

$^{181}\text{Ta}(\text{n},\gamma)$ E=4.28, 10.36 eV **2002Po05**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 130, 21 (2015)	15-Jul-2015

The γ spectra also measured at E(n)=0.17-0.61 eV.

2002Po05: Measured secondary γ rays using Reverse-Electrode Germanium (REGe) detector. The γ spectrum also measured at E(n)=0.17-0.61 eV.

 ^{182}Ta Levels

E(level)	$J^{\pi\dagger}$	E(level)	$J^{\pi\dagger}$	E(level)	$J^{\pi\dagger}$	E(level)	$J^{\pi\dagger}$
0.0	3 ⁻	334.62	7 ⁺	558.28	(1) ⁻	740.13	(2) ⁻
16.26	5 ⁺	360.75	(3) ⁻	571.5	4 ⁺	749.09	(2,3) ⁺
97.83	4 ⁻	364.35	4 ⁺	579.43	(7 ⁺)	782.53	5 ⁻
114.32	4 ⁻	390.14	(4,5,6) ⁺	583.27	(0 ⁻)	817.02	(4) ⁻
150.14	4 ⁺	396.34	(6 ⁻)	592.96	(1 ⁺)	835.28	3 ⁻
163.04	6 ⁺	402.62	2 ⁺	647.65	(2) ⁻	856.05	(4) ⁻
237.29	5 ⁻	443.61	1 ⁻	659.86	(4) ⁻	939.63	5 ⁻
249.97	(3) ⁺	480.03	4 ⁻	666.15	2 ⁻	960.41	(4) ⁻
269.03	(5 ⁺)	491.42	2 ⁻	673.0	(6 ⁺)		
270.40	2 ⁻	505.6	5 ⁺	701.97	3 ⁻		
292.94	5 ⁻	547.10	(3) ⁻	719.55	(3) ⁻		

[†] From Adopted Levels.

 $\gamma(^{182}\text{Ta})$

$E_{\gamma}^{\dagger}$	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	$E_{\gamma}^{\dagger}$	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}
95.15	835.28	3 ⁻	740.13	(2) ⁻	173.2	443.61	1 ⁻	270.40	2 ⁻
97.83 ^b	97.83	4 ⁻	0.0	3 ⁻	178.6	292.94	5 ⁻	114.32	4 ⁻
97.83 ^b	817.02	(4) ⁻	719.55	(3) ⁻	182.7	547.10	(3) ⁻	364.35	4 ⁺
99.83	249.97	(3) ⁺	150.14	4 ⁺	190.33	592.96	(1 ⁺)	402.62	2 ⁺
107.86	666.15	2 ⁻	558.28	(1) ⁻	195.11	292.94	5 ⁻	97.83	4 ⁻
114.4 ^b	114.32	4 ⁻	0.0	3 ⁻	210.54 ^a	701.97	3 ⁻	491.42	2 ⁻
114.4 ^b	364.35	4 ⁺	249.97	(3) ⁺	214.21	364.35	4 ⁺	150.14	4 ⁺
114.4 ^b	558.28	(1) ⁻	443.61	1 ⁻	244.8	579.43	(7 ⁺)	334.62	7 ⁺
118.89	269.03	(5 ⁺)	150.14	4 ⁺	252.8 [#]	269.03	(5 ⁺)	16.26	5 ⁺
122.7 ^b	237.29	5 ⁻	114.32	4 ⁻	260.1	740.13	(2) ⁻	480.03	4 ⁻
122.7 ^b	782.53	5 ⁻	659.86	(4) ⁻	270.40	270.40	2 ⁻	0.0	3 ⁻
122.7 ^b	939.63	5 ⁻	817.02	(4) ⁻	297.1 ^{&}	547.10	(3) ⁻	249.97	(3) ⁺
125.13	960.41	(4) ⁻	835.28	3 ⁻	322.5	592.96	(1 ⁺)	270.40	2 ⁻
133.88	150.14	4 ⁺	16.26	5 ⁺	346.5	749.09	(2,3) ⁺	402.62	2 ⁺
139.6 ^{b‡}	237.29	5 ⁻	97.83	4 ⁻	360.52	360.75	(3) ⁻	0.0	3 ⁻
139.6 ^b	583.27	(0 ⁻)	443.61	1 ⁻	373.9	390.14	(4,5,6) ⁺	16.26	5 ⁺
146.77	163.04	6 ⁺	16.26	5 ⁺	377.25	647.65	(2) ⁻	270.40	2 ⁻
154.08	856.05	(4) ⁻	701.97	3 ⁻	382.2	480.03	4 ⁻	97.83	4 ⁻
156.09	270.40	2 ⁻	114.32	4 ⁻	396.95	547.10	(3) ⁻	150.14	4 ⁺
156.23	647.65	(2) ⁻	491.42	2 ⁻	402.62	402.62	2 ⁺	0.0	3 ⁻
159.05 [@]	396.34	(6 ⁻)	237.29	5 ⁻	443.6	443.61	1 ⁻	0.0	3 ⁻
167.4	673.0	(6 ⁺)	505.6	5 ⁺					

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 $^{181}\text{Ta}(\text{n},\gamma)$ E=4.28, 10.36 eV **2002Po05** (continued)

 $\gamma(^{182}\text{Ta})$ (continued)

[†] Accuracy of measurement $\approx 1\text{--}1.5$ keV.

[‡] Mixed with 139.7γ from ^{75}Ge .

Unresolved mixture of 253γ from ^{75}Ge .

@ Unresolved mixture of three lines and 159.7γ from ^{77}Ge .

& Unresolved mixture of 297.3γ from ^{73}Ge .

^a Unresolved mixture of 210.9γ , unknown background line.

^b Multiply placed.

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Level Scheme

