

$^{42}\text{Ca}(t,p)$  1967Bj06

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, Balraj Singh and John A. Cameron		NDS 112, 2357 (2011)	31-Jul-2011

1967Bj06: E=12.10 MeV triton beam produced from the Aldermastron Tandem generator. Targets prepared by vacuum evaporation of isotopically enriched  $\text{CaCO}_3$  on  $50 \mu\text{g}/\text{cm}^2$  backings. Proton momentum analyzed in a multi-angle, broad-range spectrograph and detected in photographic emulsion plates, FWHM=15-25 keV. Measured  $\sigma(E_p, \theta)$ . Deduced levels,  $J^\pi$ , L.

Other: 1967Ha41.

Target  $^{42}\text{Ca}$   $J^\pi=0^+$ .

 $^{44}\text{Ca}$  Levels

E(level) <sup>†</sup>	$J^\pi$ <sup>†</sup>	L <sup>†</sup>	Relative yield <sup>†</sup>	E(level) <sup>†</sup>	$J^\pi$ <sup>†</sup>	L <sup>†</sup>	Relative yield <sup>†</sup>
0	$0^+$	0	100 5	5015 15			
1157 10	$2^+$	2	13 1	5222 <sup>#</sup> 20			13 <sup>#</sup> 1
1903 20	$0^+$		1.2 2	5245 <sup>#</sup> 20			#
2285 10	$4^+$		1.6 2	5333 20			5.1 3
2655 10	$2^+$	2	2.6 1	5361 20			3.6 2
3044 10	$4^+$	4	4.9 2	5646 20			3.5 2
3298 <sup>‡</sup> 10			4.0 2	5729 20			3.0 2
3354 10			0.8 1	5864 20	$0^+$	0	81 4
3592 10	$(0^+)$	(0)	1.3 2	6014 20			8.5 4
3671 <sup>‡</sup> 15			1.1 2	6438 20			
4357 15				6578 20			
4396 15				6744 20			
4479 15	$2^+$	2	5.7 3	6778 20			
4562 15			2.0 1	6913 20			
4646 15	$2^+$	2	26 1	6996 20			15 1
4898 15				7844 20			
4991 15							

<sup>†</sup> From 1967Bj06.

<sup>‡</sup> Possible doublet.

<sup>#</sup> 5222 and 5245 are unresolved and the relative yield applies to the doublet.