^{219}**Pa** α **decay (53 ns)**   **1987FaZS**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation		NDS 114, 2023 (2013)	23-Sep-2013

Parent: ^{219}Pa: E=0.0; J^π=9/2$^-$; $T_{1/2}$=53 ns *10*; Q(α)=10080 *50*; %α decay≈100.0

^{219}Pa-J^π,$T_{1/2}$: From ^{219}Pa Adopted Levels in ENSDF database.

^{219}Pa-E: Assumed as the g.s. In ^{219}Pa Adopted Levels in ENSDF database, value is listed as 0+x.

^{219}Pa-Q(α): From 2012Wa38.

1987FaZS: ^{219}Pa was produced by ^{204}Pb(^{19}F,4n), E=100 MeV. Assignment of this activity to ^{219}Pa is based on excitation functions, and on the systematics of α-particle energies and half-lives for other protactinium isotopes. Measured Eα. Detector: annular system of gas detectors.

2001Ni06: production of ^{219}Pa in Ce(^{82}Se,X), E(c.m.)=215-253 MeV; measured cross section.

2005Li17: production of ^{219}Pa in Be(^{238}U,X), E=1 GeV/nucleon; measured cross section.

^{215}Ac Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0	9/2$^-$	0.17 s *1*	J^π,$T_{1/2}$: From Adopted Levels.

α radiations

Eα	E(level)	I$\alpha^\ddagger$	HF†
9900 *50*	0.0	100	≈1.0

† Using r$_0$(^{215}Ac)≈1.54, interpolated value from r$_0$(^{214}Ra)=1.554 *9*, and r$_0$(^{216}Th)≈1.52 (1998Ak04).

‡ For absolute intensity per 100 decays, multiply by ≈1.0.