ 5/2$. YREE: $d(1108)$
1197.717	5/2 ,5/2,7/2	лu	I^{π} : γ' s to $5/2^+$ and $7/2$ log ff=7.11 from $5/2^+$
1201.50 17	$(1/2, 3/2, 5/2^+)$	A	J^{π} : γ to $1/2^+$. $\varepsilon + \beta^+$ feeding from $5/2^+$ is weak, but if real, would rule out $1/2^+$.
1215.5 3		В	
1251.0 5		С	
1264.3 5	$(1/2^+)$	С	J^{π} : L(pol d,t)=(0).
1277.2 4	$1/2^{+}$	C	J^{π} : L(pol d,t)=0.
1280.83 [‡] 19	$(11/2^+)$	ΒE	J^{π} : (M1+E2) γ to 9/2 ⁺ , $\gamma(\theta)$ in (α ,2n γ).
1290.8 5	$1/2^{+}$	С	J^{π} : L(pol d,t)=0.
1296.1 4		В	
1361.1 5	$3/2^+, 5/2^+$	C	J^{*} : L(pol d,t)=2.
13/0.80 0	3/2 ,5/2	A Ca	AKEF: $U(15/2)$. $I^{\pi_{1}} e^{J_{2}} = t_{2} \frac{1}{2} \frac{1}{2} - \frac{1}{2} $
1373 29 10		h A	$3 \cdot y = 5 \text{ to } 1/2$ and $1/2 \cdot 2$
1400.9 4	$7/2^+.9/2^+$	Cd	XREF: d(1411).
	.1=1=		J^{π} : L(pol d,t)=4.
1418.0 4	7/2+,9/2+	Cd	XREF: d(1411).
			J^{π} : L(³ He, α), (pol d,t)=4.
1434.0 4	7/2+,9/2+	С	J^{π} : L(pol d,t)=4.
1443 10	7/2+,9/2+	D	$J^{\pi}: L({}^{3}\text{He}, \alpha) = 4.$
1444.6 4	1/2+	С	J^{π} : L(pol d,t)=0.
1445.61 8	$3/2^+, 5/2^+$	Α	$J^{n}: \gamma'$ s to $1/2^{+}$ and $7/2^{+}$.

¹¹⁹Te Levels (continued)

E(level) [†]	\mathbf{J}^{π}	XREF	Comments
1479 1		C	
1505.1.5	$1/2^{+}$	Ċ	I^{π} : L(pol d t)=0.
1512.88 7	5/2+	A CD	J^{π} : L(pol d.t)=2: γ to $9/2^+$.
1528.31 8	$(1/2^+, 3/2, 5/2^+)$	A	J^{π} : γ' s to $1/2^+$ and $5/2^+$. Weak $\varepsilon + \beta^+$ feeding from $5/2^+$, if real, would rule out $1/2^+$.
1530.55 3	3/2+.5/2+	AC	J^{π} : L(pol d,t)=2.
1540.2 5	$7/2^+, 9/2^+$	C	J^{π} : L(pol d,t)=4.
1586 43 22	$(13/2^+)$	RF	I^{π} : (M1+F2) γ to (11/2 ⁻) $\gamma(\theta)$ in (α 2n γ)
1502.8 4	$(15/2)^{+}$ $3/2^{+}$ $5/2^{+}$	C L	I^{π} : I (nol d t)-2
$1502.0 \neq$	$(17/2^{-})$		$\pi_{1} = E(p(1, t) - 2)$
1398.07 - 14	(17/2)	D L	J^{T} . E2 γ to (15/2), $\gamma(\theta)$ III ($\alpha, 2\Pi\gamma$).
1004 10	1/2*,9/2*	D	$J^*: L({}^\circHe,\alpha)=4.$
1618.96 ^m 16	$(19/2^{-})$	ΒE	J^{n} : (E2) γ to (15/2 ⁻), $\gamma(\theta)$ in (α ,2n γ).
1620.0 5	1/2-,3/2-	C	J^{n} : L(pol d,t)=1.
1624.25 8	3/2,5/2+	A	J^{n} : γ 's to $1/2^{+}$ and $5/2^{+}$, log $ft=7.71$ from $5/2^{+}$.
1632.05 15	$(1/2, 3/2, 5/2^+)$	A	J [*] : γ to 1/2 ⁺ . $\varepsilon + \beta^+$ feeding from 5/2 ⁺ is weak, but if real, then 1/2 ⁺ is rules out.
1654.8 5	3/2+,5/2+	C	$J^{\prime\prime}$: L(pol d,t)=2.
16/4.23 4	5/21	A CD	XREF: $D(1660)$.
1690.2.5	(5/0 - 7/0 -)	C	J [*] : L(pol d,l)=2; M1+E2+E0 γ to 5/2 [*] .
1080.2 3	(3/2, 7/2)	C	J^{T} : L(poi d,t)=(5).
1704 10	$(1/2^{+}, 9/2^{+})$	CD	$J^*: L(=He, \alpha), \text{ (pol } d, t)=(4).$
1720.0 5	1/2, $3/22/2 5/2^+$		J^{*} : L(pol d,t)=1.
1729.21 0	$\frac{5}{2}, \frac{5}{2}$	A	J^{*} : γ s to $1/2^{+}$ and $5/2^{+}$, log $f = 7.05$ from $5/2^{+}$.
1739.05 5	5/2, 5/2 (5/2 - 7/2 -)	A C	$J : \gamma \in [0, 1/2]$ and $J/2 : \log f = 0.74$ from $J/2 :$
1741.5 5	(3/2, 7/2) (7/2+0/2+)		I = L(pol (d, t) - (5)).
1740 10	(1/2, 9/2)	C C	J^{*} . L($\Pi C, U$)=(4). I^{*} : L (nol d t)=2
1706.4.8	5/2 ,1/2	C	J : L(poi (a,t)=5.
1808 9 5	1/2+	Ċ	I^{π} . I (nol d t)=0
1810 10	$(7/2^+ 0/2^+)$	D D	I = L(pol d, t) = 0. $I = I = (J + a_{2}) = (J)$
1873 7 6	(1/2, 3/2) $5/2^{-}7/2^{-}$	Ċ	$J : L(\Pi C, u) - (4).$
1823.8 5	$3/2^+, 7/2^+$ $3/2^+, 5/2^+$	Ċ	J : E(pol d, t) = 3. $I^{\pi}: I (pol d t) = 2$
1834 91 5	$(5/2^{-} 7/2^{+})$	Δ	I^{π} : χ'_{s} to $3/2^{+}$ and $9/2^{-}$
1863.9 11	$1/2^{-}.3/2^{-}$	° c	J^{π} : L(pol d.t)=1.
1877.1 9	$1/2^+$	C	J^{π} : L(pol d,t)=0.
1888 10	$(3/2^+, 5/2^+)$	D	$J^{\pi}: L({}^{3}\text{He}, \alpha) = (2).$
1889.0 5	(=]= ,=]=)	В	
1892.3 9	$7/2^+, 9/2^+$	c	J^{π} : L(pol d,t)=4.
1910.3 10	$1/2^{-}, 3/2^{-}$	С	J^{π} : L(pol d,t)=1.
1924 10	$(7/2^+, 9/2^+)$	D	J^{π} : $L({}^{3}He, \alpha) = (4).$
1936.4 10	3/2+,5/2+	С	J^{π} : L(pol d,t)=2.
1939.83 [‡] 24	$(15/2^+)$	ΒE	J^{π} : γ to $(13/2^+)$, (E2) γ to $11/2^+$, $\gamma(\theta)$ in $(\alpha, 2n\gamma)$.
1969 10	$(7/2^+ 9/2^+)$	 п	$I^{\pi} \cdot I ({}^{3}He \alpha) = (4)$
1973.6 10	$1/2^+$	c	J^{π} : L(pol d,t)=0.
1999 2	-) -	Ċ	
2005 2		Ċ	
2010 10	$(7/2^+, 9/2^+)$	D	J^{π} : L(³ He, α)=(4).
2014.5 10	$(1/2^+)$	С	J^{π} : L(pol d,t)=(0).
2024.55 15	3/2+,5/2,7/2+	Α	J^{π} : γ' 's to $3/2^+$ and $7/2^+$.
2048.3 10	1/2+	С	J^{π} : L(pol d,t)=0.
2059.1 8	$1/2^{-}, 3/2^{-}$	С	J^{π} : L(pol d,t)=1.
2075.5 8	7/2+,9/2+	С	J^{π} : L(pol d,t)=4.
2078.45 7	$3/2^+, 5/2^+$	Α	J^{π} : γ' s to $1/2^+$ and $7/2^+$.
2081 10	$(7/2^+, 9/2^+)$	D	J^{π} : L(³ He, α)=(4).
2089.6 8	$(1/2^+)$	С	J^{π} : L(pol d,t)=(0).

¹¹⁹Te Levels (continued)

E(level) [†]	\mathbf{J}^{π}	XREF	Comments
2101.87 [@] 15	$(21/2^{-})$	ΒE	J^{π} : (E2) γ to (17/2 ⁻), (M1+E2) γ to (19/2 ⁻), $\gamma(\theta)$ in (α .2n γ).
2105.95.5	$(3/2^+, 5/2, 7/2^+)$	Α _	I^{π} : γ' s to $3/2^+$ and $5/2^+$, log $ft=6.46$ for probable feeding from $5/2^+$.
2113.09 10	3/2+.5/2.7/2+	A	J^{π} : γ' s to $3/2^+$ and $7/2^+$.
2138.4 9	$(3/2^+, 5/2^+)$	С	J^{π} : L(pol d,t)=(2).
2153.4 9	1/23/2-	Cd	XREF: d(2214).
	1)-1		J^{π} : L(pol d,t)=1.
2217.5 12	$(7/2^+, 9/2^+)$	CD	J^{π} : L(³ He, α), (pol d,t)=(4).
2239.0 9	$3/2^+, 5/2^+$	С	J^{π} : L(pol d,t)=2.
2254 2	1/2+	С	J^{π} : L(pol d,t)=0.
2266.8 9	3/2+,5/2+	С	J^{π} : L(pol d,t)=2.
2272.46 [#] 17	(23/2 ⁻)	ΒE	J^{π} : E2 γ to (19/2 ⁻), (M1+E2) γ to (21/2 ⁻), $\gamma(\theta)$ in (α ,2n γ).
2276 10	$(7/2^+, 9/2^+)$	D	J^{π} : L(³ He, α)=(4).
2302.77 18	$(23/2^-, 25/2^-)$	В	J^{π} : (M1+E2) γ to (21/2 ⁻), $\gamma(\theta)$ in (α ,2n γ).
2325.8 9	$(3/2^+, 5/2^+)$	C	$J^{\pi}: L(\text{pol } d, t) = (2).$
2346.0 8	3/2+,5/2+	C	J^{π} : L(pol d,t)=2.
2347 10	$(7/2^+, 9/2^+)$	D	J^{π} : L(³ He, α)=(4).
2376.5 9	3/2+,5/2+	Cd	XREF: d(2384).
			J^{π} : L(pol d,t)=2.
2389.1 9	3/2+,5/2+	Cd	XREF: d(2389).
2405.0.0	1/2- 2/2-	~	J^{π} : L(pol d,t)=2.
2405.0 9	$1/2^{-}, 3/2^{-}$	C	J^{π} : L(pol d,t)=1.
2418.4 12	1/2	C	J^{*} : L(pol d,t)=0.
2400.5 9	$3/2^{+}, 3/2^{+}$	C	J^{*} : L(pol d,t)=2.
2460.0 9	1/2 ,5/2	C	J : L(pol u, l) = 1.
2518.8 10	3/2+ 5/2+	C	I^{π} · I (pold t) – 2
2518.8 10	$(23/2^{-})$	C F	J : $L(por(u,t)-2)$ I^{π} : E2 or to $(10/2^{-})$ (M1+E2) or to $(21/2^{-})$ in (HI xnor)
3006.8.4	$(25/2^{-})$	F	J E Z Y to $(17/2^{-})$, $(M1+E2)$ Y to $(21/2^{-})$ in $(111, X11Y)$. I^{π} : F2 y to $(21/2^{-})$ in (HI yny)
3010.1.6	(25/2)	R	J : EZ Y to (Z1/Z) in (III, XIIY).
3181.12.23	$(25/2^{-})$	Ē	J^{π} : E2 γ to (21/2 ⁻). (M1+E2) γ to (23/2 ⁻) in (HLxn γ).
$3348.21^{\#}.24$	$(27/2^{-})$	-	I^{π} : E2 γ to $(25/2^{-})$
3381 0 3	(27/2)	F	J. E2 y to $(25/2^{-})$ in (HI yng)
3623 83 25	$(27/2^{-})$	F	J^{π} : F2 γ to $(23/2^{-})$ in (HI $\chi n\gamma$)
3668 5 5	$(29/2^{-})$	Ē	I^{π} : E2 γ to (25/2 ⁻) in (HI xn γ).
3762.7 4	$(27/2^{-})$	Ē	J^{π} : (E2) γ to (25/2 ⁻) in (HLxn γ).
3804.8 5	(29/2)	E	J^{π} : d γ to $(27/2^{-})$ in (HI.xn γ).
4378 4# 3	$(31/2^{-})$	F	I^{π} : F2 γ to (27/2 ⁻)
4449.4 6	$(33/2^{-})$	Ē	J^{π} : E2 γ to (29/2 ⁻) in (HL xn γ).
4571.95 25	$(31/2^{-})$	Ē	J^{π} : E2 γ to (27/2 ⁻) in (HLxn γ).
4669.5 9		Е	
4730.3 8		Е	
5032.1 8	$(37/2^{-})$	E	J^{π} : E2 γ to (33/2 ⁻) in (HI,xn γ).
5254.4 [#] 3	$(35/2^{-})$	Е	J^{π} : E2 γ to (31/2 ⁻).
5446.8 4	$(39/2^{-})$	E	J^{π} : E2 γ to (35/2 ⁻) in (HI.xn γ).
5449.3 11	(41/2)	E	J^{π} : γ to $(37/2^{-})$ in (HI,xn γ).
6003.9 6	$(43/2^{-})$	Е	J^{π} : E2 γ to (39/2 ⁻) in (HI,xn γ).
6054.1 8		E	
6466.9 7	$(45/2^{-})$	Е	J^{π} : M1+E2 γ to (43/2 ⁻) in (HI,xn γ).
6513.2 6	$(41/2^{-})$	E	J^{π} : M1 γ to (39/2 ⁻) in (HI,xn γ).
6727.7 7	$(43/2^{-})$	E	J^{π} : Q γ to (39/2 ⁻) in (HI,xn γ).
6828.4 4	$(43/2^{-})$	E	J^{π} : E2 γ to (39/2 ⁻) in (HI,xn γ).
6936.4 5	$(45/2^{-})$	E	J^{n} : d γ to (43/2 ⁻) in (HI,xn γ).
6952.8 10	$(47/2^{-})$	E	J^{n} : d γ to (45/2 ⁻) in (HI,xn γ).
7025.3 7	(43/2 ⁻)	E	J^{α} : E2 γ to (39/2 ⁻) in (HI,xn γ).

¹¹⁹Te Levels (continued)

E(level) [†]	J^{π}	XREF	Comments	
7258.6 7		E		
7360.1 8	$(45/2^{-})$	Е	J^{π} : E2 γ to $(41/2^{-})$ in (HI,xn γ).	
7654.4 6	$(47/2^{-})$	Е	J^{π} : E2 γ to (43/2 ⁻) in (HI,xn γ).	
7936.4 8		Е		
7962.2 7	$(45/2^{-})$	Е	J^{π} : d γ to (43/2 ⁻) in (HI,xn γ).	
8062.2 8		Е		
8354.6 6		Е		
8636.5 7	$(47/2^{-})$	Е	J^{π} : O γ to (43/2 ⁻) in (HI,xn γ).	
9067.7 8		Е		
9383.4 9	$(51/2^{-})$	Е	J^{π} : O γ to $(47/2^{-})$ in (HI,xn γ).	
9555.5 10		Е		
9698.7 9	$(55/2^{-})$	Е		

[†] From a least-squares fit by the evaluators to the adopted $E(\gamma's)$. [‡] Band(A): $\Delta J=1$ band built on 320.51-keV 5/2⁺ level. [#] Band(B): $\Delta J=2$ band built on 260.96-keV 11/2⁻ level. [@] Band(C): $\Delta J=2$ band built on 467.96-keV 9/2⁻ level.

	Adopted Levels, Gammas (continued)												
	γ ⁽¹¹⁹ Te)												
E _i (level)	\mathbf{J}_i^π	E_{γ}^{\ddagger}	Iγ‡	E_f	\mathbf{J}_f^{π}	Mult. [#]	$\delta^{@}$	$lpha^{\dagger}$	Comments				
257.484	3/2+	257.52 4	100	0.0	$1/2^{+}$	M1+E2 ^{&}	+0.17 6	0.0512					
320.506	5/2+	63.09 4	49.2 24	257.484	3/2+	(M1+E2) ^{&}	+0.12 12	2.6 3	B(M1)(W.u.)=0.0068 11; B(E2)(W.u.)<77 I_{γ} : other: 57 3 in (α ,2n γ).				
360.39	7/2+	320.53 <i>4</i> 39.95 <i>5</i>	100 <i>4</i> 100	0.0 320.506	1/2 ⁺ 5/2 ⁺	E2 ^b [M1+E2]		0.0312 29 <i>20</i>	B(E2)(W.u.)=0.77 9				
467.96 501.10 557.17	9/2 ⁻ 7/2 ⁻ 3/2 ⁺ ,5/2 ⁺	206.95 5 240.20 5 299.6 2 557.24 5	100 100 3.4 10 100 5	260.96 260.96 257.484 0.0	11/2 ⁻ 11/2 ⁻ 3/2 ⁺ 1/2 ⁺	(M1+E2) ^{&} [E2]	-0.235 35	0.0932 <i>15</i> 0.0804					
598.18	5/0+	340.7 ^{&} 2	100	257.484	$3/2^+$			27.14					
033.80	5/2	78.3 3 215 40 5	0.42 20	337.17	5/2°,5/2°	[M1, E2]		2.7 14					
		378 40 5	9.4 4 14 8 7	257 484	3/2	(M1+E2+E0)		0.0314 15					
		635.86.5	100 4	0.0	$1/2^+$	$F2^{b}$		0.0043 6					
661.27	7/2-	160.18 7 193.34 7 301.0 <i>1</i> 340.76 5	26.7 <i>19</i> 19.3 <i>23</i> 11.5 <i>15</i> 100 <i>4</i>	501.10 467.96 360.39 320.506	7/2 ⁻ 9/2 ⁻ 7/2 ⁺ 5/2 ⁺	[M1,E2] [M1,E2]		0.25 7 0.14 <i>3</i>					
669.31	7/2+	308.95 6	24.1 14	360.39	7/2+	M1+E2+E0 ^b		0.0334 18					
		348.82 <i>5</i> 411.53 8	100 5 11.4 9	320.506 257.484	5/2 ⁺ 3/2 ⁺	M1+E2&	-0.27 25	0.0232					
703.08 707.68 723.99	$(7/2^+)$ $1/2^+$ $3/2^+, 5/2^+$	382.6 ^{&} 3 707.67 9 363.57 6	100 ^{&} 100 42.6 <i>21</i>	320.506 0.0 360.39	5/2 ⁺ 1/2 ⁺ 7/2 ⁺	(M1+E2)	≈-0.8	≈0.0182	δ: from γ(θ) in (α,2nγ) (1979Ha47).				
		403.51 <i>5</i> 466.8 <i>2</i> 724.1 <i>1</i>	100 6 5.5 11 21 3	320.506 257.484 0.0	5/2 ⁺ 3/2 ⁺ 1/2 ⁺	(M1) ^b		0.01602					
743.08	7/2 ⁻ ,9/2 ⁻	275.0 <i>1</i> 382.75 7 482.1 <i>1</i>	46 6 100 7 38 4	467.96 360.39 260.96	9/2 ⁻ 7/2 ⁺ 11/2 ⁻								
766.60	5/2-,7/2-	298.8 <i>4</i> 505.6 <i>2</i>	56 5 100 27	467.96 260.96	9/2 ⁻ 11/2 ⁻				E_{γ} : not reported in ¹¹⁹ I $\varepsilon + \beta^+$ decay.				
771.7	5/2-	514.2 <mark>&</mark> 3	100 <mark>&</mark>	257.484	3/2+				•				
813.31	3/2+,5/2+	555.89 7 813.27 5	55 <i>3</i> 100 <i>5</i>	257.484 0.0	3/2 ⁺ 1/2 ⁺								
877.45	3/2+,5/2+	557.2 1	100 9	320.506	$5/2^+$								
889.07	3/2+,5/2+	253.10 5	16 4	635.86	$5/2^{+}$	[M1,E2]		0.060 8					

$^{119}_{52}{ m Te}_{67}$ -6

From ENSDF

 $^{119}_{52}$ Te $_{67}$ -6

$\gamma(^{119}\text{Te})$ (continued)

E_i (level)	${ m J}^{\pi}_i$	E_{γ}^{\ddagger}	I_{γ}^{\ddagger}	E_f	J_f^π	Mult. [#]	$\delta^{@}$	$lpha^{\dagger}$	Comments
889.07	3/2+,5/2+	332.1 <i>1</i>	5.4 14	557.17	3/2+,5/2+				
		528.73 9	13.5 14	360.39	7/2+				
		568.7 1	31.1 14	320.506	5/2	b			
		631.70 6	100 6	257.484	$3/2^+$	(M1) ⁰		0.00533 8	
		889.00 6	16.0 9	0.0	1/2+				
901.26	$15/2^{-}$	640.3 [°] 1	100~	260.96	$11/2^{-}$	E2		0.00418 6	
945.92	$(9/2^+)$	242.8 2	16.7 ^{&} 14	703.08	$(7/2^+)$	(M1+E2)	-0.41 39	0.062 5	
		625.4 <mark>&</mark> 2	100 ^{&} 3	320.506	$5/2^{+}$	E2		0.00445 7	
964.21	3/2+,5/2+	294.93 6	9.4 7	669.31	$7/2^{+}$				
		406.93 6	11.4 7	557.17	$3/2^+, 5/2^+$				
		643.8 1	21 4	320.506	5/2+				
		706.74 6	100 6	257.484	3/2+				
		964.2 1	10.6 9	0.0	1/2				
979.96	$(13/2^{-})$	512.0 [°] 3	55 ~ 3	467.96	9/2-				I_{γ} : other: 21 7 in (HI,xn γ).
		719.0 2	100 ^{&} 9	260.96	$11/2^{-}$	(M1+E2)		0.0035 4	
994.41	5/2-,7/2-	325.1 ^{&} 2	100	669.31	7/2+				
1003.99	$1/2^{+}$	280.0 1	1.4 7	723.99	3/2+,5/2+				
		446.81 <i>6</i>	17.5 11	557.17	$3/2^+, 5/2^+$				
		683.54 6	35.6 17	320.506	5/2+				
		746.52 5	30.5 16	257.484	3/2+	1			
		1003.97 6	100 5	0.0	$1/2^{+}$	M1(+E0) ⁰			
1104.87	$(7/2^+, 9/2^+)$	603.76 8	100	501.10	7/2-				
1113.57	5/21	389.59 7	52 4	723.99	3/2 ,5/2				
		444.2 1	11.1 10	661 27	7/2*				
		432.39 8	32 U 29 3	635.86	7/2 5/2+				
		612.44.5	100 6	501 10	$\frac{5}{2}$				
		753.11 6	79 5	360.39	$7/2^+$				
		793.10 7	66 4	320.506	$5/2^+$				
		855.94 7	44 <i>3</i>	257.484	3/2+				
		1113.7 <i>1</i>	34 <i>3</i>	0.0	$1/2^{+}$				
1162.32	7/2-,9/2-	492.9 <i>3</i>	100 50	669.31	7/2+				
		661.23 9	65 10	501.10	7/2-				
1104 70		901.3 2	48 10	260.96	11/2-				
1184.79	5/2 ,1/2*	716.77 7	15 /	467.96	9/2 5/2 ⁺				
		804.41 9	100 11	320.306	3/2" 2/2+				
1107 12	(2/2+)	921.22	1/4	257.484	5/2 2/2+	MILES Ech		0.00100.03	
1197.13	$(3/2^{+})$	939.64 6 1197.1 2	100 5 13.7 25	257.484 0.0	$\frac{3/2}{1/2^+}$	$M1+E2+E0^{\circ}$		0.00188 23	

$\gamma(^{119}\text{Te})$ (continued)

E_i (level)	\mathbf{J}_i^{π}	E_{γ}^{\ddagger}	I_{γ}^{\ddagger}	E_f	\mathbf{J}_{f}^{π}	Mult. [#]	$\delta^{@}$	α^{\dagger}	Comments
1197.71	3/2-,5/2,7/2	696.3 <i>6</i> 877.20 <i>6</i>	21 <i>21</i> 100 6	501.10 320.506	$7/2^{-}$ $5/2^{+}$				
1201.50	$(1/2, 3/2, 5/2^+)$	493.8 <i>3</i> 1201.5 2	100 <i>50</i> 35 8	707.68 0.0	$1/2^+$ $1/2^+$				
1215.5		747.5 <mark>&</mark> 3	100 <mark>&</mark>	467.96	9/2-				
1280.83	$(11/2^+)$	334.9 <mark>&</mark> 1	44 ^{&} 5	945.92	(9/2+)	(M1+E2)	-0.33 17	0.0259	
		577.8 2	100 2 5	703.08	$(7/2^+)$	E2		0.00548 8	
1296.1	2 12- 5 12+	524.4 ^{&} 2	50 7	771.7	5/2-				
1370.86	3/2-,5/2+	663.20 9	50 7	707.68	1/2+				
		869.97 9	94 9	501.10 220.506	1/2 5/2+				
1373 29		484.2.1	38.4	889.07	3/2 3/2+ 5/2+				
1373.27		111592	100 13	257 484	3/2+,5/2				
1445.61	$3/2^+, 5/2^+$	721.8 2	65 21	723.99	$3/2^+, 5/2^+$				
		1085.3 2	62 12	360.39	7/2+				
		1188.0 <i>1</i>	88 24	257.484	3/2+				
	T (0)	1445.8 2	100 15	0.0	1/2+				
1512.88	5/2+	955.7 1	100 9	557.17	$3/2^+, 5/2^+$				
		1152.5 2	4/0 67.6	360.39	1/2 ⁺ 3/2 ⁺				
1528 31	$(1/2^+ 3/2 5/2^+)$	414.6 1	63 14	1113 57	$5/2^+$				
1020.01	(1/2 ,3/2,3/2)	524.5 1	100 10	1003.99	$1/2^+$				
		820.3 <i>3</i>	73 24	707.68	$1/2^+$				
1530.55	3/2+,5/2+	417.2 <i>I</i>	5.7 10	1113.57	5/2+				
		526.15 ^d 8	13.9 10	1003.99	$1/2^{+}$				
		566.5 2	5.9 10	964.21	3/2+,5/2+				
		653.4 1	5.2 8	877.45	$3/2^+, 5/2^+$				
		806.62 7	17.8 12	723.99	3/2+,5/2+				
		822.9 1 860.0 <mark>C</mark> 1	10.0 17 $6 7^{\circ} 8$	/0/.08	$1/2^{+}$ $7/2^{+}$				
		973 37 5	100.6	557 17	$3/2^+ 5/2^+$				
		1210.04 6	37 2	320.506	$5/2^+$, $5/2^+$				
		1273.06 6	29.8 15	257.484	3/2+				
		1530.28 9	10.7 7	0.0	$1/2^{+}$				
1586.43	$(13/2^+)$	305.6 ^{&} 2	22 <mark>&</mark> 2	1280.83	$(11/2^+)$	(M1+E2)	-1.0 6	0.0344 15	
		640.5 ^{&} 2	100 ^{&} 15	945.92	(9/2+)	E2		0.00418 6	
1598.67	(17/2 ⁻)	618.7 <mark>&</mark> 2	100 ^{&} 3	979.96	$(13/2^{-})$	E2		0.00457 7	
		697.4 ^{&} 2	38 ^{&} 4	901.26	15/2-	(M1+E2)	≈-0.8	0.00388	I _γ : other: 92 9 in (HI,xnγ). δ: from $\gamma(\theta)$ in (α ,2nγ) (1979Ha47).

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$\gamma(^{119}\text{Te})$ (continued)

E _i (level)	J_i^π	E_{γ}^{\ddagger}	I_{γ}^{\ddagger}	E_f	J_f^π	Mult. [#]	$\delta^{@}$	α^{\dagger}
1618.96 1624.25	(19/2 ⁻) 3/2,5/2 ⁺	717.7 ^{&} 2 660.05 9 1303.7 2 1624 2 2	100 ^{&} 92 9 75 25 100 17	901.26 964.21 320.506	15/2 ⁻ 3/2 ⁺ ,5/2 ⁺ 5/2 ⁺ 1/2 ⁺	(E2)		0.00314 5
1632.05	(1/2,3/2,5/2 ⁺)	1374.6 2 1632.0 2	100 22 88 9	257.484 0.0	$3/2^+$ $1/2^+$			
1674.23	5/2+	709.9 <i>1</i> 785.11 8 860.9 ^c <i>1</i> 967.0 2	43 <i>43</i> 27 2 16 ^c 2 43 9	964.21 889.07 813.31 707.68	3/2 ⁺ ,5/2 ⁺ 3/2 ⁺ ,5/2 ⁺ 3/2 ⁺ ,5/2 ⁺ 1/2 ⁺	M1+E2+E0 ^b		0.0036 5
		1038.5 <i>1</i> 1117.3 <i>4</i> 1353.72 <i>5</i> 1674 1 <i>1</i>	39 <i>3</i> 13 <i>5</i> 100 <i>5</i> 15 2	635.86 557.17 320.506	5/2 ⁺ 3/2 ⁺ ,5/2 ⁺ 5/2 ⁺	M1+E2+E0 ^b		0.00151 18
1729.21	3/2,5/2+	615.5 <i>I</i> 725.5 2 840.3 <i>I</i> 1729.1 <i>I</i>	13 2 79 16 87 16 59 11	1113.57 1003.99 889.07	$5/2^+$ $1/2^+$ $3/2^+, 5/2^+$ $1/2^+$			
1739.05	3/2,5/2+	735.0 2 1103.3 <i>I</i> 1418.51 6 1481 5 <i>I</i>	20 5 41 3 100 5 24 3	1003.99 635.86 320.506 257.484	$1/2^+$ $5/2^+$ $5/2^+$ $3/2^+$			
1834.91	(5/2 ⁻ ,7/2 ⁺)	946.0 2 957.5 1 1199.1 2 1277.9 1 1366.93 9 1514.25 9 1577.2 2	13.8 <i>19</i> 29.4 <i>25</i> 18.8 <i>25</i> 13.1 <i>19</i> 31.3 <i>25</i> 100 <i>7</i> 16.9 <i>25</i>	889.07 877.45 635.86 557.17 467.96 320.506 257.484	$5/2^{+}, 5/2^{+}$ $3/2^{+}, 5/2^{+}$ $5/2^{+}, 5/2^{+}$ $3/2^{+}, 5/2^{+}$ $9/2^{-}$ $5/2^{+}, 5/2^{+}$ $3/2^{+}$			
1889.0		592.9 ^{&} 3	100	1296.1				
1939.83	$(15/2^+)$	353.4 ^x 2	$29^{\circ} 5$	1586.43	$(13/2^+)$			0.00200 (
2024.55	3/2+,5/2,7/2+	659.0 ² 2 1664.2 2 1767.0 2	100 9 100 <i>16</i> 89 <i>11</i>	1280.83 360.39 257.484	$(11/2^+)$ $7/2^+$ $3/2^+$	(E2)		0.00389 6
2078.45	3/2+,5/2+	1074.4 2 1370.66 8 1718.2 <i>I</i> 1821.2 <i>3</i>	23 5 100 2 41 6 30 6	1003.99 707.68 360.39 257.484	1/2+ 1/2+ 7/2+ 3/2+			
2101.87	$(21/2^{-})$	482.9 ^{&} 1	95.3 ^{&} 25	1618.96	(19/2 ⁻)	(M1+E2)	-0.36 7	0.01010

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$\gamma(^{119}\text{Te})$ (continued)

E _i (level)	\mathbf{J}_i^π	E_{γ}^{\ddagger}	I_{γ}^{\ddagger}	E_f	J_f^π	Mult. [#]	$\delta^{@}$	α^{\dagger}	$I_{(\gamma+ce)}$	Comments
2101.87	$(21/2^{-})$	503.2 ^{&} 1	100 <mark>&</mark> 7	1598.67	$(17/2^{-})$	(E2)		0.00801 12		
2105.95	$(3/2^+, 5/2, 7/2^+)$	1217.0 2	23 4	889.07	$3/2^+, 5/2^+$					
		1382.0 2	19 4	723.99	$3/2^+, 5/2^+$					
		1436.5 <i>1</i>	29 <i>3</i>	669.31	7/2+					
		1470.3 <i>1</i>	39 4	635.86	5/2+					
		1548.81 7	100 6	557.17	$3/2^+, 5/2^+$					
2112.00		1785.33 7	85 5	320.506	5/2+					
2113.09	3/2',5/2,7/2'	1444.1 2	100 16	669.31	1/2 ⁺					
		14//.4 2	50 13	033.80 557.17	$\frac{5}{2}$					
		1330.4 2	44 <i>10</i> 34 7	320 506	5/2 ,5/2 5/2+					
		1855.1 3	44 7	257.484	$3/2^+$					
2272.46	$(23/2^{-})$	170.6 <mark>&</mark> 1	34 ^{&} 1	2101.87	$(21/2^{-})$	(M1+E2)	-0.045 45	0.1537 23		
		653.5 <mark>&</mark> 2	100 ^{&} 4	1618.96	$(19/2^{-})$	E2		0.00397 6		
2302.77	$(23/2^{-}, 25/2^{-})$	200.9 ^{&} 1	100 <mark>&</mark>	2101.87	$(21/2^{-})$	(M1+E2)	-0.045 45	0.0986 15		δ : from $\gamma(\theta)$ in (α,2n γ) (1979Ha47).
2629.12	$(23/2^{-})$	356.6 ^a 5	30 ^a 6	2272.46	$(23/2^{-})$	M1+E2		0.0221 4		
		527.1 ^a 5	18 ^a 3	2101.87	$(21/2^{-})$					
		1010.2 ^{<i>a</i>} 2	100 ^a 10	1618.96	$(19/2^{-})$	E2		0.00141 2		
3006.8	$(25/2^{-})$	734.5 ^a 7	21 ^{<i>a</i>} 7	2272.46	$(23/2^{-})$					
		904.8 ^{<i>a</i>} 5	100 ^{<i>a</i>} 20	2101.87	$(21/2^{-})$	E2		0.00181 3		
3010.1		908.2 ^{&} 5	100 ^{&}	2101.87	$(21/2^{-})$					
3181.12	$(25/2^{-})$	552.1 ^a 5	36 ^a 8	2629.12	$(23/2^{-})$	M1+E2		0.0068 6		
		908.6 ^{<i>a</i>} 5	47 ^a 10	2272.46	$(23/2^{-})$	M1+E2		0.0020 3		
		1079.2 ^{<i>a</i>} 2	100 ^{<i>a</i>} 10	2101.87	$(21/2^{-})$	E2		0.00123 2		
3348.21	$(27/2^{-})$	719.0 ^a	11 ^{<i>a</i>} 2	2629.12	$(23/2^{-})$					E_{γ} : E_{γ} determined from level energy.
		1075.8 ^{<i>a</i>} 2	100 ^{<i>a</i>} 10	2272.46	$(23/2^{-})$	E2		0.00123 2		
3381.9	(27/2)	200.8 ^a 2	1004	3181.12	$(25/2^{-})$	D				
3623.83	(27/2)	442.5 ^d 7	8 ⁴ 2	3181.12	(25/2)	50		0.00146.32	1	
2669 5	(20/2-)	994. $\int_{-\infty}^{\infty} 2$	100^{a} 10	2029.12	(23/2)	E2		0.00146 32	1	
3008.3	(29/2)	280.4° /	$\frac{1}{7a}$	2101.12	(27/2)					
		$48/.5^{-7}/$	1004 20	2006.9	(25/2)	E2		0.00295 6		
2762 7	$(27/2^{-})$	1122.6^{a} 5	100^{-20}	2620.12	(23/2)	E2 (E2)		0.005850		Ly intensity includes that of other
5702.7	(27/2)	1155.0 5	100	2029.12	(23/2)	(E2)		0.00111 2		transition (feeding to $43/2^{-1}$ state).
3804.8	(29/2)	422.8 ^{<i>a</i>} 5	100 ^{<i>a</i>}	3381.9	(27/2)	D				
4378.4	$(31/2^{-})$	1030.2 ^{<i>a</i>} 2	100 ^{<i>a</i>}	3348.21	$(27/2^{-})$	E2		0.00136 2		
4449.4	(33/2-)	780.8 ^a 5	100 ^{<i>a</i>}	3668.5	$(29/2^{-})$	E2		0.00255 4		
4571.95	$(31/2^{-})$	193.5 <mark>a</mark> 7	10 ^a 4	4378.4	$(31/2^{-})$					

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$^{119}_{52}$ Te $_{67}$ -10

$\gamma(^{119}\text{Te})$ (continued)

E _i (level)	\mathbf{J}_i^{π}	E_{γ}^{\ddagger}	I_{γ}^{\ddagger}	\mathbf{E}_{f}	\mathbf{J}_f^{π}	Mult. [#]	α^{\dagger}
4571.95	$(31/2^{-})$	767.1 ^{<i>a</i>} 7	4 ^{<i>a</i>} 4	3804.8	(29/2)		
	(- / /	809.2 ^{<i>a</i>} 7	20 a 6	3762.7	$(27/2^{-})$		
		948.1 ^a 2	85 <mark>a</mark> 9	3623.83	$(27/2^{-})$	E2	0.00163 3
		1223.8 ^{<i>a</i>} 2	100 a 10	3348.21	$(27/2^{-})$	E2	0.00095 2
4669.5		864.7 ^a 7	100 ^{<i>a</i>}	3804.8	(29/2)		
4730.3		280.5 ^a 7		4449.4	$(33/2^{-})$		
5032.1	$(37/2^{-})$	582.7 <mark>a</mark> 5	100 ^a	4449.4	$(33/2^{-})$	E2	0.00536 8
5254.4	$(35/2^{-})$	682.5 ^a 2	100 ^a 10	4571.95	$(31/2^{-})$	E2	0.00356 5
		876.0 ^a 2	91 ^a 9	4378.4	$(31/2^{-})$	E2	0.00195 3
5446.8	$(39/2^{-})$	192.4 ^a 2	100 ^{<i>a</i>} 5	5254.4	$(35/2^{-})$	E2	0.1712
5449.3	(41/2)	417.2 ^a 7	100 ^a	5032.1	$(37/2^{-})$		
6003.9	$(43/2^{-})$	556.9 ^a 5	100 ^{<i>a</i>}	5446.8	$(39/2^{-})$	E2	0.00605 9
6054.1		1323.5 ^a 7		4730.3			
6466.9	$(45/2^{-})$	462.8 ^a 5	100 ^{<i>a</i>}	6003.9	$(43/2^{-})$	M1+E2	0.0108 7
6513.2	$(41/2^{-})$	1066.5 ^a 5	100 ^a	5446.8	$(39/2^{-})$	M1	0.0015 82
6727.7	$(43/2^{-})$	1281.1 ^a 7		5446.8	$(39/2^{-})$	Q	
6828.4	$(43/2^{-})$	1381.6 ^a 2	100 ^a	5446.8	$(39/2^{-})$	E2	0.00078 1
6936.4	$(45/2^{-})$	108.6 ^{<i>a</i>} 5		6828.4	$(43/2^{-})$	D	
		208.8 ^{<i>a</i>} 7		6727.7	$(43/2^{-})$		
		423.5 ^a 7		6513.2	$(41/2^{-})$		
		469.0 ^a 7		6466.9	$(45/2^{-})$		
		882.0 ^{<i>a</i>} 7	_	6054.1			
6952.8	$(47/2^{-})$	485.9 ^a 7	100 a	6466.9	$(45/2^{-})$	D	
7025.3	$(43/2^{-})$	1578.4 ^{<i>a</i>} 7	100 ^{<i>a</i>}	5446.8	$(39/2^{-})$	E2	0.00068 1
7258.6		430.3 ^{<i>a</i>} 7	~	6828.4	$(43/2^{-})$		
7360.1	$(45/2^{-})$	846.9 ^{<i>a</i>} 5	100 ^{<i>a</i>}	6513.2	$(41/2^{-})$	E2	0.00211 3
7654.4	$(47/2^{-})$	395.9 ^{<i>a</i>} 7		7258.6			
		629 ^{<i>a</i>} 1	37 ⁴ 19	7025.3	$(43/2^{-})$		
		717.9 ^{<i>a</i>} 7		6936.4	$(45/2^{-})$		
		825.9 ^{<i>a</i>} 7	100 ^{<i>a</i>} 19	6828.4	$(43/2^{-})$	E2	0.00223 4
7936.4		911.1 ^{<i>a</i>} 7	100 ⁴	7025.3	$(43/2^{-})$		
7962.2	$(45/2^{-})$	1133.9 ^{<i>a</i>} 7		6828.4	$(43/2^{-})$	D	
8062.2		1233.8 ^{<i>a</i>} 7		6828.4	$(43/2^{-})$		
8354.6		392.5 ^{<i>u</i>} 7		7962.2	$(45/2^{-})$		
		418.2 ⁴ 7	29 ⁴ 9	7936.4		(E2)	0.01370
0.62.6.5	(17/2-)	700.14 5	100 ^{er} 20	7654.4	$(47/2^{-})$		
8636.5	$(4^{7}/2^{-})$	6/4.4 ⁴ 7		7962.2	$(45/2^{-})$	0	
		1808.2 ^a 7		6828.4	$(43/2^{-})$	Q	

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γ ⁽¹¹⁹Te) (continued)

E_i (level)	\mathbf{J}_i^{π}	E_{γ} [‡]	I_{γ}^{\ddagger}	E_f	\mathbf{J}_f^{π}	Mult. [#]
9067.7		713.0 ^a 5	100 ^{<i>a</i>}	8354.6		
9383.4	$(51/2^{-})$	747.1 ^a 7	a	8636.5	$(47/2^{-})$	Q
9555.5		487.7 ^a		9067.7		
9698.7	$(55/2^{-})$	143.1 ^a 7		9555.5		
		315.4 ^a 7		9383.4	$(51/2^{-})$	Q
		630.9 ^a 7		9067.7		Q

[†] Additional information 2. [‡] From ¹¹⁹I ε decay, except as noted. [#] From (HI,xn γ), except as noted.

[@] From the compilation by 1980Kr22 based on the results of $\gamma(\theta)$ in $(\alpha, 2n\gamma)$, except as noted.

& From $(\alpha, 2n\gamma)$.

^{*a*} From (HI,xn γ). ^{*b*} From ¹¹⁹I ε decay.

^c Multiply placed with undivided intensity.

^d Placement of transition in the level scheme is uncertain.

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Adopted Levels, Gammas

Level Scheme

Intensities: Relative photon branching from each level

(55/2-)		9698.7
		9555.5
(51/2 ⁻)		9383.4
		9067.7
(47/2 ⁻)		8636.5
		8354.6
		8062.2
(45/2-)		7962.2
		7936.4
(47/2-)	।	7654.4
<u> </u>		
(45/2-)		7360.1
		7258.6
(43/2 ⁻)		7025.3
$\frac{(47/2^{-})}{(45/2^{-})}$		6952.8
$\frac{(13/2^{-})}{(43/2^{-})}$		6828.4
(43/2 ⁻)		6727.7
(41/2 ⁻)	+	6513.2
(45/2 ⁻)		6466.9
		6054.1
(43/2 ⁻)		6003.9
	8.8	
(41/2)		5449.3
(39/2 ⁻)		5446.8
(35/2-)		5254.4
(37/2-)		5032.1
()		5052.1
		4730.3
		4669.5
(31/2-)		4571.95
$\frac{(33/2^{-})}{(21/2^{-})}$		4449.4
(31/2)		43/8.4
(29/2)		3804.8
1/2+		0.0
	110	

Level Scheme (continued)

Intensities: Relative photon branching from each level



Level Scheme (continued)

Intensities: Relative photon branching from each level & Multiply placed: undivided intensity given





Level Scheme (continued)

Legend

Intensities: Relative photon branching from each level & Multiply placed: undivided intensity given

 $--- \rightarrow \gamma$ Decay (Uncertain)



Level Scheme (continued)

Intensities: Relative photon branching from each level & Multiply placed: undivided intensity given



¹¹⁹₅₂Te₆₇

Level Scheme (continued)

Intensities: Relative photon branching from each level & Multiply placed: undivided intensity given



