^{170}Pt α decay 2004GoZZ,2004Ke06,1997Uu01

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 109, 1103 (2008)	1-Mar-2008

Parent: ^{170}Pt: E=0; $J^\pi=0^+$; $T_{1/2}$=13.93 ms *24*; Q(α)=6708 *4*; %α decay=98 *4*

^{170}Pt-%α decay: %α=98 *4* (2004GoZZ). other: %α=98 calculated by 1981HoZM.

Others: 1981Ho01, 1996Bi07, 1998Ki20.

2004GoZZ: ^{84}Sr+^{92,94,96}Mo, E(^{84}Sr)=380-395 MeV; recoil-decay tagging technique; measured Eα, %α.

2004Ke06: ^{170}Pt obtained both As daughter of ^{171}Au proton decay and directly from fusion-evaporation reaction ^{96}Ru+^{78}Kr (E(^{78}Kr)=361-391 MeV, mid-target). Measured Eα, parent $T_{1/2}$.

1997Uu01: ^{170}Pt obtained As daughter of mass-separated ^{174}Hg produced using ^{36}Ar+^{144}Sm fusion reaction At E(^{36}Ar)=180-230 MeV. measured Eα, parent $T_{1/2}$, α correlations.

$T_{1/2}$(170PT)=13.93 ms *24* (weighted average of 14.7 ms *5* (1996Bi07), 13.5 ms *3* (1998Ki20) and 14.0 ms *2* (2004Ke06)). Others: 6 ms *+5−2* (1981Ho10), 15 ms *+16−6* (1997Uu01).

^{166}Os Levels

E(level)	J^π	$T_{1/2}$	Comments
0	0^+	181 ms *38*	$T_{1/2}$: from 1981Ho10.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
6548.4 *18*	0	100	1.0	Eα: weighted average of 6545 *8* (1981Ho10), 6553 *11* (1997Uu01), 6545 *5* (2004GoZZ) and 6549 *2* (2004Ke06). This Eα implies Q(α)=6706.2 *18* cf. Q(α)= 6708 *4* from 2003Au03.

[†] r_0=1.5638 *12* from HF=1 if Q(α)=6706.2 *18*.

[‡] For absolute intensity per 100 decays, multiply by 0.98 *4*.