

$^{128}\text{Te}(\alpha, ^3\text{He})$  2013Ka04,2013KaZZ

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Janos Timar and Zoltan Elekes, Balraj Singh		NDS 121, 143 (2014)	31-May-2014

2013Ka04:  $E(\alpha)=50$  MeV beam from Yale tandem accelerator of WNSL facility. Measured  $^3\text{He}$  spectra,  $\sigma(\theta)$  using a split-pole spectrograph. FWHM  $\approx 70$  keV. Deduced levels, ground state configuration of  $^{128}\text{Te}$ . DWBA analysis.

 $^{129}\text{Te}$  Levels

Cross section data are from 2013KaZZ. The statistical uncertainties are less than 1% for strong states and less than 3% for weaker ones. There is additional systematic uncertainty of  $\approx 7\%$ .

E(level)	$J^\pi$ <sup>†</sup>	Comments
0	$3/2^+$	$d\sigma/d\Omega=0.057$ mb/sr ( $22.5^\circ$ ).
106	$11/2^-$	$d\sigma/d\Omega=1.21$ mb/sr ( $5^\circ$ ), $0.33$ mb/sr ( $22.5^\circ$ ).
545	$5/2^+$	$d\sigma/d\Omega=0.087$ mb/sr ( $5^\circ$ ).
2108	$7/2^-$	$d\sigma/d\Omega=0.043$ mb/sr ( $22.5^\circ$ ).
2221	$7/2^-$	$d\sigma/d\Omega=0.062$ mb/sr ( $22.5^\circ$ ).
3085		E(level): 3077 15 with ( $3/2^+, 5/2^+$ ) assignment and 3089.3 5 with no $J^\pi$ assignment in Adopted Levels. $d\sigma/d\Omega=0.12$ mb/sr ( $5^\circ$ ), $0.017$ mb/sr ( $22.5^\circ$ ).
3655		$d\sigma/d\Omega=0.064$ mb/sr ( $5^\circ$ ).
3790	$3/2^-$	$d\sigma/d\Omega=0.090$ mb/sr ( $5^\circ$ ).
4121	$1/2^-$	$d\sigma/d\Omega=0.61$ mb/sr ( $5^\circ$ ).

<sup>†</sup> From Adopted Levels.