

$^{160}\text{Gd}(^{34}\text{S,X}),(^{36}\text{S,X})$  1994Fo04

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh		NDS 199,1 (2025)	30-Sep-2024

1994Fo04 (also 1995Fo16): E=159 MeV  $^{34}\text{S}$  and  $^{36}\text{S}$  beams were produced from the accelerator at ANL. Target was 1.0 mg/cm<sup>2</sup>  $^{160}\text{Gd}$  (98% enriched) on a gold backing.  $\gamma$  rays were detected with an array of 12 Compton-suppressed Ge detectors and an inner ball of 50 BGO detectors. Measured  $E_\gamma$ ,  $I_\gamma$ ,  $\gamma\gamma$ -coin, ( $^{160}\text{Dy}$ )( $\gamma$  from  $^{33}\text{Si}$ ) coin and ( $^{162}\text{Dy}$ )( $\gamma$  from  $^{33}\text{Si}$ ) coin. Deduced levels. Comparisons with available data.

 $^{33}\text{Si}$  Levels

E(level) <sup>†</sup>	$J^\pi$ <sup>‡</sup>
0	(3/2 <sup>+</sup> )
1010	
1435	(7/2 <sup>-</sup> )

<sup>†</sup> From  $E_\gamma$  data.

<sup>‡</sup> From 1994Fo04.

 $\gamma(^{33}\text{Si})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
1010	1010		0	(3/2 <sup>+</sup> )
1435	1435	(7/2 <sup>-</sup> )	0	(3/2 <sup>+</sup> )

 $^{160}\text{Gd}(^{34}\text{S,X}),(^{36}\text{S,X})$  1994Fo04Level Scheme