

$^{177}\text{Hf}(\text{d,p})$ 1993Sh15

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Achterberg, O. A. Capurro, G. V. Marti		NDS 110, 1473 (2009)	31-May-2008

1993Sh15: $^{177}\text{Hf}(\text{d,p})$, E=12 MeV. Measured angular distribution of protons with detector at 35°, 45°, 55°, 65°, 85°, and 95°. Detector: magnetic spectrograph with photographic emulsion.

 ^{178}Hf Levels

E(level)	J^π &	E(level)	J^π &	E(level)	J^π &	E(level)	J^π &
0 [†]	0 ⁺	1383 [‡]	4 ⁺	1788 [#]	6 ⁺	2067 [@]	5 ⁺
1175 [‡]	2 ⁺	1513 [#]	4 ⁺	1862 [@]	3 ⁺	2229	
1273 [‡]	3 ⁺	1640 [#]	5 ⁺	1951 [@]	4 ⁺	2265	

[†] $K^\pi=0^+$ g.s. rotational band.

[‡] $K^\pi=2^+$ γ band based on the 1175 keV level.

[#] $K^\pi=4^+$ band based on the 1514 keV level, configuration= $\nu(1/2[510]) + \nu(7/2[514])$.

[@] $K^\pi=3^+$ band based on the 1862 keV level, configuration= $\nu(1/2[510]) - \nu(7/2[514])$.

& J^π and configuration assignments for the $K^\pi=3^+$ and 4^+ bands are based on a comparison of experimental cross sections with DWBA values calculated with Nilsson model wave functions (1993Sh15).