

Adopted Levels, Gammas

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	T. D. Johnson, D. Symochko(a), M. Fadil(b), and J. K. Tuli		NDS 112,1949 (2011)	1-Jun-2010

$Q(\beta^-) = -1.29 \times 10^4$  syst;  $S(n) = 1.28 \times 10^4$  syst;  $S(p) = 2.9 \times 10^3$  syst;  $Q(\alpha) = 3.1 \times 10^3$  syst [2012Wa38](#)

Note: Current evaluation has used the following Q record  $-1.26\text{E}+4$  SY1.27E+4 SY2.6E+3 SY3.4E+3 syst [2011AuZZ](#).

Uncertainties associated with these Q values are:  $\Delta Q(\beta^-) = 6$ ,  $\Delta S(n) = 8$ ,  $\Delta S(p) = 7$ ,  $\Delta Q(\alpha) = 8$ .

$Q(\beta^-n) = -2.37 \times 10^4$  9 (syst.),  $Q(\epsilon p) = -2.37 \times 10^4$  9 (syst.) [2011AuZZ](#).

Values in [2003Au03](#):  $Q(\beta^-) = -1.25 \times 10^4$  6,  $S(n) = 1.27 \times 10^4$  15 (syst.),  $S(p) = 2.7 \times 10^3$  4 (syst.),  $Q(\alpha) = 3.4 \times 10^3$  4 (syst.),

$Q(\beta^-n) = -2.37 \times 10^4$  6 (syst.),  $Q(\epsilon p) = 6.0 \times 10^3$  4 (syst.).

Theory, calculations: [1998Ce01](#), [1996La03](#).

[2003Au03](#) value:  $Q(\beta^-) = 1.25 \times 10^4$  syst,  $S(p) = 2.7 \times 10^3$  syst.

 $^{142}\text{Dy}$  LevelsCross Reference (XREF) Flags

A  $^{92}\text{Mo}(^{54}\text{Fe}, 2p2n\gamma)$

E(level)	$J^\pi$ †	$T_{1/2}$	XREF	Comments
0.0‡	0 <sup>+</sup>	2.3 s 3	A	$\% \epsilon + \% \beta^+ = 100$ ; $\% \epsilon p = 0.06$ 3 ( <a href="#">1991Fi03</a> ) Delayed proton emission from observation of p-K x ray(Tb) coin, $\% \epsilon = 10$ , $\% \beta^+ = 90$ ( <a href="#">1991Fi03</a> , <a href="#">1988GiZV</a> ). $T_{1/2}$ : from <a href="#">1991Fi03</a> (preliminary results <a href="#">1988GiZV</a> ), <a href="#">1986Wi15</a> .
315.9‡ 4	(2 <sup>+</sup> )		A	
798.9‡ 6	(4 <sup>+</sup> )		A	
1387.3‡ 7	(6 <sup>+</sup> )		A	
2010.6‡ 9	(8 <sup>+</sup> )		A	
2639.3? 10			A	
3241.2? 11			A	

† Syst for collective bands.

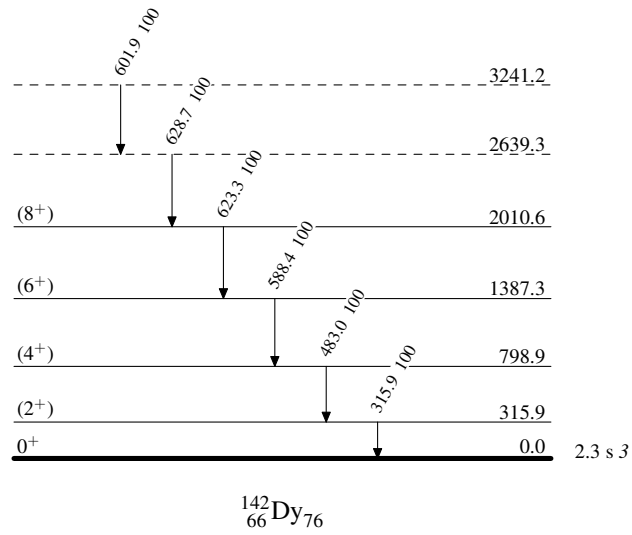
‡ Band(A): g.s. band.

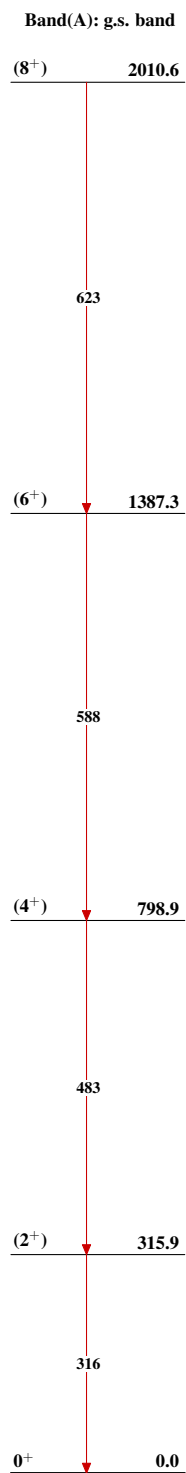
 $\gamma(^{142}\text{Dy})$ 

$E_i(\text{level})$	$J_i^\pi$	$E_\gamma$	$I_\gamma$	$E_f$	$J_f^\pi$
315.9	(2 <sup>+</sup> )	315.9 4	100	0.0	0 <sup>+</sup>
798.9	(4 <sup>+</sup> )	483.0 4	100	315.9	(2 <sup>+</sup> )
1387.3	(6 <sup>+</sup> )	588.4 4	100	798.9	(4 <sup>+</sup> )
2010.6	(8 <sup>+</sup> )	623.3 5	100	1387.3	(6 <sup>+</sup> )
2639.3?		628.7 5	100	2010.6	(8 <sup>+</sup> )
3241.2?		601.9 5	100	2639.3?	

**Adopted Levels, Gammas**Level Scheme

Intensities: Relative photon branching from each level



**Adopted Levels, Gammas** $^{142}_{66}\text{Dy}_{76}$