

$^{179}\text{Hf}(\text{d,p})$  1972Za04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 126, 151 (2015)	1-Feb-2015

$J^\pi(^{179}\text{Hf})=9/2^+$ .

$E(\text{d})=12$  MeV. Measured  $\sigma(\theta)$  at  $\theta=25^\circ, 35^\circ, 45^\circ, 55^\circ$ , and  $65^\circ$  using Browne-Buechner broad-range magnetic spectrograph and nuclear track emulsion plates; DWBA analysis.

[Additional information 1.](#)

 $^{180}\text{Hf}$  Levels

<u>E(level)<sup>†</sup></u>	<u><math>J^\pi</math><sup>‡</sup></u>	<u>E(level)<sup>†</sup></u>	<u><math>J^\pi</math><sup>‡</sup></u>	<u>E(level)<sup>†</sup></u>	<u><math>J^\pi</math><sup>‡</sup></u>	<u>E(level)<sup>†</sup></u>	<u><math>J^\pi</math><sup>‡</sup></u>
0.0 <sup>#</sup>	0 <sup>+</sup>	1408 2		1824 <sup>c</sup> 2	(3 <sup>-</sup> )	2143 4	
95 <sup>#</sup>	2 <sup>+</sup>	1480 <sup>&amp;</sup> 1	5 <sup>-</sup>	1861 3		2170 4	
301 <sup>#</sup>	4 <sup>+</sup>	1508 2		1889 3		2213 3	
640 <sup>#</sup>	6 <sup>+</sup>	1525 4		1908 <sup>b</sup> 5	(7 <sup>-</sup> ) <sup>f</sup>	2238 3	
1090 <sup>#</sup> 1	8 <sup>+</sup>	1609 <sup>a</sup> 1	5 <sup>-</sup>	1926 <sup>c</sup> 4	(4 <sup>-</sup> )	2271 <sup>e</sup> 3	8 <sup>-</sup>
1146 <sup>@</sup> 1	8 <sup>-</sup>	1650 4		1971 3			
1197 3		1689 <sup>b</sup> 2	6 <sup>-</sup>	2023 <sup>d</sup> 2	(1 <sup>-</sup> )		
1371 <sup>&amp;</sup>	4 <sup>-</sup>	1787 <sup>a</sup> 2	6 <sup>-</sup>	2074 <sup>d</sup> 2	(2 <sup>-</sup> )		

<sup>†</sup> Uncertainties are given as the standard deviation of the excitation energy at different angles.

<sup>‡</sup> Spin, band, and quasiparticle configuration assignments are based on comparison between experimental and theoretical relative level intensity populations and on rotational structure. Discrepancies with assignments given in Adopted Levels are indicated.

<sup>#</sup>  $K^\pi=0^+$  g.s. rotational band member.

<sup>@</sup>  $K^\pi=8^-$  band member. Probable configuration= $\pi 7/2[404]+\pi 9/2[514]$ .

<sup>&</sup>  $K^\pi=4^-$  band member. Probable configuration= $9/2[624]-1/2[510]$ .

<sup>a</sup>  $K^\pi=5^-$  band member. Probable configuration= $9/2[624]+1/2[510]$ .

<sup>b</sup>  $K^\pi=6^-$  band member. Probable configuration= $9/2[624]+3/2[512]$ .

<sup>c</sup>  $K^\pi=3^-$  band member. Probable configuration= $9/2[624]-3/2[512]$ .

<sup>d</sup>  $K^\pi=1^-$  band member. Probable configuration= $9/2[624]-7/2[503]$ .

<sup>e</sup>  $K^\pi=8^-$  band member. Probable configuration= $9/2[624]+7/2[503]$ .

<sup>f</sup>  $J^\pi=(4^+)$  in the Adopted Levels.