

²⁰²At α decay (184 s) 1992Hu04,1975BaYJ,1961La02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huang Xiaolong and Kang Mengxiao		NDS 133, 221 (2016)	1-Dec-2015

Parent: ²⁰²At: E=0; J ^{π} =(2⁺,3⁺); T_{1/2}=184 s I; Q(α)=6353.8 I3; % α decay=37 7

²⁰²At-T_{1/2}=184 s I (1992Hu04). Others: 183 s 4 (1974Ho27), 180 s I2 (1963Ho18) and 156 s I8 (1967Tr06), 174 s I8 (1970DaZM), 180 s 30 (1969MoZW), 186 s I8 (1975BaYJ).

²⁰²At-% α decay: From ²⁰²At Adopted Levels (2008Zh05). From α HF systematics (1980Sc26) branching=0.25. Others: \geq 0.13 (1992Hu04).

Sources produced by ¹⁹⁷Au(¹²C,7n) (1961La02) and ¹⁸⁷Re(²⁰Ne,5n) (1967Tr06).

¹⁹⁸Bi Levels

E(level)	J ^{π} [†]	T _{1/2} [‡]
0	(2 ⁺ ,3 ⁺)	10.3 min 3
164.0 I0		
303.0 I5		

[†] From ϵ + β^+ decay and systematics (1992Hu04).

[‡] From Adopted Levels.

α radiations

E α	E(level)	I α ^{‡#}	HF [†]	Comments
5929 I0	303.0	0.04	424.	E α ,I α : From 1992Hu04.
6070 I0	164.0	0.2	349.	E α ,I α : From 1992Hu04.
6227.7 I4	0	99.8	3.48	E α : From value recommended by 1991Ry01 based on data of 1975BaYJ, 1974Ho27, 1967Tr06 and 1963Ho18. Other: 6277 5 (1992Hu04).

[†] r₀=1.485 5.

[‡] I α per 100 α decays.

For absolute intensity per 100 decays, multiply by 0.37 7.

γ (¹⁹⁸Bi)

E γ [†]	E _i (level)	E _f	J ^{π} _f	I _(γ+ce) [‡]
139 I	303.0	164.0		16.7
164 I	164.0	0	(2 ⁺ ,3 ⁺)	100

[†] From 1992Hu04.

[‡] Relative intensity from I(α) renormalized to I(γ +ce)(164 γ)=100.

^{202}At α decay (184 s) 1992Hu04,1975BaYJ,1961La02

Legend

Decay Scheme

- Coincidence

