

$^{48}\text{Ti}(\text{d},2\text{p})$  2004Ra26

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 179, 1 (2022)	30-Nov-2021

**2004Ra26:** E=183 MeV deuteron beam from the AGOR cyclotron at KVI. Target was 4.9 mg/cm<sup>2</sup> metallic self-supporting 99% enriched  $^{48}\text{Ti}$ . Reaction products were momentum-analyzed with the Big-Bite Spectrometer (BBS) (FWHM=120 keV) and detected with the EuroSuperNova detector. Measured  $\sigma(\theta(\text{c.m.}))=0^\circ-1.5^\circ$ . Deduced levels, J,  $\pi$ , B(GT). Measurement made as part of an effort to deduce the  $^{48}\text{Ca } T_{1/2}(2\nu 2\beta^-)$ . See  $^{48}\text{Ca } 2\beta^-$  for results.

Other: [2006Fr03](#), [1998GaZS](#).

 $^{48}\text{Sc}$  Levels

$\Sigma\text{B}(\text{GT}^+)=0.427\ 108$  ([2004Ra26](#)).

E(level) <sup>†</sup>	J <sup>π</sup> <sup>‡</sup>	dσ/dΩ(μb/sr) <sup>#</sup>	Comments
(0.0)	6 <sup>+</sup>		E(level),J <sup>π</sup> : from Adopted Levels.
0.6×10 <sup>3</sup>	3 <sup>+</sup>		E(level),J <sup>π</sup> : from figure 4 of <a href="#">2006Fr03</a> .
1.4×10 <sup>3</sup>	2 <sup>-</sup>		E(level): from figure 4 of <a href="#">2006Fr03</a> .
2.20×10 <sup>3</sup> 2	1 <sup>+</sup>	63.7 33	B(GT <sup>+</sup> )=0.047 12.
2.52×10 <sup>3</sup> 2	1 <sup>+</sup>	19.1 23	Strongest G-T transition in ( $^3\text{He,t}$ ) is correlated with the weakest one in (d,2p) ( <a href="#">2006Fr03</a> ). B(GT <sup>+</sup> )=0.014 5.
2.98×10 <sup>3</sup> 2	1 <sup>+</sup>	97.4 23	
3.05×10 <sup>3</sup> 2	1 <sup>+</sup>	161.0 66	Barely observed in ( $^3\text{He,t}$ ) ( <a href="#">2006Fr03</a> ). B(GT <sup>+</sup> )=0.192 46 for 2.98 and 3.05 MeV doublet.
3.15×10 <sup>3</sup> 2	1 <sup>+</sup>	23.1 26	B(GT <sup>+</sup> )=0.017 5.
3.70×10 <sup>3</sup> 2	2 <sup>-</sup>	29.2 46	J <sup>π</sup> : from figure 4 of <a href="#">2006Fr03</a> . dσ/dΩ suggests J <sup>π</sup> ≠1 <sup>+</sup> .
4.00×10 <sup>3</sup> 2	1 <sup>+</sup>	20.8 24	B(GT <sup>+</sup> )=0.016 5.
4.14×10 <sup>3</sup> 2	1 <sup>+</sup>	120.7 55	Barely observed in ( $^3\text{He,t}$ ) ( <a href="#">2006Fr03</a> ). B(GT <sup>+</sup> )=0.090 22.
4.28×10 <sup>3</sup> 2	1 <sup>+</sup>	33.5 34	B(GT <sup>+</sup> )=0.025 8.
4.76×10 <sup>3</sup> 2	1 <sup>+</sup>	34.3 32	B(GT <sup>+</sup> )=0.026 8.

<sup>†</sup> From [2004Ra26](#), accurate to ≈20 keV.

<sup>‡</sup> Suggested from dσ/dΩ ([2004Ra26](#)), except as noted.

<sup>#</sup> q=0. Uncertainties are statistical.