^{185}Au α decay (4.25 min) 1995Bi01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	S. -c. Wu	NDS 106, 367 (2005)	31-Aug-2005

Parent: ^{185}Au: E=0.0; J^π=5/2$^-$; $T_{1/2}$=4.25 min *6*; Q(α)=5180 *5*; %α decay=0.26 *6*

1995Bi01: ^{185}Au activity produced by 153 MeV ^{12}C on Ta foils; UNISOR usitioe separator; Si(Li) detectors for α's, Ge(Li) detector for γ's and X-rays; measured Eα, Iα, $\alpha\gamma$-coin, branching ratios. Results supersedes those from 1991Bi04.

1970Ha18: α activity of ^{185}Au from decay of ^{185}Hg produced by Pb(p,X); ISOLDE separator; Si(Li) detectors for α's, NaI(Tl), Ge(li) detectors for γ's and X-rays; measured Eα, Iα, $\alpha\gamma$-coin; deduced α-branching, $T_{1/2}$.

1968Si01: α activity produced by ^{175}Lu(^{16}O,6n); enriched targets; surface barrier detector; measured Eα, $T_{1/2}$.

1968De01: α activity produced by ^{147}Sm(^{40}Ar,xn), enriched target; helium sweeping technique; surface-barrier detector; measured Eα, $T_{1/2}$.

1953Ra02: ^{185}Au activity produced by Au(d,pxn) at 190 MeV, Pt(p,xn) at 120 MeV; chemical separation; Geiger counter with and without Be and Pb absorbers; measured Eα, $T_{1/2}$.

^{181}Ir Levels

E(level)	J^π †
0	(5/2)$^-$
247 *11*	(3/2,5/2)$^-$
500 *11*	

† From 1995Bi01 from Iα and HF factors.

α radiations

Eα †	E(level)	Iα †#	HF ‡	Comments
4579 *10*	500	0.03	2.5	
4826 *10*	247	0.15	19	
5069 *5*	0	100	0.64 *17*	Eα: from 1995Bi01. Other values: 5070 *100* (1953Ra02), 5067 *5* (1968Si01), 5084 *40* (1968De01), and 5070 *15* (1970Ha18).

† From 1995Bi01, except as noted.

‡ If r_0=1.52 *3* (based on r_0(^{180}Os)=1.54 3 and r_0(^{182}Pt)=1.504 27 from 1998Ak04).

For absolute intensity per 100 decays, multiply by 0.0026 *6*.