^{176}Hf(d,t) 1973Za08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 102, 719 (2004)	1-Jun-2004

E(d)=12 MeV enriched (82%) ^{176}Hf target measured scattered ^{3}H at θ=45°, 65°, 85° and 90° broad-range magnetic spectrometer. FWHM≈15 keV (estimated by evaluator).

Identification of single-particle and rotational states is based on characteristic energy spacings, relative cross section at various angles, as expected from DWBA calculation, and on energy systematics of Nilsson orbitals in other odd-A isotopes of hafnium and ytterbium.

^{175}Hf Levels

E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡	E(level)†	Jπ‡
0#	5/2−	347a 1	7/2−	962 2		1139c 3	(9/2−)
81# 1	7/2−	375@ 2	7/2−	968 2		1252 3	
126@	1/2−	411@ 3	9/2−	1000 4		1584 2	
195@ 1	3/2−	436& 1	(13/2+)	1056c 3	(7/2−)	1635 3	
214@ 2	5/2−	475a 3	9/2−	1066 3		1671 2	
259&	9/2+	941b 1	(3/2−)	1081b 2	(7/2−)	1746 3	

† Relative to E=126 keV for the 1/2[521] bandhead. The uncertainties in level energies are standard deviation of the energy excitations measured at various angles. These values represent mainly an internal consistency of the data. The absolute uncertainties in the level energies are probably larger.

‡ From Adopted Levels.

5/2(512) band.

@ 1/2(521) band.

& 7/2(633) band.

a 7/2(514) band.

b 3/2(521)? + (1/2(521) 2+) γ-vibrational band.

c 5/2(523)? band.