^{169}Pt α decay (6.99 ms)   2009Go16,2004Ke06,2008Bi15

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 194,460 (2024)	31-Oct-2022

Parent: ^{169}Pt: E=0.0; J$^{\pi}$=(7/2$^-$); T$_{1/2}$=6.99 ms *10*; Q(α)=6858 *5*; %α decay≈100

^{169}Pt-J$^{\pi}$: From ^{169}Pt Adopted Levels in ENSDF database as of June 2008.

^{169}Pt-T$_{1/2}$: Measured by 2009Go16. Other: 7.0 ms *2* (2004Ke06), 5 ms *3* (1996Pa01), 2.5 ms *+25−10* (1981Ho10).

^{169}Pt-Q(α): From 2021Wa16.

^{169}Pt-%α decay: %α≈100, from Adopted Levels in ENSDF database as of June 2008.

2009Go16 (also 2008Bi15): ^{169}Pt ions were produced by ^{94}Mo(^{78}Kr,3n) reaction with 348 MeV ^{78}Kr beam from the K130 cyclotron at Jyvaskyla facility, separated by the RITU gas-filled separator, and implanted to the DSSDs of the GREAT spectrometer. Measured Eα, implant-α correlation. Deduced parent T$_{1/2}$.

2004Ke06: ^{169}Pt ions were produced by ^{96}Ru(^{78}Kr,3n2p) reaction with E=361-391 MeV ^{78}Kr beam from the K130 cyclotron at Jyvaskyla facility, separated by the RITU gas-filled separator, and implanted to a position-sensitive silicon strip detector. Measured Eα, implant-α correlation. Deduced parent T$_{1/2}$.

Others:

1996Pa01, 1981Ho10: measured: Eα, isotopic T$_{1/2}$, %α.

g.s. to g.s. decay is assumed.

^{165}Os Levels

E(level)	J$^{\pi}$
0.0	(7/2$^-$)

α radiations

Eα	E(level)	I$\alpha^{\ddagger}$	HF†	Comments
6692 *3*	0.0	100	≈1.4	Eα: from weighted average of 6695 *5* (2009Go16) and 6691 *3* (2004Ke06). Others: 6698 *23* (1996Pa01), 6678 *15* (1981Ho10). HF: other: 0.79 *6* from 2004Ke06. Iα: Only one α branch is reported.

† The nuclear radius parameter r$_0$(^{165}Os)=1.5602 *24* is deduced from interpolation (or unweighted average) of radius parameters of the adjacent even-even nuclides.

‡ For absolute intensity per 100 decays, multiply by ≈1.