Coulomb excitation   **2000Er01**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 91, 1 (2000)	15-Jul-2000

2000Er01: Projectile coulomb excitation on carbon, E(^{46}Ti)=110-120 MeV. Target: 0.75mg/cm^2 of natural carbon and a 3.6 mg/cm^2 Gd on 1 mg/cm^2 Ta foil backed by a 3.6 mg/cm^2 Cu layer. Cooled to liquid nitrogen. Si detector for particle detections. T$_{1/2}$ determined by a Ge detector at 0° for DSAM. g-factor measured from precession in the transient magnetic field using NaI and BaF$_2$ scintillators.

^{46}Ti(^{16}O,^{16}Oγ) E=30 MeV (1981Sh09); annular Si detector and NaI detectors; measured g-factor from precession of recoils in magnetized iron; E=26, 31 MeV (1971De29); 4 Si detectors at θ=10° intervals, no γ detector; measured reorientation effect.

^{46}Ti(^{32}S,^{32}S$'\gamma$) E=60 MeV (1975To06); 4 Si detectors and 4 NaI γ detectors; measured reorientation effect.

^{46}Ti(^{35}Cl,^{35}Cl$'\gamma$) E=70.35 MeV (1970Ha24); Si detector and NaI detectors in lotus goniometer; measured reorientation effect.

Others: 1960An07, 1959Al95, 1956Te26.

^{46}Ti Levels

E(level)[†]	J$^{\pi}$[†]	Comments
0.0	0$^+$	
889.286	2$^+$	B(E2)=0.091 *3*, Q=−0.21 *4*, from weighted averages of the following: B(E2)=0.091 *5* (2000Er01); B(E2)=0.0855 *40*, Q=−0.21 *6* (1975To06); B(E2)=0.097 *7*, Q=−0.28 *14* (1971De29); B(E2)=0.107 *10*, Q=−0.19 *6* (1970Ha24). g-factor=0.496 *26* from weighted averages of the following: 0.496 *27* (2000Er01) and 0.49 *12* (1981Sh19).
2009.846	4$^+$	B(E2)=0.036 *3* (2000Er01). g-factor=0.58 *17* (2000Er01).

[†] From Adopted Levels.

γ(^{46}Ti)

E$_{\gamma}$[†]	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.[†]
889.277	889.286	2$^+$	0.0	0$^+$	E2
1120.545	2009.846	4$^+$	889.286	2$^+$	E2

[†] From adopted γ's.

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Level Scheme

4^+		2009.846
2^+		889.286
0^+		0.0

1120.545 E2

889.277 E2

$^{46}_{22}$Ti$_{24}$