^{192}Po α decay 2003Va16,1998Al27,1996Bi17

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Juutinen, D. J. Hartley	NDS 150, 1 (2018)	1-Feb-2018

Parent: ^{192}Po: E=0.0; $J^\pi=0^+$; $T_{1/2}$=32.2 ms *3*; Q(α)=7320 *3*; %α decay≈100.0

2003Va16: ^{192}Po from ^{142}Nd(^{52}Cr,2n) (99.8% ^{142}Nd), E=225 MeV. SHIP velocity filter, position sensitive silicon strip detector, box of 6 silicon detectors for escape alphas and conversion electrons, clover Ge detector. Measured excit, Eα, Iα, Eγ, Iγ, E(ce), recoil-α correlations, α(ce) coin.

1998Al27: ^{192}Po from ^{160}Dy(^{36}Ar,4n) (67.1% ^{160}Dy), E= 172-184 MeV. RITU gas filled recoil separator, position sensitive silicon strip detector, box of 6 silicon detectors for escape alphas and conversion electrons, gas detector. Measured: Eα, Iα, recoil-α correlations, α(ce) coin.

1996Bi17: ^{192}Po from ^{160}Dy(^{36}Ar,4n) (66% ^{160}Dy), E=175.6 MeV. Fragment mass analyzer, position-sensitive multi-wire proportional counter, DSSD detector, 1mm thick Si detector behind DSSD. Measured Eα, Iα, recoil-α correlations, α(ce) coin.

Others: 2001Ke06, 2001Uu01, 2001Hu21, 1999He32, 1999Pa20, 1999An22, 1997Pu01, 1993Wa04, 1981Le23.

6416α is reported in coin with conversion electrons possibly from 767, E0 transition in 1998Al27. No such α is confirmed in 2003Va16.

^{188}Pb Levels

E(level)	J^π	Comments
0.0	0^+	
591 *2*	0^+	E(level),J^π: From Adopted Levels. E_{e^-}=500 keV *10* observed in 2004An23.

α radiations

Eα	E(level)	Iα[†]	HF	Comments
6602 *5*	591	1.43 *15*	≈0.58	Eα: Weighted average of 6591 keV *8* (2003Va16) and 6611 keV *7* (1998Al27). Other: 6610 keV *30* (1996Bi17). Iα: From 100 − Iα(7167α).
7167 *3*	0.0	98.57 *15*	≈1	Eα: Weighted average of 7167 *4* (2003Va16), 7166 *8* (2003Ke04), 7167 *11* (2001Ke06) and 7167 *7* (1993Wa04). Others: 7196 *30* (1997Pu01), 7211 *35* (1995Mo14) and 7170 *20* (1981Le23). Iα: From Iα(7167α) + Iα(66032α) = 100 and Iα(6602α)/Iα(7167α)=0.0145 *15*, weighted average of 0.010 *4* (1996Bi17), 0.0149 *19* (1998Al27), 0.019 *7* (1999An22) and 0.015 *3* (2003Va16).

[†] For absolute intensity per 100 decays, multiply by ≈1.0.