

$^{176}\text{Hf}(^{40}\text{Ar}, 3n\gamma)$ 2021Zh24

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 181, 475 (2022)	1-Jan-2022

^{40}Ar beam, E=183, 190 MeV, from Sector-Focusing Cyclotron (SFC) of HIRFL-Lanzhou facility. Enriched target (84.6%) in ^{176}Hf . Evaporation residues (ERs) were separated using the SHANS gas-filled recoil separator, and implanted into three position-sensitive silicon strip detectors (PSSDs). Two multi-wire proportional counters (MWPCs) and two HPGe detectors. Measured half-life of the $13/2^+$ isomer. Shell model calculations.

 ^{213}Th Levels

E(level) [†]	J^π [‡]	$T_{1/2}$	Comments
0	$5/2^-$		
799 1	$(9/2^-)$		
1180 1	$(13/2^+)$	8.30 μs 82	%IT=100 $T_{1/2}$: from $(381\gamma+799\gamma)(t)$ (2021Zh24). For individual $\gamma(t)$: 9.56 μs 174 – $\gamma(381)(t)$ and 8.80 μs 140 – $\gamma(799)(t)$ (2021Zh24).

[†] From E_γ .

[‡] From Adopted Levels. Same assignments are listed in 2021Zh24 without parentheses. References or arguments were not listed/mentioned.

 $\gamma(^{213}\text{Th})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
381 1	1180	$(13/2^+)$	799	$(9/2^-)$
799 1	799	$(9/2^-)$	0	$5/2^-$

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Level Scheme

