⁶²Ni(α ,³He) **2013ScZZ**

		History	
Туре	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 196,17 (2024)	30-Sep-2023

This dataset is adapted from the XUNDL dataset for 2013ScZZ compiled by E. Thiagalingam and B. Singh (McMaster), on May 14, 2013.

2013ScZZ: E=38 MeV ³He beam was produced from Yale tandem accelerator of WNSL facility. Target was 219 μg/cm² ⁶²Ni (96.5% enriched). Reaction products were momentum-analyzed with a split-pole Enge spectrograph (FWHM≈50 keV). Measured

 $\sigma(E_d, \theta)$. Deduced levels, J, π , spectroscopic factors from DWBA analysis. Comparison with shell-model calculations.

⁶³Ni Levels

E(level) [†]	$d\sigma/d\Omega \ (mb/sr)^{\ddagger}$	
0	0.052	
87	1.24	
156	0.043	
518	0.028	
1001	0.050	
1292	2.79	
1324	0.067	
1677	0.030	
2297	0.021	
2519	0.80	

 † Rounded values from Adopted Levels, unless otherwise noted.

[‡] Measured $\sigma(\theta)$ at 7° from 2013ScZZ. The uncertainties are estimated to be $\approx 4\%$ for $\sigma > 1$ mb/sr, $\approx 7\%$ for $0.1 < \sigma < 1.0$ mb/sr, and $\approx 18\%$ for $\sigma < 0.1$ mb/sr at their respective maxima. The uncertainties arising from possible contaminants or previously unidentified states for very weak transitions could be ≈ 0.02 mb/sr (2013ScZZ).