## <sup>42</sup>Ca(t,p) **1967Bj06**

History									
Туре	Author	Citation	Literature Cutoff Date						
Full Evaluation	Jun Chen and Balraj Singh	NDS 190,1 (2023)	20-Jun-2023						

Target  $J^{\pi}(^{42}Ca \text{ g.s.})=0^+$ .

1967Bj06: E=12.10 MeV triton beam was produced from the Aldermaston Tandem generator. Targets were prepared by vacuum evaporation of isotopically enriched CaCO<sub>3</sub> on 50  $\mu$ g/cm<sup>2</sup> backings. Protons were momentum-analyzed in a multi-angle broad-range spectrograph (FWHM=15-25 keV) and detected in photographic emulsion plates. Measured  $\sigma$ (E<sub>p</sub>, $\theta$ ). Deduced levels, J,  $\pi$ , L-transfers.

Other: 1967Ha41.

Additional information 1.

## <sup>44</sup>Ca Levels

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

<sup>†</sup> From 1967Bj06. L-transfers are deduced from comparisons of the shape of measured  $\sigma(\theta)$  with those of known L-transfers of other (t,p) reactions.

<sup>‡</sup> Possible doublet.

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