

C($^{46}\text{Ca}, ^{50}\text{Ti}\gamma$) 2003Sp04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 157, 1 (2019)	15-Apr-2019

2003Sp04: E(^{46}Ca)=95 MeV from Cologne tandem accelerator. Target was 0.46 mg/cm² natural carbon deposited on 3.61 mg/cm² Gd evaporated on 1.6 mg/cm² Ta, backed by a 4.2 mg/cm² copper. Measured (scattered ^{12}C) γ -coin, lifetime of the first 2⁺ state by DSAM, and g factor of the first 2⁺ state from precession angles and transient magnetic field strength. Levels in ^{50}Ti populated by α -transfer to ^{46}Ca projectile.

 ^{50}Ti Levels

E(level) [†]	J π [†]	T _{1/2}	Comments
0.0	0 ⁺		
1553.8	2 ⁺	1.20 ps 14	g=+1.1 11 (2003Sp04) T _{1/2} : mean lifetime τ =1.73 ps 20 from DSAM (2003Sp04). g factor from transient magnetic field method.
2674.9	4 ⁺		

[†] From Adopted Levels. Energies are rounded values.

 $\gamma(^{50}\text{Ti})$

E γ [†]	E _i (level)	J π _i	E _f	J π _f
1121.1	2674.9	4 ⁺	1553.8	2 ⁺
1553.8	1553.8	2 ⁺	0.0	0 ⁺

[†] Rounded values from Adopted Levels.

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Level Scheme

