

$^{89}\text{Y}({}^3\text{He}, {}^3\text{He}')$ [1967Gi05](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 114, 1 (2013)	20-Oct-2012

Includes (pol ${}^3\text{He}, {}^3\text{He}$) and (${}^3\text{He}, {}^3\text{He}$).

[1967Gi05](#): E=43.7 MeV. Measured $\sigma(\theta)$ deduced deformation lengths.

[1988Tu01](#): E=135 MeV. Measured $\sigma(\theta)$, deduced giant-quadrupole resonance (GQR).

[1993Fa09](#): (pol ${}^3\text{He}, {}^3\text{He}$) E=33.3 MeV. Measured $\sigma(\theta)$, $Ay(\theta)$.

(${}^3\text{He}, {}^3\text{He}$): [1981Ra05](#) (29.6 MeV), [1980Hy02](#) (119 MeV), [1973Wi07](#) (217 MeV), [1969Lu03](#) (30,35 MeV).

[Additional information 1](#).

 ^{89}Y Levels

E(level) [†]	L	β_L [‡]	Comments
0			
910			
1450	2	0.045	
1690	2	0.046	
2220	3	0.069	
2510	3	0.074	
2840	3	0.069	
3090	(2,4)		
3680	3	0.051	
3990			
4180	2	0.052	
4340			
4480			
4760			
5120			
5700			
6880			
14.7×10^3	3	2	E(level),L: GQR from 1988Tu01 , FWHM=4.4 MeV 4.

[†] Uncertainties are 25 keV for strong peaks and 50 keV for weak peaks.

[‡] Deformation parameter β_L ([1967Gi05](#)). The authors also give β_{LR} values using $R_0=1.6$ for the imaginary part of the potential.