

$^{158}\text{Gd}(\mathbf{p},\mathbf{p}'\gamma)$

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 141, 1 (2017)	1-Feb-2017

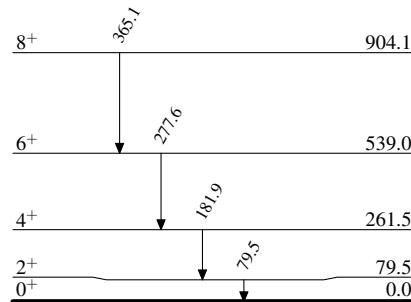
[2012Sc10](#), [2010Sc06](#), [2008ScZZ](#): E=21.70 5 MeV. Used ($\mathbf{p},\mathbf{p}'\gamma$) reaction as surrogate for $^{157}\text{Gd}(\mathbf{n},\mathbf{n}'\gamma)$ $\sigma(^{158}\text{Gd})$ measurement with STARS-LiBerACE detector arrays at LBNL. Measured γ coin of low-lying discrete γ lines and statistical γ spectrum. The four γ rays are marked in Fig. 5 (c) of [2010Sc06](#). The values for the energies of both γ rays and levels are the rounded-off values of those in Adopted Levels, Gammas dataset; J^π values are also the adopted ones.

 ^{158}Gd Levels

E(level)	J^π
0.0	0^+
79.5	2^+
261.5	4^+
539.0	6^+
904.1	8^+

 $\gamma(^{158}\text{Gd})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
79.5	79.5	2^+	0.0	0^+
181.9	261.5	4^+	79.5	2^+
277.6	539.0	6^+	261.5	4^+
365.1	904.1	8^+	539.0	6^+

 $^{158}\text{Gd}(\mathbf{p},\mathbf{p}'\gamma)$ Level Scheme $^{158}_{64}\text{Gd}_{94}$