

$^{74}\text{Ge}(\alpha, ^3\text{He})$ 2007ScZX,2008Sc03

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Alexandru Negret, Balraj Singh		NDS 114, 841 (2013)	30-Jun-2013

2007ScZX (also 2008Sc03): E=40 MeV beam provided by Yale tandem accelerator. Enriched target. Particles detected with the Enge spectrograph and gas-filled focal plane detector backed by a scintillator. FWHM=70 keV. Measured cross sections (statistical uncertainty 1%, systematic uncertainty 5%). Spectroscopic factors deduced from analysis of cross section data by DWBA calculations using ptolemy code.

Level	Cross-section data (2007ScZX)	
	$d\sigma/d\Omega$ (mb/sr)	$\sigma(\alpha, ^3\text{He})/\sigma(\text{d,p})$
0	0.024	0.062
200	2.47	2.9
317	0.307	0.73
457	0.043	0.33
581	0.044	0.034
986	0.048	2.0
1236	0.042	0.26
1391	0.0152	0.30
1517	0.028	0.014
1674	0.101	0.99

 ^{75}Ge Levels

E(level)	$J^{\pi\dagger}$	L^{\ddagger}	(2J+1)S
0	1/2 ⁻	1	
200	9/2 ⁺	4	4.33
317	5/2 ⁻	3	1.66
457	5/2 ⁻	3	0.252
581			
986			
1236		(3)	
1391			
1517			
1674			

[†] From Adopted Levels.

[‡] 2007ScZX measured cross sections at a forward angle. The L-transfers quoted here are from previous particle-transfer studies.