^{126}Te(p,p) IAR 1971Bu09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. Hashizume	NDS 112, 1647 (2011)	1-Oct-2009

E=7.54- to 12.50-MeV FWHM(incident p)≤3 keV, semi, FWHM(outgoing p)=40-50 keV, θ=90°, 125°, 145°, 165° enriched target 97%.

^{127}I Levels

E(level)‡	Jπ†	L	S	Comments
7727 *20*	3/2$^+$	2	0.41	E(level): IAR of g.s., 3/2$^+$ in ^{127}Te. Γ(total)=50 keV *2*, Γ(p)=6.8 keV *12*.
7798 *20*	1/2$^+$	0	0.28	E(level): IAR of 61.61, 1/2$^+$ state in ^{127}Te. Γ(total)=51 keV *3*, Γ(p)=12.5 keV *10*.
8507 *20*	(5/2$^+$)	2	0.04	E(level): IAR of 782.62, 5/2$^+$ state in ^{127}Te. Γ(total)=35 keV *7*, Γ(p)=1.2 keV *5*.
8870? *20*	(5/2$^+$)	(2)		E(level): IAR of 1140.2, 5/2$^+$ state in ^{127}Te.
9100 *20*				E(level): IAR of 1353.8 and/or 1378.58 level in ^{127}Te.
9292 *20*				E(level): IAR of 1555.7 and/or 1568.13 level in ^{127}Te.
9410 *20*				E(level): IAR of 1676, 1683.5 and/or 1687.54 level in ^{127}Te.
9545 *20*		(3)	0.033	E(level): IAR of 1815.3 level in ^{127}Te; L=(2),3 in ^{126}Te(d,p). Γ(total)=38 keV *5*, Γ(p)=0.9 keV *4*.
9632 *20*	7/2$^-$	3	0.038	E(level): IAR of 1919.57 7/2$^-$ level in ^{127}Te; L=(2),3 in ^{126}Te(d,p). Γ(total)=29 keV *5*, Γ(p)=1.1 keV *4*.
9705 *20*		1	0.018	E(level): IAR of 1956.27 level in ^{127}Te; L=(1,2) in ^{126}Te(d,p). Γ(total)=42 keV *7*, Γ(p)=1.5 keV *4*.
9740 *20*	7/2$^-$	3	0.13	E(level): IAR of 2025.8, 7/2$^-$ state in ^{127}Te. Γ(total)=47 keV *3*, Γ(p)=4.2 keV *10*.
9847 *20*	7/2$^-$	3	0.15	E(level): IAR of 2137.5, 7/2$^-$ state in ^{127}Te. Γ(total)=67 keV *5*, Γ(p)=5.0 keV *7*.
9903 *20*		1	0.077	E(level): IAR of 2167.1 and/or 2175.66 level in ^{127}Te; no L=1 level in ^{126}Te(d,p). Γ(total)=80 keV *10*, Γ(p)=6.9 keV *7*.
10083? *20*				E(level): (IAR of 2359.57, 3/2$^-$ state) in ^{127}Te.
10150 *20*	(3/2$^-$)	1	0.048	E(level): IAR of 2438.36 (3/2$^-$) level in ^{127}Te; L=(1) in ^{126}Te(d,p). Γ(total)=70 keV *6*, Γ(p)=4.6 keV *5*.
10347 *20*	1/2$^-$	(0,1)		E(level): IAR of 2619.22, 1/2$^-$ state in ^{127}Te.
10423 *20*		3		E(level): IAR of 2713 level in ^{127}Te.
10518? *20*				E(level): (IAR of 2790, 5/2$^-$ state) in ^{127}Te.
10780 *20*				E(level): IAR of 3035 and/or 3064 level in ^{127}Te.
11142 *20*	3/2$^-$	1	0.04	E(level): IAR of 3415.97, 3/2$^-$ state in ^{127}Te. Γ(total)=115 keV *10*, Γ(p)=5.0 keV *10*.
11421 *20*		1		E(level): IAR of 3711 level in ^{127}Te; L=(1) in ^{126}Te(d,p).
11885 *20*		(1)		E(level): IAR of 4196 level in ^{127}Te; L=1 in ^{126}Te(d,p).
12193 *20*		(1)		E(level): IAR of 4489 level in ^{127}Te; L=1 in ^{126}Te(d,p).

† Spin and parity values are those proposed by 1971Bu09 on the basis of angular distributions in (p,p′). However, it is difficult to find the corresponding IAR levels on Adopted Levels in ^{127}Te for the following levels and J^π: 9545 (7/2$^-$); 9632(7/2$^-$); 9705 3/2$^-$; 9903 3/2$^-$; 10150 1/2$^-$; 10423 (7/2$^-$); 11421 3/2$^-$; 11885 (1/2$^-$); 12193 1/2$^-$. These J^π's are not shown. As the energy resolution for outgoing p is not sufficient to resolve complex peaks, evaluator considers these assignments as tentative.

‡ The level energies in ^{127}Te corresponding to IAR are from ^{127}Te Adopted Levels. For 9100, 9292, 9410, 9903, and 10780 levels the experimental energy resolutions are not sufficient to find corresponding IAR (evaluator).