

Si( $^{34}\text{Si},^{34}\text{Si}'\gamma$ ) 2002Mi44

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Ninel Nica, Balraj Singh		NDS 113, 1563 (2012)	28-May-2012

Inelastic scattering. Search for first excited  $0^+$  state in  $^{34}\text{Si}$ .

[2002Mi44](#) (also [2002Mi48](#)): E=55 MeV/nucleon  $^{34}\text{Si}$  beam was obtained from fragmentation of  $^{36}\text{S}$  beam at GANIL facility, SPEG spectrometer. Measured (fragment) $\gamma$  coincidence spectra using an array of 74 BaF<sub>2</sub> detectors.

No evidence was found for an excited  $0^+$  state below the first  $2^+$  state.

 $^{34}\text{Si}$  Levels

E(level)	$J^\pi$	Comments
0	$0^+$	
3330 50	$2^+$	An upper limit of 1% was set for an hypothetical transition from 3330, $2^+$ to a first excited $0^+$ at 2133 keV proposed in <a href="#">2002En02</a> .
4280 70	$3^-$	

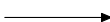


 $\gamma(^{34}\text{Si})$ 

$E_\gamma$	$\sigma$ (mb)	$E_i$ (level)	$J_i^\pi$	$E_f$	$J_f^\pi$
950 50	4.3 15	4280	$3^-$	3330	$2^+$
3330 50	9.5 2	3330	$2^+$	0	$0^+$

Si( $^{34}\text{Si},^{34}\text{Si}'\gamma$ ) 2002Mi44Level Scheme

Intensities: Relative  $I_\gamma$

Legend

	$I_\gamma < 2\% \times I_\gamma^{max}$
	$I_\gamma < 10\% \times I_\gamma^{max}$
	$I_\gamma > 10\% \times I_\gamma^{max}$

