

$^{172}\text{Yb}(n,\gamma)$  E=resonance 1971Ri09

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	V. S. Shirley	NDS 75,377 (1995)	1-Oct-1993

E(n)=140, 180, 202 eV;  $\theta=110^\circ$ ; Yb oxide targets, both natural and enriched (92.76%); measured primary  $E_\gamma$ ,  $I_\gamma$  for each resonance (Ge(Li), FWHM $\approx$ 8 keV at 6 MeV).

See 1966Wa14, 1968Mu05, 1972Ra26, 1973Li03, and 1984MuZY for measurements of resonance parameters.

 $^{173}\text{Yb}$  Levels

E(level) <sup>†</sup>	$J^\pi$	Comments
401	1/2 <sup>-</sup>	
464	3/2 <sup>-</sup>	
1032	(1/2 <sup>-</sup> )	
1076	(3/2 <sup>-</sup> )	
1232	(3/2 <sup>-</sup> )	
1343	(3/2 <sup>-</sup> )	
(6368)	1/2 <sup>+</sup>	E(level): resonance capture states. $J^\pi$ : neutron widths and s-wave neutron-strength-function systematics suggest resonances are s-wave (1984MuZY).

<sup>†</sup> Corrected to reflect S(n)=6367.6 5 (1993Au07).

$E_\gamma$	E(level)	$\gamma(^{173}\text{Yb})$		
		$I_\gamma(140 \text{ eV})$	$I_\gamma(180 \text{ eV})$	$I_\gamma(202 \text{ eV})$
$\approx$ 5025	1343	$\leq 12$	10 10	$\leq 6$
5136 3	1232	100 15	10 8	$\leq 6$
5292 3	1076	48 13	74 13	7 4
5336 3	1032	85 10	44 10	7 4
5904 3	464	25 8	$\leq 8$	32 6
5967 3	401	12 8	100 15	100 9

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$
$\approx$ 5025	(6368)	1/2 <sup>+</sup>	1343	(3/2 <sup>-</sup> )
5136 3	(6368)	1/2 <sup>+</sup>	1232	(3/2 <sup>-</sup> )
5292 3	(6368)	1/2 <sup>+</sup>	1076	(3/2 <sup>-</sup> )
5336 3	(6368)	1/2 <sup>+</sup>	1032	(1/2 <sup>-</sup> )
5904 3	(6368)	1/2 <sup>+</sup>	464	3/2 <sup>-</sup>
5967 3	(6368)	1/2 <sup>+</sup>	401	1/2 <sup>-</sup>

$^{172}\text{Yb}(n,\gamma)$  E=resonance 1971Ri09Level Scheme